

Tasmanian Year Book



1975

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TASMANIAN YEAR BOOK

1975



'Crayfishing' off Tasman Peninsula

(Dept of Film Production)

AUSTRALIAN BUREAU OF STATISTICS
TASMANIAN OFFICE



TASMANIAN
YEAR BOOK

No. 9 : 1975

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By Authority:
T. J. Hughes, Government Printer, Tasmania.

Registered at the General Post Office, Hobart, for transmission
through the post as a book.

Wholly set up and printed in Australia.

PREFACE

This is the ninth issue of the *Tasmanian Year Book*. The Year Book is designed to present a comprehensive statistical and descriptive account of the physical environment and of the social, demographic, economic, etc. structure of the State with particular emphasis on change and development in more recent years. Special articles in this edition of the Year Book include: a history of Tasmania during the period 1861 to 1866 (covering the premierships of William Pritchard Weston, Thomas Daniel Chapman and James Whyte); an outline of the problem of pollution and its control in Tasmania; a summary of the 1972 Municipal Commission Report on municipal finances and on recommended restructuring of municipal boundaries within the State; an account of developments leading up to and the passing of legislation to introduce an off-course totalisator betting system in Tasmania; and descriptions of Sevrup Fisheries Pty Ltd, the Triabunna woodchip project of Tasmanian Pulp and Forest Holdings Ltd and the two Longreach woodchip operations—one run by Associated Pulp and Paper Mills Ltd and the other by Northern Woodchips Ltd.

An index of special articles, contained in this edition and in the last five earlier editions (i.e. from 1970), precedes the general index. (For an index of special articles appearing in the first seven Year Books—1967 to 1973—see the 1973 *Year Book*.)

As far as possible the latest available statistics at the time of printing and significant developments which have occurred in 1974 have been embodied in each chapter. However, where this has not been practicable, brief details have been included in Appendix A, Later Information.

More detailed statistics relating to matter treated generally in the Year Book are available in the various statistical bulletins and other publications issued by the Bureau. Information about these publications is provided in the section 'Publication of Tasmanian Statistics'.

Metrication: The metric system of measurement was partially adopted in the previous edition but has been used exclusively (with the minor exception of apple and pear production) in this edition of the Year Book. (Most statistics are now collected and compiled in metric units of measurement.) The table on page viii shows the units and conversion factors used to convert data originally compiled in other than metric units.

I gratefully acknowledge the valuable assistance given by officers of the various Australian and State Government Departments and by others who have contributed information often at considerable trouble, and by those who have provided photographs. Especially I should express my appreciation to the Government Printer and his staff for their enthusiasm and co-operation in the printing this volume.

Mr J. C. Pollard, B.Ec., was responsible for the editing of this issue of the Year Book.

R. LAKIN
Deputy Commonwealth Statistician
and
Government Statistician of Tasmania

Australian Bureau of Statistics,
HOBART, 1975

SYMBOLS AND USAGE

The following symbols, where used, mean:

- n.a. Not available.
- n.e.i. Not elsewhere included.
- n.p. Not available for separate publication; included in totals where applicable.
- p Preliminary—figure or series subject to revision.
- r Revision to figure or series published in previous issue.
- .. Nil or less than half the unit shown, or not applicable.
- Break in continuity of the series. (Where drawn across a column between two consecutive figures.)

A blank space indicates the figure is not yet available.

Any discrepancies between totals and sums of components in tables are due to rounding.

VALUES AND MEASURES

Values are shown in Australian dollars (\$) and/or cents (c). Metric units have been substituted for imperial units. The use of dollar currency and metric units has not been confined merely to tables; for the sake of uniformity, they have also been introduced into historical texts. See the table overleaf for metric units and conversion factors.

LOCAL NAMES OF CERTAIN REGIONS

Tasmanians describe certain regions in a manner confusing to strangers; nevertheless this book employs local usage in most contexts. The chief peculiarities are:

North-West Coast: The *north* coast from approximately Port Sorell west to Cape Grim is called the *north-west coast*.

North-East Coast: The *north* coast from approximately Low Head east to Cape Portland is called the *north-east coast*. With most of the north coast referred to as either 'north-west' or 'north-east', the term 'north' is rarely applied to this coastal region.

West Coast: The Tasmanian west coast may refer only to the mining settlements of Queenstown, Rosebery, etc. In other contexts, the user may be thinking of inland mountains and rainforests, rather than of a coastline.

Midlands: The true midlands are probably the Central Plateau but the Tasmanian term means the rural area east of the Plateau and lying along the axis of the Hobart-Launceston road.

METRIC UNITS AND CONVERSION FACTORS

Unit		Conversion factor	
Imperial	Metric	Imperial to metric (multiply imperial by)	Metric to imperial (multiply metric by)
Length			
Inch (in)	Centimetre (cm)	2.54000	0.393701
Foot (ft)	Metre (m)	0.304800	3.28084
Mile	Kilometre (km)	1.60934	0.621371
Area			
Square foot (ft ²)	Square metre (m ²)	0.0929030	10.7639
Square yard (yd ²)	Square metre (m ²)	0.836127	1.19599
Acre (ac)	Hectare (ha)	0.404686	2.47105
Mass			
Ounce (oz)	Gram (g)	28.3495	0.0352740
Troy ounce (oz tr)	Gram (g)	31.1035	0.0321507
Pound (lb)	Kilogram (kg)	0.453592	2.20462
Hundredweight (cwt)	Kilogram (kg)	50.8023	0.0196841
Short ton (sh ton)	Tonne (t)	0.907185	1.10231
Ton	Tonne (t)	1.01605	0.984207
Volume			
Cubic foot (ft ³)	Cubic metre (m ³)	0.0283168	35.3147
Cubic yard (yd ³)	Cubic metre (m ³)	0.764555	1.30795
Bushel (bush)	Cubic metre (m ³)	0.0363687	27.4961
Super foot true	Cubic metre (m ³)	0.00235974	423.776
Super foot hoppers	Cubic metre (m ³)	0.00300451	332.833
Ton measure (40 cubic ft)	Cubic metre (m ³)	1.13267	0.882868
Imperial gallon (gal)	Litre (l)	4.54609	0.219969
Proof gallon (pf gal)	Litre alcohol (l al)	2.5957	0.3853
Energy			
British thermal unit (Btu)	Kilojoule (kJ)	1.05506	0.947813
Power			
Horsepower (hp)	Kilowatt (kW)	0.745700	1.34102

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Chapter 1

HISTORY AND CHRONOLOGY

DISCOVERY

The Period of Dutch Exploration

In the authors of antiquity, references are found to a land called 'Terra Australis' but it is the Dutch who are credited with the discovery of both mainland Australia and Tasmania. The Dutch, with their trading posts in Java, represented the closest extension of European sea power near the north of the unknown continent and its discovery, either by accident or design, became inevitable.

In 1606, Captain William Jansz in the *Duyfken* was sent from Java to explore the islands of New Guinea and, crossing Torres Straits unawares, coasted along the west of Cape York Peninsula; this was the first of a series of voyages by Dutch captains who, in the next 30 years, acquired some knowledge of the western shores of the unknown land. Not all voyages were undertaken with the aim of exploration—Dirk Hartog's long journey along the western shore of Australia in 1616 resulted from his sailing too far east on the route from Cape of Good Hope to Java. Some later captains on the same route even regarded the western Australian coast as a suitable landfall before turning north for Java—a commentary on the difficulty of navigation when longitude had to be established by dead reckoning.

In 1642, the Dutch East India Company despatched from Java an expedition of two vessels, the *Heemskirk* and *Zeehan*, under Captain Abel Tasman, with instructions to investigate the extent of the unknown land thought to exist between New Guinea and the western coast of Australia. One immediate aim of the Governor-General, Anthony Van Diemen, was to find a southern route from Java to Chile so that ships of the company could either trade or plunder along the Pacific coast of South America; a question to be resolved was whether any land mass extending far south blocked such a route.

The original plan was to sail west to Mauritius, to run down to 52° or 54° South latitude and then to proceed east; assuming no land was discovered, it was then intended to turn north in either the longitude of eastern New Guinea or possibly of the Solomons. If Tasman had followed this plan in every detail he might have discovered the east coast of Australia, anticipating Cook's work by more than a century. As it turned out, the extreme southern latitudes were too hostile and accordingly Tasman was sailing east in latitude 42° South when he sighted the mountainous west coast of Tasmania on 24 November 1642.

The Dutch navigator skirted the south coast and made a landing on the east coast for water in Blackman Bay (from an anchorage south of Marion Bay). He then sailed north to St Patricks Head, crossed the Tasman sea and discovered New Zealand, returning to Java by a route to the north of New Guinea. Tasman had thus performed the feat of circumnavigating Australia in a single voyage without once sighting the Australian continent.

In honour of the Governor-General of the Indies, he named the first discovery Van Diemen's Land, imagining it to be the most southern extension of the Australian continent, an illusion that was only completely dispelled by Bass and Flinders when they circumnavigated the island in 1798. The Dutch did not follow up the discoveries of Tasman or their other explorers because they were interested in establishing trading posts only among peoples with a higher degree of civilisation than the natives of Tasmania or Australia appeared to possess. (Tasman's crew saw no natives in Tasmania but inferred their existence from sounds, cuts in trees and the smoke of fires.)

The Period of British and French Exploration

One hundred and thirty years passed before Tasmania was visited again, this time by the French navigator Marion du Fresne in 1772; he virtually repeated Tasman's original landfall, skirted the south coast and came to anchor in the bay that bears his name (Marion). His visit is memorable for the first contact between Europeans and Tasmanians and for the slaying of the first native by gunfire. Du Fresne himself was killed by Maoris in New Zealand on the same voyage.

A year later, Captain Tobias Furneaux in the *Adventure* became separated from Captain Cook in the *Resolution* on the route to New Zealand and made for Tasmania to obtain water. He eventually anchored off Bruny Island in Adventure Bay but mistakenly believed himself to be in the area of Tasman's original landing which was at least 70 kilometres to the north-east. From this original error sprang a confusion in nomenclature which persists to this day (e.g. Frederick Henry Bay, first named in Tasman's record, appears on maps in an area that Tasman did not even see). Furneaux then sought to investigate the possibility of a strait separating Tasmania from the continent recently explored by Cook, but shoals in the islands bearing his name (Furneaux Group) caused him to abandon the project and make for New Zealand.

In 1777, Cook, on his third voyage, used the Adventure Bay anchorage without detecting Furneaux's navigational errors.

The settlement at Port Jackson in N.S.W. in 1788 put Tasmania on a major sailing route, the First Fleet passing south of the island on its way. To have sailed north of the island would have invited shipwreck on the Australian 'mainland' of which Tasmania was then believed to be part. In the same year, Captain William Bligh put into Adventure Bay with the *Bounty* on his way to Tahiti and to the famous mutiny; he had been on Bruny Island before, as Cook's sailing master.

Captain Cox of the *Mercury* anchored in the bay known as Cox Bight in 1789, charted some of the south coast and explored the strait between Maria Island and the east coast.

The next visitor (1792) was Admiral Bruny D'Entrecasteaux commanding *Recherche* and *Esperance* and searching for La Perouse who had not been heard of since 1788 when he sailed from Botany Bay. The Admiral sailed north hoping to anchor in Adventure Bay, but a navigational error put his ships too far west with the happy result that he discovered the magnificent channel separating Bruny Island from the Tasmanian mainland and was the first to sail up the Derwent River. Leaving Tasmania, the expedition sailed as far west as Cape Leeuwin in western Australia when it became imperative to take on water. It is an indication of the lack of knowledge then available that D'Entrecasteaux had to return to Adventure Bay to fill his casks. In the same year, Bligh put into Adventure Bay on his way to obtain breadfruit trees in the Pacific for transplanting in the West Indies.

The year 1794 was notable for the visit of Commodore John Hayes who had sailed from India with the *Duke of Clarence* and the *Duchess*; he explored the Derwent as far as Mt Direction and named Risdon Cove, later to be the site of the first settlement.

Tasmania an Island

Two voyages now followed which established that Tasmania was an island. Surgeon George Bass in a whaleboat left Port Jackson in 1797, rounded Wilsons Promontory and discovered Western Port. The nature of tides and swells encountered told Bass that there was no bay but rather a strait of considerable magnitude. In 1798, Bass and Flinders were given the sloop *Norfolk* to decide the question for all time and they circumnavigated the island, commencing on a westerly course along the north coast where they discovered the Tamar Estuary.

Fear of the French

In the original annexation of Australian territory by Cook in 1770, Tasmania was excluded since the southern limit was proclaimed as 38° South latitude. Formal possession of Tasmania was taken by Governor Phillip on 26 January 1788, when he read his commission to the people of the First Fleet at Sydney Cove. Now that it was established that Tasmania was an island, the authorities both in London and Sydney felt that some steps should be taken to block the French from making any claims to possession. The urgency of doing this was underlined by the arrival in D'Entrecasteaux Channel of Admiral Baudin with the *Geographe* and *Naturaliste* in 1802. The expedition's navigator, Freycinet, charted Tasman and Forestier Peninsulas and correctly identified the Frederick Henry Bay of the Dutch era. The expedition then called at Port Jackson before sailing south into Bass Strait where it was intercepted at King Island by Lieutenant Robbins in the *Cumberland*. Announcing his intention boldly to the French Admiral, the Lieutenant disembarked his small company and formally annexed the island in the name of King George III. Governor King at Port Jackson who gave Robbins his instructions was not satisfied that merely formal acts of annexation would block the French indefinitely and decided that permanent settlements were required if British sovereignty were to be retained. To this decision can be attributed the settlement at Risdon (1803) and the Hobart and Port Dalrymple settlements of 1804.

Geography of the Original Landing

The State map published by the Tasmanian Lands and Surveys Department (1:250,000) makes easy the recognition of Tasman's landings on the east coast. His anchorage was near Visscher Island while the first landing was made by longboats which passed through the narrows into Blackman Bay. The second landing occurred in the south-east of North Bay where a lagoon proved too brackish for filling water casks.

The last landing was made near Tasman Bay where the navigator had hoped to take formal possession of the new land. The surf being too rough to get the longboat ashore, the carpenter swam through the waves, planted the Dutch flag and then fought his way back to the longboat.

SETTLEMENT

The First Settlement at Risdon (1803)

It will be observed that the original explorers of the island (including the French) had very largely concentrated their attention on the south-east and, in particular, on the sea approaches to the Derwent. Faced with the necessity for establishing a settlement to assert British sovereignty, Governor King had a number of possible sites to consider, including King Island, Port Phillip and Port Dalrymple (the Tamar Estuary). His eventual choice was the area of the Derwent and he reported his intention to the Admiralty as follows:

'My reasons for making this settlement are the necessity there appears of preventing the French gaining a footing on the east side of these islands; to divide the convicts; to secure another place for obtaining timber with any other natural productions that may be discovered and found useful; the advantages that may be expected by raising grain; and to promote the seal fishery.'

Commissioned to make the Derwent settlement, Lieutenant John Bowen sailed from Sydney with the *Albion* and *Lady Nelson*; the two vessels separated in a gale but were anchored at Risdon by 11 September 1803, when Bowen went ashore. The slenderness of Governor King's resources is apparent from the fact that the settlers—free, convict and military numbered only 49 and that the *Albion* was a British whaler under temporary charter (she caught three sperm whales on the voyage while becalmed).

The responsibility for the choice of the Risdon site attaches ultimately to Bass who had made detailed investigations of the Derwent in 1798 from the *Norfolk*. He had reported as follows: 'The land at the head of Risdon Creek, on the east side, seems preferable to any other on the banks of the Derwent.' It was not surprising, therefore, that Bowen's commission from Governor King directed him to locate the new settlement in the Risdon area. In actual fact, the site ultimately proved unsuitable due to the inadequate stream and the poor landing place; these handicaps were aggravated by the wretchedness of the human material at Bowen's disposal, a characteristic not altered when the camp was increased to nearly 100 persons.

If the settlement has any claim to fame, it derives from an encounter with natives who descended on the camp on a hunting expedition and who were fired on by the soldiers in a state of panic. Whether the future barbarities of inter-racial war could have been avoided is an open question but this encounter was the first phase of a struggle that ended in the extinction of a race.

The final act of the Risdon settlement was played on 9 August 1804, when the *Ocean* sailed for Port Jackson with Lieutenant Bowen and most of his people; Lieutenant-Governor Collins at the new settlement at Hobart had decided to close down the Risdon camp and held such a low opinion of these early colonists that he retained only thirteen convicts and one free settler.

The Settlement at Hobart (1804)

If Lieutenant-Governor Collins had carried out his original instructions, then Hobart today might have been the name of the capital of Victoria situated on Port Phillip Bay. The British Cabinet, impressed by Governor King's warnings on possible French penetration, decided to carry out the occupation of Port Phillip direct from Britain and, to this end, commissioned Lieutenant-Colonel Collins (Royal Marines) to command an expedition in the *Calcutta* with the *Ocean* as tender to secure the strategic Bass Strait. Control of the Strait meant that the dangerous 1,100 kilometre journey around Van Diemen's Land was avoided and also prevented a hostile foreign power from threatening British sea lanes in the South Pacific.

The settlers eventually arrived, via Rio De Janeiro and the Cape of Good Hope, and formed a temporary camp near the site of the modern Sorrento township. For a variety of reasons, Collins was unhappy about the locality; he considered navigation hazardous, the soil poor and water inadequate. He was unwilling to develop promising land at the head of the bay due to the show of strength by large bands of natives and because of its distance from the open sea. Collins had seen the problems of isolation at Sydney and considered a settlement at the head of Port Phillip Bay unduly hazardous. With the wind in the wrong quarter a ship could be locked in the bay for several days thereby defeating the purpose of the settlement—a port to protect and control Bass Strait. Accordingly he wrote for advice to Governor King in Sydney and was left free to decide between the River Derwent and Port Dalrymple as possible sites for transfer of his command. He was probably swayed in his eventual choice of the River Derwent by its reputation as a safe harbour and the fact that Risdon had already been settled.

On 15 February 1804, Collins, with the first detachment from Port Phillip in the *Lady Nelson* and *Ocean*, anchored off the new settlement at Risdon. A quick inspection satisfied Collins that the site was quite unsuitable and he made his own reconnaissance, eventually selecting the area on the western bank known as Sullivans Cove and ordering that the expedition should be disembarked with all its stores in the vicinity of Hunters Island. In the same month, Collins reported to King that his two ships were 'lying within half a cable-length of the shore in nine fathoms of water'; the Lieutenant-Governor had selected gentle slopes for his settlement, located a fine stream running from Mt Wellington and found near the mouth of the stream depths of water which would accept the draught of any vessel of his day (or of the modern era).

The following table shows the early composition of the settlement at Sullivans Cove (but excludes details of the Risdon camp):

Number Victualled at Sullivans Cove, 26 February 1804

Quality	Men	Women	Children
Military establishment	26	1	..
Civil establishment	6	..	..
Settlers	13	5	13
Convicts	178	9	8
Supernumeraries	(a) 3	..	..
Total	226	15	21

(a) Includes one Aboriginal from Port Jackson.

The strength of the colony was increased to 433 persons in June 1804 when the *Ocean* returned from Port Phillip, where it had taken aboard the balance of the original expedition. From the camp on Sullivans Cove has sprung the present city and port of Hobart.

David Collins was no amateur in the field of colonisation—he had sailed with Governor Phillip as Judge Advocate in the First Fleet in 1788 and had acted as Secretary to the Governor till 1796 when he returned to Britain with excellent recommendations.

The Settlement on the Tamar (1804)

While the Lieutenant-Governor was still in Port Phillip Bay, wondering where best to settle, he sent his namesake, William Collins, on a voyage of exploration to the Tamar Estuary. William Collins followed the river up as far as the Cataract Gorge and returned to Port Phillip with a good account of the possibilities of the Tamar for settlement; in his absence, however, the Lieutenant-Governor had made up his mind and was already preparing for the expedition to the Derwent.

Later Governor King received a despatch from Lord Hobart (Secretary of State for the Colonies) who, by a grotesque error, recommended the establishment of a settlement at Port Dalrymple 'upon the southern coast of Van Diemen's Land and near the eastern entrance of Bass' Straits'. If Lord Hobart really meant 'south' then Collins' move to the Derwent had anticipated his wishes. However, since Collins had in fact left Port Phillip, was it not necessary to re-occupy Port Phillip or possibly to watch the Strait from Port Dalrymple? King knew that Hobart's despatch was written in ignorance of Collins' move and accordingly decided to use his own initiative without raising questions of geography with the Secretary for Colonies.

In Hobart's despatch, Lieutenant-Colonel William Paterson (New South Wales Corps) was nominated as Lieutenant-Governor of the new colony. Paterson set sail with 57 soldiers and convicts in the *Integrity* and the *Contest* but after a month of adverse winds both ships were forced back to Port Jackson. A second attempt was made using *Buffalo*, *Lady Nelson*, *Francis* and *Integrity* and increasing the party to 181. This time the Tamar was successfully entered but H.M.S. *Buffalo* went aground and was, with some difficulty, brought to anchor in Outer Cove (George Town) on 4 November 1804. Lieutenant-Colonel Paterson decided that *Buffalo* must be immediately unloaded and accepted the Outer Cove site as a suitable camp while he undertook a more detailed reconnaissance of the Tamar.

Although he penetrated as far as the fertile site of Launceston, Paterson made the extraordinary decision to set up his headquarters at the head of West Arm and founded York Town, while still maintaining small establishments at Outer Cove, Low Head and Green Island. In deciding on York Town, one can only imagine that Paterson was guided purely by the strategic necessity, as was Collins at Sorrento, of being near to Bass Strait and that he gave little thought to the problem of soil fertility and cultivation.

In March 1806, Paterson was willing to admit that York Town was a most unsuitable site and he accordingly moved his headquarters to the present site of Launceston. Today York Town and Risdon have one thing in common—the almost complete absence of any indication that settlements had ever existed.

Paterson, before setting out on his expedition, had been involved in an argument as to his status but Governor King had resolved the matter by dividing Tasmania at the 42° parallel and making Collins and Paterson sovereign in their respective halves, but subordinate to him as Governor.

TASMANIA: 1861 to 1866

From 1 November 1860 to November 1866 Tasmania had three premiers. The first two ministries, those headed by Weston and Chapman, continued the general policies of Sir Francis Smith. On Smith's resignation to become a Puisne Judge of the Supreme Court of Tasmania, William Pritchard Weston took office as premier on 1 November 1860 but resigned on 2 August 1861. He was succeeded by Thomas Daniel Chapman whose government continued until 20 January 1863. Chapman's resignation followed defeat in the House of Assembly after the 1862 general elections which gave his opponents a majority in the lower house. The next Premier, James Whyte, had long been a principal critic of the policies followed by the three previous governments. Whyte's term as Premier lasted from 20 January 1863 to 24 November 1866.

All three ministries were confronted with common problems—a depressed colonial economy, the task of balancing expenditure and revenue, promoting industrial and rural development and attracting immigrants to Tasmania to increase the size of the local market. Weston's ministry evaded the problems to some extent as parliament did not meet during his term of office. Chapman and Whyte both attempted conventional solutions to balance their budgets—reduction of public expenditure and increasing revenue through higher customs and stamp duties. Neither government had the necessary support for the introduction of property or income taxes—both ideas were antipathetic to the wealthy merchant and 'wool king' members of parliament. Chapman's government, in an attempt to solve the financial crisis, introduced ad valorem duties on imports; an unpopular measure which ultimately resulted in defeat of his ministry in the House of Assembly. Charles Meredith, Colonial Treasurer in the White ministry, repealed the ad valorem duties and replaced them with fixed duties on sugar, tea and other commonly consumed imports. The Whyte ministry also introduced a wide range of stamp duties to ease the colony's financial situation.

The Premiers

William Pritchard Weston

Weston was born at Shoreditch, London, in 1804. He was educated at Brighton and in 1823 decided to migrate to Australia. Weston sailed on the *Adrian* and on the same vessel was the new governor of Van Diemen's Land, Lieutenant-Colonel Arthur. The *Adrian* reached Hobart in May 1824 and Weston decided to make the colony his new home; with a letter of recommendation from a friend in the Colonial Office and capital of \$6,000, Weston applied for land in the Bothwell district. However, he was unable to obtain land there and had to settle for 800 hectares in the Longford district. In 1826 he married Ann Elphinstone, the daughter of Captain William Clark who had established his estate, *Cluny*, in the Bothwell district.

In 1828 Weston, a deeply religious man, was appointed catechist for the Longford district. However, inadequate facilities, lack of local interest and non-co-operation led to a misunderstanding with the police magistrate. Weston was charged with neglect of duty but this was dismissed. He was deeply upset by this incident and resigned his position. Arthur accepted the resignation but confirmed his high opinion of Weston.

Weston built his home *Hythe* during 1831 and the estate prospered, with the development of a fine flock and a new sideline, the wattle bark export business. In 1835 Arthur appointed Weston a Commissioner of the Peace. Weston returned to England in 1840 with his family and on his return to Tasmania, in 1842, he severed his relationship with the Church—the district minister Reverend Davies was too Roman Catholic in his practices for Weston.

Attention was now turned from church affairs to the more important question of the battle against transportation. Weston, a strong advocate of personal liberty, joined forces with the Reverend John West, historian and a founder of the anti-transportation movement. The struggle to end transportation cost Weston much money and took a considerable portion of his time. In 1851 Weston and West were Tasmanian delegates to the anti-transportation meeting in Melbourne. The efforts of Weston were a significant contribution to the cessation of the convict system. His opposition to the system earned him the displeasure of the Lieutenant-Governor, Sir William Denison, who described him as an 'inveterate agitator'.

Establishment of self-government saw Weston elected unopposed to the House of Assembly as the member for Ringwood. Following Gregson's resignation in April 1857 Weston formed a ministry. The irascible Gregson and his noisy colleagues proved too much for Weston who resigned in favour of Francis Smith. He remained a minister in the new government but resigned from the House of Assembly to seek election to the Legislative Council and was returned as the member for Longford. On Smith's resignation Weston again accepted leadership of the government, but after the general elections of 1861 Weston announced his resignation despite the return to office of supporters of his government's policy. The decision was occasioned by failing health and a recent family bereavement. The loss of the courteous and dignified Weston was a sad blow to the colony's parliament.

During the 1860s Weston moved to Victoria where he purchased land at Geelong. His wife died in 1868 and Weston died at the age of 84 years in 1888. His estate at Longford was passed onto his eldest son Edward Weston while his second son inherited the estate of his father-in-law William Clark.

Thomas Daniel Chapman

T. D. Chapman was born in 1815 at Bedford, England. At the youthful age of 14 young Chapman entered the service of the East India Company in which he served for eight years. In 1837 Chapman returned to London and entered the firm of merchants John and Stephen Kennard as a partner. On the firm's behalf Chapman made the voyage to Tasmania in charge of a group of immigrants and stores destined for the Van Diemen's Land Company's headquarters at Stanley. After arrival Chapman decided to establish himself as the firm's agent in Hobart where he met Katherine Swan whom he married in 1843. In 1847 Chapman established his own merchant business.

Chapman soon joined the popular campaign to end transportation and the first step in his long and successful political career occurred when he was elected president of the militant Hobart anti-transportation league. In 1851 he was elected to the newly created partly elected Legislative Council. In the Council Chapman championed the anti-transportation and colonial self-government causes and also earned a reputation as a strong and persuasive speaker. He had great perseverance and was not easily intimidated. A major achievement was acceptance of his motion for appointment of a committee to draft a constitution for self-government. The motion was passed by 11 votes to nine. Chapman proposed that the colony should be governed by a two-house parliament, completely elected and voters enfranchised according to the wishes of the citizens. Chapman's proposals also found favour with the Colonial Office and were proclaimed in Tasmania in 1856.

Chapman was elected to the House of Assembly as a member for Hobart at the first parliamentary elections for Tasmania. In the first ministry, formed after self-government, Chapman was Colonial Treasurer. At the 1862 general elections Chapman again stood as a candidate for the Hobart electorate but lost his seat. He then nominated for Queenborough and was returned by that electorate to the House of Assembly. Following Weston's resignation Chapman formed a ministry which continued in office from 2 August 1861 to 20 January 1863 when he resigned following defeat in the House of Assembly.

Chapman was in financial difficulties when he first entered the House of Assembly and his plight worsened as the colony's economy declined. In 1864 he became bankrupt and resigned from parliament. His resignation was regarded as a calamity because of his devotion to public

duty and his ability as a politician. By 1866 conditions had improved and Chapman was able to come to a satisfactory arrangement with his creditors. He again entered the House of Assembly and from 1866 to 1872 held the portfolio of Colonial Treasurer during three successive ministries. In 1873 Chapman resigned from the lower house and became a member of the Legislative Council where he continued to be a leading political figure. He became President of the Legislative Council in 1882.

Chapman died on 17 February 1884. He was survived by six sons and four daughters.

James Whyte

Born near Greenlaw, Scotland, in 1820 Whyte migrated to Tasmania with his family in 1832. Whyte's family were successful colonists and at the age of 18 years Whyte took sheep and cattle to the newly settled western districts of Victoria where he became a partner in *Clunes* one of the great sheep properties of Victoria. During the gold rush era rich finds were made on *Clunes* and Whyte soon became one of the colony's wealthier men. When he returned to Tasmania he became embroiled in the struggle to end the transportation system. Whyte, like his friend and colleague William Pritchard Weston, was deeply incensed by the inhumanity of the convict system.

When self-government was granted, Whyte stood for the Legislative Council and was successful. He soon emerged as a principal figure in the Council and during Chapman's government was the leading critic of the ministry. His strong opposition to Chapman's financial measures almost brought about the fall of Chapman's government on a number of occasions—Whyte in fact almost precipitated a confrontation between the upper and lower houses when he insisted on the Legislative Council's right to deny the supply vote. However, he reluctantly retreated from this position and the clash was averted.

In January 1863, when Chapman's ministry was defeated in the House of Assembly, Whyte formed a new ministry pledged to rectify the colony's financial problems and promoting colonial development. His principal minister was his friend and ally Charles Meredith. However, Whyte's government had no more success in improving the financial situation than did Chapman. He and Meredith were more aware of the difficulties faced by the pioneer settlers than were city dwellers and the large pastoralists. They spent a considerable amount of time travelling the newly settled areas—something their predecessors had not done. They inspected the new country, listened to the settlers' grievances and attempted to ease their problems. Much needed public works, particularly roads and bridges, were carried out in the outlying settlements and Whyte's government worked hard at fostering progress in these remote areas.

After his government's defeat in 1866, Whyte remained in the Legislative Council as the member for Pembroke—the seat he had held since inception of the Tasmanian Parliament. In 1868 the members of the Upper House again recognised Whyte's ability and energy by electing him Chairman of Committees—a position which he held until his resignation from the Council in 1876. Also during the period following his ministry's defeat Whyte became a crusader for introduction of legislation to control and eradicate the sheep disease scab which was threatening the Tasmanian sheep industry. In 1869 his efforts were rewarded and the necessary legislation was enacted. Whyte, never a man to evade work, accepted appointment in 1870 of Chief Inspector of Sheep—an unpopular and demanding position. For six years Whyte combined his parliamentary and sheep inspector's duties but in 1876 the pressures of the latter caused him to resign his safe seat in the Legislative Council. Largely through Whyte's diplomacy and untiring efforts the disease was brought under control and eventually eradicated from the Tasmanian flocks. Whyte continued his work as Chief Inspector of Sheep until his death in 1882.

Weston's Ministry

Weston's ministry, formed on the resignation of Sir Francis Smith, continued the general policies of that administration. Weston's ministry comprised William Henty (Colonial Secretary), Frederick Maitland Innes (Colonial Treasurer), Thomas John Knight, succeeded by William Lambert Dobson, (Attorney-General) and William Archer (minister without portfolio).

Weston and Henty were both members of the Legislative Council while Innes and Archer held seats in the House of Assembly. Neither Knight nor Dobson held parliamentary office—a factor which drew considerable criticism from the press.

From the time Weston took office as Premier on 1 November 1860 until his resignation on 2 August 1861 parliament did not meet. Hopes were high that parliament would be convened prior to the 1861 elections and that the Government would enunciate policies to overcome the colony's financial difficulties and to stimulate economic growth. However, in May 1861 the House of Assembly was officially dissolved and members commenced their election campaigns.

Elections of 1861

No formal parties existed within the colony—governments were formed from groups of men who acted together out of mutual self-interest and common ideologies. There were no great principles basic to either the government or its opposition. In fact neither the government nor its opponents promulgated policies upon which the electors could judge them. The candidates had to stand on their own merits and campaigns were fought largely on a personal basis. Even the ministers of the outgoing government failed to put forward common proposals for solution to colonial difficulties. Candidates evaded discussion of the financial crisis and assiduously avoided any suggestion of opening up new taxation fields. The *Mercury* described the forthcoming election in the following terms: 'We are doubtless about to have repeated in Hobart Town the tricks by which in past times elections have been won. We shall see enacted amongst us the old humours of Eatanswill. There will be infinite shaking of hands of people never remembered but when votes are serviceable. Most edifying will be the condescension of our grandees. The dirty little babies of free and independent electors will be well nigh smothered with kisses . . .'. Apparently electioneering has changed little from the 1860s.

For the 24 House of Assembly electorates 51 candidates nominated and presented themselves to the electors. Hobart and Launceston were the only multi-member electorates; Hobart returned five members and Launceston three. Polling days were staggered—the earliest election was held on 29 May and the latest on 14 June. Thomas Daniel Chapman stood for the Hobart electorate but failed to gain election; he then nominated for Queenborough and was returned as the member for that electorate.

The number of electors within each electorate also varied considerably—for Hobart almost 5,000 electors returned five members while in some country electorates the number of voters was less than 150. The Hobart electorate had the honour of fielding most candidates—14 contesting the five seats. In several country seats the sitting members were returned unopposed.

On completion of the elections supporters of Weston's ministry again controlled the House of Assembly. However, on 2 August 1861 Weston resigned as Premier and leadership of the government devolved on Chapman.

Developments During the Government of Thomas Daniel Chapman, 2-8-1861 to 20-1-1863

The only new member of Chapman's ministry was Chapman himself—Henty, Innes and Dobson retained the portfolios which they had held in Weston's government. Towards the end of Chapman's term as Premier Henty resigned from the Legislative Council and Chapman took on the task of Colonial Treasurer while Innes accepted Henty's portfolio.

At the opening of the second session of parliament in August 1862 the Governor, in his address, outlined the proposed policy of Chapman's government. The central policy features were:

- (i) To promote the development of the colony's material and mineral resources and the export of Tasmanian timber.
- (ii) To consolidate the laws and regulations relating to customs duties and the import of foods.
- (iii) To implement a new system of land transfer by adoption of Torrens' real property principles.

The Financial Crisis

In September Innes presented the government's expenditure appropriations to the House of Assembly. He acknowledged that the colony faced a considerable deficit for 1861 and that the situation was unlikely to improve. No increase in revenue from crown land sales and rentals could be expected nor could expenditure on the public service be further reduced—retrenchment and reduction of salaries had been carried to the limit consistent with efficient administration. There did exist two possible savings open to the government—elimination from the appropriations of the contentious religious vote and of expenditure on education. However, in the first case Royal Assent could not be obtained and parliament did not favour the second. Innes, in his search for a solution, went so far as to allude to the possibility of introducing taxation based on wealth or income: '... I lean to the consideration which should underlie the financial system of any country, the taxation of which is sound and equitable, namely, that the contribution required from the various classes of society to the revenue of the country shall be proportional to their means' The reaction was immediate; members replied with loud 'nos'. Innes' expenditure programme, after some fierce debate, passed the House of Assembly and went to the Legislative Council for consideration.

In the Council the 1862 appropriations were poorly received—opposition to the proposals being led by James Whyte. Whyte demanded a 'ways and means' before considering the expenditure items. The 'ways and means' had not been prepared by Innes and on receipt of this advice Whyte proposed that the Council adjourn until January 1862. Whyte's motion was carried and on 1 November the Council rose thus effectively halting government business.

Chapman's government was also encountering difficulties in the House of Assembly where Thomas Horne had proposed a no confidence motion in the Government. Horne contended that: (i) the financial statement prepared by the Treasurer was unsatisfactory; (ii) a large proportion of the best crown lands had been 'ruinously and improvidently disposed of' thus defeating the purposes of the *Waste Lands Act*; and (iii) the financial and general policy of the government was injurious to the colony. Principal supporters of the motion included Charles Meredith, Thomas Gregson, William Allison and John Balfe. The volatile Gregson resorted to personal invective and abuse against Innes—the violence of his attack even surprised the press which had long been accustomed to this member's outbursts. The no confidence motion was lost but as the Legislative Council had adjourned the House of Assembly had no option but to rise also.

In many quarters the Legislative Council's move was viewed with disfavour and regarded as a deliberate move to obstruct and prevent Chapman's government from carrying out effective administration.

In early January 1862 parliament was reconvened and the government's expenditure programme again went to the Council. The attitude there was unchanged and supply was refused by one vote. Whyte declared that the Council 'would not vote away one shilling until satisfied that the Treasury could bear the outlay.' In the House of Assembly Horne moved for a thorough investigation into the colony's financial affairs before the House would proceed with any further public business. Chapman, Innes and Dobson were strong in their opposition to the motion but Horne carried the day.

The press called for a dissolution and general House of Assembly elections but Chapman declined this advice and promised the required financial statement. This decision was not popular with Meredith and his supporters, and feelings ran high in the lower house. Debates became characterised by bitter personal clashes; Chapman, in particular, received harsh treatment from Charles Meredith who described the Premier as 'a trickster and a jobber.'

On 14 January 1862 Innes placed before the House of Assembly his financial programme for the colony. In Innes' view the only solution was to increase taxes and since members would not countenance direct taxation based on income or wealth the only practical source of revenue was to increase customs duties. The increased rates were in the form of 'ad valorem' duties.

This was contrary to Chapman's free-trade principles, however, in this case the colony's finances had to take precedence. The proposed measures passed the House of Assembly with a decisive majority but the Legislative Council, on the motion of James Whyte, granted supply only for a six month period.

Whyte called upon the Governor to dismiss Chapman's ministry 'because they no longer enjoy the confidence of the people.' The Governor chose to ignore Whyte's advice whereupon Whyte successfully moved that the Council adjourn until July. Parliament was prorogued and the impending clash between the two Houses of Parliament was thus avoided.

When parliament met again in July the financial situation had not altered and the Legislative Council's antagonistic attitude towards Chapman's government persisted. Loud calls for repeal of the ad valorem duties were being made within and outside parliament—most vocal in their denunciation of the duties were the merchants. Chapman and Innes agreed that repeal was desirable but, in the absence of other taxes, not practical. In the Council Whyte continued his hostile approach to the government and successfully blocked government appropriations. Finally Meredith moved for the repeal of ad valorem duties and the motion was passed by the House of Assembly by 17 votes to nine. This represented defeat on the corner-stone issue of the government's financial policy and Chapman advised the Governor to dissolve the House and call a general election for the House of Assembly.

On 26 October 1862 parliament was prorogued and the House of Assembly members returned to their electorates to woo the voters.

Conflict Between the Houses

Out of the financial crises faced by Chapman's government evolved an important and vexed question—what were the respective powers of the two houses of parliament? Whyte held that the Legislative Council had the right of veto on any legislation and furthermore he believed that the Council could call upon the Governor to dismiss the ministry if it did not have a majority in the Legislative Council as well as in the House of Assembly. On the latter the Governor did not act and waited until called upon by the Premier to dissolve the House of Assembly and call for general House of Assembly elections. In many circles the action of the Legislative Council during Chapman's ministry was viewed as unwarranted obstruction. It was argued that since the House of Assembly was elected on a broader franchise than the Council the lower house therefore represented the people and its legislative programme, particularly its financial measures, should not be interfered with by the Council.

On two occasions during Chapman's ministry the Council, on Whyte's motion, refused supply until presented with a financial outline of revenue resources. On the second occasion, in September 1862, Whyte successfully moved that consideration of the Government's appropriation bill be postponed until the end of the month. Then, in October, he moved for adjournment of the Council until mid-January 1863. This would have denied the Government funds to meet its financial obligations and would have precipitated a constitutional confrontation between the two House of Parliament. However, following Chapman's defeat in the House of Assembly and his decision to call an election, Whyte relented and agreed to the passage of the appropriation bill.

Torren's Real Property System

Sir Robert Torrens, who had held an important position in the South Australian colonial custom's department, developed a new method for recording dealings in land. The basis for his innovation was the system used for the transfer of ownership of shipping property which relied upon the issue and registration of certificates of ownership. The method was simple and effective. Torrens believed that a similar routine could be applied to dealings in land. Despite considerable opposition from sections of the legal fraternity he convinced the South Australian Government of the benefits of his system and in 1858 the South Australian Parliament enacted legislation embodying the principles enunciated by Torrens.

The new real property system, which avoided the complicated searching and investigation associated with the traditional conveyancing system, aroused considerable interest in Tasmania. However, there were some colonists who were loath to adopt the new system. A major criticism levelled at Torrens' system by detractors was that it failed to provide protection for long established rights relating to the particular parcel of land. In February 1861, at the invitation of the colonists, Torrens arrived in Hobart to explain his system and to answer his critics.

On 14 February 1861 Torrens presented a lecture in Hobart on his real property law. The meeting, chaired by the Governor, was well attended and included 20 members of parliament and many other eminent citizens. Torrens in describing the conveyancing system stated: 'It was like a chain, and the entire chain depended on the strength of each link and if any one were defective, the whole thing went; and uncertainty and insecurity were the result. The cost also was great. They must have the most skilled persons to go through intricate titles to land . . .'. On the other hand his system was simplicity in itself—a certificate of ownership, registered with a government authority, was conclusive proof of ownership. This obviated the need for complicated searching and tracing land titles through various owners.

Torrens case was strong and most at the meeting were convinced of the soundness of his proposals. Torrens later gave an equally successful exposition of his system to Launceston citizens.

In January 1862 Chapman's Government introduced legislation incorporating Torrens' proposals. The statute had a smooth passage through parliament—this contrasted with the difficulties which Chapman's government was encountering in other legislative spheres.

Real Property Act 1862: Principal features of the statute were:

- (i) Establishment of positions of Recorder and Deputy Recorder of Titles and of Land Titles Commissioners who were responsible for investigating and examining applications to have land brought under the new system. The Recorder of Titles was charged with the issue of certificates of ownership, maintenance of a registry of such certificates and of mortgages and other encumbrances on land coming under the *Real Property Act 1862*.
- (ii) Establishment of a system of certificates of ownership of land. The certificates, issued by the Recorder of Titles, were conclusive proof of ownership and obviated the necessity for searching through the history of transactions affecting a piece of land.
- (iii) Land alienated after 1 February 1862 came under the provisions of the Act. Land granted prior to this date could, on application and payment of a fee, be brought under the new system.
- (iv) Issue of the certificates involved payment of a fee—based on value of the land involved. The fee was paid to the Treasury for investment in an assurance fund to protect property owners against loss arising from any error.

The Mineral Search

Chapman's government proclaimed a positive policy of promoting development of the colony's material and mineral resources and of developing Tasmanian timber exports. In the mining sphere gold, and to a lesser extent, recent coal discoveries were believed to offer the best opportunity for economic recovery.

Gold: Foremost in the minds of the press, citizens and politicians was the gold field question. Discovery of payable gold was felt to be the most probable and quickest means of lifting the colony from depression into a boom era. Chapman's government was beseeched by press and citizen groups to act, so in January 1862 Charles Gould, the government geologist, was sent a second time to the western country to search for gold. Gould was accompanied by a party of experienced bushmen and prospectors. Base depots were established in the Eldon Range and at the mouth of the King River. From January until April Gould and his party trudged over

the country between the Eldon Range and Macquarie Harbour. At one stage they camped almost on top of the Iron Blow, starting point of the Mt Lyell mineral boom of the 1880s, but found nothing. After reaching the King River depot the party investigated mineral prospects in the lower reaches of the Gordon and Franklin Rivers. Traces of gold were located, but not in sufficient quantity to warrant development. Meanwhile in Hobart, where no word of the exploration party had been heard for some two months, concern was developing for their safety. The *Mercury* speculated that the colony might well have a 'Burke and Wills' tragedy on its hands and the Government was urged to send out search parties. However, in mid-April Hobart received news that Gould's party had reached the King River depot. Later that month Gould arrived in Hobart but his report did little to encourage hopes for a payable gold field. In October 1862 parliament voted \$6,000 to send Gould back to further investigate the gold finds in the Gordon and Franklin Rivers. In December Gould returned to the area but could only report gold traces.

The Elections of 1862

Financial policies dominated the 1862 elections—the Chapman government's policy had been tried and found wanting. In the House of Assembly Chapman's government had been defeated on the ad valorem tariff issue, a form of duty which was also generally unpopular with the public. The opposition, led by James Whyte, Charles Meredith and Robert Byron Miller proposed no alternative but relied on belittling the efforts of Chapman and Innes to resolve the financial question. Miller did suggest, in his electoral campaign, the imposition of a poll tax on all residents to be gathered by tax collectors. Apart from this no other alternative scheme was forthcoming from the opposition—unpopularity of the ad valorem duties was deemed to be sufficient to bring about defeat of the Chapman ministry.

Completion of the elections in December left Chapman facing a strong opposition in the House of Assembly. Chapman could, however, derive some personal satisfaction from the elections. He decided to stand against William Allison, one of his more bitter critics, in Allison's home seat of Campbell Town. Chapman won the seat convincingly. The only conclusion that could be deduced from the electoral results was that the electors favoured a change of government and policy even if it meant opting for an unknown policy.

On 15 January parliament met and the Governor outlined the Chapman ministry's policy. When preparing the address in reply Charles Meredith successfully moved an amendment to have the ad valorem duties repealed. Chapman then tendered his resignation as Premier on 20 January 1863.

James Whyte's Ministry

Following Chapman's resignation, James Whyte, as expected, was called upon to form a ministry. Whyte was the accepted leader of a group of parliamentarians which went under the description of 'liberals'. However, as to the policies of this so called party, little was known. On 22 January parliament adjourned for one month to give the incoming ministry an opportunity to frame a fiscal and development policy.

The Ministry

The premier, James Whyte, took the portfolio of Colonial Secretary while Charles Meredith, Chapman's long standing political adversary, became Colonial Treasurer. Robert Byron Miller accepted the portfolio of Attorney-General. This was felt to be an excellent choice as Miller had not been identified with any of the extreme factions existing in parliament. James Wilson also joined the ministry as minister without portfolio. Whyte declined the services of the notorious hot-head Gregson—a wise decision according to the press of the day.

Prior to adjournment both Whyte and the Colonial Treasurer, Charles Meredith, promised positive and determined steps to put the colony back on the road to economic prosperity and the colony finances into order. Whyte stated: 'It is our intention to propose the substitution for *ad valorem* duties, of a tariff of fixed duties, imposed on such articles and levied in such a manner as may be found most equitable and just, after a careful and dispassionate consideration

of the question, and of the absolutely indispensable requirements of the Public Service.' The Colonial Treasurer echoed similar sentiments and promised to adjust expenditure to revenue, to provide means for meeting debt obligations of the colony and raise taxes sufficient to produce the required revenue. The Treasurer promised that the additional revenue would not be raised by imposition of income or property taxes. At last the colony knew the new ministry's policy—basically the same as that of its predecessor except ad valorem duties were to be replaced by a system of fixed duties.

Financial Measures

On 25 February 1863 Meredith gave an outline of the colony's plight to the House of Assembly. He promised repeal of ad valorem duties, imposition of a tariff of fixed duties on articles of general consumption (luxury goods would only be included if the tariff failed to yield sufficient revenue) and, if necessary, stamp duties. The programme was not greeted with much enthusiasm by the press and public who felt that they had heard it all before. On 11 March parliament rose and did not meet again until June.

In July 1863 Meredith's principal financial measures were introduced to the House of Assembly and passed. Duties on tea, sugar and other commonly consumed goods were increased and a wide range of stamp duties imposed. The Legislative Council agreed to the proposals and to Meredith's expenditure programme, which was presented without an accompanying 'ways and means'. (During Chapman's ministry Whyte had insisted that a 'ways and means' be presented before the Council would consider the appropriations.)

Outside parliament the new duties and taxes were viewed with disfavour, particularly the carriage tax. Public meetings called upon the government to reconsider its tariffs and the stamp duties were equally unpopular. However, the government stood firm and the new taxes remained.

During 1864 and 1865 the fiscal plight of the colony showed no improvement—the new custom duties were not raising sufficient revenue; they had, however, given a considerable boost to smuggling. In July 1866 parliament, after a 10-month recess was reconvened and the Governor, in his address, hinted at a restructuring of the taxation system. The government would '... consider certain alterations in our fiscal system which will ensure an amount of revenue equal to our requirements, and which will obviate the necessity hitherto existing of borrowing on debentures for annual ordinary expenditure.' This led to much speculation as to what the measures might be. On 10 August 1866 Meredith presented his ways and means for the year 1867 and the fears of many were proved correct. Meredith proposed the introduction of two taxes: (i) a property tax of $5\frac{1}{2}$ per cent of annual value; and (ii) an income tax of $5\frac{1}{2}$ per cent on all incomes over \$160. (The introduction of these taxes was a reversal of promises made shortly after the Whyte Ministry came to power.) At the same time he intended to reduce customs, port and shipping duties to encourage ships to enter Tasmanian ports and consequently boost Tasmanian trade. Needless to say the new tax proposals were given a hostile reception—the popular claim was that they would drive people of property from the colony and prevent industrial development. Meredith stood firm and in August legislation was brought before the House of Assembly to give effect to the taxes. The bills passed their first reading but when the House met to consider them at their second reading stage it was obvious that many government supporters intended to defect to the opposition. Numerous amendments were moved and carried thus destroying the purposes of the taxes—the bill was finally defeated by a vote of 17 to 11 against it.

Whyte decided that the question should be placed before the people and his government, at the resulting House of Assembly election, was soundly defeated. Charles Meredith, Colonial Treasurer and member for the Glamorgan electorate since inception of self-government, was defeated. Robert Byron Miller, Attorney-General, also failed to gain election in the Launceston electorate. However, both did secure seats in the new parliament—Miller was elected as a representative of Hobart and Charles Meredith as the member for Kingborough. Out of the 30-member house Whyte's ministry had only eight supporters—neither the press nor the colonists were prepared to accept such a bold move as the introduction of income and property taxes.

In November parliament met and Whyte, faced with an overwhelming opposition in the House of Assembly, tendered his resignation as Premier on 24 November 1866. The failure of Whyte's ministry was due principally to its failure to resolve the financial problems facing the colony. This was compounded by an increasingly hostile press and when, in 1866, bold measures were proposed that could have provided sufficient revenue a short-sighted press and conservative parliamentary members combined to defeat the suggested system.

The Colonial Economy

Economic conditions failed to improve much during Whyte's ministry. In October 1863 the *Mercury* stated in its editorial: 'A mere cursory glance at the state of things around us should lead the most unreflecting to the conclusion that Tasmania has arrived at a very critical period in her history. Our trade with other countries is not increasing; we are neither multiplying the number of our flocks and herds, nor bringing a greater breadth of land under crop; nor has there been any addition to our merchantable commodities of late, either in number or extent with the single exception of coal. This is a very serious affair, and nothing could be more unwise than for a people, so circumstanced to think of ignoring it ...'.

Whyte and Meredith had no intention of ignoring the problem—evasion of hard work and conscientious effort was one criticism that opponents could not level at them. Both men, sometimes accompanied by the Attorney-General, Miller, undertook long and arduous visits to the outlying settlements—something their ministerial predecessors had not bothered with. James Fenton, historian and successful settler on the north-west coast, in his *Bush Life in Tasmania* recalled the ministerial trio visiting the Forth area shortly after the Forth River bridge had been washed out and discussing the loss with Meredith. In Fenton's words 'On his return to Hobart he did not forget the north coast. He initiated a system of local Boards of Works to expend the land fund raised in each district.' The Whyte ministry instigated substantial public works, overhauled the land disposal system and rural municipality system and promoted development of colonial resources. However, despite these efforts progress was small and colonial conditions remained depressed. The colony had no new industries and lacked a local market sufficiently large to support a thriving agricultural industry. The only men who seemed to prosper were the wool kings, but by 1865 their flocks were threatened by the serious sheep disease scab.

Waste Lands Act 1863

In July 1863 a new land bill was introduced into the House of Assembly. The purpose of the legislation was to facilitate acquisition of agricultural land by settlers and to encourage development of new country. The principal new provision of the Act was in relation to agricultural areas and the method of disposal. The Governor-in-Council was given the right to reserve from sale and to proclaim as an agricultural area such land as he saw fit to do so. When an access road was put through any such proclaimed area to a main or cross road, to the sea or navigable river the area was to be divided into lots of not more than 65 hectares and each lot was to have a road frontage. The Commissioner of Crown Lands was to let such lots by public auction for a term of 20 years. No person was permitted to hold more than one such lot. Minimum rent was set at \$0.25 per hectare. At the end of the 20 year period, if all terms and conditions had been complied with and all rents paid, the occupier or his heirs received title to the land at no cost. Failure to comply with any terms or to pay rent meant forfeiture of the land. For the unsettled lands (the areas south of the Arthur River and bounded by a line from South Cape to the confluence of the Derwent and Florentine Rivers and from that point by a line north-west to Barn Bluff then from there to the upper reaches of the Arthur and then along the river to its mouth) conditions of disposal were much the same as set out in the 1858 *Unsettled Lands Act*. (See Colonial Developments during the Government of Francis Smith, 1974 *Year Book*.)

The new land Act, particularly the provisions relating to letting of agricultural lots, were well received by the colonists and were seen as a positive move to encourage small agricultural settlers to take up land. The *Mercury*, in one of its few laudatory comments on the Whyte administration, stated in its editorial in September 1863: '...Tasmania now stands in the proud

position of having adopted a land system which is without an equal for liberality in the history of advanced modern land law legislation.' The new system did lead to more small settlers taking-up land, particularly on the north-west coast and in the new country of the north-east. However, the hoped for agricultural boom was a long time eventuating.

Hargraves' Visit

In late 1864 leading colonists decided to invite Edward Hargraves, discoverer of gold in New South Wales, to Tasmania to see if he could succeed where others had failed. The colonists formed a committee and \$1,000 was raised to pay Hargraves for his trouble. The Government promised a further \$2,000 providing Hargraves' reports indicated worthwhile discoveries. In October Hargraves arrived and began to inspect several quartz reefs and the colonists waited anxiously for his findings. He spent considerable time chipping away at the Fingal quartz reef and reported some gold content; a fact already known to the colonists. Hargraves then transferred his operations to the north-west coast and the committee heard no more of his progress for several weeks. Many were becoming impatient—they had paid the man to look for new gold not to potter around known gold yielding areas. By March 1865 no report had been furnished and many of the committee were positively annoyed, however, this did not disturb Hargraves who departed from the colony in April 1865 without making a written report to his sponsors. The only beneficiary from the visit was Hargraves himself—his less than diligent approach to the task won him few friends among the Tasmanian settlers.

Public Works

Whyte's ministry was responsible for implementing a comprehensive programme of road, bridge and tramway construction. After touring the outlying settlements Whyte and Meredith were convinced of the necessity to improve road communications and to bridge some of the larger rivers which isolated the settlements. In June 1864 Whyte and Meredith outlined to parliament a scheme of 'reproductive works' (i.e. roads, bridges and tramways) for the colony. Estimated cost of the works was from \$120,000 to \$140,000. However, it was felt that the increased revenue from the sale of new land opened up by the roads, etc. and the increased production more than justified the proposed expenditure. The works proposals were submitted to members of the House of Assembly for consideration and a select committee was appointed to examine the works. Minor amendments to the programme were made and the House of Assembly passed an appropriation of \$152,000 for the projects. Finance was to be provided from two sources—\$40,000 out of the land fund and \$112,000 by the issue of debentures secured on the land fund. The bill went to the Legislative Council for consideration, however, the Council failed to debate the legislation prior to the prorogation of parliament in September.

When parliament next met in August 1865 Meredith brought a new public works bill before the lower house. Total proposed outlay was increased to \$207,000 and the whole amount was to be borrowed. This bill passed both houses with only minor amendment—the total expenditure was reduced to \$205,139. The funds were raised by the issue of debentures secured against the land fund. To defray the cost of the works the Governor could authorise the levy of tolls which were to be paid into general revenue. Major works authorised by the Act included: work on a direct road from Hobart towards Huon (\$30,300), road works in the west Tamar area (\$24,000), Bridport-Ringarooma road (\$19,700), completion of the Sorell causeway (\$18,000), Patersonia-Ringarooma road (\$16,800); bridges over the Forth, Leven (both on the north-west coast) and Prosser (east coast) Rivers; and several tramways—the two main ones were a tramway running south from Ulverstone (\$20,900) and the North West Bay-Sandfly tramway (\$15,200).

The various works were well received by settlers, particularly by those in the new areas where the lack of proper roads or bridges was a serious hindrance to development. The Act was also important for establishing a precedent of government acceptance of the responsibility for financing the construction of an adequate public road network.

The Railway Movement

During James Whyte's administration the railway movement gained momentum—legislation allowing construction of the Launceston-Deloraine line was passed and societies were formed to agitate for building of a Hobart-Launceston line. The pro-railway groups also gained the services of the popular and wealthy colonist, Sir Richard Dry. Dry's identification with the railway movement enhanced its prestige and gave it an invaluable ally within parliament.

Hobart-Launceston Line: During the June-September session of parliament in 1863 the House of Assembly voted \$800 for a preliminary survey of the line between Hobart and Launceston. However, the appropriation was rejected by the economy conscious Legislative Council. Again in October William Allison brought the Hobart-Launceston line to the attention of the lower house and requested that \$3,000 be appropriated for the survey. The House decided to appoint a select committee to investigate the question. Meanwhile the Hobart-Launceston railway proposal had gained considerable public support and the Main Line Railway Association was formed with branches in Hobart and Launceston. Objectives of the association were to promote construction of the line, enlist public support for the scheme, obtain public donations to cover the preliminary survey costs and press the government to initiate a proper parliamentary inquiry into the project. The association wanted a government sponsored inquiry to gather cargo data, prepare cost estimates and to table plans for the line before parliament. However, the government was reluctant to become involved in such a potentially expensive task. In July 1864 at the Theatre Royal the Hobart branch of the association held a public meeting attended by a delegation from the Launceston branch. It was a full house and Sir Richard Dry opened the case for a railway. The meeting was overwhelmingly in favour of the railway and the decision was made to again press the government for action on the project. The government declined to act and there the matter rested until August 1864 when, following an address to the Governor, \$8,000 was placed on the supplementary estimates by the House of Assembly. The appropriation was for a complete engineering survey of the route but once again the anti-railway group prevailed in the Legislative Council and the proposed expenditure was rejected.

The other scheme which came under attention during the Whyte government was the Launceston-Deloraine line. This had been first suggested during Sir Francis Smith's ministry. During July 1861 property holders in the districts between Launceston and Deloraine forwarded petitions to parliament requesting enabling legislation for the line but no action resulted.

In August 1864, following a study of construction costs and traffic volumes, the scheme's promoters applied to the Whyte government for permission to borrow \$800,000 (the estimated cost of the project) with government guarantee of interest payments. The promoters included the area's wealthiest and most influential settlers—William Archer Snr., John Kinder Archer, William Button, John Crookes, William Norwood and several others. The application was rejected by the government. During the interval between sessions of parliament (September 1864 to July 1865) the Launceston-Deloraine line enthusiasts busied themselves delivering lectures on the benefits of the scheme and enlisting public support. Sir Richard Dry added his voice to the campaign.

Parliament resumed in July 1865 and Sir Richard Dry opened negotiations with the government on the Launceston-Deloraine railway line and its financing. Finally, James Whyte and his ministry agreed to give a government guarantee for total borrowings of \$600,000 on the condition that the line's promoters form a company and raise share capital valued at \$200,000. In August 1865 the *Launceston and Western Railway Bill* was introduced into the House of Assembly by supporters of the scheme. The legislation passed both Houses and cleared the way for construction of Tasmania's first railway.

Launceston and Western Railway Act No. 1 1865: The preamble of the statute stated: 'Whereas it is expedient to make, construct, and maintain for the use of the Public a Railway, with all necessary sidings and approaches thereto, from the Town of Launceston to the Township of Deloraine; and, for the purposes aforesaid, to make charges for the carriage and conveyance of passengers, goods, and merchandise thereon: And whereas a Survey of the Line for the said Railway has been made, and the requisite Plan and Section thereof have been duly prepared . . .'

As well as the interest guarantee the statute gave the company the necessary powers (e.g. right to enter private land, acquire land, etc.) to construct the line. The railway was not to interrupt traffic on established public streets or roads and any damage to them had to be made good. The railway company was required to run at least one train every day over the line and to transport goods and passengers. Borrowing was limited to three times the paid-up capital and should earnings be insufficient to meet interest then a special rate could be levied to make good the deficiency. (When this section was invoked in 1874 serious riots resulted in Launceston.) Before actual formation of the company occurred, however, the promoters had to obtain agreement of two-thirds of the property holders in the districts through which the line was to pass.

After enactment of the railway statute the Launceston-Deloraine Railway Association met in early October. At the meeting members promised capital contributions of \$40,000. The press was ecstatic—it assured the public that the other \$160,000 would pose no problems. On 12 October 1865 the railway association staged a grand fête in Launceston to celebrate their victory. The day was observed as a general public holiday and property holders were urged to give the promoters a resounding yes vote at the forthcoming railway poll.

Polling date to decide whether the railway project would go ahead was fixed at 18 December. The government appointed returning officer was a known opponent of the scheme—this was considered to be a deliberate insult to the promoters by the government which hoped for rejection of the scheme by the property owners. However, the promoters were confident that the scheme would be endorsed by the necessary two-thirds majority of property owners. On polling day the proposed line received overwhelming support from the property holders in districts through which the line was to pass—2,762 ‘Yes’ votes as against only 574 ‘No’ votes. Only one of the districts through which the line passed, Carrick, recorded a ‘No’ vote. All was now set for construction, but the necessary \$200,000 of capital was not as forthcoming as the Association and the press had led the colonists to believe. In August 1866 promoters of the railway obtained leave to introduce a bill to amend the *Launceston and Western Railway Act* and in particular, have capital subscriptions reduced from \$200,000 to \$100,000. However, another two years were to pass before the company was in a position to commence construction of the line which finally opened to traffic in 1871.

Local Government Legislation

Re-organisation of the rural municipality system and greater local responsibility for matters such as education and police was seen as one means of reducing government outlays. In July 1863 Meredith placed before the House of Assembly a rural municipalities bill which would have divided the colony, except for Hobart and Launceston, into rural local government areas—some existing municipalities would have had their boundaries altered. Grants-in-aid for roads, police and school districts were also to be eliminated thus effecting a considerable saving for the colonial government. Responsibility for such functions would have become purely local government concerns. Objections were made on the grounds that the bill: (i) arbitrarily imposed a system of local government rather than allowing residents to choose to form rural municipalities; (ii) treated all municipalities on the same basis and ignored differences in population and wealth—many of the proposed rural municipalities would be unable to raise sufficient revenue to meet the costs of the necessary services; (iii) disregarded boundaries of existing rural municipalities; (iv) would place additional burdens (e.g. education, police, roads) on residents; and (v) withdrew grants-in-aid which were essential for the continued functioning of existing rural municipalities. The strength of the opposition to the bill caused the government to withdraw the legislation rather than risk certain defeat over it in the parliament.

After considerable re-thinking of the rural municipality legislation the government again introduced legislation in 1865. The *Rural Municipalities Act* 1865 retained the principle of plural voting established in the 1858 legislation and reiterated the functions outlined in the 1858 Act. The 1865 statute divided the colony, except for Hobart, Launceston and Tasman Peninsula, into 30 rural municipalities. Boundaries of existing rural municipalities were unchanged and the new municipalities were to be proclaimed only after the Governor had received

a petition from not less than 50 persons who were owners or occupiers of property with an annual value of not less than \$40 in the district in question. This satisfied the two principal objections to the original bill—compulsion and arbitrary change of existing rural municipality boundaries. (At the time the Act was passed there were 17 proclaimed rural municipalities.)

The 1865 Act increased the size of the councils to seven members, one of whom was to be elected warden by the councillors. The municipal council also had to appoint two auditors, who were not to be councillors, to audit the accounts each year. The council was also obliged to make annual valuations of properties and to prepare a valuation roll for rating and voting purposes.

Police Regulation Act 1865

This Act, designed to improve the standard of police, created the position of inspector of police. The inspector of police was empowered to make rules to ensure uniform police conduct and had overall control of colonial police. He was required to carry out periodic inspections of the police force, report on efficiency, numbers and distribution to the Colonial Secretary who then tabled the report. The actual financing of police remained a local concern.

Introduction of Salmon

The early colonists were disappointed at the lack of fresh-water sporting fish in Tasmanian lakes and streams. The Australian grayling or cucumber herring, the small fish of the genus *Galaxias* and the blackfish of the northern streams, while acceptable as table fish, offered small challenge to the angler. This dearth of angling opportunities contrasted with the homeland where excellent salmon and trout fishing opportunities abounded, and led many colonists to contemplate the possibility of transporting salmon and trout ova to Tasmania. In 1841 Captain Frederick Chalmers applied to Dr Mackenzie of Ross in England for salmon fry to bring to Tasmania. Mackenzie replied to Chalmers in July 1841: 'Next year you can have some fry sent south to you in better time if you like, or if you will give me the address of some confidential friend, I will send him south two baskets containing impregnated roe, say in September, one basket to be sunk in water in England to produce live fish for your next year's trip, and the other to be shipped to your address in Australia' Nothing eventuated from this naive proposal—neither gentleman realising the problems confronting the venture and the research necessary before successful introduction of salmon and trout could be achieved.

In 1848 James Burnett of the colonial survey department became interested in the transportation of salmon to Tasmania. Burnett visited the Duke of Sutherland's salmon fisheries at Inverness and discussed the question with the manager, Mr Young, who suggested a method which appeared to have a reasonable chance of success. Burnett then gained the interest of Sir William Denison and in 1852 an attempt was made to bring salmon and trout ova to Tasmania. The ova was shipped on the *Columbus* and Burnett described the method thus:

'About 50,000 ova of salmon and trout were placed in a large oval tub on the vessel with a false bottom, 4 ft 6 in by 3 ft 4 in, 1 ft 8 in deep, double sided, made of wood, cased in lead, and containing 60 gallons of water besides the requisite quantity of gravel

The tub was slung under and on one side of the fore hatchway, with directions that every six hours a fresh supply of six gallons of water should be added by means of a funnel inserted in a tube entering below the false bottom, the old or original quantity (or the greater portion of it) being drawn off by a stop-cock placed for that purpose in the upper part of the tub, and that the 6 gallons of water were to be supplied six times a day as the vessel approached the Equator, making, 36 gallons in 24 hours, and to be again reduced in the cooler latitudes to the original quantity of 24 gallons per diem.'

On arrival at Hobart, Burnett accompanied by the Secretary of the Royal Society, examined the tub. However, no trace of spawn or fish was found. The experiment cost \$600 but taught an important lesson—maintenance of cool water temperature was a crucial factor.

The next attempt at transporting salmon and trout ova to Tasmania was made in 1860. This was largely the result of the efforts of James Youl, 'father of the Tasmanian trout fishery', who interested members of the Australian Association (a group of colonists who had returned to England) in the venture. Youl promoted the idea within the association and managed to raise \$1,200 for the venture. The ova were despatched on the *Curling* and the Government, confident of success, had had receiving ponds constructed at North West Bay. The ice supply failed after 59 days and the ova perished.

Youl had studied salmon breeding in England and Ireland and had discussed the problem with Mr Fennel and Sir Thomas Brady superintendent of the Government Fisheries Department in Ireland. He concluded that, as the fry would arrive in summer, a site with an assured supply of cool fresh water was essential. He therefore urged abandonment of the North West Bay ponds and construction of hatching ponds 'up the Derwent' to overcome the water problem.

Meanwhile the Colonial Government had become interested in the salmon acclimatisation question and a joint committee of parliament was appointed to investigate the project. The committee: (i) decided introduction of salmon to Tasmania was feasible; and (ii) recommended appointment of commissioners to be responsible for selection of a suitable hatching site and for establishment of a salmon fishery in the colony. The commissioners heeded Youl's advice and chose the Plenty River site for construction of the salmon ponds. The Plenty River, at this point, was described '... as the very perfection of a salmon stream'. In 1861 a 14-year lease was obtained over 5.6 hectares and the ponds were built.

The next attempt was made in 1862 and again took place under the general direction of the colonial government-appointed Salmon Commissioners. The Commissioners had secured the services of William Ramsbottom, son of the well known salmon breeder of Clitheroe, to take direct control of the shipment. James Youl was again instrumental in organising storage and shipment—he was determined to obtain space on a vessel making direct for Hobart and secured space on the steamer *Beautiful Star*. The ova were packed in ice and stowed aboard under the control of Ramsbottom. However, after only a short time the vessel was forced to put into port for repairs. The crew decamped and Ramsbottom's assistant joined the deserters. During the delay Ramsbottom made several improvements to the water system for the ova. After several days the vessel again put to sea, however, the little vessel rolled excessively and made poor headway and despite Ramsbottom's untiring efforts, the ice gave out and the ova again perished. The ova which survived longest was not that which had been given special treatment but a small box in which the ova had been packed in moss and charcoal and almost overlooked. In fact this ova hatched on board but the fish soon died. This convinced Ramsbottom and James Youl that a successful transportation could be achieved.

Ramsbottom reported to the salmon commissioners on his arrival in Hobart and stated the next attempt, given a good vessel, would succeed. The Commissioners were convinced and reported to the Governor—

'But the Commissioners confidently submit to Your Excellency, that the cost shown in the estimate is of very small amount when compared with the great importance of the undertaking, and the benefits which, if successfully accomplished, it could not fail to confer on this and neighbouring colonies

The Commissioners are anxious that Mr Ramsbottom should return to England with the least possible delay, with the view to making necessary arrangements and preparations for renewal of the experiment at the end of the ensuing year

Ramsbottom travelled to Melbourne and from there returned to England on the *Great Britain*.

Youl arranged for experiments with ova packed in moss to be carried out. The boxes of ova, under the supervision of Ramsbottom, were stored in the vaults of the Wenham Lake Ice Company, London. The boxes were covered with ice and examined at intervals of up to 144 days. Youl wrote, at the end of the period, '... the vitality of the ova was in no way impaired and the ova was successfully hatched.' The time taken for a vessel to complete the England to Tasmania journey was well within 144 days.

Youl and Ramsbottom then began preparations for yet another attempt and on 28 January 1864, 100,000 salmon ova and 2,700 brown trout ova were despatched on the clipper *Norfolk* on which the owners had donated space for the ova consignment. The brown trout ova, included almost as an afterthought, were donations from Admiral Keppler (1,200) and Mr Francis Francis (1,500). The packing technique was described by Youl:

'A couple of handfuls of charcoal are spread over the bottom of the box, then a layer of broken ice; after this a bed or nest of wet moss is carefully made and well drenched with water. The ova are then very gently poured from a bottle, which is kept filled with water. The box is now filled up with moss, and pure water poured upon it until it streams out from all the holes. Another layer of finely pulverised ice is spread over all the top of the moss; the lid is then firmly screwed down.'

The boxes in which the ova were packed were made of pine (2.5 centimetres thick) and measured 11.75 centimetres by 19.7 centimetres and 13.3 centimetres deep. Sides, top and bottom were well perforated to allow the water from the ice, as it melted, to flow into the boxes and to percolate through the moss and ova inside.

On 15 April the *Norfolk* reached Port Hobson (Victoria) and the boxes were transferred to the Victorian naval sloop *Victoria* for transhipment to Hobart. *Victoria* docked at Hobart on 20 April 1864. Immediately the precious cargo was placed on a barge and the *Emu* headed for New Norfolk with the barge in tow. On 21 April 1864 the *Emu*, barge and ova reached New Norfolk. Numerous small boats were there to tow the barge a further five kilometres upstream until rapids prevented further progress. From this point the boxes of ova were carried by the willing settlers to the Plenty Salmon Ponds. Preceding the carriers was an anxious William Ramsbottom who had been appointed superintendent of the salmon ponds. Ramsbottom prepared gravel redds in the hatching ponds for receipt of the ova. Ninety-one days after the *Norfolk* cleared Falmouth approximately 35,000 healthy salmon ova were put down and in a separate area 300 trout ova.

Ramsbottom diligently tended the salmon and trout and on 4 May he was rewarded—the first trout ova had hatched. The next day the salmon ova began to hatch. Hatching of trout ova continued until 25 May and salmon to 8 June. A leak from one of the salmon ponds allowed several hundred salmon fry to escape into the Plenty.

In January 1866 38 trout were released into the Plenty River and some 133 trout were retained in the breeding ponds for brood stock. In July 1866 five pair of the 38 released trout were observed building redds in the Plenty. Thus began the brown trout fishery in Tasmania.

The salmon fry were released into the Plenty—some had escaped and the remainder were released at varying ages. In February 1867 Mr Ramsbottom began watching the Plenty for signs of the salmon. On 15 March this man, who had put years of effort into developing a salmon-trout fishery in Tasmania, was rewarded. In a large pool he saw a salmon leaping. In the words of William Ramsbottom:

'... the fish rose at too great a distance from me, and did not make the same splash in the water as I thought a salmon ought to do, yet the fish looked larger than any I had before seen in these waters.

I now got very uneasy in my mind, sometimes doubting at other times believing they must be salmon, and in this excited and perplexed state of mind I was kept until 3.40 pm when to my exceeding great joy, I was delighted to see nothing else but a salmon jump clean out of the water, and show himself broadside on, and judging from his appearance, I should call him a grilse of about 5 lbs weight.

On seeing the salmon, it is impossible to describe my joyful feelings.'

Unfortunately the salmon never became established in Tasmania. However, the brown trout from Plenty provided the basis for stocking Tasmanian waters, those of other Australian colonies and of New Zealand.

CHRONOLOGY

Preface

The following chronology was compiled in two sections, the period 1642 to 1929 from a document specially prepared by officers of the State Archives, and the period beginning 1930 from a search of contemporary newspapers by Bureau officers.

In the record of more recent years, it was found impossible to describe purely Tasmanian events in isolation since certain national events necessarily form a part of the history of a state within a federal system; particularly is this true with regard to some Australian Government decisions, the state of the economy and industrial arbitration. On the other hand, there is the difficulty of deciding which events of a purely local character are sufficiently important to warrant inclusion. Some items have been introduced not because they are important but because they have a strong local flavour. This difficulty of selection is partly avoided by giving the record of recent years in more detail but inevitably such a policy results in matters of major and minor importance being mingled without distinction. It follows also that the second part of the chronology is limited largely to what the newspapers of the day considered important and that some events of greater significance may have escaped notice.

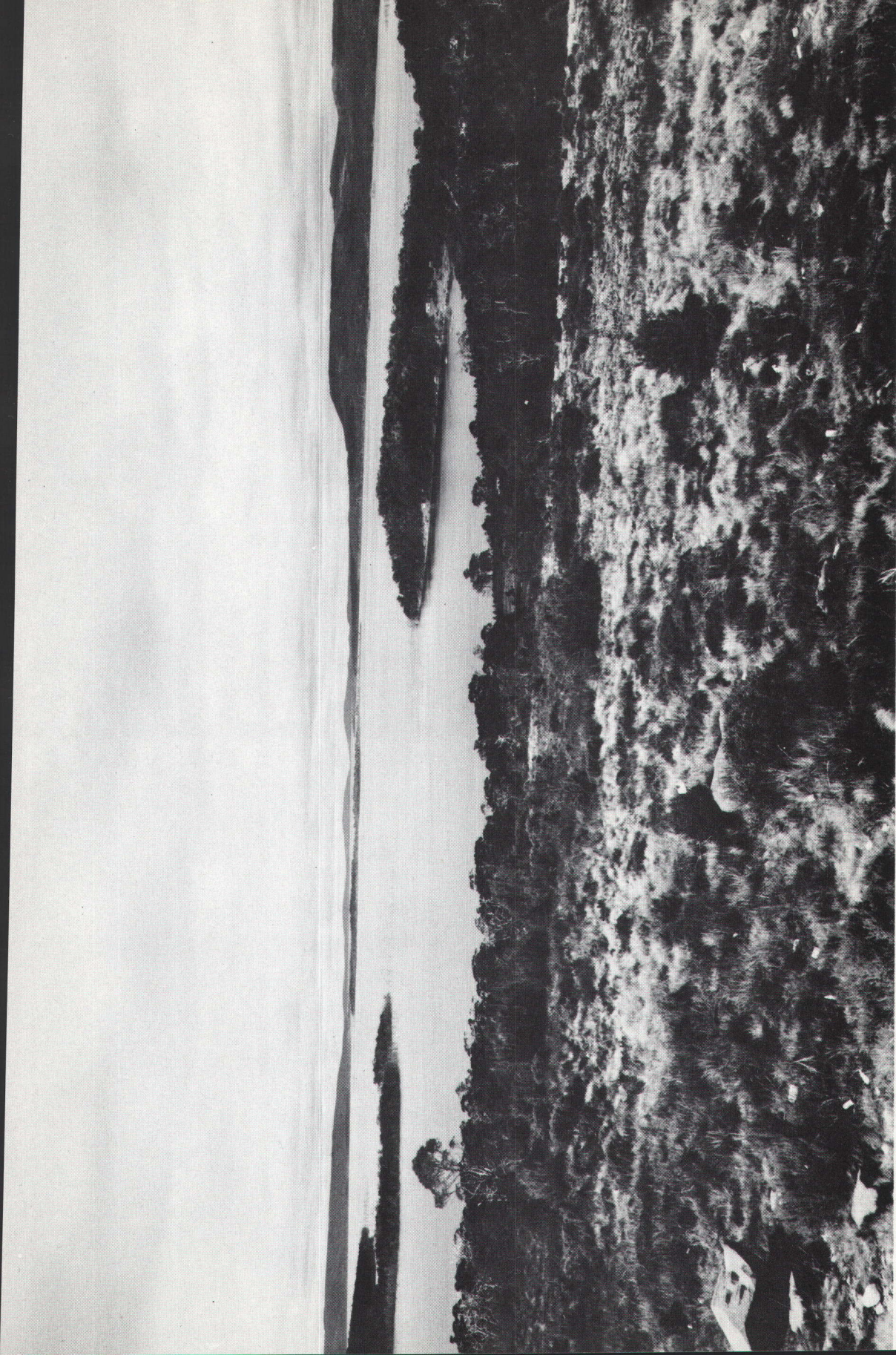
To round off the picture of any given year, there is a constant temptation to introduce events of world importance; as far as possible, this has been avoided except where such events had considerable local impact. In no way should the record which follows be interpreted as an 'official' chronology of the State; in actual fact, the record derives from two levels of subjective evaluation, firstly, the selection of items of importance by contemporary journalists, and secondly, the further selection of items from this narrowed field by the compilers of the chronology.

Chronology of Events from First Discovery of Tasmania

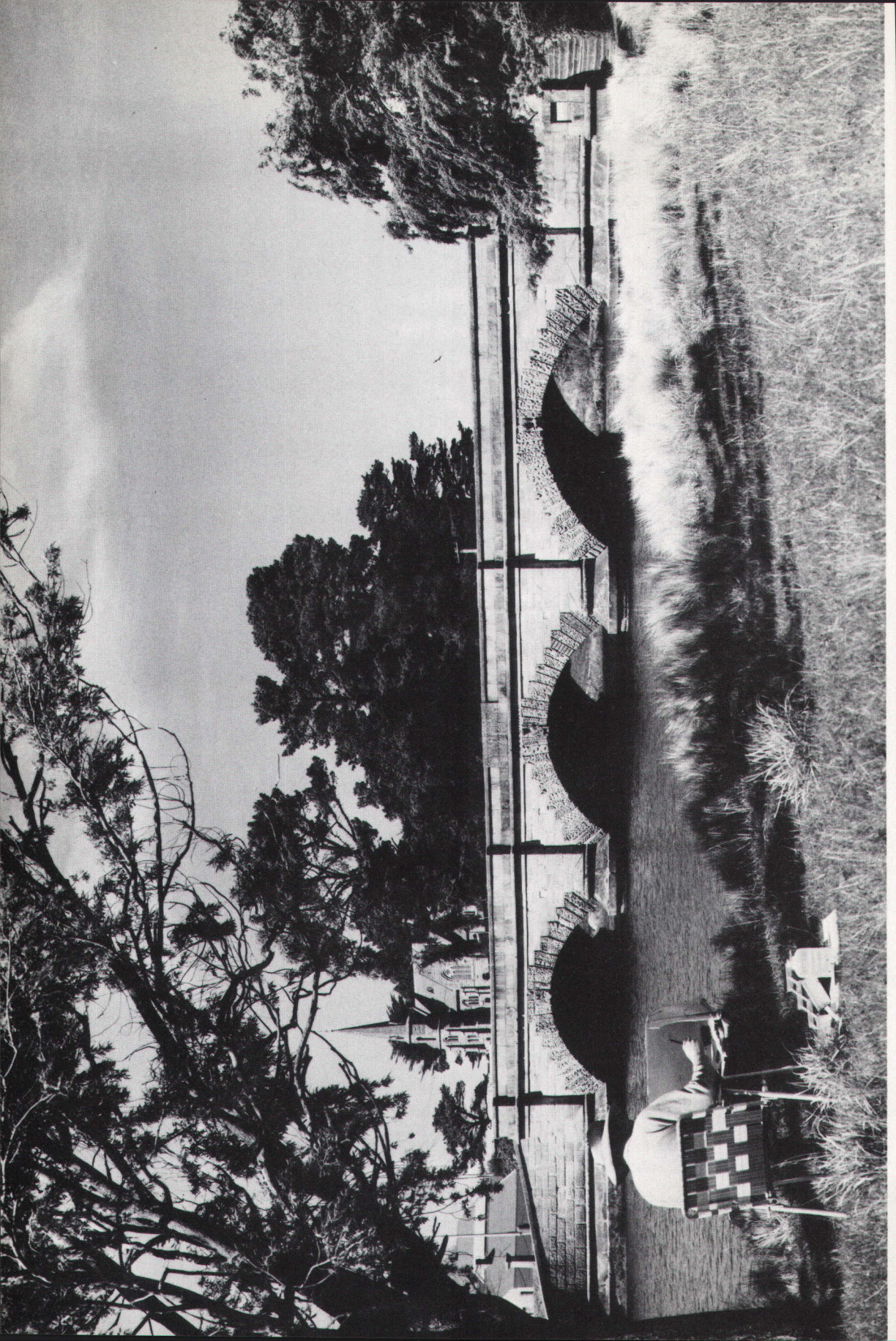
- 1642 Abel Janszoon Tasman, commanding *Heemskirk* and *Zeehan*, sighted west coast and named his discovery 'Anthony Van Diemenslandt'. Landings on Forestier Peninsula and near Blackman Bay on east coast.
- 1772 Landing of a party from Du Fresne's expedition at Marion Bay and affray with the Aborigines.
- 1773 Tobias Furneaux, in the *Adventure*, became separated from James Cook in *Resolution* and landed party at Adventure Bay.
- 1777 James Cook anchored *Resolution* in Adventure Bay on third expedition.
- 1788 William Bligh anchored *Bounty* in Adventure Bay on first breadfruit expedition.
- 1789 John Henry Cox sailed *Mercury* from Cox Bight to Maria Island.
- 1792 William Bligh, on second breadfruit voyage, anchored *Providence* in Adventure Bay. Bruny D'Entrecasteaux, commanding *La Recherche* and *L'Esperance*, discovered D'Entrecasteaux Channel and charted south-east coast.
- 1793 D'Entrecasteaux returned for further exploration of south-east coast. John Hayes, commanding *Duke of Clarence* expedition, explored Derwent River.
- 1798 Matthew Flinders and George Bass circumnavigated Tasmania.
- 1802 Nicholas Baudin, commanding *Geographe* and *Naturaliste*, explored south-east coast.
- 1803 John Bowen's party of 49 made first settlement at Risdon Cove.
- 1804 David Collins' settlement party landed at Sullivans Cove (Hobart). Aborigines killed in an affray at Risdon. Risdon settlement closed down. William Paterson's settlement party landed at Port Dalrymple (Tamar Estuary).
- 1805 Collins forced by famine to cut rations by one-third.
- 1806 Settlers moved from York Town to Launceston area (Tamar Estuary).

- 1807 Thomas Laycock's party crossed island overland from Port Dalrymple to Hobart. First Norfolk Island settlers shipped to Hobart in *Lady Nelson*.
- 1809 Governor William Bligh aboard *Porpoise* anchored in Derwent after N.S.W. mutiny and embarrassed Collins with problem of jurisdiction.
- 1810 Lieutenant-Governor Collins' death. Issue of the newspaper *Derwent Star*.
- 1811 Governor Lachlan Macquarie's first visit to Tasmania.
- 1812 Lieutenant-Governor Thomas Davey arrived. Northern settlement at Port Dalrymple made subordinate to Hobart. *Indefatigable* brought first shipload of convicts direct from England.
- 1815 Hobart and Port Dalrymple declared free ports for import of goods. Davey proclaimed martial law against bushrangers. James Kelly circumnavigated island in a whaleboat.
- 1816 First issue of *Hobart Town Gazette*.
- 1817 Succession of William Sorell as Lieutenant-Governor.
- 1818 Death of Michael Howe, notorious bushranger.
- 1820 Visit by John Thomas Bigge to conduct his enquiry into colonial administration.
- 1821 Second tour by Governor Macquarie.
- 1822 Penal settlement established at Macquarie Harbour.
- 1823 Passage of British Act 'for the better administration of justice in N.S.W. and Van Diemen's Land'.
- 1824 Inauguration of Supreme Court. Arrival of Lieutenant-Governor George Arthur.
- 1825 First Launceston newspaper, the *Tasmanian and Port Dalrymple Advertiser*, established. Tasmania constituted a colony independent of N.S.W. Establishment of appointed Executive and Legislative Councils. Departure of Governor Darling from Tasmania left Arthur with the authority of Governor (but not the title).
- 1826 Van Diemen's Land Co. sent first party to select land and establish farming operations. Appointment of Commissioners of Survey and Valuation.
- 1827 Colonial Act passed for the regulation of the colonial press—disallowed. Lieutenant-Governor received petition for trial by jury and some representation in Legislative Council.
- 1828 Passage of British Act 9 Geo. IV, cap. 83 which increased membership of Legislative Council. Martial law proclaimed against Aborigines.
- 1829 First settlement at Emu Bay (Burnie).
- 1830 George Augustus Robinson began his mission to conciliate the Aborigines. First use of juries in civil cases. Beginning of the 'Black Line', the military campaign to round up the Aborigines. First volume of *Quintus Servinton*, first novel to be published in Australia. Port Arthur established as a penal settlement.
- 1831 Approval of British Government's new land regulations discontinuing free grants of land, and replacing them with land sales.
- 1832 First shipment of Aborigines to Straits islands. Establishment of the Caveat Board to settle land disputes and to confirm titles. Maria Island closed down as a penal settlement.
- 1833 Macquarie Harbour penal settlement closed down.
- 1834 Henty brothers from Launceston became first settlers in Victoria occupying land in Portland Bay area.
- 1835 John Batman sailed from Launceston to Port Phillip as agent for the Port Phillip Association. Tasmania divided into counties and parishes. Opening of Ross Bridge. Population estimated as 40,172 persons.
- 1837 Arrival of Sir John Franklin and assumption of office as Lieutenant-Governor.
- 1838 Sessions of Legislative Council opened to the public.

- 1840 Cessation of transportation to N.S.W. and consequent increase in numbers transported to Tasmania. Population estimated as 45,999 persons.
- 1841 Assignment System of convict discipline replaced by the Probation System. Rossbank Observatory for magnetic and meteorological observations established.
- 1842 Tasmania created a separate Anglican diocese. Hobart made a city. Peak year for convict arrivals (5,329).
- 1843 Recall of Sir John Franklin and succession of Sir John Eardley-Wilmot.
- 1844 Transfer of Norfolk Island penal settlement from N.S.W. to Tasmanian control.
- 1845 Resignation of the 'Patriotic Six' members of the Legislative Council, opposing the heavy expenditure of colonial revenue for Imperial police charges.
- 1846 Recall of Eardley-Wilmot. Foundation of the Launceston Church Grammar and The Hutchins Schools.
- 1847 Succession of Sir William Denison. The Lieutenant-Governor re-appointed the 'Patriotic Six', dispensing with those who had replaced them as Legislative Councillors.
- 1848 Tasmania now the only place of transportation in the British Empire.
- 1850 Foundation of the Anti-Transportation League. Population estimated as 68,870 persons.
- 1851 British Act 'for the better governing of the Australian colonies' reached Tasmania; provided for limited representative government. First elections for 16 non-appointed members of the Legislative Council.
- 1852 First payable gold found near Fingal. Elections held for first municipal councils in Hobart and Launceston.
- 1853 Arrival of last convicts to be transported.
- 1854 Bad floods throughout colony. Passage of Bill establishing responsible government.
- 1855 Succession of Sir Henry Fox Young; title now Governor. British Government approved Constitution Bill.
- 1856 Name of Van Diemen's Land changed to Tasmania. Opening of new bi-cameral Parliament with W. T. N. Champ leading first government in the House of Assembly. Re-organisation of Police Department.
- 1858 Council of Education set up. *Rural Municipalities Act* passed.
- 1859 Charles Gould appointed to make geological survey of western Tasmania. Telegraph established as link with Victoria.
- 1860 Population estimated as 89,821 persons.
- 1861 Succession of Colonel Thomas Gore Browne. Telegraph cable to Victoria failed.
- 1862 Promotion of scheme for a railway between Launceston and Deloraine.
- 1864 Arrival of first successfully transported salmon and trout ova.
- 1868 Visit by Alfred, Duke of Edinburgh. Bill passed making primary education compulsory.
- 1869 Succession of Charles Du Cane. Death of William Lanne, thought to be last male full-blood Aboriginal. Death of Sir Richard Dry. New cable laid to Victoria.
- 1870 Withdrawal of remaining Imperial troops.
- 1871 Opening of Launceston-Deloraine railway. Tin discovered at Mt Bischoff.
- 1872 Contract concluded for building Main Line Railway.
- 1873 Main Line Railway construction began. Start of economic recovery.
- 1874 Riots in Launceston in protest at rates levied for Launceston-Deloraine railway.
- 1875 Succession of Sir Frederick Weld.
- 1876 Race meetings established at Elwick. Gold nugget worth \$12,200 found at Nine Mile Spring. Death of Trugannini, thought to be last female full-blood Aboriginal. Main Line Railway opened for traffic.



Great Lake—looking south from the Lake Highway



The Ross Bridge at Ross

- 1877 Port Arthur closed down as a penal settlement.
- 1878 Increased activity in exploration of West Coast.
- 1879 Settlement of constitutional issue known as the 'Hunt Case'. Rich lode of tin discovered at Mt Heemskirk.
- 1880 First telephone in Tasmania with line from Hobart to Mount Nelson Signal Station.
- 1881 Purchase of three diamond drills by government for hire to private prospectors. Succession of Sir George Strahan.
- 1882 Increased prospecting on West Coast.
- 1883 Discovery of the 'Iron Blow' at Mt Lyell.
- 1885 Russian war scare followed by activity in improvement of defences. Formation of Mt Lyell Prospecting Association.
- 1886 Abye Douglas, Tasmanian Premier and President of the Federal Council, spoke in favour of Australian republicanism.
- 1887 Succession of Sir Robert Hamilton.
- 1890 Establishment of University of Tasmania.
- 1891 Collapse of Van Diemen's Land Bank; deep economic depression.
- 1892 Mt Lyell Mining Co. established.
- 1893 Succession of Viscount Gormanston.
- 1896 Establishment of Tattersalls Lottery by George Adams.
- 1897 Record shade temperature of 40.6° Celsius (105.5°F) at Hobart on 30 December.
- 1898 Serious bush fires. Polling four to one by Tasmanians in favour of Federation.
- 1899 Departure from Hobart of *Southern Cross* (Borchgrevinck) expedition to Antarctic.
- 1900 Departure of Tasmanian contingents to fight in the Boer War.
- 1901 Proclamation of the Commonwealth read. Polling for first elections to Federal Senate and House of Representatives. Succession of Sir Arthur Havelock.
- 1903 Celebration of 100 years' settlement cancelled because of smallpox epidemic in Launceston. Suffrage extended to women.
- 1904 Succession of Sir Gerald Strickland at reduced salary.
- 1905 Experiments in wireless telegraphy between Tasmania and the mainland and between Tasman Island and Hobart.
- 1906 Visit by Ramsay MacDonald (later British Prime Minister).
- 1907 New Public Library opened; built with gift from Andrew Carnegie.
- 1909 Succession of Sir Harry Barron. Potato crop wiped out by Irish blight. State's first Labor Government under John Earle.
- 1912 Disastrous fire at North Lyell Mine, Queenstown.
- 1913 Succession of Sir William Ellison-Macartney.
- 1914 First aeroplane flight in Tasmania. Departure of first Tasmanian contingent to fight in Great War. Second State Labor Government formed under John Earle. Formation of Hydro-Electric Department.
- 1915 Serious bushfires.
- 1917 Establishment of electrolytic zinc works at Risdon and of Snug carbide works.
- 1918 End of Great War.
- 1919 First export of frozen meat.
- 1920 Visit by Edward, Prince of Wales. Purchase of site for Cadbury's chocolate factory at Claremont.
- 1921 Population 213,780 persons (Census).
- 1922 Completion of Waddamana power station.

- 1924 First superphosphate manufactured by Electrolytic Zinc Co. at Risdon.
- 1925 Discovery of osmiridium fields at Adamsfield.
- 1927 Enquiry into proposed bridge over Derwent. Visit by Duke and Duchess of York.
- 1929 Serious floods throughout island. Establishment of automatic telephone system in Hobart. Beginning of economic depression.
- 1930 Export prices fell to half 1928 level. Australian pound devalued so that £ sterling equalled £A 1.25 (\$A 2.50).
- 1931 Depression continued—10 per cent cut in federal basic wage. Initiation of austere Premier's Plan. Conversion loan to reduce rate on internal federal debt by 22½ per cent. Census of population deferred due to economic crisis.
- 1933 Commonwealth Grants Commission appointed to enquire into affairs of claimant states.
- 1934 Labor Ministry of A. G. Ogilvie first in 35 years of continuous Labor Governments. Second phase of hydro-electric development commenced at Tarraleah and Butlers Gorge.
- 1936 Tasmania linked with Victoria by submarine telephone cable.
- 1937 Epidemic of poliomyelitis. Economic recovery evidenced by \$0.50 'prosperity' loading added to Commonwealth basic wage.
- 1938 Paper mill using native hardwoods established at Burnie. First turbines began operating at Tarraleah power station.
- 1939 Outbreak of World War II.
- 1940 Tasmanians sailed for Middle East with Australian 6th, 7th and 9th Divisions.
- 1941 Newsprint production began at Boyer on the Derwent. Tasmanians sailed for Malaya with Australian 8th Division.
- 1942 Uniform federal income tax commenced.
- 1943 The floating-arch Hobart Bridge opened for traffic.
- 1944 Pay-as-you-earn income taxation introduced from 1 July.
- 1945 End of World War II.
- 1946 Cessation of man-power controls. Rejection by Legislative Council of bill to grant Federal Government price control powers for three years. Crash of DC3 airliner at Seven Mile Beach with 25 deaths.
- 1947 Court action to stop bank nationalisation by Federal Government. Demobilisation of forces completed. 'Displaced persons' commenced arriving from Europe.
- 1948 Forty-hour week awarded to most workers from 1 January. Tasmanians voted 'No' almost two to one in referendum denying Federal Government power over prices and rents. Legislative Council's denial of supply forced dissolution of House of Assembly—Cosgrove ministry returned to power.
- 1949 Compulsory X-ray introduced in fight against tuberculosis. Clark Dam at Butlers Gorge completed. Theatre Royal purchased by the Government. Sterling devalued by 30.5 per cent and Australian pound similarly devalued.
- 1950 End of federal petrol rationing. Dissolution of House of Assembly granted by Governor and Cosgrove ministry returned to power. *Communist Party Dissolution Bill* passed by Federal Parliament.
- 1951 *Communist Party Dissolution Act* declared invalid by High Court. Double Dissolution of Federal Parliament. Referendum to give Commonwealth powers in regard to communism—'No' vote prevailed although Tasmanians expressed slight preference for 'Yes'.
- 1952 Single licensing authority established for hotels, clubs, etc. State free hospital scheme ceased. Rejection by Legislative Council of bill to give state aid to private schools.
- 1953 In September, Court abandoned system of quarterly adjustment of federal basic wage. State wages boards decided to follow federal court in suspension of quarterly basic wage adjustments.

- 1954 Royal visit by Queen. Menzies government re-elected. Bill passed to resolve deadlocks in House of Assembly. Foundation of the Metropolitan Transport Trust.
- 1955 Uranium ore discovered at Mt Balfour and Royal George. Bell Bay aluminium plant officially opened. Cosgrove ministry returned to power without effective majority. Australia's first capital city parking meters installed in Hobart. Trevallyn and Tungatinah schemes officially opened. Anti-Communist Labor Party (later D.L.P.) formed in State. Menzies government returned.
- 1956 State wages boards' restoration of 'cost-of-living' adjustments effective from 1 February. State Wages Boards again suspended cost-of-living adjustments. Sir Ronald Cross granted dissolution of House of Assembly. Labor Party returned to power in State. Official opening of E.Z. Co's sulphate of ammonia plant. Centenary of self-government celebrated.
- 1957 Legislative Council rejected bill giving aid to private schools. First space satellites—Sputniks I and II—seen over State. Centenary of Hobart's incorporation celebrated.
- 1958 Establishment of Rivers and Water Supply Commission. Mr Cosgrove succeeded by Mr Reece as Premier. Menzies government re-elected. Public Service Tribunal established as an industrial authority.
- 1959 First election to fill 35 seats in House of Assembly; Labor re-elected. New Australian Government system of grants reduced claimant States to two—Tasmania and Western Australia. *Princess of Tasmania* commenced roll-on roll-off ferry service Melbourne to Devonport.
- 1960 Liapootah power station commissioned. Zeehan-Strahan railway closed. Inland Fisheries Commission created. First Tasmanian telecast. Australian 'give way to the right' rule introduced.
- 1961 *William Holyman*, cargo container vessel, entered Bass Strait trade. Legislative Council rejected equal pay legislation. Menzies government re-elected.
- 1962 Catagunya turbines began producing electricity. State wages boards granted three weeks' annual leave. State subsidies announced for municipal fluoridation schemes. Closure of Mt Lyell Railway, Queenstown to Strahan.
- 1963 Abolition of State entertainments tax. Federal Court increased margins 10 per cent and granted three weeks' annual leave. Universities Commission recommended medical school for Tasmanian University. Menzies government returned with substantial majority.
- 1964 T.A.A. commenced intrastate air services. Labor re-elected at state elections. Federal Court reduced long service leave qualifying period from 20 to 15 years. Tasman Bridge opened for traffic and Hobart Bridge towed away. Hobart's water supply fluoridated. Glenorchy raised to city status.
- 1965 *Empress of Australia* sailed from Sydney on first voyage to Hobart. Provisional driving licences introduced. Dental nurse scheme for schools announced. D'Entrecasteaux scallop beds closed for 1965 season. New Shops Act extended Saturday morning closing to Hobart's eastern suburbs.
- 1966 Decimal currency introduced 14 February. Burnie-Launceston co-axial cable completed. Equal pay for certain State Public Service females. Breathalyser tests approved for use by police. Holt Liberal Government returned with record majority. S.T.D. extended to Tasmania.
- 1967 Bush fire disaster of 7 February resulted in 62 deaths and over 1,000 houses destroyed. Petition presented against proposed flooding of Lake Pedder as part of Gordon hydro-electric scheme. Federal Arbitration Commission abolished basic wage and substituted total wage concept; awarded \$1.00 increase to males and females. Mt Cleveland tin mining town of Luina completed. Tasmanian state wages boards retained basic wage in their awards. H.E.C. water reserves only 16 per cent of normal; introduction of daylight saving and power rationing to conserve power.
- 1968 Royal Hobart Hospital acquired State's first artificial kidney machine. H.E.C. Repulse dam on Lower Derwent completed. Asthma survey of school children undertaken. Federal dairy industry reconstruction announced. Batman Bridge across lower Tamar

- opened. Federal Government subsidy for apples and pears exported to U.K. and other countries which devalued their currency in 1967. Full adult suffrage for Legislative Council elections from 1 July 1969. Capital punishment abolished.
- 1969 Parangana Dam (Mersey-Forth scheme) completed. North-West General Hospital opened at Burnie. Tamar Regional Valley Planning Authority formed. State election resulted in 17 A.L.P., 17 Liberals, one Centre Party (Mr Lyons). Mr Lyons combined with Liberals to form coalition government; ended 35-year Labor rule in Tasmania. Full Bench of Federal Arbitration Commission granted equal pay to females performing equal work; female salaries to be raised to male salaries in stages. U.S. astronaut took man's first step on the moon on 21 July. Launceston Teachers College officially opened. Copper smelter at Mt Lyell closed; concentrate sent to Japan and Port Pirie (S.A.) for treatment.
- 1970 \$1m bulk cargo berth completed at port of Burnie. Taroona Marine Research Laboratory officially opened. Broadband telecommunications link established between Smithton and King Island (provided telephone and television relay facilities). First pyrites railed from Rosebery to Burnie sulphuric acid plant. Work commenced at Selfs Point on second stage of Hobart's sewerage treatment scheme. E.Z. Co. to establish \$6.3m residue treatment plant. No mining exploration licences to be granted for Macquarie Island (flora and fauna reserve). Royal visit. Parliament legislated to introduce permanent daylight saving from last Sunday of October to second Sunday in March. Microwave telecommunication link with W.A. completed allowing direct television relays across the continent; Tasmanians able to make S.T.D. calls to Perth W.A. First shipment of export containers from Hobart on feeder ships to link up with Australia-Europe container service. First double kidney transplant performed at Royal Hobart Hospital. State premiers accepted Tasmanian formula for reimbursement in lieu of receipts duty.
- 1971 Centenary celebrations for Tasmanian railways. University of Tasmania to limit future student intakes. Tasmania to participate in Federal rural reconstruction scheme. State Government to meet full costs of freeways and expressways; local government authorities to save considerable sums previously spent as their share of the costs. Port of Launceston Authority's current port improvement scheme completed. \$25m A.P.P.M. Ltd Wesley Vale paper plant opened. \$9m expansion programme at Comalco (Bell Bay) completed; production capacity raised to 94,000 tonnes per annum making it the largest aluminium smelting plant in Australia. Currie (King Island) \$581,000 hospital complex commenced. Australia's oldest telephone trunk exchange, New Norfolk, closed. End of shipping strike; A.C.T.U. to give Tasmania special consideration in event of future shipping strikes. Victoria Bridge at Devonport officially opened. Census of Population—Tasmania 390,413 persons.
- 1972 'On-the-spot' traffic tickets introduced. Argentine ant infestation discovered at Launceston. K. O. Lyons resigned cabinet portfolios and ended Liberal-Centre Party Coalition. House of Assembly elections—Labor returned with landslide victory (A.L.P., 21; Liberal Party, 14). A.P.P.M. Long Reach woodchip plant commenced production. National Wage Case—total wage increased by \$2.00 and minimum wage for adult males by \$4.70 per week. English red fox (prohibited animal) caught in rabbit trap at Riverside (western shore of Tamar). Waterside workers were awarded 35-hour week. House of Assembly passed a Bill lowering the age of majority to 18 years. On 24 June record low temperatures recorded throughout the State; Hobart recorded temperature of -2.8°C . A.N.L. vessel *Princess of Tasmania*, which inaugurated roll-on roll-off ferry service to Tasmania in 1959, made her final trip to Tasmania. The Victorian Government banned sale of flake—seriously affected Tasmanian shark fishermen. C.S.I.R.O. reported excessive levels of zinc in oysters from Ralphs Bay at the entrance to the Derwent. Mt Lyell Mining and Railway Company Ltd fired last shot at its West Lyell Open-cut Mine—ended 37-year life of the open-cut. (Company returned to underground mining for most of its ore.) State Government announced cigarette and tobacco tax. King Islands' Naracoopa rutile mine re-opened by Buka Minerals (N.L.). Australian Government sponsored anti-smoking campaign commenced. Government announced intention to introduce off-course T.A.B. Federal elections—A.L.P. returned

to power (after 23 years as the Federal Opposition). Representation in the House of Representatives was: A.L.P., 67; Liberal Party, 38; Country Party, 20. Tasmania returned five A.L.P. members. Fossil of 300 million years old dragon fly discovered in Hellyer Gorge (west coast area). National Wage Case decision handed down: (i) Commission agreed to apply the principle of equal pay for work of equal value in all of its awards; (ii) no increases to the total or minimum wages granted—further considerations of these aspects deferred until March 1973. Trial dumping at sea of jarosite waste from Electrolytic Zinc Company's Risdon plant carried out.

- 1973 The Electrolytic Zinc Company Pty Ltd received permission to dump jarosite waste at sea. Federal Government withdrew its offer to finance alternative to the H.E.C. scheme for Lake Pedder. First train travelled the Bell Bay rail link. The first casino in Australia—Wrest Point—officially opened. Argentine ant infestation discovered at Ulverstone. Age of Majority Bill passed by Parliament giving vote to 18 year olds. The \$121m Mersey-Forth H.E.C. scheme officially opened. Work began on \$1m Alanvale Matriculation College, Launceston. \$165,000 psychiatric centre completed at Latrobe. Committee appointed to investigate Tasmanian liquor laws. National Wage Case—minimum wage lifted to \$60 and weekly award wage rates increased by \$2.50 plus two per cent. No commercial quantities of scallops located in Fisheries Division survey of D'Entrecasteaux Channel. State government to investigate the feasibility of building a second bridge across the Derwent near Hobart. Federal Budget set aside \$0.5m for planning and development of the Tamar Valley area. State government to spend \$558,000 on Tamar Valley road improvements. Storeys Creek tin mine closed down. Australian dollar revalued upwards by five per cent. Contract worth \$3m let for the first stage of the Burnie Matriculation College. Heavy concentrations of zinc, copper and cadmium found in oysters collected from Derwent and Tamar estuary areas. Tasmanian Professional Fishermen's Association conference expressed grave concern over industrial pollution of Bass Strait waters. Feasibility study commenced into proposed pig-iron industry for north-west coast. Two-up legalised at Hobart casino. The State government bought the 350 ton *Blythe Star* for the King and Flinders Islands shipping runs. A Japanese company—Nippa Light Metal Co Ltd—to investigate the possibility of establishing an aluminium refining plant in Tasmania. A trout farm with an ultimate annual output of 250,000 fish established at Huonville. The Transport Commission's *Blythe Star* lost at sea. Seven survivors located at Deep Glen Bay on the Tasman Peninsula after they had drifted eight days on a life raft. Two of the 10-man crew died when the vessel sank and a third died shortly after the life raft reached shore. Preliminary work began on H.E.C. Pieman Scheme. Comprehensive survey ordered of parts of Bass Strait to determine the effects of calcine waste dumping by North-West Acid Pty Ltd (Burnie). The Federal government made a \$95,000 grant for restoration of Port Arthur convict settlement site. Comalco Ltd announced cessation of alumina production at Bell Bay; production of aluminium powder and paste to be doubled. Tasmania voted in line with other Australian states on prices and incomes referendums—'No' to both. Alginates (Australia) Ltd closed down its East Coast seaweed harvesting and processing operation.

Chapter 2

PHYSICAL ENVIRONMENT

GENERAL DESCRIPTION

Location and Area

The State of Tasmania is a group of islands lying south of the south-east corner of the Australian mainland; the major island is called Tasmania and the more important of the lesser islands include King, Flinders and Bruny. Roughly shield shaped with the greatest breadth in the north, Tasmania extends from $40^{\circ} 38'$ to $43^{\circ} 39'$ south latitude and from $144^{\circ} 36'$ to $148^{\circ} 23'$ east longitude. The coastline is bounded by the Indian Ocean on the west and the Pacific Ocean on the east while Bass Strait separates the island from the Australian mainland by approximately 240 kilometres. Macquarie Island, a part of the State, is situated in 54° south latitude and is bound by the Southern Ocean.

The area of the whole State, including the lesser islands, is 68,331 square kilometres or about 0.9 per cent of the total area of Australia (7,686,854 square kilometres); it is just under one-third the size of Victoria, the smallest mainland state.

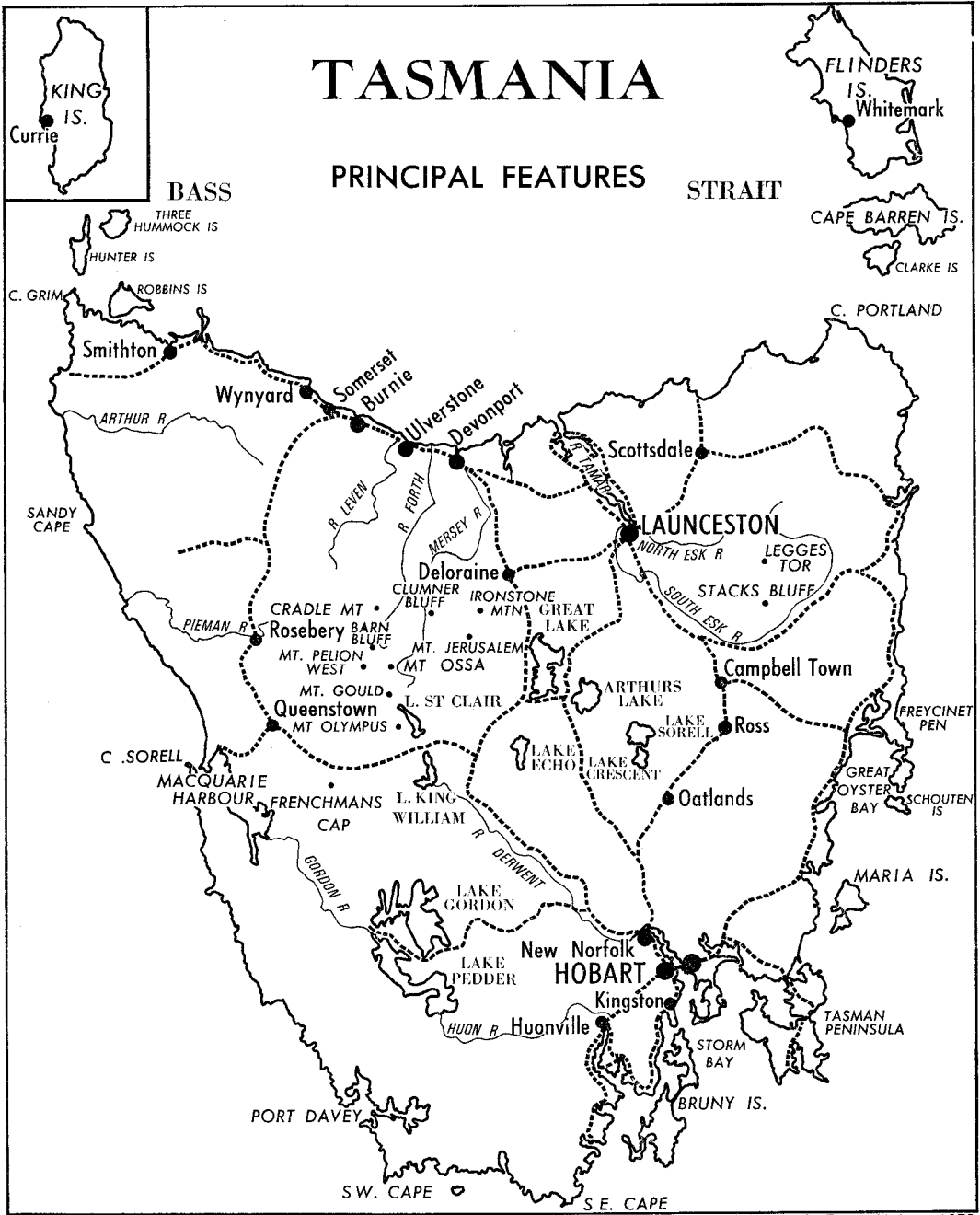
Australia, extending as it does well north of the Tropic of Capricorn, and with much of its area in the zone of the sub-tropical anti-cyclones, is basically a warm, dry continent. Tasmania is in the temperate zone and practically the whole island is well watered with no marked seasonal concentration; there are no deserts or drought areas as found extensively on the adjacent continent. Because Tasmania is the most southern state, there is a tendency to think of it as being close to the Antarctic but its latitude is matched, in the northern hemisphere, by that of Madrid (Spain) and Pittsburgh (U.S.A.). In addition, as Tasmania is an island, it is sheltered from the extremes of heat and cold experienced in these two centres. The effect of its insular position is illustrated by the variation between summer and winter mean temperatures in coastal towns—this rarely exceeds 8° Celsius. Comparing Hobart (Tasmania) with Melbourne (Victoria), mean maxima are some 3°C warmer and mean minima 1.5°C warmer in the Victorian capital.

Apart from the Great Dividing Range in the east, Australia is predominantly a land of low plateaux and plains with little relief. By way of contrast, Tasmania could legitimately be called the island of mountains, since it has the largest proportion of high country to its total area, compared with the other states. The distinctive feature of the island is not so much the height of the mountains—few exceed 1,500 metres—but rather the frequency with which they occur. The British Admiralty Pilot Book describes Tasmania as 'probably the most thoroughly mountainous island on the globe'.

Population Distribution

With a population of about 396,000, Tasmania is still thinly populated although its density of six persons per square kilometre is exceeded only by Victoria among the Australian states. Asian comparisons are Japan, 280 persons per square kilometre; Indonesia, 65; and People's Republic of China, 77.

A marked characteristic of the mainland states of Australia is the very high concentration of population in their respective metropolitan areas, Brisbane providing the only example where this concentration falls below 50 per cent of the state's total population. In contrast, the Tasmanian population is concentrated in two main areas: (i) Urban Hobart, with about 34 per cent; and (ii) Urban Launceston with about 16 per cent. This deviation from an Australian



pattern is partly explained by the relative proximity of Launceston to the principal mainland markets. However, terrain and climate have also had a large influence on the distribution of the State's population. A convenient way to summarise, in approximate terms, the present pattern of settlement is to imagine three circles of 40 kilometres radius centred on Hobart (representing the south-east), Launceston (the north) and Ulverstone (the north-west): (i) with Hobart as centre, 45 per cent of the Tasmanian population is located within the 40 kilometre circle; (ii) with Launceston as centre, 21 per cent; (iii) with Ulverstone, 18 per cent. Since all circles are exclusive of each other, these three defined areas together contain more than 84 per cent of the State's population and this fact justifies the generalisation that the main settlement is in the south-east, the north and the north-west.

Principal Physical Features

The following table lists the principal mountains, lakes and rivers of Tasmania (for their location see the previous map):

Principal Physical Features

MOUNTAINS			
Name	Height (metres)	Name	Height (metres)
Mt Ossa	1,617	Stacks Bluff	1,527
Legges Tor	1,573	Mt Gould	1,491
Barn Bluff	1,559	Mt Jerusalem	1,458
Mt Pelion West	1,554	Mt Pelion East	1,451
Cradle Mountain	1,545	Clumner Bluff	1,449

LAKES			
Name	Area (square kilometres)	Name	Area (square kilometres)
Lake Gordon (a)	272	Lake King William (a)	41
Lake Pedder (b)	241	Lake Echo (c)	41
Great Lake (c)	158	Lake St Clair	28
Arthurs Lake (c)	65	Lake Augusta (c)	21

RIVERS			
Name	Length (kilometres)	Name	Length (kilometres)
Derwent	148	Huon	121
South Esk (d)	145	Arthur	113
Gordon	129	Pieman	106

(a) Man-made.

(b) Man-made—inundated the much smaller natural Lake Pedder.

(c) Natural lake enlarged by dam(s).

(d) From source to confluence with North Esk; at this point the river becomes known as the Tamar. If the Tamar is included in the length of the South Esk a further 56 km is added to its length.

PHYSIOGRAPHY

Introduction

Tasmania is an island of mountains and is unique among Australian states in being predominantly influenced by polar maritime air masses. From the point of view of settlement and development, these two factors have combined to create assets against which must be weighed certain liabilities. The island, a mere 290 kilometres from north to south and 305 kilometres from east to west, has a wide variety of mountains, plateaux and plains, of rivers, lakes and tarns, of forest, moorland and grassland, of towns, farms and uninhabited (and virtually

unexplored) country. The temperate maritime climate partly explains Tasmania being called the most English of all states but other factors operate to heighten the comparison—the pattern of agricultural settlement with orchards, hedges and hopfields; the lake country; the early freestone architecture still common in the east; the roads and villages dotted with oaks, elms and poplars. Nature and the early settlers have provided the assets for a flourishing tourist industry which is currently being vigorously developed. Assured rainfall and mountain storages have also given birth to massive development of hydro-electric power and, indirectly, to industry. The growth of forests, too, is promoted by suitable rainfall and temperature, and this forms the basis for industries such as timber-milling, newsprint and other paper production and wood-chipping.

The mountainous nature of the island is confirmed by survey which shows six features exceeding 1,500 metres, 28 exceeding 1,220 metres and a further 28 exceeding 915 metres. The highest mountain is Mt Ossa (1,617 metres) some 16 kilometres north-west of Lake St Clair, and north-west again from this peak lie Mt Pelion West (1,554 metres), Barn Bluff (1,559 metres) and Cradle Mountain (1,545 metres); the furthest distance, 24 kilometres, is from Mt Ossa to Cradle Mountain. In the Ben Lomond area, the principal features are Legges Tor (1,573 metres) and about 10 kilometres south, Stacks Bluff (1,527 metres). Each of these mountainous regions and a number of others have been set aside as national parks, two of which, Ben Lomond and Mt Field, are renowned for winter sport.

Water Resources and Rainfall

Fresh-water navigation has played very little part in Tasmania's development, the rivers being too fast-running, shallow or short. Of the four major ports, three are located on tidal estuaries—Hobart on the Derwent; Launceston on the Tamar; Devonport on the Mersey (Burnie has built a port, on the open sea, protected by breakwaters). Rivers, however, are significant for three reasons: (i) use of headwaters for electricity generation; (ii) domestic and industrial water supply; (iii) irrigation. Hobart for example draws much of its water supply direct from the upper Derwent River without use of a dam and the flow is adequate to serve a population at least 10 times greater than that at present. The development of hydro-electric power has been based on full utilisation of the sources and tributaries of the Derwent with a chain of power houses stretching from Poatina on the Great Lake to Meadowbank only 51 kilometres from Hobart. At Launceston, too, the waters of the South Esk have been harnessed at Trevallyn. In the north-west, the Mersey-Forth scheme exploits the Fisher, Mersey, Wilnot and Forth Rivers in a development spread over approximately 2,070 square kilometres. This does not exhaust the possibility of future development, as work on the Gordon-Serpentine system in the south-west is proceeding, preliminary work on the Pieman River system has commenced, and the Franklin and King Rivers are considered to have substantial potential for power development.

To obtain a true perspective, it should be appreciated that large areas of the State cannot be cultivated because there is too much rainfall (in contrast with the mainland of Australia where often the reverse situation applies). Further, the mountainous terrain and accompanying high-land climate have restricted farming to relatively small areas of suitable country, mainly river valleys, coastal plains and the lower plateaux. In 1973, farm statistics showed that 37.9 per cent of the State's area was occupied by rural holdings. Only 3.1 per cent of the area of rural holdings was under crop and a further 33.0 under sown pasture. The remaining 63.9 per cent of rural holdings included bush runs, uncleared scrub or possibly land unsuitable for any rural purpose at all. A high proportion of the State's area not included in rural holdings is composed of forests, national parks and lakes.

Physiographic Regions

To explain the pattern of settlement, it is necessary to isolate the various physiographic regions of the State as follows:

Central Plateau: The main feature is a relatively undissected, dolerite-capped plateau sloping generally south-eastward from an average level of 1,065 metres in the north to 610 metres in the south, and drained almost wholly by the Derwent system. The northern and eastern boundaries

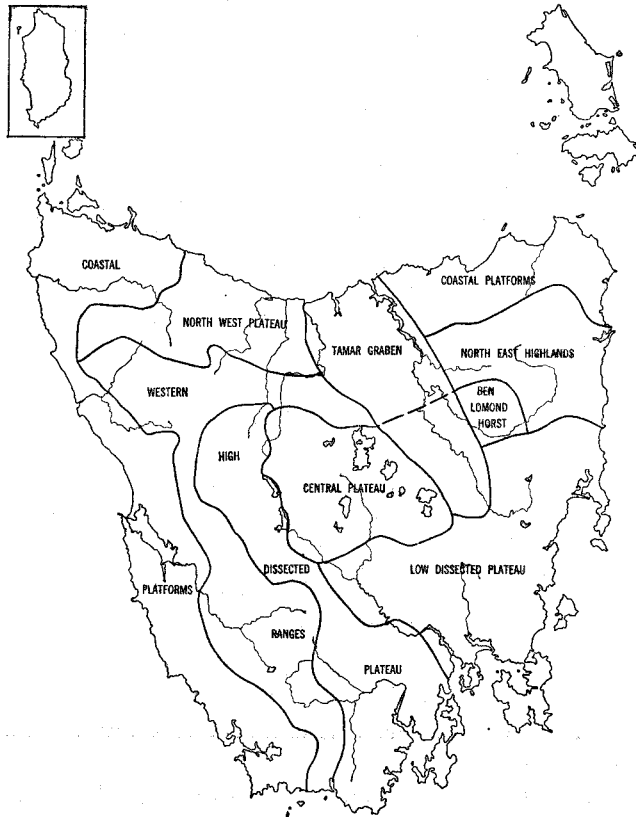
of the Plateau are the Great Western Tiers (paradoxically named since they lie in the central north of the island). This is known as the lake country of the island and is the chief source of hydro-electric power.

High Dissected Plateau: West of Lake St Clair, dolerite caps steeply-tilted sediments and the plateau is much dissected; it comprises a series of peaks and broken ridges. The coastlands in the extreme south of the region are rugged but in the D'Entrecasteaux Channel and Huon River areas, narrow coastal belts have been devoted to specialised agriculture.

Western Ranges: The high dissected plateau is bound by a mountainous series of ranges running parallel to the west coast and in this region are located the State's principal mines. The south of the region is completely uninhabited except for construction workers on the Gordon power scheme.

Western Coastal Platforms: Throughout almost the entire length of the west coast, an up-lifted and much dissected peneplain slopes westward from about 275 metres to end abruptly in cliffs more than 30 metres high. In the south of this region, superhumid button grass plains predominate, and the area is uninhabited. On the coastal plain south of the Arthur River, however, dairy cattle are wintered on agistment runs, while north of the river dairying begins to appear and swamps formed by recent emergence have been cleared for farming.

North-West Plateau: North of the Western Ranges lies a plateau averaging nearly 610 metres and important mainly for forestry; the coastlands derive mainly from basalt, giving rise to intensive mixed farming based on dairying, potatoes and crops for canning and freezing, such as peas and beans.



The above regions derive from a classification by J. L. Davies, M.A., Ph.D., University of Tasmania)

Tamar Graben: This graben (rift valley) is the largest plain and the leading agricultural and pastoral district in the State; it ends in the drowned inlets of the Tamar and Mersey estuaries and Port Sorell in the north.

North-East Coastal Platforms: This region consists of undulating lowland but the soils are acidic and the land is used only for grazing.

North-East Highlands and Ben Lomond Horst: This region comprises mostly uplifted remnants of old fold mountains dominated by the 1,525 metre dolerite-capped plateau horst of Ben Lomond, an outlier of the Central Plateau. Here agriculture is largely confined to small basalt-derived basins. Some minerals are worked.

Low Dissected Plateau: In the south-east lies a low dissected dolerite plateau averaging perhaps 365 metres and used mainly for grazing. The northern coastlands of this region are narrow and also devoted to sheep, but the southern coastland is important for its specialised agriculture. At the extreme south of the region is the drowned estuary of the Derwent and the Tasman and Forestier Peninsulas.

DESCRIPTION OF STATISTICAL DIVISIONS

Introduction

Earlier in this chapter the State of Tasmania was briefly described by analysing its terrain in terms of physiographic regions. For statistical purposes, the State is also analysed in divisions but these do not necessarily coincide with physiographic regions, one reason being that the former are basically groupings of whole municipalities. The traditional Tasmanian statistical divisions, in use for over 50 years, were exposed to searching scrutiny in 1971 and the decision was taken to introduce a new structure, to be applied to statistics in respect of periods commencing on or after 1 July 1972.

History of Statistical Divisions

The grouping of administrative areas into divisions for statistical purposes can be found in annual volumes of the *Statistics of Tasmania* dating back to the nineteenth century. The administrative areas included: police districts; registration districts; electoral districts; and municipalities. The *Local Government Act 1906* provided a basis for the whole State coming under uniformly constituted local government and gradually the divisional grouping of administrative areas was confined, in official statistics, to municipalities.

In 1919, groupings appeared very similar to those still used in 1971; in some series Hobart, Launceston and Glenorchy were separately specified as components of an 'Urban Division' distinct from the region in which each was located.

The basis for these 1919 groupings can only be inferred since no specific criteria was specified in the records. The Western Division clearly combined the 'west coast' mining municipalities into one entity; the Southern seemed to be based on orcharding, small fruit and hop areas; while the South Eastern was allied more with pastoral and grazing areas. In short, the main determinant may well have been similarity of rural activity (with the Western Division a special case because of its mining activity).

After the 1966 population census, a new division was formed with the title Hobart Division, comparable with similar capital city divisions in other states; its boundaries were drawn wide enough to encompass the expected expansion of the inner urban area for the next 20 or 30 years. Apart from this, the broad divisional structure in 1971 was very much the same as it had been in 1919.

In 1972 a new statistical division structure, using the three principal urban centres of influence as a basis, was designed. The three urban centres and their area of influence were: (i) Hobart—south and south-east; (ii) Launceston—north and north-east; and (iii) Burnie-Devonport—north-west and west. The following divisional structure was then adopted: (i) with

Hobart as focus—Hobart and Southern Divisions; (ii) with Launceston as focus—Northern Division split into Tamar and North Eastern Sub-divisions; and (iii) with Burnie-Devonport as focus—Mersey-Lyell Division split into North Western and Western Sub-divisions.

For a detailed account of the reasons underlying the adoption of a new statistical division format, see the 1973 *Year Book*.

Outline of the Present Structure

The divisions in the new structure are as follows:

Hobart Division

This Division comprises Hobart and Glenorchy Cities, the Municipality of Clarence, and parts of four other municipalities: Brighton; Kingborough; New Norfolk; and Sorell. The Division is Tasmania's principal industrial region and the administrative focal point. The Hobart Division has boundaries drawn wide enough to contain the expected outward growth of the inner urban area for the next 20 or 30 years.

One important component of the Hobart Division is Urban Hobart, defined as the densely settled contiguous parts of the cities of Hobart and Glenorchy, and of the municipalities of Clarence and Kingborough. The boundaries of Urban Hobart and of the Hobart Division do not conform with borders defining local government areas. (The details of these boundaries are given in chapter 6 'Demography' under 'Population Centred on Hobart.')

A rough approximation of the area of the Hobart Division can be obtained by drawing the quadrilateral New Norfolk-Pontville-Carlton River Mouth-Snug.

Southern Division

Comprises the southern local government authority areas which have Hobart as their urban focus. Predominant activities include orcharding, sheep and cattle grazing, forestry and timber processing.

Northern Division

The Northern Division is the region with Launceston as its urban focus.

(i) *Tamar Sub-division*: This is the region dominated by the Tamar Valley. In the centre of this area is Launceston and its suburbs (known as Urban Launceston). This Sub-division includes several major manufacturing industries, port facilities of the northern region and agricultural, pastoral, dairying and forestry industries.

Urban Launceston is defined for statistical purposes as the City of Launceston plus the contiguous urban parts of the following municipalities: Lilydale, St Leonards, Evandale, Westbury and Beaconsfield.

(ii) *North Eastern Sub-division*: Comprises the outer seven municipalities of the Northern Division. Principal activities include agriculture, dairying, sheep and cattle grazing, forestry and some mining.

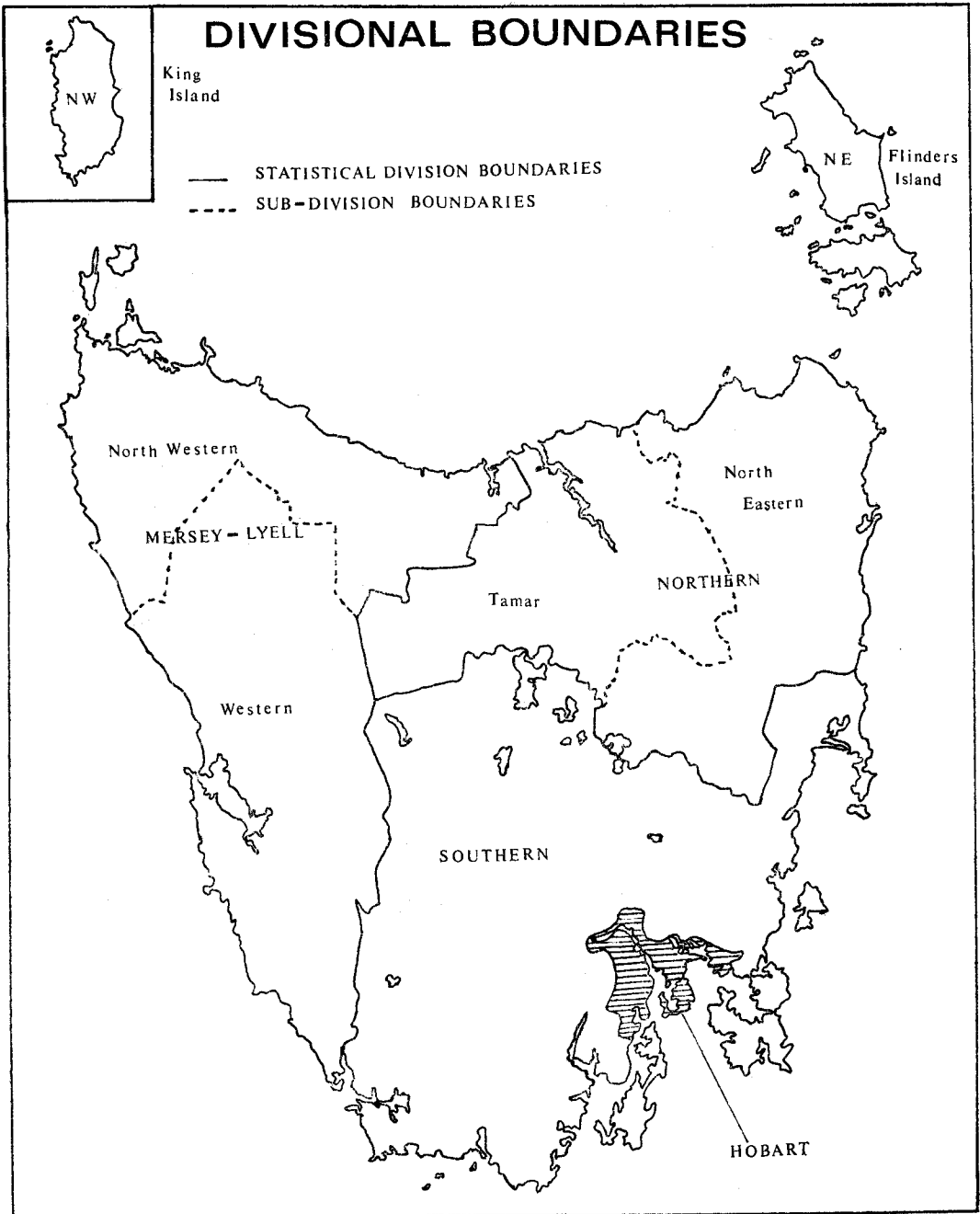
Mersey-Lyell Division

This Division encompasses the north-west and western portions of the State. The region has a twin urban focus of Burnie-Devonport.

(i) *North Western Sub-division*: Comprises the municipalities stretching along Bass Strait from Latrobe to Circular Head plus Kentish and King Island. The Sub-division includes several major manufacturing industries and is a principal agricultural, pastoral, dairying and forestry area for the State.

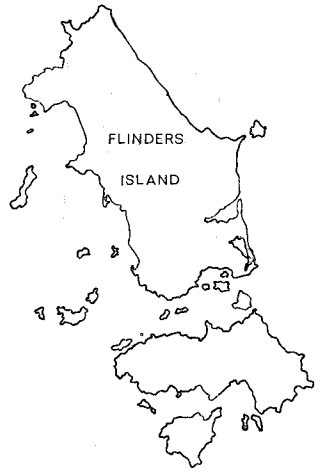
(ii) *Western Sub-division*: Contains Tasmania's western municipalities where mining activities predominate.

The following maps show: (i) statistical division and sub-division boundaries; (ii) local government authority components of statistical divisions.



HOBART AND SOUTHERN STATISTICAL DIVISIONS

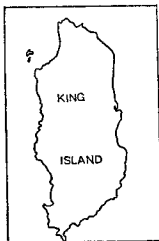




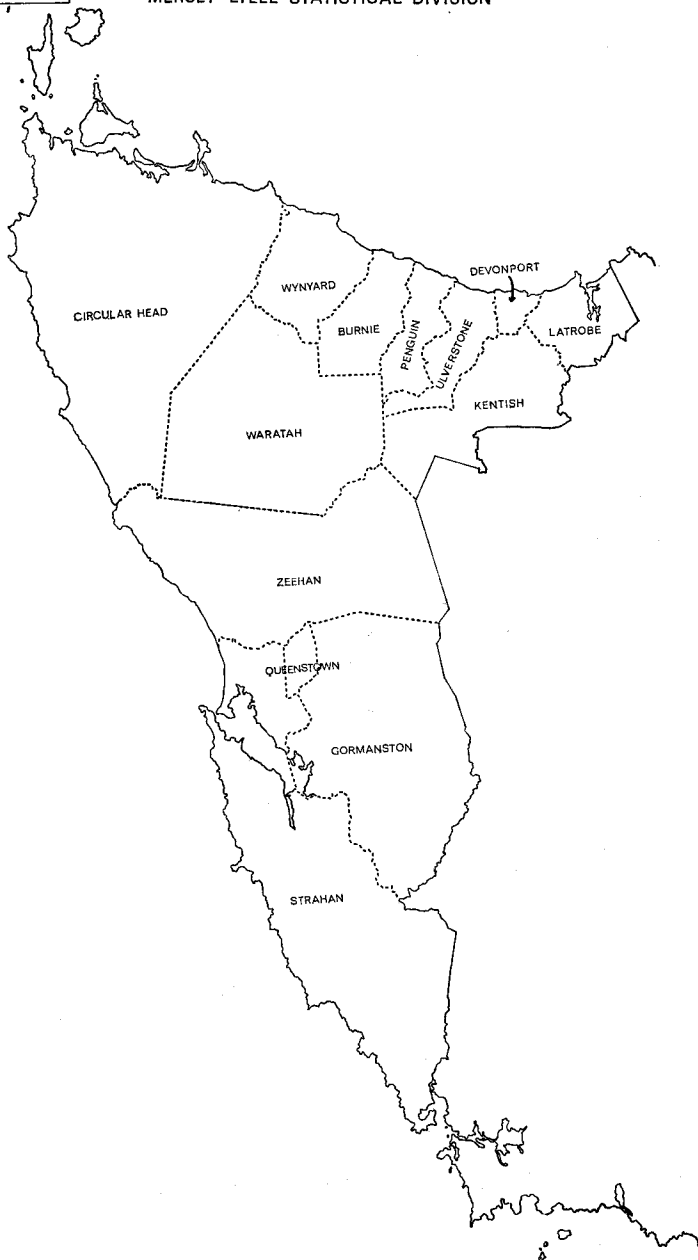
NORTHERN STATISTICAL DIVISION



Physical Environment



MERSEY-LYELL STATISTICAL DIVISION



ADMINISTRATION AND AREA OF STATE

Sovereignty

Tasmanian sovereignty covers an area bound by the approximate rectangle $39^{\circ} 12'$ to 45° south latitude and 143° to 150° east longitude.

Since the boundary line between Tasmanian and Victorian sovereignty is defined as $39^{\circ} 12'$ south latitude, numerous Bass Strait islands, the chief being the Furneaux group, King Island and the Hogan, Curtis and Kent groups, are part of Tasmania. In effect some Tasmanian territory (Rodondo and West Moncoeur Islands) is located only 13 to 16 kilometres from the Victorian coast.

The proclamation of $39^{\circ} 12'$ south latitude as the northern boundary of Tasmanian sovereignty dates from 1825 when Van Diemen's Land became a colony distinct from New South Wales. Subsequent State mining legislation has followed the limits of the 1825 proclamation and Tasmania claims mining jurisdiction over Bass Strait as far north as $39^{\circ} 12'$ south latitude.

Macquarie Island, site of an Antarctic research station and also part of the State of Tasmania, is situated in 54° south latitude and its area is included in Esperance, a State coastal municipality.

Area of Major and Minor Islands

The official area of the State of Tasmania (based on a 1963 survey) is 68,331 square kilometres (6,833,000 hectares).

The State consists of 49 local government areas (cities and municipalities). Several islands are included in the area of the State; some of these islands, either singly or as a group, form complete municipalities (e.g. Bruny, Flinders) while the others comprise parts of municipalities centred on the main island of the State. The following table shows the area of these islands and the municipalities to which they belong:

Area of Islands

Island	Area		Municipality
	Square kilometres	Hectares	
Bruny	362.10	36,210	Bruny (a)
King	1,099.19	109,919	King Island (a)
Flinders	1,374.30	137,431	Flinders (a)
Prime Seal	9.71	971	
Badger	10.13	1,012	
Vansittart	6.06	607	
Cape Barren	445.14	44,515	
Clarke	113.31	11,331	Circular Head
Three Hummock	69.59	6,960	
Hunter	73.66	7,365	
Robbins	101.17	10,117	
Maria	100.78	10,077	
Schouten	34.40	3,440	Spring Bay
Macquarie	123.44	12,343	Glamorgan
			Esperance
Total islands	3,922.95	392,298	
Mainland Tasmania	64,408.13	6,440,810	
Total Tasmania	68,331.08	6,833,108	

(a) Island municipality.

Area of Municipalities and Cities

In the table that follows, the measured area of the State (6,833,108 hectares or 68,331.08 square kilometres) has been rounded, in total, to the nearest 1,000 hectares and to the nearest square kilometre. The corrections necessary to reconcile to the rounded totals have been made by adjusting the area of Esperance, the largest municipality. Where municipal boundaries lie in the sea or an estuary these legal limits have been disregarded so that the stated area relates to a physical boundary (i.e. the coastline). However, the areas shown include all smaller islands which form part of the State.

Area of Statistical Divisions, Sub-divisions and Local Government Areas

Local government area (statistical division and sub division in bold type)	Area		Local government area (statistical division and sub-division in bold type)	Area	
	Hectares	Square kilometres		Hectares	Square kilometres
Hobart (a) (H) ..	7,984	79.84	Campbell Town.. ..	143,548	1,435.48
Glenorchy (a) (H) ..	11,976	119.76	Fingal	273,144	2,731.43
Clarence (H) ..	25,121	251.20	Flinders	199,152	1,991.52
Brighton (H) (S) ..	44,072	440.71	Portland	158,144	1,581.45
Kingborough (H) (S) ..	35,484	354.83	Ringarooma	163,185	1,631.85
New Norfolk (H) (S) ..	131,572	1,315.71	Ross	124,031	1,240.32
Sorell (H) (S) ..	78,185	781.84	Scottsdale	129,153	1,291.53
Bothwell (S) ..	260,805	2,608.04	North Eastern ..	1,190,357	11,903.58
Bruny (S) ..	36,210	362.08	NORTHERN ..	2,060,635	20,606.34
Esperance (b) (S) ..	618,572	6,185.76	Burnie	61,774	617.74
Glamorgan (S) ..	153,508	1,535.09	Circular Head	491,731	4,917.30
Green Ponds (S) ..	41,613	416.13	Devonport	11,613	116.14
Hamilton (S) ..	584,957	5,849.57	Kentish	118,749	1,187.48
Huon (S) ..	77,419	774.20	King Island	109,919	1,099.19
Oatlands (S) ..	153,991	1,539.90	Latrobe	54,879	548.79
Port Cygnet (S) ..	24,032	240.33	Penguin	43,185	431.85
Richmond (S) ..	56,814	568.14	Ulverstone	51,129	511.29
Spring Bay (S) ..	112,177	1,121.78	Wynyard	81,250	812.51
Tasman (S) ..	47,984	479.85	North Western ..	1,024,229	10,242.29
HOBART	93,843	938.43	Gormanston	287,176	2,871.76
SOUTHERN ..	2,405,633	24,086.33	Queenstown	14,153	141.54
Launceston (a)	2,822	28.23	Strahan	373,264	3,732.64
Beaconsfield	63,790	637.89	Waratah	270,886	2,708.87
Deloraine	291,652	2,916.51	Zeehan	300,281	3,002.81
Evandale	98,951	989.51	Western	1,245,760	12,457.61
George Town	65,403	654.02	MERSEY-LYELL ..	2,269,989	22,699.90
Lilydale	68,387	683.86	TASMANIA (c) ..	6,833,000	68,331.00
Longford	99,757	997.59			
St Leonards	89,113	891.11			
Westbury	90,403	904.04			
Tamar	870,278	8,702.76			

(a) City.

(b) Measured area is 6,185.86 square kilometres (618,586 hectares).

(c) Measured area is 68,331.08 square kilometres (6,833,108 hectares).

At the 1966 Population Census, new definitions based on high population density were employed to fix the boundaries of urban areas. The two major centres in the State, with boundaries conforming to the definitions, were: (i) Urban Hobart (approximately 105 square kilometres); and (ii) Urban Launceston (approximately 70 square kilometres). (See chapter 6 for definition of these areas.)

CLIMATE OF TASMANIA

(The following section was prepared by the Bureau of Meteorology.)

Introduction

Since Tasmania lies between 40° and $43\frac{1}{2}^{\circ}$ south of the Equator and is an island with no point more than 115 kilometres from the sea, its climate is classified as temperate maritime. On the coast the daily temperature range averages about 5° Celsius, but inland the range is almost doubled, indicating a slight continental effect.

The combination of mountainous terrain in the western half of the State and prevailing westerly winds produces a marked west-east variation of climate, and especially of rainfall.

Summers are mild and characterised by greatly lengthened days. The sun reaches a maximum elevation of $70-73^{\circ}$ in mid-summer, giving 15 hours of daylight in the north and $15\frac{1}{2}$ hours in the south. In mid-winter, the sun's elevation does not exceed $20-23^{\circ}$, and the shortest day consists of $9\frac{1}{4}$ hours of daylight in the north, falling to slightly under nine hours in the south.

In winter, westerly winds reach their greatest strength and persistence, causing a distinct maximum in rainfall distribution in the west and north-west. In the east and south-east, rainfall is more evenly distributed over the year. Coastal areas of Tasmania enjoy relatively mild winters as compared with Boston (U.S.A.) which is about the same latitude north.

Winds

The prevailing winds over most of the island are north-west to south-west, with greatest strength and persistence during late winter. Speed and direction vary with the eastward passage of high and low pressure systems. In the summer months, when westerlies are weak, afternoon sea-breezes become the predominant wind in coastal areas. Occasional periods of north-east to south-east winds occur.

The highest average wind speeds are associated with extensive deep depressions over ocean areas south of Tasmania.

Temperature

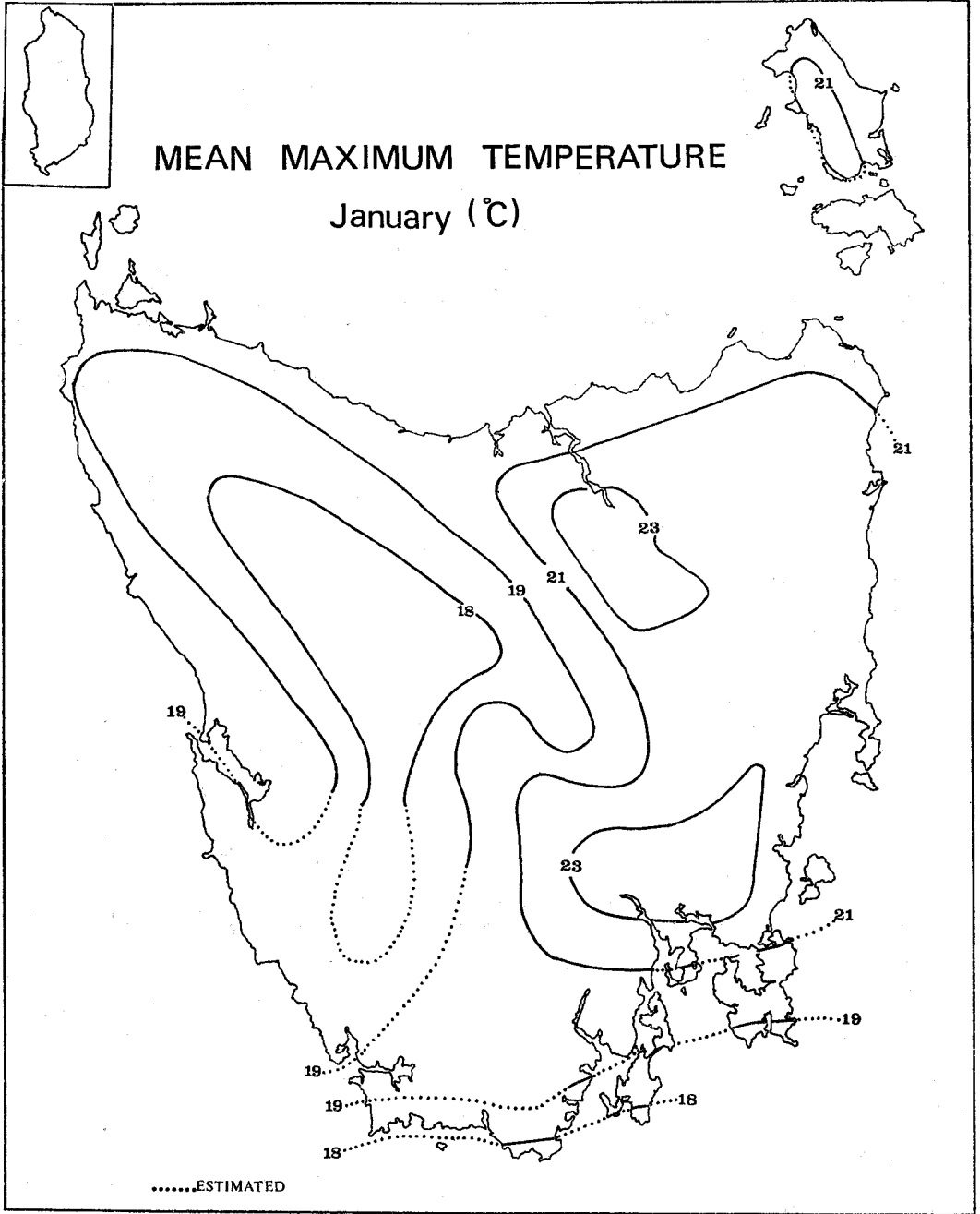
Sea level temperatures are reduced by approximately 1°C for each 100 metres of altitude. Hence in a mountainous island like Tasmania the isotherms (lines of equal temperature drawn on a map) will be much influenced by topography. Greater cloud cover over the western half, a result of the persistent westerlies, further decreases day-time temperatures in the west, while the Föhn effect warms and dries the westerly airstreams as they descend to the Midlands, the east coast and south-east districts.

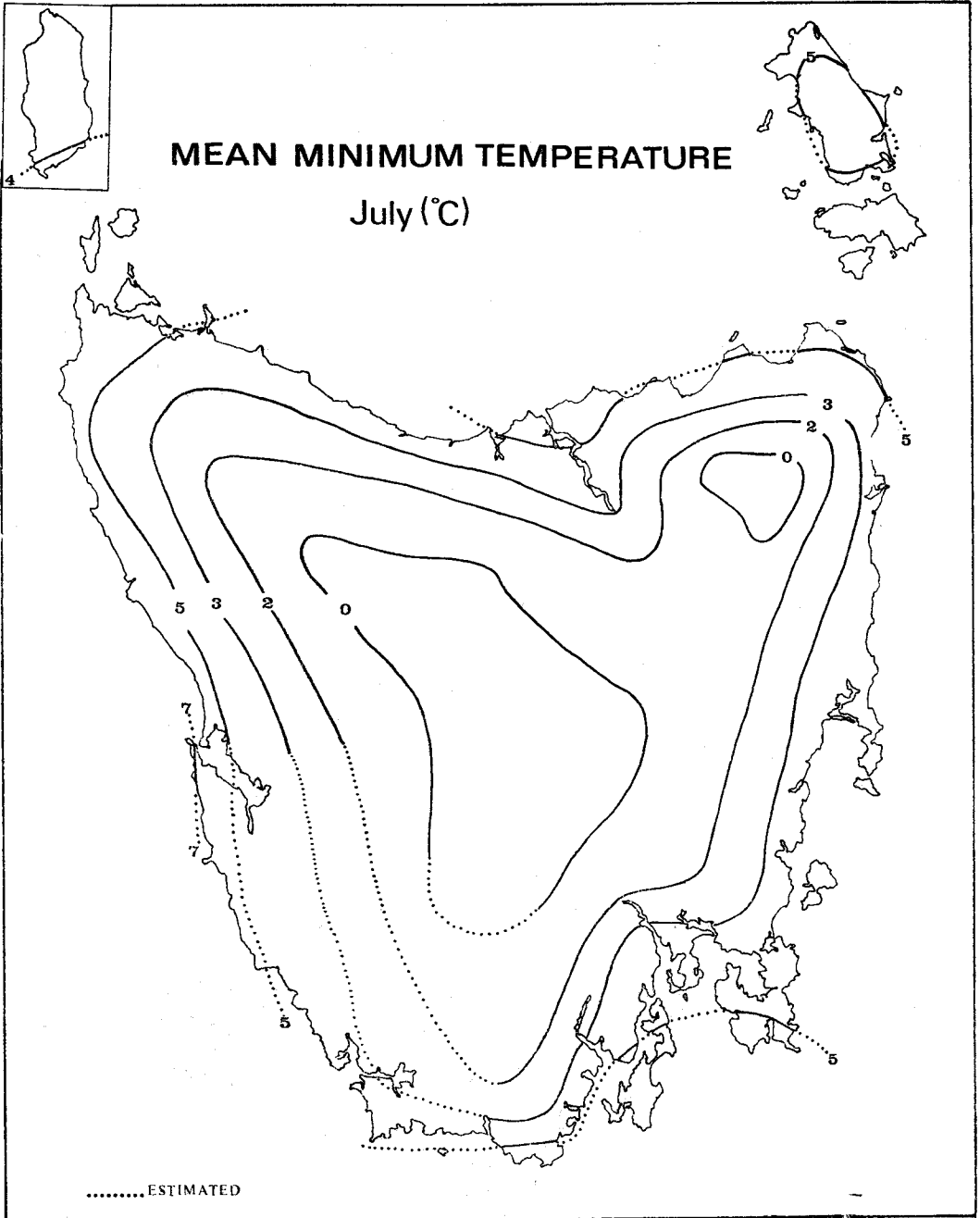
Frosts are affected markedly by topography, the valleys acting as natural channels for the drainage of cold air at night. Widespread severe frosts are experienced in winter on the Central Plateau and in upland valleys. Inland centres below 300 metres are virtually frost-free only in summer, while the north coast, the east and south-east have few frosts after early October. Above 300 metres there is no frost-free month.

Tasmania only occasionally experiences the extremes of temperature common to the other states. High temperatures recorded in the east and south-east of Tasmania generally occur on the last day of a warm spell during which a dry air mass of mainland origin is advected over this State, from a direction between north and north-west. Some cooling in the lower air layers over the waters of Bass Strait prevents the northern coast from reaching the higher temperatures that are experienced in the south under these conditions. The highest temperature recorded in Tasmania was 40.8°C at Bushy Park in December 1945. The lowest temperature recorded was -12.8°C at Otlands in May 1902.

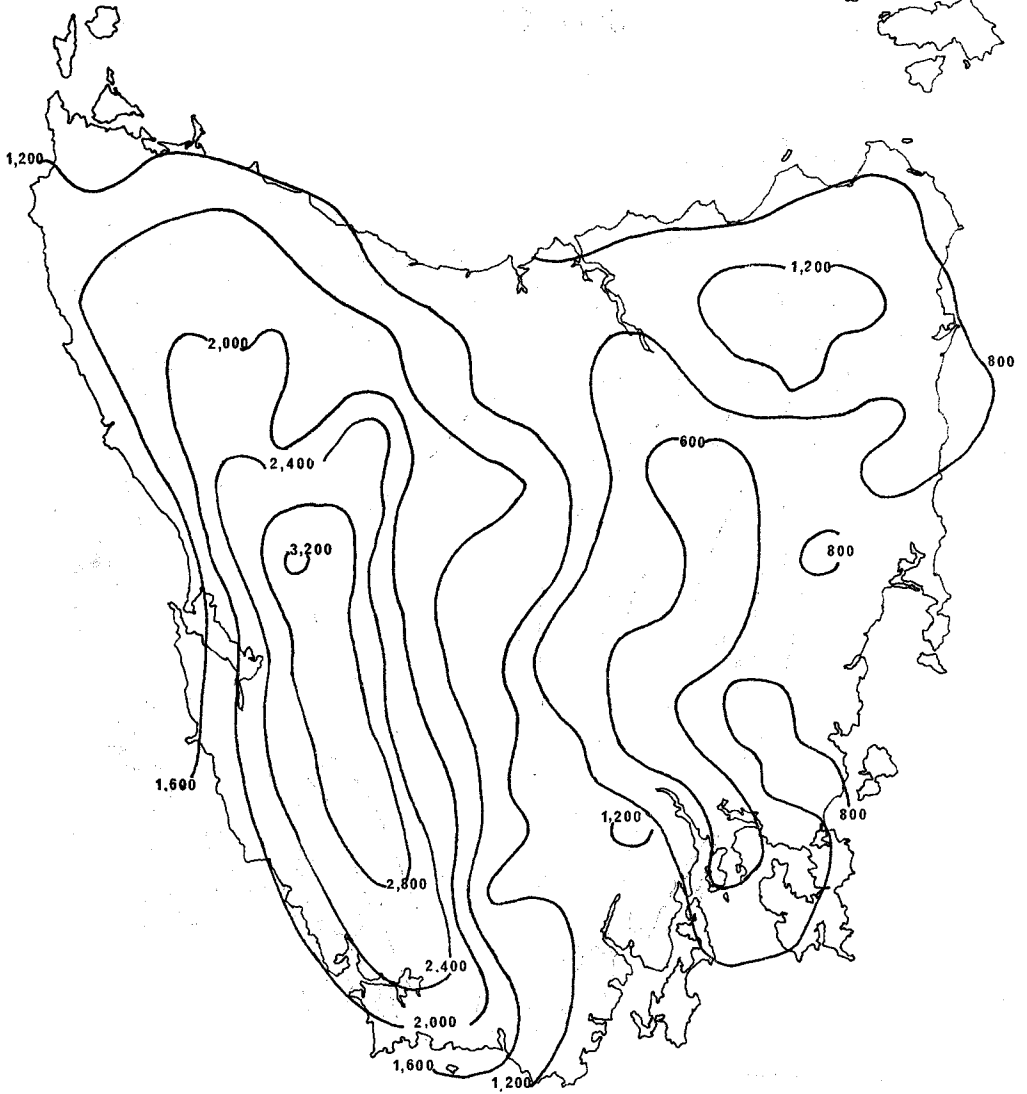
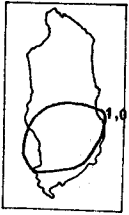
The recorded extremes of temperature for Hobart are 40.7°C in December 1897 and -2.8°C in June 1972. Readings above 37.8°C or below -1.1°C are rare, the mean maximum temperature in summer being 21.1°C and the mean minimum in winter, 4.9°C .

The mean maximum temperature for January and the mean minimum temperature for July over Tasmania are shown in the following maps. The mean maximum is the average of daily maxima for January; the mean minimum the average of daily minima for July.





ANNUAL TASMANIAN RAINFALL (Millimetres)



Rainfall

Tasmania's position on the northern edge of the 'Roaring Forties' (a westerly air-stream), its exposure to this stream and the mountainous nature of the terrain are the controlling influences on the amount, distribution and reliability of the State's rainfall.

In the west, average annual rainfall ranges from 1,300 to 1,500 mm on the coast to 3,600 mm at Lake Margaret; in the north-east, from 550 mm on the coast to 1,300 mm on the highlands; while rainfall in the north-west ranges from 900 mm near the coast to 1,750 mm in the higher inland areas.

Extreme three to five-day rainfalls occur most often on the west coast in late June when the westerlies are increasing in strength and persistence and the sea temperature is well above the land temperature. In the north short periods of extreme precipitation occur when wind flow is sustained for up to two days from the north-east, usually in mid to late autumn. The high moisture content of such streams from over the relatively warm waters of the Tasman Sea results in heavier, if less prolonged, rainfall than is produced in the westerly streams.

There is a strong gradation in rainfall from west to east, because of topography, with a distinct rain shadow east of the Central Plateau. Parts of the Midlands average less than 500 mm per year. Totals in the east and south-east are higher (up to 1,000 mm on exposed slopes).

Rainfall is least reliable in the east, south-east, Midlands and Derwent Valley. These areas are driest when, respectively, westerlies are relatively absent or at their strongest i.e. late summer and late winter. Highest rainfall in these areas tends to occur in autumn and spring, under the influence of small cyclonic depressions off the east coast.

Effective rainfall is the amount necessary to compensate for evaporation, begin germination and maintain plant growth above wilting point. Average rainfall is sufficient for this purpose from May to September. From October to January the chance of receiving effective rainfall decreases, except in the west and north-west, where the probability is usually better than 50 per cent. In the Midlands, the Derwent Valley, the south-east and east, and in the northern inland, the chance of receiving at least effective rainfall during the summer months is very small.

The average annual rainfall distribution over Tasmania is shown on the preceding map.

Snow and Hail

Snow and hail can be experienced over the highlands at any time of the year. Heaviest snowfalls occur, as a rule, in late winter and spring, and less frequently in June and July. Extensive snow below 150 metres occurs, on the average, less than once every two years, associated with an unusually vigorous outbreak of cold air from Antarctic regions. There is no permanent snowline, but patches of snow often remain on the highest peaks till December.

Hail is most likely in spring, though possible in any month. Hail storms are a big risk to fruit crops in the Huon Valley and on the Tasman Peninsula and sometimes cause extensive damage.

Thunderstorms

These are most common in the north and north-west of the State and are associated with the lifting of warm moist air by a cold front. Thunderstorms occur mainly in the summer months. Hobart and Launceston average five to seven storms per year, and the north and north-west 10 to 15. The Central Plateau and north-eastern highlands report, on average, about five storms per year, while the Midlands, as gauged by Oatlands, has less than three.

Floods

In Tasmania the river system most affected by flooding is the South Esk. The Esk catchment includes most of the north-eastern highlands, where annual rainfall averages about 1,300 mm, and part of the Western Tiers where run-off can be rapid. As much of the South Esk and its tributaries flow through flat country, flooding can be widespread and disruptive.

Flooding of the Derwent River system can be extensive but is less frequent than in the case of the South Esk. The most severe flood on record in the Derwent occurred in April 1960 with the peak discharge flow recorded as 3,400 cumecs (cubic metres per second) at Macquarie Plains.

Flooding of rivers in the west and south of the State can be of greater frequency than in the Derwent and Esk systems but because of mountainous terrain and lack of population these pass mostly unnoticed. Similarly the short fast-flowing rivers of the east coast flood and fall rapidly, but can cause damage and disruption of road systems.

On two occasions in 1974 torrential rain caused severe flooding in the north-east of Tasmania. There was widespread damage to property, serious damage to road systems and high stock losses in the floods which occurred less than two months apart.

In the north and north-west of Tasmania many rivers have their catchments along the northern edge of the Central Plateau and can flood quickly.

Humidity

The mean relative humidity at both 9.00 a.m. and 3.00 p.m. exceeds 50 per cent at all stations in all months of the year. Relative humidity is generally higher in the morning than in the afternoon, and higher in coastal regions than inland. Days of high temperature combined with uncomfortably high humidity are rare. In the east and south-east, warm dry winds from a west or north-west direction may occasionally have a relative humidity as low as 10 per cent.

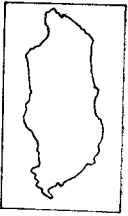
Droughts and Bushfires

Although Tasmania has the highest average rainfall of any state in Australia drought conditions are not unknown. Unlike the remainder of Australia droughts in this State tend to be highly localised and of reasonably short duration. The most severe effects are usually felt over a period of only a few months, but serious rainfall deficiencies can extend over a period of two or three years. Prior to 1972 the most severe long term droughts occurred during the periods 1888-1889, 1897-1898, 1918-1920, 1933-1934, 1945-1946, 1949-1952 and 1967-1969. During the 12 month period ended January 1973 record low rainfall was recorded in the Midlands, East Coast and Northern rainfall districts. All other rainfall districts experienced below normal rainfall during 1972. (Not one of the nine districts' rainfall exceeded 85 per cent of normal during 1972.) Some relief from the drought conditions was given by reasonable rainfalls during February 1973.

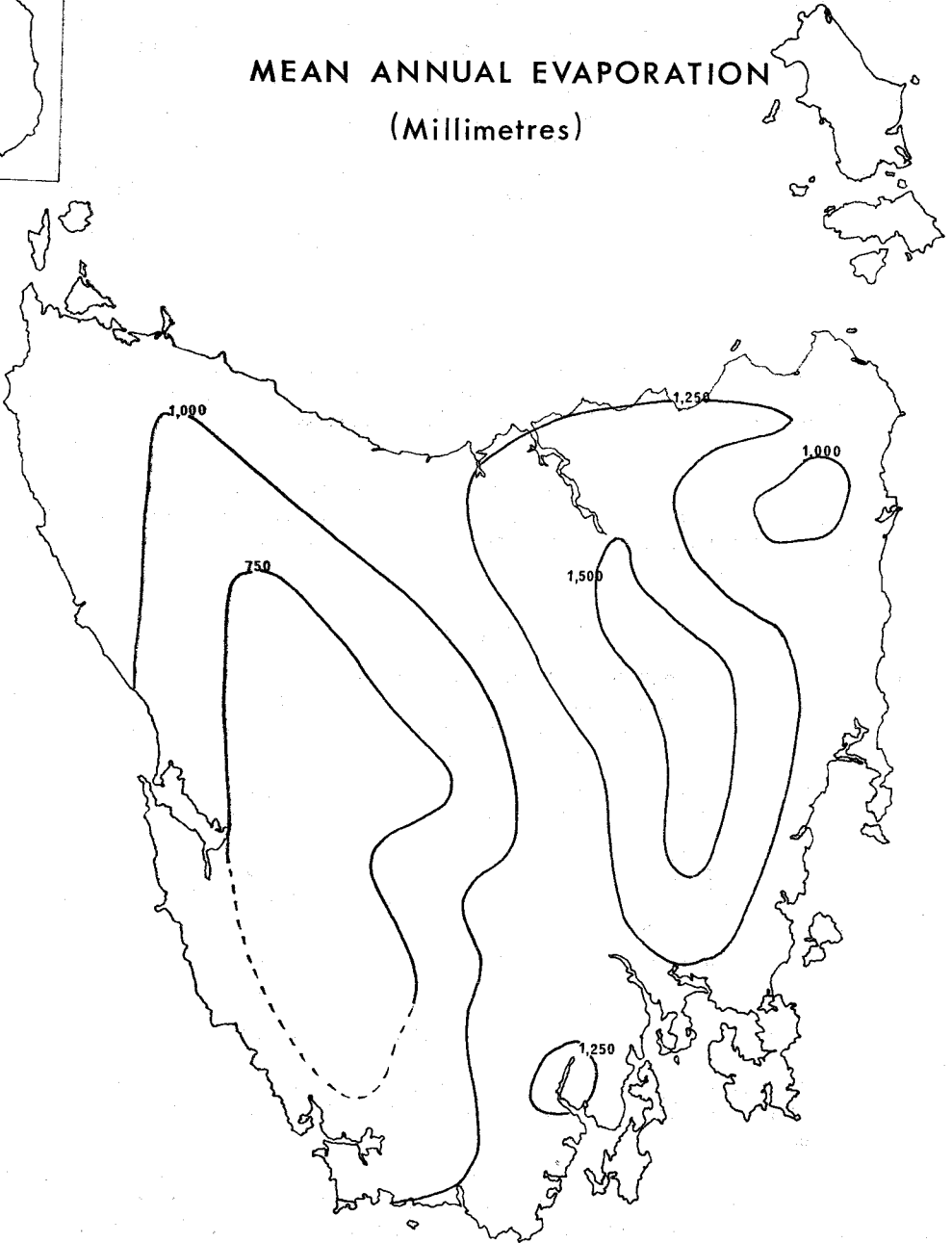
Serious bushfires occurred in 1898, 1915, 1946, 1951 and 1967. The bushfire of 7 February 1967 was the most severe in the State's history causing 62 deaths and damage to property estimated to be in excess of \$25m.

Evaporation

Evaporation depends mainly on wind strength, the moisture deficit of the airstream and on sunshine. The World Meteorological Organisation has asked for standardisation of measurement of evaporation by use of the Class 'A' pan (a galvanised pan, 1.22 metres in diameter and 25.4 centimetres deep) which gives higher figures for evaporation than those obtained from the containers previously used in Australia (class 'A' pan figures should be multiplied by a factor of about 0.80 to obtain the average potential evapo-transpiration likely for Tasmanian crops). The following map gives details for mean average evaporation.



MEAN ANNUAL EVAPORATION (Millimetres)



At Launceston Airport the annual evaporation is just over 1,500 mm due largely to the prevalence of winds coming from the Western Tiers, which become warmer and drier in their descent to the lower Midlands and Tamar areas, thus increasing evaporation. Monthly evaporation at Launceston Airport has ranged as high as 270 mm in summer but drops to between 25 and 40 mm in winter. This area of high evaporation extends southward to the lower Derwent and Huon areas.

The lowest evaporation rate occurs in the Central Plateau, West Coast Ranges and south-west areas where evaporation may fall to less than 750 mm. This is due to the high moisture content of the prevailing westerlies and the high average cloud cover. In these areas the monthly evaporation rate may range from about 125 mm in January to only 12 mm in June and July.

Another area of low evaporation (below 1,000 mm a year) is located in the North-East Highlands.

Sunshine

The average number of hours of sunshine a year ranges from about 2,500 hours in the northern Midlands to less than 1,750 hours on the west coast and western highlands, this area having the least amount of sunshine in Australia. Hobart averages 2,100 hours per year and Launceston around 2,400.

In January daily averages of sunshine range from nine hours per day between the Midlands and Launceston to six hours per day on the west and south coasts. In mid-winter, average daily sunshine is down to a maximum of three hours on the east coast and to considerably less on the west coast and highlands.

The Climate of Hobart

Temperature: Mean maximum temperature exceeds 21°C in January and February. On average there are two or three days per year with maximum temperatures greater than 32°C. Only once, in February 1968, have three successive days over 32°C been recorded in Hobart. Minimum temperatures below -1.1°C are rare.

Rainfall: There is a strong gradient of rainfall, immediately west of Hobart suburbs, caused by the bulk of Mt Wellington. On the south-eastern slopes of the mountain the annual rainfall reaches 1,400 mm (at The Springs and The Gap) while at Ferntree the annual average is 1,140 mm. The rainfall decreases to about 600 mm in the city area, the annual average being 620 mm at the Regional Office of the Bureau of Meteorology. Some eastern shore suburbs receive as little as 500 mm of rain per annum.

Monthly totals are fairly uniform. The wettest twelve months on record at the Bureau yielded 1,100 mm (to December 1916) and the driest, 320 mm (to November 1943).

Relative Humidity: Highest humidity is at the time of lowest temperature, in the early mornings during winter. As temperatures rise to 3 p.m., humidity decreases by 15-20 per cent. The seasonal variation is not great, although the average humidity during the winter months is 70 to 75 per cent and during the summer months 58 per cent. Periods of high humidity combined with high temperatures are rare.

Fog: Fogs occur in the city about four times per year, in the cooler months, but are more frequent over and near the Derwent River, down which they are often carried on a light north-west wind. Fog frequency is far less than either that of Launceston or Melbourne.

Wind: The main wind direction is north-west, induced by the orientation of the Derwent Valley. Next in importance is the sea-breeze (from south or south-east) during summer months.

The strongest wind gust experienced in Hobart was 149 km/h recorded during a storm in September 1965.

Snow and Hail: Snow below 300 metres occurs, on the average, less than once per year. Falls lying in the centre of the city, almost at sea level, have occasionally been recorded, the last being in September 1970. Snow generally lies on Mt Wellington during winter and early spring months, but it is rare between November and March. Hail occurs about four times a year, mainly between September and November.

Frost: The average annual frequency of days of frost is 31, mostly from June to August. None has been recorded in January. Cold air drainage is found in the hilly suburbs and frosts are common on the valley floors.

Sunshine and Cloud: No marked seasonal variation of cloud amount occurs but a strong dependence on time of day is evident. During April to September cloud cover is greater in the afternoon and from October to March it is greater in the morning.

A clear-cut seasonal variation in monthly average hours of sunshine also occurs with amounts varying from 231 hours in January to 111 hours in June.

Climatic Data: The next table gives the main climatic data for Hobart during the year 1973 on a monthly basis:

Hobart Weather in 1973

Month	Shade temperature				Mean daily hours of sunshine	Rainfall	
	Mean maxima	Mean minima	Extremes			Total in 1973	Long-term average
			Maximum	Minimum	hours			mm	mm
	°C	°C	°C	°C	hours	mm	mm
January	23.5	13.1	40.4	6.6	8.3	35	45
February	22.8	13.4	32.0	9.0	7.7	53	41
March	19.0	10.8	26.6	6.4	6.2	28	44
April	18.8	10.5	28.4	4.9	4.6	63	52
May	15.2	8.6	19.8	3.1	3.7	99	49
June	11.0	3.7	18.5	-0.6	4.9	55	57
July	12.6	3.8	16.4	-2.4	5.3	13	53
August	13.0	5.1	18.0	0.9	5.4	19	49
September	16.2	7.0	28.2	2.0	6.0	36	53
October	17.4	8.5	25.8	4.7	6.5	95	60
November	17.4	8.5	23.0	6.7	5.6	62	61
December	21.1	12.6	32.7	7.8	7.2	47	56
Total for year .. .. .	..	..	..	..	..	605	620

The Climate of Launceston

Being over 50 km from the coast, Launceston exhibits a slight continental effect—greater seasonal and daily variations of temperature and lower rainfall as compared with stations on the coast.

Temperature: Average maximum temperature exceeds 24°C in January and February, 21°C in December and March, and 13°C in June and July. Average minimum is about 11°C in summer, falling below 4°C in winter. Freezing temperatures are common during winter mornings, the lowest recorded being -6°C. Up to 50 frost days are to be expected in a year, mostly from May to August. Light frosts may occur in summer.

Rainfall: The annual average is 736 mm. The wettest month is July (86 mm) while January and February, the driest months, each receive less than half this amount. The wettest month on record is August 1936 (254 mm). Annual totals range from 467 mm (1908) to 1,057 mm, (1946). Some severe thunderstorms are experienced. Snow does not settle in Launceston, but falls occur on surrounding hills.

Relative Humidity: Seasonal and daily variations are similar to those for Hobart, but the daily readings are five to 10 per cent higher.

Fog: Occasions of high humidity, associated with moist north-east airstreams, are relatively frequent. Fog occurrence averages more than 30 days a year, mostly between May and August.

Wind: The NW-SE orientation of the Tamar Valley has a marked effect on surface winds, which conform mainly to these directions. The north-west wind is often reinforced in the afternoon by a sea-breeze from much the same direction. Strong winds are most common during the colder half of the year and severe squalls can occur in association with thunderstorms.

Rainfall at Selected Stations

The following table shows annual rainfall figures for selected stations:

Annual Rainfall at Representative Stations
(Millimetres)

Station	1969 <i>r</i>	1970 <i>r</i>	1971 <i>r</i>	1972 <i>r</i>	1973	Long-term averages (<i>a</i>)
Avoca	667	842	859	410	583	551
Beaconsfield	1,003	1,094	1,298	679	1,305	948
Burnie (APPM)	1,028	991	1,218	670	1,260	1,002
Campbell Town	575	697	608	346	613	556
Cygnat	1,034	1,118	1,081	631	841	863
Cradle Valley	2,736	3,293	3,097	2,426	3,352	2,781
Deloraine (Ashley)	930	1,107	1,225	641	1,386	962
Franklin	1,006	1,113	1,033	776	817	905
Hobart (Weather Bureau)	720	782	752	451	605	620
Hobart (Airport)	664	704	662	381	557	568
Kettering	973	1,057	1,057	606	777	883
Launceston (Airport)	803	832	938	409	850	718
Lilydale	977	1,181	1,357	641	1,228	978
Longford	734	789	930	432	867	635
Maydena	1,370	1,419	1,205	1,034	1,308	1,227
New Norfolk	591	597	685	409	547	554
Oatlands	627	750	675	397	609	566
Queenstown	2,386	2,583	2,543	2,205	2,734	2,466
Ringarooma	1,201	1,499	1,562	899	1,487	1,236
Smithton	1,176	1,346	1,452	873	1,345	1,105
Spingfield South	1,392	1,633	1,766	<i>n.a.</i>	<i>n.a.</i>	1,307
St Helens	930	1,135	985	504	787	785
St Marys	1,292	1,570	1,386	536	1,023	1,020
Swansea	968	954	788	364	600	611
Triabunna	972	1,049	1,020	422	658	667
Ulverstone	1,036	1,093	1,228	649	1,270	973
Waratah	2,155	2,315	2,167	1,408	2,127	2,197

(*a*) Number of years of record used to calculate the long-term average varies from station to station.

Seasonal Temperatures

The mean temperature for any locality can give a false impression, e.g. a mean temperature of 25°C based on a maximum of 50°C and a minimum of 0°C, all in the one day. A better way of examining a locality's climate is to take the maximum temperature each day and average these readings for each season; similarly to take the minimum temperature each day and average these readings for each season. These mean maxima and mean minima then give an indication of the daily variation that may be expected. The following table shows the mean maximum and mean minimum temperatures for nine selected stations in summer, autumn, winter and spring.

**Temperatures at Selected Stations, 1973
(°C)**

Station	Maximum temperatures		Minimum temperatures		Mean temperatures		
	Mean for season (a)	Departure from normal	Mean for season (b)	Departure from normal	Mean for season	Departure from normal	
SUMMER (December to February)							
Hobart	22.0	+0.8	12.9	+1.7	17.4	+1.2	
Launceston	23.6	+1.3	10.2	+0.6	16.9	+0.9	
Cape Bruny	19.5	+1.9	15.6	+1.4	17.5	+1.6	
Devonport	21.9	+0.7	12.6	+1.1	17.2	+0.9	
Maydena	22.9	+2.0	9.3	+1.3	16.1	+1.6	
Oatlands	20.0	-1.0	8.8	+0.9	14.4	0.0	
St Helens	21.6	-0.3	12.1	+1.3	16.8	+0.5	
Savage River	19.4	+1.2	10.8	+2.3	15.1	+1.7	
Zeehan	21.5	+2.1	10.1	+1.2	15.8	+1.6	
AUTUMN (March to May)							
Hobart	16.0	-1.3	9.2	+0.6	12.6	-0.3	
Launceston	16.7	-0.9	7.8	+0.4	12.3	-0.3	
Cape Bruny	14.5	-4.0	9.1	-0.2	11.8	-2.1	
Devonport	16.2	-1.2	8.7	+0.1	12.5	-0.5	
Maydena	13.7	-1.9	5.9	+0.5	9.8	-0.7	
Oatlands	14.2	-1.5	6.0	+1.0	10.1	-0.3	
St Helens	15.7	-1.7	7.1	-0.4	11.4	-1.0	
Savage River	14.0	-0.7	7.9	+0.9	10.9	+0.1	
Zeehan	13.8	-1.9	7.0	+0.1	10.4	-0.9	
WINTER (June to August)							
Hobart	12.2	+0.3	3.1	-1.6	7.6	-0.7	
Launceston	12.6	0.0	1.8	-1.4	7.2	-0.7	
Cape Bruny	11.5	+0.2	4.9	-1.2	8.2	-0.5	
Devonport	13.0	+0.4	3.7	-0.9	8.3	-0.3	
Maydena	10.1	+0.5	1.9	+0.6	6.0	+0.5	
Oatlands	9.5	-0.8	1.4	-0.2	5.5	-0.5	
St Helens	13.1	-0.7	3.2	-0.6	8.1	-0.7	
Savage River	9.7	+0.1	4.6	+0.6	7.1	+0.3	
Zeehan	11.3	0.0	2.7	-1.0	7.0	-0.5	
SPRING (September to November)							
Hobart	16.7	-0.1	8.4	+0.9	12.5	+0.4	
Launceston	17.1	-0.9	7.4	+0.9	12.3	0.0	
Cape Bruny	14.7	-0.2	8.4	+0.8	11.5	+0.3	
Devonport	17.0	+0.4	7.9	+0.8	12.5	+0.6	
Maydena	15.7	+0.8	4.7	+0.8	10.2	+0.8	
Oatlands	14.9	-0.6	4.9	+0.6	9.9	0.0	
St Helens	16.5	-1.1	6.6	-0.2	11.5	-0.7	
Savage River	13.7	+0.9	5.6	+0.8	9.7	+0.9	
Zeehan	15.5	-0.6	6.2	+0.4	10.9	-0.1	

(a) Average of maximum daily temperatures for season.

(b) Average of minimum daily temperatures for season.

Rainfall in Districts

Tasmania is divided into nine meteorological districts (not to be confused with statistical divisions) with fairly well-defined land use patterns appropriate to each. The following table shows rainfall totals of each district for the past 10 years:

Rainfall of Tasmania in Districts *r*
(Millimetres)

Period	Northern	King Island	Central Plateau	Midlands
	Agriculture, dairying and mixed farming		Grazing (mainly sheep)	
1964	1,241	1,157	1,448	660
1965	793	906	910	466
1966	803	975	875	545
1967	657	754	768	353
1968	1,120	1,069	1,254	467
1969	972	924	1,111	598
1970	1,074	957	1,373	721
1971	1,218	1,184	1,160	645
1972	636	746	877	351
1973	1,154	1,031	1,137	611
District average (a)	1,003	943	982	553

Rainfall of Tasmanian Districts *r*—continued
(Millimetres)

Period	Derwent Valley	South East	East Coast	West Coast	Flinders Island
	Fruit growing, grazing, forestry		Dairy farming	Mining	Grazing
1964	848	785	857	2,953	939
1965	558	700	659	2,361	640
1966	645	783	734	1,988	666
1967	512	641	573	1,838	630
1968	738	725	560	3,168	673
1969	735	881	1,024	2,423	814
1970	826	989	1,228	2,533	1,023
1971	891	945	1,021	2,460	950
1972	610	568	497	2,122	583
1973	775	786	779	2,605	871
District average (a)	681	749	824	2,329	744

(a) Long-term annual average based on 60 years of record.

POLLUTION CONTROL IN TASMANIA

(The following article is based on information supplied by the State Department of the Environment.)

Introduction

The Senate Select Committee on Air Pollution stated in its 1969 report:

'Although there is no Commonwealth legislation dealing with air pollution, all states except Tasmania have broadly similar legislation to control air pollution and are actively engaged in control programmes.'

At the time that the Report was compiled Tasmania's only move towards a co-ordinated assessment of the State's pollution problem was the establishment of an inter-departmental committee to examine the question of pollution and to recommend necessary control steps. Further comment on the lack of centralised legislative control was made in the 1970 report of the Senate Select Committee on Water Pollution. In this report the Committee said:

'The legislative position in Tasmania aroused considerable interest on the part of the Committee and appeared to have a number of undesirable features, particularly with respect to special Acts making provision for the establishment of several major industries and with respect to provisions in some legislation over-riding those in other Acts.'

In January 1971 the State Government created an Environmental Control Division and announced the appointment of a Director of Environmental Control. The Division of Environmental Control was attached to the Department of Labour and Industry. The initial task of the new body was to assess the pollution problem in Tasmania and then advise the government on necessary anti-pollution legislation.

Following the State elections in April 1972 and the return to government of the Labor Party, a new portfolio, Minister for the Environment, was created. In October the former Environmental Control Division was given departmental status. One of the first tasks undertaken by the new Department was the preparation of an annual report for parliament. In this report, tabled in both Houses, attention was directed to: (i) the unsatisfactory waste disposal practices followed by local government bodies and industry; (ii) the lack of data on the types and quantities of pollutants entering the Tasmanian environment; (iii) the necessity for uniform environmental legislation and the establishment of scientific standards for protection of the environment; (iv) the need to establish a comprehensive environment monitoring programme; and (v) the need to educate and make the public aware of the necessity for environmental control.

In late November 1972 the Environment Protection Bill was introduced in the House of Assembly. However, it was not until July 1973 that the statute received the Governor's assent.

Department of the Environment

Established in October 1972, the Department of the Environment is headed by a Director of Environmental Control who is responsible to the Minister for the Environment. At the beginning of 1974 the Department had a staff of 15 persons to carry out the task of environment protection. The staff included a number of scientific experts who were responsible for particular aspects of pollution control and assessment—chemists, air and water pollution officers and a waste management officer.

The *Environment Protection Act 1973* gives the Director the general duties of: (i) protecting the State's environment; (ii) ensuring the control or prevention of any act or emission which causes or may lead to pollution; and (iii) co-ordinating all necessary activities (government or private) to protect, restore or improve Tasmania's environment. In addition to the general duties the Act also confers the following more specific functions on the Director: (i) consider means and initiate steps for the protection of the environment and for the prevention, control, abatement or mitigation of pollution; (ii) carry out investigations into environmental protection problems; (iii) obtain advice from experts in the field of environmental protection; (iv) review progress made in attaining objectives of the Act and publicise steps taken to protect the environment; (v) advise on pollution standards and methods of sampling and testing for pollutants; and (vi) promote and co-ordinate planning projects for environmental protection.

Environment Protection Advisory Council

The 1973 legislation also provided for the creation of the Environment Protection Advisory Council. Under the chairmanship of the Director of Environmental Control the Council has members drawn from government and private sectors and representing a number of diverse interests e.g. the mining, secondary, rural and forestry industries, conservation groups, Hydro-Electric Commission, trade unions, public health, etc. The Council's task is to advise the minister and make recommendations to the government on environmental matters. The Council is empowered to appoint committees to investigate specific subjects. Four such sub-committees had been appointed at the end of 1973—Noise Sub-Committee, Waste Sub-Committee, Air Sub-Committee, and the Water Sub-Committee. A working party to deal with questions relating to analysis and testing samples for pollutants had also been established.

To 31 December 1973 the Advisory Council had held three meetings.

Environment Protection Act 1973

Prior to passage of the *Environment Protection Act 1973*, existing environmental and pollution controls relied heavily on local government authority regulations and to a lesser degree the Department of Public Health administration. The *Environment Protection Act* consolidated State anti-pollution legislation, created new environment protection measures and gave responsibility for implementing the legislative provisions to the Director of Environmental Protection. The statute also provided for formation of the Environment Protection Advisory Council—see the preceding section.

Scheduled Premises: Listed in the First Schedule of the Act are 25 'premises'—types of establishment which are required to be licensed. Included in this schedule are major manufacturing establishments (e.g. ore refiners, electroplating works, cement making factories, chemical works, gas works, pulp, paper and woodchip mills, sawmills, food processing factories, textile factories, breweries), mines, quarries, laundries, sewage treatment plants and refuse-disposal sites. On these scheduled establishments the Director of Environmental Control may enforce pollution and noise measures such as: (i) prevention or reduction; (ii) compliance with specified emission or noise standards; (iii) at the expense of the establishment monitor emissions and supply specified results to the Department; and (iv) restoration and re-vegetation of land. The Director in granting a licence may also specify outlet points where pollutants can be discharged and also points where monitoring of the emissions is to be carried out. If alterations are likely to increase pollution, then approval is required before new equipment can be installed or production processes changed.

All premises, whether scheduled or not, are required to comply with standards established by regulations under the Act. To ensure compliance authorised officers are empowered to carry out inspections and tests of premises and equipment.

Crown Responsibilities: The legislation enjoins the Crown '... to refrain, as far as is practicable and reasonable, from causing or permitting pollution of the environment and to put the laws into execution to prevent or reduce such pollution'. The Director of Environmental Control has the right to: (i) request information about any Crown activity which will or may cause pollution or substantially alter the environment; and (ii) advise on how to avoid, mitigate or prevent such pollution or alteration.

Similar duties of avoidance, prevention and mitigation of pollution apply to all local government and semi-government authorities. The Minister for the Environment has the right to apply anti-pollution powers to local government authorities.

Environment Protection Appeal Board: Provision for establishment of a three-man appeal board was incorporated in the legislation. The chairman of the Board is drawn from the legal profession and the other two members must have scientific, medical or engineering qualifications. The Board is empowered to deal with appeals lodged against anti-pollution directives issued by local government authorities or the Director, conditions attached to licences issued under the Act, refusal by the Director to issue or renew licences and refusal by the Director to approve changes in an establishment's operation.

Penalties: Heavy penalties are prescribed for breaches of the Act or of conditions attached to licences, obstructing authorised officers under the Act in their work, operation of scheduled premises without a licence, etc. Factories emitting a pollutant and operators of scheduled premises breaching licence conditions may be liable for a fine of up to \$5,000 and \$1,000 daily for continuance of the offence. Excessive noise may bring a penalty of \$500 and a daily penalty of \$50.

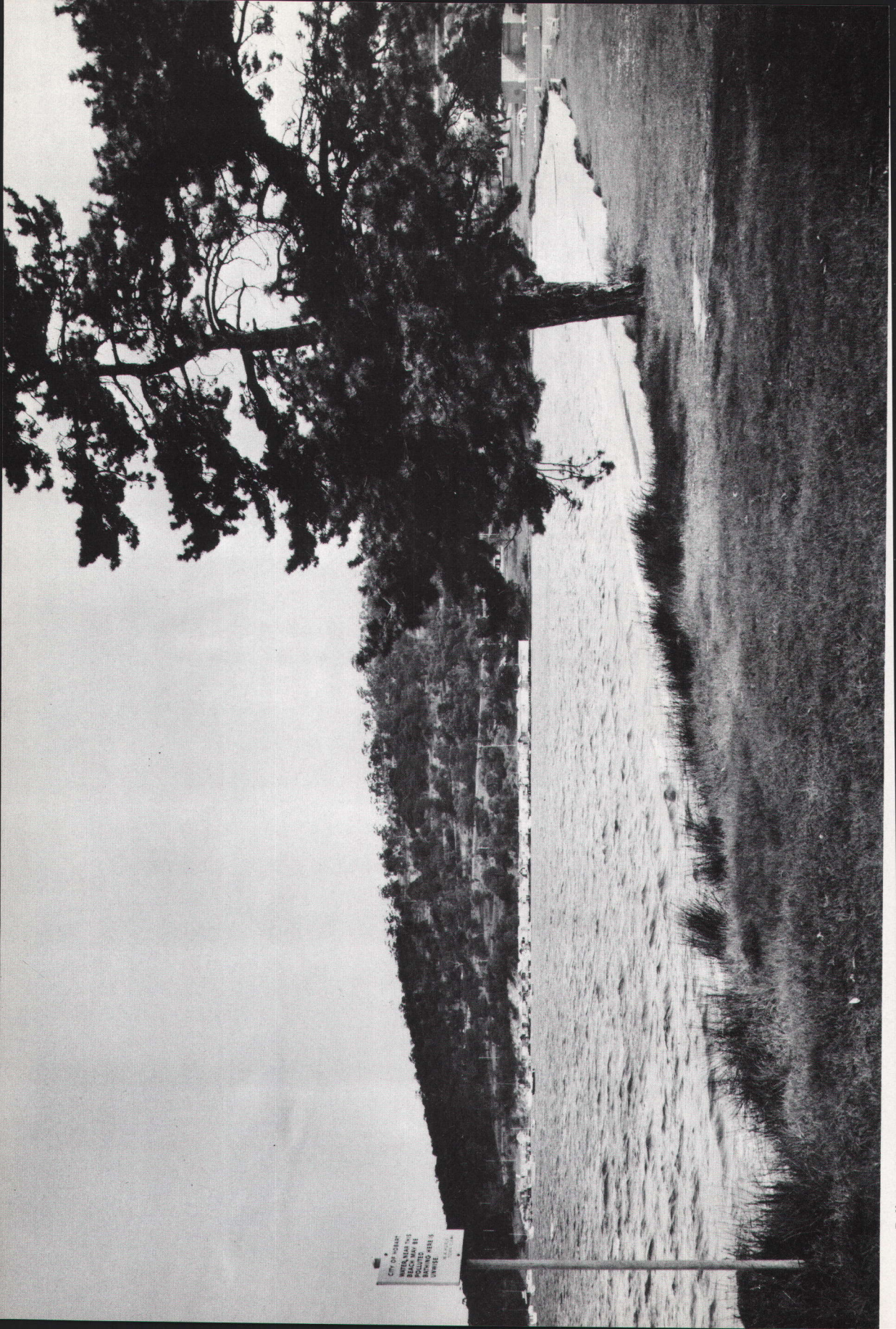
Regulations: On 20 March 1974 the following regulations were gazetted under the Act:

- (i) Water pollution—standards were established for the discharge of pollutants into inland, estuarine, bay and coastal waters. Acts likely to cause pollution of foreshores and beaches were prohibited. Special standards were specified for certain industries (pulp and paper mills, woodchip factories, industrial gas scrubbers,



Rocky Cape, North-West Coast

[Dept of Film Production]



CITY OF SEASIDE
BEACHES ARE NOT
REGULATED BY
UNIFORM BEACHES
ACT

metalliferous mines, fruit and vegetable processing factories, canneries, abattoirs and milk processing factories); these industries may also apply for time to phase out their pollutants. The water pollution regulations also apply to local government sewerage schemes.

- (ii) Atmospheric pollution—emission standards were established for industry and motor vehicles.
- (iii) Waste disposal regulations were gazetted for local government garbage dumps, disposal of sewage and of environmentally dangerous wastes, such as waste containing arsenic, cyanide, barium, boron, cadmium, chromium, copper, lead, mercury, selenium or zinc. Open burning of refuse at waste disposal sites was prohibited by the regulations.
- (iv) Noise levels were set for motor vehicles, earth moving machines, power equipment (such as lawn mowers, power tools, chain saws, pumps, cranes, pneumatic power tools) and motor vessels. Hours when power equipment may be operated were also prescribed.

Coverage of the Act: In the case of inconsistencies the *Environment Protection Act 1973* prevails over the provisions of all other Acts with two exceptions: (i) *Oil Pollution Act 1961* and (ii) *Public Health Act 1962*. However, certain existing Acts related to specific industries are not affected until 1977. The specific industry Acts so excluded for four years are: (i) *Associated Pulp and Paper Mills Act 1936*; (ii) *Australian Titans Products Act 1945*; (iii) *Florentine Valley Paper Industry Act 1935*; (iv) *Huon Valley Pulp and Paper Industry Act 1959*; (v) *Kermadie Wood-pulp and Paper Industry Act 1933*; (vi) *Tasmanian Paper and Timber Mills Act 1946*; (vii) *Thomas Owen and Co. (Australia) Limited Act 1948*; (viii) *Wesley Vale Pulp and Paper Industry Act 1961*; (ix) *Wood-pulp and Paper Industry Encouragement Act 1926*. Since provisions of the *Environment Protection Act* would intrude into various sectors of existing legislation, the *Statute Law Revision (Environment Protection) Act 1973* was introduced concurrently. The effect of this statute was to amend the *Criminal Code*, the *Local Government Act 1962*, the *Mining Act 1929*, the *River Pollution Act 1881*, the *Hydro-Electric Commission Act 1944* and the *Water Act 1957* to conform with the *Environment Protection Act 1973*.

Impact Studies

The State Government has adopted a policy that requires public authorities to undertake environmental impact studies before proceeding with any development which may have a significant effect upon the State's environment. Responsibility for ensuring that such studies are performed rests with the decision-making authority. Co-ordination and evaluation of environmental impact studies are performed by the Director of Environmental Control.

Scope of an environmental impact study includes:

- (i) A statement of the major objective of the proposed project.
- (ii) An analysis of the technological likelihood of achieving the objective.
- (iii) A statement of alternative practical plans for achieving the objective.
- (iv) An outline of existing characteristics of the environment prior to implementation of the development project.
- (v) Separate reports on alternative practical engineering plans for achieving the goal.
- (vi) An assessment of the probable effect of the project upon the environment.

The study is to be used by the proposing body in determining environmental safeguards. For the Director of Environmental Control the study will provide a basis for review of the safeguards and for making recommendations for further protective measures.

To assist with co-ordination and evaluation of environmental impact studies, the Government has established an Environmental Impact Study Assessment Group, comprising eight specialists in various fields related to the environment. The group gives broad direction to impact studies and provides advice and assessment services.

Pollution

Pollutants: Pollution of rivers, estuaries and coastal waters occurs in many areas of the State as a result of domestic sewage and effluent discharges. The total volume of liquid effluents discharged into receiving waters is about 173,000 million litres a year. Of this quantity, domestic sewage and sullage account for some 27,000 million litres or about 16 per cent. The remainder occurs primarily from industrial and commercial activities.

The most significant pollution sources are:

Mining and Metallurgical: An estimated 55,000 million litres of liquid effluents are discharged from the mining and metallurgical industries as a result of mine drainage, erosion from surface workings, tailings from grinding and flotation processes and gas scrubbing. Tailings dams have been constructed at some mines, but these do not provide full control of pollution. It is estimated that something in excess of three million tonnes of solids, including 25,000 tonnes of metals, are discharged into Tasmanian rivers and coastal waters each year from mining and metallurgical operations. Effluents containing acids and fluorine compounds are also associated with these industries. The areas most severely affected are the King and Pieman River systems, the Arthur, South Esk and Ringarooma Rivers, the Derwent River estuary and coastal waters in the vicinity of Burnie.

Paper making: The total volume of liquid effluents discharged from the paper making industry in Tasmania amounts to about 68,000 million litres a year. These effluents arise primarily from log debarking, digestion and bleaching processes, pulp solution and gas scrubbing. They contain quantities of organic fibre, alkaline and organic extractives, chlorine and sulphur compounds and trace metals. Effluents from paper making are characterised by a high bio-chemical oxygen demand leading to oxygen depletion of the water. No effective measures are at present being taken to control these discharges which are largely confined to the north-west coast and the Derwent and Huon estuaries.

Domestic Sewage: The total volume of domestic sewage is estimated to be in the region of 25,900 million litres per year of which some 18,000 million litres or 70 per cent is collected in municipal sewerage schemes. Treatment facilities at present exist to handle approximately 14,000 million litres per year, however, most municipal plants provide for primary treatment only and it is doubtful whether many could claim to meet modern treatment standards. Existing treatment facilities for the main population centres around Hobart and Launceston are entirely inadequate, with the result that sewage pollution of the Derwent and Tamar is severe.

Milk, Vegetables and Meat Processing: Effluents from industries processing foodstuffs such as milk, fruit, vegetable and meat are characterised by high organic content and are often associated with oxygen depletion and a discolouration of receiving waters. The total volume from these industries is of the order of 3,200 million litres per year distributed over the Hobart, Launceston and north-west coast areas. The volume is not high compared with mining, paper making and sewage wastes, however, very little of this effluent receives any form of treatment before being discharged and the nature of the effluents frequently gives rise to severe localised problems.

Air Pollution

Because of the relatively small population centres in Tasmania, the brown haze frequently encountered in Sydney and Melbourne is virtually unknown here. The absence of oil refineries, steel works and large scale thermal power stations restricts atmospheric pollution to a few localised areas where fuel consumption is heavily concentrated or where particular problems exist with individual industrial works.

Total gaseous pollutant emission from domestic, transport and industrial sources in Tasmania are in excess of three million tonnes per year, while an estimated 10,200 tonnes of sulphur and 6,600 tonnes of solid particles are discharged into the atmosphere annually from these

sources. The estimated distribution of air pollution from known sources is: industry and commerce, 61 per cent; automobiles (cars, buses, road haulage, etc.), 32 per cent; domestic (home heating, incineration, etc.), six per cent; public services (hospitals, schools, public buildings, etc.), one per cent.

The most significant industrial sources of air pollution are associated with paper making and primary metallurgical operations. These industries are responsible for emissions of sulphur, particulates, fluorine and heavy metals. Local problems also occur in the vicinity of cement works, brick works, sawmills and chemical manufacturers. Automobile emissions represent a significant proportion of the total air pollution load, however, these are well dispersed throughout the State and there is no evidence that serious problems arise from such emissions even in the major community areas. Monitoring, however, needs to be established to properly assess the extent of vehicle pollution present in the more congested city areas.

An additional major contribution to air pollution occurs seasonally as a result of agricultural and forestry burning carried out for land clearance, fire hazard control and forest regeneration. It is estimated that the weight of solid particles discharged in the form of smoke from such operations may be well over twice the amount discharged from all other man-made sources combined. This smoke makes a significant contribution to atmospheric haze over the State during the summer months.

Solid Waste Disposal

Solid waste is generated by most of man's domestic and industrial activities. Much of this waste is disposed of by dumping on land. Surveys carried out in Australia suggest that the quantity of ordinary domestic garbage currently amounts to between 0.7 and one kilogram per person per day. It is considered that a value of 0.8 kilograms would be reasonably representative for the Tasmanian population. The per capita quantity is steadily rising as domestic consumption of paper and plastic materials increases and forecasts suggest that it is likely to double over the next 30 years.

The total amount of domestic refuse generated in Tasmania is estimated to amount to about 112,000 tonnes per annum. Most local government authorities provide facilities to receive this waste, but the efficiency of disposal varies widely. Effective garbage collection and tip management exist in some areas but in many municipalities no collection service is maintained and the existing disposal facilities leave much to be desired.

The quantities of solid waste from industrial operations, particularly mining and metallurgical, far outweigh the amount from domestic sources. Approximately 10 million tonnes of solid waste material is disposed of on land waste dumps each year as a result of industrial activities in Tasmania. The majority of this waste takes the form of mullock and tailings from mines in the west and north-east of the State. Erosion and leaching of mine waste by rain is frequently a cause of silt and metallurgical pollution of rivers and this may continue long after mining operations have ceased.

Mercury Pollution

In recent years there has been much disquiet and publicity concerning possible risks to public health arising from pollution of the environment by mercury compounds.

Mercury occurs as a natural contaminant of surface waters and the atmosphere as a result of weathering, vapourisation and volcanic activity. The normal level found in sea water varies around the world but is in the region of 0.05 milligrams per litre. Atmospheric levels of about 0.0002 milligrams per cubic metre have been reported in unpolluted areas. As a result of natural biological processes, most marine animals and vegetation accumulate mercury many hundreds of times above the concentration which exists in sea water. Thus it is not uncommon to find mercury levels in fish up to 0.5 parts per million (ppm) or even higher in areas well removed from pollution sources. The National Health and Medical Research Council has recommended, in uniformity with overseas practice, a maximum permissible level of 0.5 ppm of mercury in sea food.

Man-made pollution by mercury occurs primarily from industrial and agricultural activities, particularly those associated with ore refining, paper making and fungicides. It is estimated that the total quantity of mercury entering the environment from man-made sources in Tasmania is about 2,720 kilograms per year from the following sources: paper making, 1,500 kilograms; ore refining, 1,130 kilograms; and fungicides, 90 kilograms.

There is no precise information concerning the dispersion routes taken by the released mercury, however, it seems likely that something approaching 80 per cent is discharged directly into the atmosphere. Of the remainder, most is discharged into surface waters but a small proportion is retained in the soil and in solid waste dumps. The principal areas subjected to mercury pollution are those in the vicinity of Burnie and the River Derwent estuary. Samples of fish and oysters taken from the Derwent have been found to contain a mercury concentration of about 0.2 ppm which is considered to be satisfactory for seafood. (However, relatively high levels of zinc have been found in oysters from the Derwent estuary.)

Although it is likely that some fish species obtained from Tasmanian waters contain mercury in excess of the maximum concentration recommended by the National Health and Medical Research Council, at this stage it is uncertain to what extent such levels can be attributed to pollution from man-made sources.

Little is known regarding the natural levels of mercury in the environment of Tasmania and it is considered essential that a programme of monitoring contamination in air and water should be commenced as soon as possible.

Departmental Activities

Staff of the Department of the Environment have visited most areas of Tasmania either monitoring or investigating complaints and pollution problems. Departmental officers have attended interstate seminars, conferences and visited other environment protection authorities for instruction and familiarisation courses. The Department participates in the work of the Australian Environment Council and has staff on a number of the Council's committees. In addition the Department is also represented on committees of The National Health and Medical Council, The Australian Transport Advisory Council, Australian Water Resources Council and The Keep Australia Beautiful Council. The Department is also represented on state government inter-departmental committees which deal with environmental matters. Environmental seminars and lectures have been organised by the Department and special papers dealing with the environment written.

Chapter 3

GOVERNMENT AND ADMINISTRATION

GOVERNMENT IN TASMANIA

Historical Summary

In its short history, Tasmania has experienced diverse modes of government; beginning with autocratic rule, it graduated to responsible self-government as a British colony and finally surrendered some sovereign powers to take its place as an original Australian state.

The evolution of the system of bi-cameral responsible government within a federal system falls into five distinct phases:

1803-1825: The island was part of the colony of New South Wales and its lieutenant-governors and commandants were subordinate to the Governor in Sydney.

1825-1851: On 14 July 1825, Van Diemen's Land was created a separate colony with a Lieutenant-Governor directly responsible to the Secretary of State in London. A nominated Legislative Council was established.

1851-1856: The passage of the *Australian Constitution Act* 1850 by the Parliament in London was followed by the establishment of a new Legislative Council in which 16 members were elected and eight were nominees of the Lieutenant-Governor. The newly constituted Council first sat on 1 January 1852.

1856-1901: By the *Constitution Act* 1854, two houses of parliament, the House of Assembly and the Legislative Council were established, both houses being elected. The first Parliament sat on 2 December 1856 (the first year in which the island was officially called Tasmania); representatives of the Crown carried the title of Governor.

COII: The Tasmanian Constitution was limited by the establishment of the Commonwealth Constitution. (The *Commonwealth of Australia Constitution Act* 1900 granted legislative and executive powers upon certain specified matters to the Australian Parliament and Government, some of them exclusively, and provision was made that, in the case of inconsistency of valid laws, the Australian Government law should prevail.) In effect, the Parliament of Tasmania may make laws operative within the State upon all matters not within the exclusive power of the Australian Parliament but, on those matters for which the Australian Government may also legislate, the Tasmanian law may be superseded by the passing of an Australian Government act.

Introduction

Government in Tasmania is exercised at three levels:

- (i) The Australian Government, with authority based on a written constitution, and centred in Canberra.
- (ii) The State, with residual powers, and centred in Hobart.
- (iii) The cities and municipalities, with authority derived from State acts, and operating in 49 sub-divisions of the State.

This chapter deals primarily with the State Government and with Tasmanian representation in the Australian Parliament. The administration of the cities and municipalities is described in Chapter 4, 'Local Government'.

Tasmanian Representation in Australian Parliament

The Australian Parliament consists of the Queen, a Senate and a House of Representatives. The Queen is represented in Australia by the Governor-General.

The Senate

The founders of the Australian Constitution had in mind that the Senate should give expression to the interests of the states as partners in the federation; in other words, the Senate should be a states' house. Accordingly, the proportional representation suggested by the varying populations of the states was disregarded, and it was provided that each state should be represented by six senators; the first Senate in the first Parliament comprised 36 members of whom six represented Tasmania. The numbers remained unchanged until the federal *Representation Act* 1948 when each State became eligible to elect 10 senators.

The Senate was also envisaged as a house of review and accordingly continuity of membership was provided by requiring only one-half of the Senate to retire every three years, and for each senator's term to be six years. If the normal pattern of three-yearly rotational retirement is broken by a double dissolution of both Houses, provision exists to elect a complete Senate with members divided into two numerically equal classes: the first five senators declared elected in each state serve a six-year term; the other five elected serve a three-year term. After a normal rotational election, senators' terms commence from the following first day of July; in the case of an election for the whole Senate, terms commence from the first day of July preceding the election.

The House of Representatives

In designing the House of Representatives, the founders envisaged a legislative body representing the national interest and provided that the number of members chosen in the several states must be in proportion to population, but that no original state should have less than five members. The first House of Representatives in 1901 had 75 members of whom five were elected in Tasmania. The term of office was set as three years.

The *Representation Act* 1948 increased the House of Representatives to 123, although only 121 were elected from the states; the Northern Territory and the Australian Capital Territory each had one member with restricted voting powers. At 1 June 1974, the House of Representatives stood at 127 members, 124 from the states, two from the Australian Capital Territory and one from the Northern Territory. Throughout the period since Federation, Tasmanian representation has remained constant at five members.

General electoral redistributions were undertaken soon after the 1947, 1954 and 1966 population censuses, the most recent being carried out by the Electoral Commissioners in 1968. The 1968 recommendations were accepted by the Australian Parliament and their net effect was to increase membership of the Federal House of Representatives by one to 125 members. The 1969 Federal House of Representatives election was the first federal election to be conducted in accordance with the new boundaries and subsequent to the election state representation in the House of Representatives became: N.S.W., 45; Victoria, 34; Queensland, 18; South Australia, 12; W.A., nine; Tasmania, five. The A.C.T. and Northern Territory each returned one member with full voting rights. In May 1974, following federal legislation, representation for Western Australia and the Australian Capital Territory was increased in both cases by one. (In W.A. the extra seat was created by a redistribution involving metropolitan Perth electorates while the A.C.T. was divided into two electorates.)

The following table indicates the state of the House of Representatives at the election immediately following an electoral redistribution:

Membership: House of Representatives

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (b)	Total
1948	28	20	10	6	5	5	1	..	75
1949 (c)	47	33	18	10	8	5	1	1	123
1955 (c)	46	33	18	11	9	5	1	1	124
1969 (c)	45	34	18	12	9	5	1	1	125
1974	45	34	18	12	10	5	1	2	127

(a) Representative in House since 1922; full voting rights granted 1969.

(b) Representative in House since 1949; full voting rights granted 1966.

(c) Election following an electoral redistribution.

Qualifications of Voters for Australian Government Elections

An elector on a federal roll is required by law to vote both in elections for the House of Representatives and for the Senate. An elector is any person, male or female, aged at least 18 years who is a British subject, who has lived in Australia for six months continuously and whose name appears on the roll. (Federal legislation reducing the voting age to 18 years became effective from 21 March 1973.) Residence in an electoral sub-division for at least one month is necessary to enable a qualified person to enrol. Enrolment is compulsory.

Qualifications of Candidates—Either Federal House

Qualifications necessary for membership of either House of the Australian Parliament are possessed by any British subject, 18 years of age or over, who has resided in Australia for at least three years and who is, or who is qualified to become, an Australian elector.

The term of office for a member of the House of Representatives is three years unless the House is dissolved earlier by the Governor-General.

Disqualification as Elector or Member

Grounds for disqualification as an elector include being of unsound mind, or being convicted and under sentence for offences punishable by imprisonment for a year or longer. Grounds for disqualification as a member of either house include these prohibitions and also the following: membership of the other house, being an undischarged bankrupt or insolvent, holding office for profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the Australian Government public service except as a member of an incorporated company of more than 25 persons.

Elections for the Senate

In Senate elections each state is an electorate. Electors are required to cast a vote for every candidate standing within the state in order of their preference, and election of members is carried out in accordance with the principles of proportional representation by the single transferable vote (see 'Elections for House of Assembly' in the 1971 *Year Book* for a description of similar electoral principles). If a vacancy occurs in the Senate, the appropriate state government nominates a replacement who sits until the next general election (either for the House of Representatives or for the Senate), when an election is held to fill the vacancy. It is usual for appointed replacements to be of the same party as those they replace, although no law exists to require it.

If a senator fills a vacancy through an election held at the same time as an election for the House of Representatives, his term will be the same as if the vacating member's term were to run its full course. If the vacant seat is contested at an ordinary Senate election, then six, instead of five candidates, will be elected in the state affected and the senator last elected will fill the vacancy for a term shorter than the full six years.

The following table lists the senators for Tasmania together with party affiliation and year of retirement:

Senate: Tasmanian Members

Senator	Party affiliation	Retires in year
Bessell, E. J.	Liberal	1976
Devitt, D. M.	A.L.P.	1979
Everett, M. G.	A.L.P.	1976
Grimes, Dr D. J.	A.L.P.	1976
Mariott, J. E.	Liberal	1976
O'Byrne, J. H.	A.L.P.	1979
Rae, P. E.	Liberal	1979
Townley, M.	Independent	1976
Wriedt, K. S. (a)	A.L.P.	1979
Wright, R. C.	Liberal	1979

(a) Federal Minister for Primary Industry

Elections for the House of Representatives

Australia is divided into 127 single-member electorates and electors are required to cast a vote for every candidate standing within the electorate in order of their preference. Election of members is carried out in accordance with the principles of the absolute majority through use of the alternative vote (see 'Elections for Legislative Council' for a description of similar electoral principles). If a vacancy occurs in the House of Representatives, it is filled by holding a by-election in the electorate concerned. The last general election was held on 18 May 1974.

The following table lists the Tasmanian members of the House of Representatives together with the party affiliation and electorate of each member:

House of Representatives: Tasmanian Members

Member	Party affiliation	Electoral division
Barnard, L. H. (a)	A.L.P.	Bass
Coates, J.	A.L.P.	Denison
Davies, R.	A.L.P.	Braddon
Duthie, G. W. A.	A.L.P.	Wilmot
Sherry, R. H.	A.L.P.	Franklin

(a) Federal Minister for Defence.

Division of Power

Under the *Commonwealth of Australia Act* 1900, the State of Tasmania surrendered part of its sovereignty and it was possible, at that point in time, to classify the totality of powers to be vested in the Australian Government and the State as follows:

- (i) Exclusive powers to be exercised by the Australian Government alone.
- (ii) Concurrent powers to be exercised both by the Australian Government and the State (subject to the supremacy of Australian Government law in cases of inconsistency).
- (iii) Residual powers to be exercised by the State.

Since federation there have been considerable changes in functions actually performed by the two governments due to constitutional amendments and to inter-governmental agreements affecting function. It will suffice, therefore, to list the main fields of activity of the Australian Government today:

Foreign affairs and diplomatic representation; maintenance of the armed forces; customs and excise; posts and telegraphs; control of broadcasting and television; control of civil aviation; repatriation of ex-servicemen; immigration; industrial arbitration for national industries; control of coinage and currency; overseas trade promotion; employment service; age, invalid and widows' pensions; national health benefits; federal territories and overseas dependencies; census and statistics; meteorological service; federal courts and police; control of banking; collection of sales and income taxes; housing assistance and defence service homes; scientific and industrial research; management of state and national debt; lighthouses and navigation. (For a fuller treatment of this subject, the *Constitution* in Chapter 1 of the *Australian Year Book* is recommended.)

The departments, authorities, etc. of the Tasmanian Government are listed in a later section of this chapter headed 'The Present System of Government'.

The State Governor

Introduction

Democratic forms of government exhibit great variety but, with regard to the selection and role of the head of state, two clearly conflicting concepts can be discerned. In the American tradition, the head of state is elected and must necessarily play an active role in party politics. In the British tradition, the head of state is the holder of hereditary office and is expected to be above and beyond party politics. Tasmania follows the British tradition and accepts as its Queen, Elizabeth the Second. Her Majesty appoints the Governor who acts as head of state, generally for a five-year term. The relationship existing between the Queen and the British Parliament is broadly the same as that existing between the Governor and the Tasmanian Parliament.

Authority

The Governor's authority is derived from Letters Patent (issued in 1900) under the Great Seal of the United Kingdom, from the Commissions of Appointment and from the Governor's Instructions issued under the Royal Sign Manual and Signet.

Powers and Duties

The Governor summons and prorogues parliament; in special circumstances he may dissolve it after considering the advice of his premier. Bills which have passed all stages in parliament are submitted to the Governor for his assent although there are some subjects which are specifically reserved for the Royal Assent (e.g. a Bill granting land or money to the Governor). He opens each session of parliament by outlining the legislative programme of the government which, irrespective of its party affiliation, he refers to as 'My Government', but takes no other part in the sittings of either house.

His executive powers include the appointment of ministers of the Crown, judges and other important state officers but not those whose appointments may be made by certain statutory corporations. By appointing ministers of the Crown, the Governor creates the Executive Council of the day and he is required by his instructions to be guided by the advice of this body. Should he feel it necessary to act against the advice of the Executive Council, he may do so, but the reasons for such action must be immediately reported to the Queen. The Governor's relations with the Executive Council and with Cabinet are more fully discussed in the section headed 'The Cabinet and Executive Government'.

The Governor has the power to pardon, reprieve and remit sentences and fines. In such cases he is required to seek the advice of at least one minister. He also has the power to appoint a deputy to act in his stead during his absence (for a period of less than one month) from the seat of government, whether within or outside the State. If the Governor is to be absent for a period in excess of one month, the Chief Justice, by virtue of the Dormant Commission, acts as Administrator. Further reference to the Governor's discretionary powers will be found under the section headed 'Dissolution of House of Assembly'. On all official state occasions, he performs the ceremonial functions as the representative of the Crown.

Present Governor

Until the succession of Sir Stanley Burbury, KBE on 5 December 1973, Tasmanian Governors since the first settlement came from the United Kingdom, although in some other states and the Commonwealth, Australians had been appointed to the vice-regal office. Sir Stanley was sworn in on 5 December 1973, succeeding Lt-General Sir Edric Bastyan, a former Governor of South Australia.

Honours

Another function of the Governor is the investing of all honours awarded to Tasmanians in the Queen's Birthday and New Year Honours Lists, except for knighthoods which are normally dubbed by the Governor-General in Canberra.

The Administrator

In the Letters Patent of 1900 (as amended in 1934), provision was made for a Lieutenant-Governor to administer the government in the event of the Governor's death, incapacity, removal or absence from the State. Should there be no Lieutenant-Governor then appointed or should he be unable to act, the duties of the Governor were to be discharged by the Administrator. Attached to the Letters Patent was a Dormant Commission authorising the Chief Justice to act as Administrator 'in the event of the death, incapacity or absence of the Governor and the Lieutenant-Governor, if any'.

Lieutenant-Governors have often acted in place of the Governor but since 1943 it has been customary for the Chief Justice to act as Administrator in accordance with the provisions of the Dormant Commission which further nominates the next Senior Judge to act in the absence of the Chief Justice. (The last Lieutenant-Governor appointed was Sir John Evans, 1937-1943.)

Succession of Governors

The next table shows the succession of governors from the time of Lieutenant Bowen's settlement in 1803. The list of administrators and lieutenant-governors is restricted to those whose inclusion is necessary to maintain a continuous time series (i.e. short periods of relief during a governorship are excluded). The title 'governor' was first used by Sir H. E. Fox Young, under whose administration the colony graduated to self-government.

The terms of office fall into four eras: (i) the governor directly responsible to N.S.W.; (ii) governor independent of N.S.W.; (iii) colonial self-government; and (iv) post-federation.

Succession of Governors, Acting Governors, Administrators, etc. from 1803

Name	Designation	Period
(i) 1803-1825		
Lieut John Bowen	Commandant	11. 9.03 - 16. 2.04
Colonel David Collins, R.M.	Lieutenant-Governor	16. 2.04 - 24. 3.10
Lieut Edward Lord, R.M.	Commandant	24. 3.10 - 8. 7.10
Captain J. Murray, 73rd Regt	Commandant	8. 7.10 - 20. 2.12
Major A. Geils, 73rd Regt (a)	Commandant	20. 2.12 - 4. 2.13
Colonel Thomas Davey, R.M.	Lieutenant-Governor	4. 2.13 - 9. 4.17
Colonel William Sorell	Lieutenant-Governor	9. 4.17 - 14. 5.24
Colonel George Arthur (b)	Lieutenant-Governor	14. 5.24 - 3.12.25
(ii) 1825-1855		
Colonel George Arthur (b)	Lieutenant-Governor	6.12.25 - 29.10.36
Lt-Col K. Snodgrass	Administrator	29.10.36 - 5. 1.37
Sir J. Franklin, KCH, R.N.	Lieutenant-Governor	5. 1.37 - 21. 8.43
Sir J. E. Eardley-Wilmot, Bart	Lieutenant-Governor	21. 8.43 - 13.10.46
C. J. La Trobe, Esq.	Administrator	13.10.46 - 25. 1.47
Sir W. T. Denison	Lieutenant-Governor	25. 1.47 - 8. 1.55

Succession of Governors, Acting Governors, Administrators, etc.—*continued*

(iii) 1855-1900

Name	Designation	Period
Sir H. E. Fox Young	Governor	8. 1.55 - 10.12.61
Colonel Thomas Gore Browne, CB	Governor	10.12.61 - 30.12.68
Lt-Col W. C. Trevor, CB	Administrator	30.12.68 - 15. 1.69
Charles Du Cane, Esq.	Governor	15. 1.69 - 28.11.74
Hon. Sir Francis Smith, CJ	Administrator	28.11.74 - 13. 1.75
F.A. Welds, Esq.	Governor	13. 1.75 - 5. 4.80
Hon. Sir Francis Smith, CJ	Administrator	5. 4.80 - 21.10.80
Lt-General Sir J. H. Lefroy, KCMG, CB	Administrator	21.10.80 - 7.12.81
Sir G. C. Strahan, RA, KCMG	Governor	7.12.81 - 28.10.86
Hon. W. R. Giblin, Esq. SJ	Administrator	28.10.86 - 18.11.86
Hon. Sir W. L. Dobson, CJ	Administrator	18.11.86 - 11. 3.87
Sir R. G. C. Hamilton, KCB	Governor	11. 3.87 - 30.11.92
Hon. Sir W. L. Dobson, CJ	Administrator	30.11.92 - 8. 8.93
Rt Hon. J. W. Joseph, Viscount Gormanston, KCMG	Governor	8. 8.93 - 14. 8.00

(iv) 1900—

Sir John Dodds, KCMG	Administrator	14. 8.00 - 8.11.01
Sir A. E. Havelock, GCSI, GCME, GCIE	Governor	8.11.01 - 16. 4.04
Sir John Dodds, KCMG	Lieutenant-Governor	16. 4.04 - 28.10.04
Sir G. Strickland, KCMG	Governor	28.10.04 - 20. 5.09
Sir John Dodds, KCMG	Lieutenant-Governor	20. 5.09 - 29. 9.09
Sir Harry Barron, KCMG, CVO	Governor	29. 9.09 - 8. 3.13
Sir John Dodds, KCMG	Lieutenant-Governor	8. 3.13 - 4. 6.13
Sir William Ellison-Macartney, KCMG	Governor	4. 6.13 - 31. 3.17
Sir Herbert Nicholls	Administrator	31. 3.17 - 6. 7.17
Sir F. A. Newdigate Newdegate, KCMG	Governor	6. 7.17 - 9. 2.20
Sir Herbert Nicholls	Administrator	9. 2.20 - 16. 4.20
Sir W. L. Allardyce, KCMG	Governor	16. 4.20 - 26. 1.22
Sir Herbert Nicholls	Administrator	26. 1.22 - 30.11.23
Hon. N. K. Ewing, Esq.	Administrator	30.11.23 - 13. 6.24
Sir Herbert Nicholls	Administrator	13. 6.24 - 23.12.24
Sir James O'Grady, KCMG	Governor	23.12.24 - 23.12.30
Sir Herbert Nicholls, KCMG	Lieutenant-Governor	23.12.30 - 4. 8.33
Sir Ernest Clark, GCMG, KCB, CBE	Governor	4. 8.33 - 4. 8.45
Sir John Morris	Administrator	4. 8.45 - 24.12.45
Admiral Sir Hugh Binney, KCB, KCMG, DSO	Governor	24.12.45 - 8. 5.51
Sir John Morris, KCMG	Administrator	8. 5.51 - 22. 8.51
Rt Hon. Sir Ronald Cross, Bart, KCMG, KCVO	Governor	22. 8.51 - 4. 6.58
Hon. Sir Stanley Burbury, KBE	Administrator	4. 6.58 - 21.10.59
Rt Hon. the Lord Rowallan, KT, KBE, MC	Governor	21.10.59 - 25. 3.63
Hon. Sir Stanley Burbury, KBE	Administrator	25. 3.63 - 24. 9.63
Lt-General Sir Charles Gairdner, KCMG, KCVO, KBE, CB	Governor	24. 9.63 - 11. 7.68
Hon. Sir Stanley Burbury, KBE	Administrator	11. 7.68 - 2.12.68
Lt-General Sir Edric Bastyan, KCMG, KCVO, KBE, CB	Governor	2.12.68 - 5.12.73
Hon. Sir Stanley Burbury, K.B.E.	Governor	5.12.73 -

(a) Originally the Launceston settlement had its own officials appointed from N.S.W. Lieut-Governor W. Paterson was followed, as Commandant, by Captain J. Brabyn and Major G. A. Gordon. The next, Captain J. Ritchie, took office on 1 July 1812 subordinate to Major A. Geils.

(b) On 3 December 1825, Lt-General Sir Ralph Darling displayed in Hobart two commissions, one as Governor of N.S.W. and one as Governor of Van Diemen's Land. This was the device for separating Van Diemen's Land from N.S.W. Colonel George Arthur was sworn in again as Lieutenant-Governor on 6 December 1825.

The Cabinet and Executive Government*General*

In Tasmania, as in the other states and the Australian Government, 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 (in Tasmania, the Governor representing Her Majesty the Queen) should perform governmental acts on the advice of his ministers; that he should choose his 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. In law, still, the executive power of the State is exercised by the Governor who is advised by the Executive Council which he himself has appointed and which meets for certain formal purposes. The whole policy of a ministry is, in practice, determined by the ministers of the crown, meeting without the Governor under the chairmanship of the Premier, and this body is known as the Cabinet.

The Cabinet

This body does not form part of the legal mechanism of government and its meetings are private and deliberative. Only the ministers of the day are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. As ministers are the leaders of the party commanding a majority in the House of Assembly, the Cabinet substantially controls 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 State. Even in summoning, proroguing or dissolving parliament, the Governor is usually guided by the advice tendered him by the Cabinet, through the Premier, though legally the discretion is vested in the Governor.

In Tasmania, the present Cabinet consists of the 10 ministers of the crown including the Premier, most of whom hold more than one portfolio.

The Executive Council

This body is usually presided over by the Governor, the members thereof holding office during his pleasure. All ministers of the crown must be members of the Executive Council. Ministers actually remain members of the Executive Council on leaving office, but are not summoned to its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the ministers of the day. The Chief Justice and judges of the Supreme Court are also members of the Executive Council, but they too are not summoned to its meetings for the same reason. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Clerk (who is the permanent head of the Premier's and Chief Secretary's Department). At Executive Council meetings, the decisions of Cabinet are (where necessary) given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved. The quorum required is three, comprising the Governor and at least two ministers.

The Appointment of Ministers

Legally, ministers hold office during the pleasure of the Governor. In practice, however, the discretion of the head of state in the choice of ministers is limited by the conventions on which the Cabinet system rests. When a ministry resigns, the Governor's custom is to send for the leader of the party which commands a majority in the lower house, and to commission him as Premier, to 'form a ministry'—that is, to nominate other persons to be appointed as ministers of the crown and to serve as his colleagues in the Cabinet.

The *Constitution Act 1854* defined the Parliament of Tasmania as 'the Governor and the Legislative Council and House of Assembly together'. Although no legal requirements enforce it, the selection of all ministers of the crown from parliament stems from the British tradition and sharply contrasts with the American system which requires its ministers not to be members of Congress.

Ministry

At 18 April 1974, the ministry led by the Hon. E. E. Reece, was:

Ministry at 18 April 1974

Name	House	Responsibility (a)
The Hon. E. E. Reece	Assembly	Premier, Treasurer, Mines
The Hon. W. A. Neilson	Assembly	Deputy-Premier, Attorney-General, Police and Licensing, Environment
The Hon. N. L. C. Batt	Assembly	Education, Recreation and the Arts
The Hon. L. E. A. Costello	Assembly	Agriculture
The Hon. M. T. C. Barnard	Assembly	Lands and Works, Local Government
The Hon. A. J. Foster	Assembly	Health, Social Welfare, Road Safety
The Hon. R. F. Fagan	Assembly	Industrial Development, Hydro-Electric Commission, Forests
The Hon. D. A. Lowe	Assembly	Housing, Chief Secretary
The Hon. B. K. Miller	Legislative Council	Tourism, National Parks and Wildlife
The Hon. G. D. Chisholm	Assembly	Transport, Racing and Gaming

(a) See section 'The Present System of Government' later in chapter for fuller statement of responsibility.

Premiers

The following is a list of the Premiers of Tasmania from 1856 (the year in which the first elected parliament sat):

Premiers from 1856

Name of premier	Term of office		Duration of office (months)
	From	To	
1856-1900			
W. T. N. Champ	1.11.56	26. 2.57	4
T. G. Gregson	26. 2.57	25. 4.57	2
W. P. Weston	25. 4.57	12. 5.57	1
F. Smith	12. 5.57	1.11.60	42
W. P. Weston	1.11.60	2. 8.61	9
T. D. Chapman	2. 8.61	20. 1.63	18
J. Whyte	20. 1.63	24.11.66	46
Sir Richard Dry	24.11.66	4. 8.69	32
J. M. Wilson	4. 8.69	4.11.72	39
F. M. Innes	4.11.72	4. 8.73	9
A. Kennerley	4. 8.73	20. 7.76	36
T. Reibey	20. 7.76	9. 8.77	13
P. O. Fysh	9. 8.77	5. 3.78	7
W. R. Giblin	5. 3.78	20.12.78	9
W. L. Crowther	20.12.78	30.10.79	10
W. R. Giblin	30.10.79	15. 8.84	58
Adye Douglas	15. 8.84	8. 3.86	19
J. W. Agnew	8. 3.86	29. 3.87	13
P. O. Fysh	29. 3.87	17. 8.92	65
H. Dobson	17. 8.92	14. 4.94	20
Sir Edward Braddon	14. 4.94	12.10.99	66

*Government and Administration***Premiers from 1856—continued**

Name of premier	Term of office		Duration of office (months)
	From	To	
1900-			
Sir N. E. Lewis	12.10.99	9. 4.03	42
W. B. Propsting	9. 4.03	11. 7.04	15
J. W. Evans	11. 7.04	19. 6.09	59
Sir N. E. Lewis	19. 6.09	20.10.09	4
J. Earle (<i>a</i>)	20.10.09	27.10.09	..
Sir N. E. Lewis	27.10.09	14. 6.12	32
A. E. Solomon	14. 6.12	6. 4.14	22
J. Earle (<i>a</i>)	6. 4.14	15. 4.16	24
Sir Walter Lee	15. 4.16	12. 8.22	76
J. B. Hayes	12. 8.22	14. 8.23	12
Sir Walter Lee	14. 8.23	25.10.23	2
J. A. Lyons (<i>a</i>)	25.10.23	15. 6.28	56
J. C. McPhee	15. 6.28	15. 3.34	69
Sir Walter Lee	15. 3.34	22. 6.34	3
A. G. Ogilvie (<i>a</i>)	22. 6.34	10. 6.39	60
E. Dwyer Gray	11. 6.39	18.12.39	6
R. Cosgrove	18.12.39	18.12.47	96
E. Brooker	18.12.47	25. 2.48	2
R. Cosgrove	25. 2.48	26. 8.58	126
E. E. Reece	26. 8.58	26. 5.69	129
W. A. Bethune	26. 5.69	3. 5.72	35
E. E. Reece	3. 5.72		

(a) Tasmania had an unbroken succession of Labor premiers, starting with the Ogilvie Ministry (1934), until the resignation of the Reece government (following electoral defeat) on 26 May 1969; earlier Labor ministries were led by J. Earle (first in 1909) and by J. A. Lyons.

Relations of Two Houses*Status of Legislative Council*

A vexed question for many years was the exact status of the Legislative Council in relation to the House of Assembly from which the ministry of the day was predominantly chosen. The 1854 Constitution Act had defined parliament as 'the Governor and the Legislative Council and House of Assembly together' and obviously the approval of all three was necessary for laws to become valid; on the other hand, there was no adequate provision for resolving situations in which the Legislative Council rejected bills or amended bills in ways unacceptable to the House of Assembly. The lower house was elected on a wider franchise, and could legitimately claim to be the more accurate instrument of public opinion to the extent that it was not a perpetual body like the Legislative Council, as its members were all elected at the one time. (Only in 1968 was legislation passed to introduce adult franchise for Legislative Council elections.) The power of the Legislative Council to reject and amend was most resented in relation to money bills, since these vitally affected the administration of public affairs by the ministry of the day.

The Conflict of 1924 and 1925

The 1924-25 Appropriation Bill was amended by the Legislative Council, involving a reduction of \$37,000. The Premier (J. A. Lyons) decided to challenge the right of the upper house to amend money bills; after a two-house conference had failed to reach agreement, the House of Assembly voted 17 to 10, directing the Speaker to seek Royal Assent for the bill 'in the form it passed the House of Assembly'.

The Administrator gave assent to the bill following consultation with the Secretary of State in London and Tasmanian crown law officials and it went on to the statute book.

By 1925, a new Governor (Sir James O'Grady) had taken up office but he followed the precedent set by the Administrator, giving assent to 'one-house' bills.

A joint committee was established in 1925 to formulate constitutional changes that would resolve the situation and define the relations of the two houses in the passing of money bills. This resulted in the passage of the *Constitutional Amendment Act 1926*.

The following current principles are found in the Act: (i) the Legislative Council retains the right to reject any bill, including a money bill; (ii) the Council is specifically prevented from amending bills to raise revenue for the ordinary annual services of the government and bills imposing land and income tax; (iii) it can suggest to the House of Assembly that amendments be made but the adoption or rejection of such amendments is at the discretion of the Assembly; and (iv) the operation of such bills is restricted to a period of one year. Apart from the above specific exceptions, the Council retains the right to amend money bills, e.g. those dealing with loan funds or probate. The House of Assembly is given the sole right to initiate bills for the raising of revenue and the imposition of taxes. Finally, the powers of the two houses are declared equal in all matters except for these specific exceptions.

Deadlocks

The Legislative Council has the tradition of being a non-party house; in 1974 the composition of the house was 17 independents and two Labor Party representatives. The leader for the government in the Legislative Council cannot rely upon a vote taken on party lines to ensure the passage of any government bill. It is the ability to command a majority in the House of Assembly which gives a party the right to form the government of the day and which ensures the passage of government legislation through the lower house; no such certainty exists in the passage of bills through the upper house and accordingly the Legislative Council is in a position to exercise considerable influence on the form in which bills are finally passed through both houses.

Consultation Machinery

When a position is reached in which one house refuses to accept the amendments or legislation of the other, provision exists under the Standing Orders for joint consultation by the calling of a 'free conference' at which each house is represented by 'managers'. (It is usual for each house to be represented by four managers.) The free conference endeavours to find a compromise acceptable to both houses.

Another form of consultation between the two houses is the appointment of a joint select committee which is set terms of reference and which is primarily concerned with fact-finding. The passage of a bill may be temporarily delayed while a joint select committee makes a specific investigation; this machinery provides members with the information necessary to cast an informed vote.

Parties

In the period 1909-1972, the major parties have been the Labor Party and the Liberal Party (which replaced the Nationalist Party in 1948). In the early 1920s, a Country Party appeared with five members in the House of Assembly but soon went out of existence. At the 1964 Assembly elections, a number of Country Party candidates stood but none was successful. In October 1966 K. O. Lyons, one of the House of Assembly members for Braddon, resigned from the Liberal Party and formed the Australian Centre Party, an organisation affiliated with the Australian Country Party. At the 1969 elections the Centre Party had one representative returned to the House of Assembly; however, at the 1972 elections the Party did not field any candidates.

Dissolution of the House of Assembly

The Governor may dissolve the House of Assembly whenever he considers it desirable but he has no power to dissolve the Legislative Council. In effect then, the Legislative Council is a perpetual body except that approximately one-sixth of its seats falls vacant annually. As

there is no provision for a double dissolution the Legislative Council, by rejection of a supply bill, can force the House of Assembly to seek a dissolution without itself needing to face the electorate. This last occurred in 1948.

In practice, the Governor considers dissolving the House of Assembly only when requested to do so by his ministers. In recent years the House of Assembly has been dissolved three times; in 1950, 1956 and again in 1972.

Sessions of Parliament

Parliament is required to sit every year and, having risen, must sit again before 12 months have elapsed. When the House of Assembly is dissolved and a general election held, the Governor is required to call parliament together within 90 days of the dissolution, subject to a discretionary extension of a further 30 days.

Elections for the House of Assembly

Tasmanian System

Elections for the House of Assembly are conducted under a system which can be classified as proportional representation by the single transferable vote (commonly known as the Hare-Clark system).

The essential features of the system are as follows:

- (i) For an elector to cast a valid vote, he must express at least three preferences.
- (ii) Names on the voting papers are arranged in distinct groups to facilitate recognition of allegiance to parties (but names of parties are not specified).
- (iii) To secure election, candidates must secure a quota in accordance with the Droop formula (i.e. the total first-preference votes in the constituency divided by eight, plus one vote).
- (iv) Should a candidate secure an exact quota on first preferences, his voting papers are set aside as finally dealt with.
- (v) If the first successful candidate secures a surplus above the quota, then all his voting papers are re-examined to determine which candidates should secure the second preferences.
- (vi) The second preferences are first adjusted by multiplying them by a fraction called the transfer value. The transfer value is calculated by dividing the successful candidate's surplus first-preference votes by his total first preferences. The second-preference votes, adjusted in this way, are now transferred to other candidates.
- (vii) When repetition of the above process results in a position where no further candidates can reach a quota, the candidate who is lowest on the poll is excluded and the preferences shown on his voting papers transferred to the remaining candidates.

The above processes are repeated until seven candidates have been elected. As might be expected, the counting of votes, calculation of transfer values and the transferring of votes are time-consuming operations and a week may elapse before the declaration of a poll.

Commencement of the System

In 1907, an Electoral Act provided that all members of the House of Assembly were to be elected by proportional representation, the State being divided into five constituencies each of which was to be represented by six members. The first election in accordance with this Act was held in 1909.

The fourth schedule to the 1907 Act dealing with quotas, transfer of votes, exclusion of candidates, etc. is still the blueprint for counting votes today; however, as from the 1959 elections, the number of members for each constituency was increased from six to seven, a measure designed to avoid parliamentary deadlocks.

Advantages

The major advantage claimed for the system is that the composition of the House of Assembly tends to faithfully reflect the wishes of the electors viewed on a state basis, and that a party with a minority of first preferences is most unlikely to obtain a majority of seats, as sometimes occurs in systems with single-member constituencies. By way of example, South Australia, using single-member electorates has sometimes been governed by parties receiving a minority of votes but a majority of seats; other Australian states have had similar experiences.

Leaving aside the matter of independents and minority parties, and assuming that only candidates from the two major parties are elected, then the present normal pattern is for each constituency to elect four candidates from one of the major parties and three from the other. It follows, therefore, that the opposition is normally always adequately represented in the House of Assembly and supporters of the opposition party always have representatives for their constituency.

Effectiveness of System

Since voting for the House of Assembly requires a voter to make at least three choices in order of preference, any complete investigation of the effectiveness of the system requires a study of all preference votes. However, an approximate measure of effectiveness can be obtained by treating the State as a single electorate and finding the total first-preference votes obtained by each party; from these totals it is possible to calculate, by simple proportion, the theoretical share of seats to which each party is entitled. In the table that follows, this measure of effectiveness has been calculated for all House of Assembly elections in the period 1931-1972 inclusive. It will be seen that although the relationship between seats actually won and the calculated proportionate share is fairly close in most elections for the major parties, a change in the number of members elected for each electorate after the 1959 election has partially unbalanced this relationship. At the 1972 elections, the contending parties were Labor Party and Liberal Party, while a number of candidates stood as independents, and in addition a number of persons without party affiliations stood as the United Tasmania Group on a conservation platform.

Representation of Parties for the Whole State, 1931-1972
House of Assembly

Election Year	Labor		Liberal (from 1948) or Nationalist		Other (a)	
	Proportionate share (b)	Seats won	Proportionate share (b)	Seats won	Proportionate share (b)	Seats won
1931	10.47	10	16.92	19	2.61	1
1934	13.74	14	14.01	13	2.25	3
1937	17.61	18	11.64	12	0.75	..
1941	18.78	20	10.98	10	0.24	..
1946	15.29	16	10.27	12	4.44	2
1948	14.82	15	11.35	12	3.83	3
1950	14.59	15	14.27	14	1.14	1
1955	15.79	15	13.60	15	0.61	..
1956	15.08	15	13.08	15	1.84	..
1959 (c)	15.58	17	14.37	16	5.05	2
1964	17.97	19	13.47	16	3.56	..
1969	15.91	17	14.68	17	4.41	1
1972	19.22	21	13.43	14	2.35	..

(a) Independents and minority parties.

(b) State treated as single electorate and proportionate share of seats calculated on basis of first preference votes cast for parties.

(c) 35 members elected as from 1959.

Use of the System

Many regard the system of election for the House of Assembly as being a phenomenon peculiar to Tasmania. This is by no means so, since the following countries either use or have used a similar system of election: Republic of Ireland (both houses), South Africa (Senate), Malta (both houses), Gibraltar (Legislative Council), Canada (for some provincial electorates in Alberta and Manitoba) and Australia itself, in the election of the federal Senate. If the State has any claim to being unique in the field of electoral reform, it must be based on the fact that Tasmania was the first country in the world to introduce proportional representation by the single transferable vote.

Votes Recorded at Assembly Elections

The last general election for the House of Assembly was held on 22 April 1972. Voting in general elections since 1931 is shown in the following table:

Assembly Elections Since 1931

Year of election	Electors on roll	Votes recorded		Informal votes	
		Number	As percentage of enrolled electors	Number	Percentage of total votes recorded
1931	118,730	112,779	95.0	3,885	3.4
1934	127,681	120,622	94.5	3,855	3.2
1937	132,001	124,460	94.3	2,997	2.4
1941	139,234	127,034	91.2	6,344	5.0
1946	157,756	143,674	91.1	14,484	10.1
1948	161,088	148,588	92.2	5,886	3.9
1950	161,650	152,785	94.5	6,841	4.5
1955	173,165	162,637	93.9	6,158	3.8
1956	174,632	166,293	95.2	6,968	4.2
1959	180,344	170,559	94.6	9,816	5.8
1964	r 193,418	184,571	95.5	7,980	4.3
1969	210,268	198,571	94.4	9,248	4.7
1972	216,846	205,803	94.9	7,533	3.7

The percentage of informal votes in the previous table is not particularly high, even though the voting papers for six or seven-member electorates are necessarily more complicated than those for single-member electorates. In Senate elections held in Tasmania, informal votes tend to be rather a large proportion of votes cast and in the 1934 election exceeded 16 per cent. In Assembly elections only three preferences are compulsory whereas in Senate elections the voter must indicate as many preferences as there are candidates.

Resolution of Assembly Deadlocks*House of 30 Members*

One of the virtues claimed for the Hare-Clark system is the adequate representation given to minorities. In a small House of 30 members, this virtue tended to be too evident and led to situations where the government of the day did not have the necessary majority to carry all its legislation with confidence.

The first remedy employed was the *Constitution Amendment Act 1954* which provided that, in the event of a 15-all draw between the two major parties in an election, an Electoral Commission would be established. This body's function would be to decide, on the basis of primary votes cast for each party, which were the majority and minority parties. On the meeting of the House, the minority party would then have the right to nominate one of its members to the office of Speaker. If the minority party refused to exercise this right, then the majority party might proceed to appoint one of its own members and it would receive an additional member in replacement, elected from the Speaker's constituency.

The 1954 Act provided machinery for overcoming deadlocks but still did not have much impact on the major problem—that of providing the government of the day with an effective working majority.

House of 35 Members

In 1958, a further constitutional amendment was made in which the number of members to be elected for each constituency was increased from six to seven thus enlarging the House of Assembly from 30 to 35 members. At the first elections held under the provisions of this amendment (May 1959) the major parties secured 17 and 16 seats respectively, the remaining seats being won by independents.

Life of House of Assembly

After the *Constitution Act 1936*, the House was elected for five-year terms. The 1954 Act provided that the term should be reduced to three years if the special deadlock provisions were invoked to appoint a Speaker, but the 1958 Act restored five-year terms irrespective of the outcome of the election. In 1969, the life of the House was reduced to three years by the newly-elected Bethune Government.

When Labor was returned to office in April 1972 the Premier, Mr Reece, introduced legislation to restore a five-year term for the House of Assembly. The Bill was passed by the House in June 1972. However, a number of members of the Legislative Council had voiced strong objections to restoration of a five-year term for the House of Assembly. A conference between the Premier and Council members failed to resolve the issue. The term of office for the House of Assembly was amended from five to four years by the Council and the Bill returned to the Lower House for ratification of the amendment. Following the rejection of the amended Bill by the House of Assembly a conference of managers from the two houses was called. After lengthy debate a compromise solution, which proved acceptable to both houses, was reached. The compromise agreed to was: (i) term for the present House of Assembly, five years; (ii) House of Assembly terms following completion of the present term, four years; and (iii) no future alterations to House of Assembly terms unless two-thirds of its members agree to the change.

Constituencies of House of Assembly

The five constituencies for the House of Assembly are identical with the five electoral divisions electing members to the federal House of Representatives. The periodic alteration of electoral boundaries to accord with changes in population is carried out under a joint federal-state agreement, the most recent redistribution becoming effective in November 1968. The next table and map show composition and extent of each electorate.

Enrolments by Electorate (a)

Electorate	Enrolments					
	Old boundaries 31 May 1968	New boundaries 31 May 1968 (b)	30 June			
			1970	1971	1972	1973 (c)
Bass	40,139	40,139	40,885	41,208	41,486	42,949
Braddon	41,803	41,803	44,259	45,121	46,541	48,407
Denison	35,353	42,917	45,545	44,451	45,374	47,505
Franklin	49,026	37,203	40,040	41,406	42,119	44,782
Wilmot	37,103	41,362	42,644	42,969	43,360	45,040
Total	203,424	203,424	213,373	215,155	218,880	228,683

(a) Electoral boundaries changed for the divisions of Denison, Wilmot and Franklin.

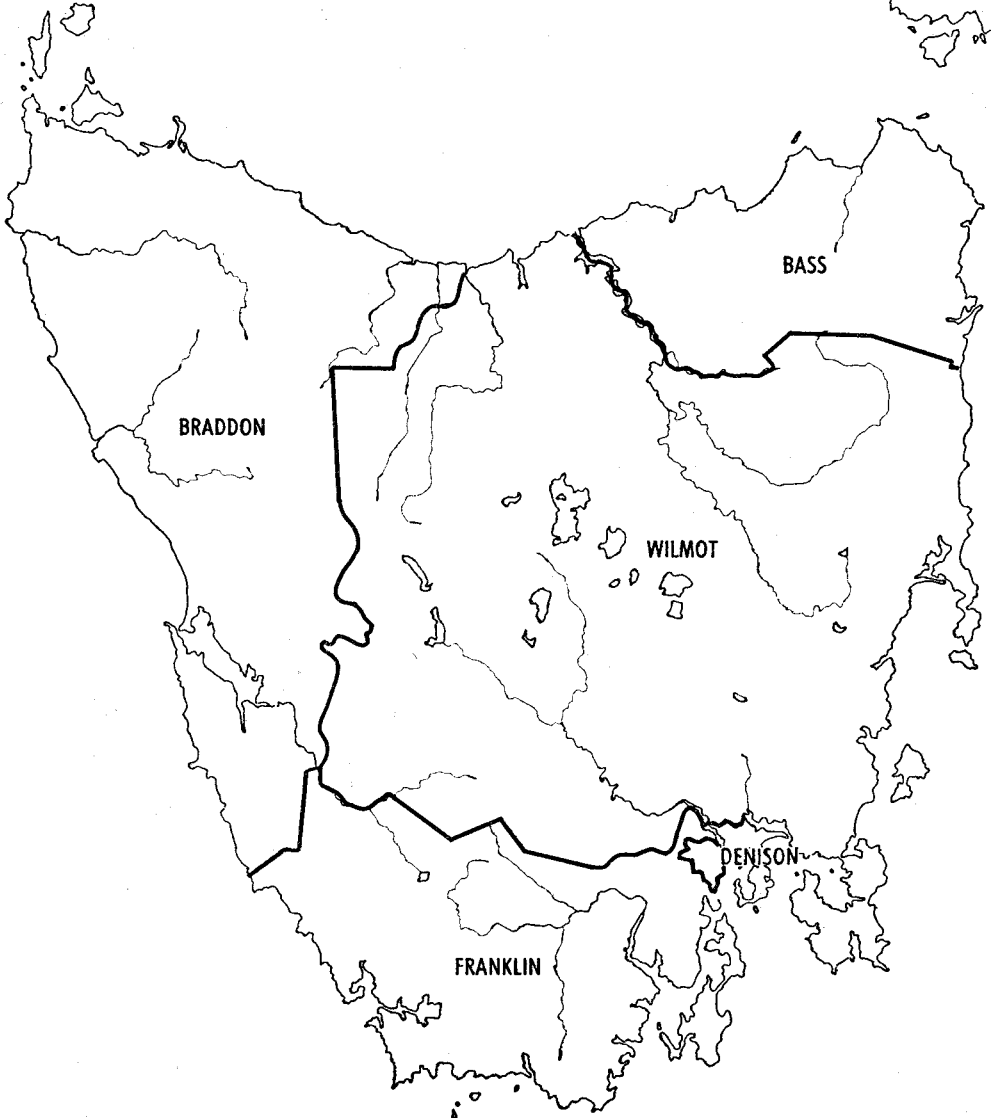
(b) Although boundary changes did not become effective until 25 November 1968 the enrolment figures at 31 May 1968 show the immediate effect of the changes.

(c) Not strictly comparable with previous years; greater than normal increase reflects the lowering of the voting age to 18 years.

ELECTORAL DIVISIONS

STATE.....House of Assembly

FEDERAL...House of Representatives



Elections for the Legislative Council

Annual Fractional Elections

For the purpose of electing members of the Legislative Council, the State is divided into 19 single-member constituencies. Each member, when elected, holds office for six years and Council elections are held every year to elect three members; every sixth year four members are elected. There are no general elections for the Legislative Council.

Preferential Voting

Candidates appear on the voting paper in alphabetical order and are not grouped to show party allegiance as in voting papers for the House of Assembly. If there are two candidates, the voter need only vote for one. If there are three or more candidates, the voter must indicate at least three preferences to record a valid vote.

If any candidate secures first-preference votes exceeding half the total first preferences, he is declared elected. If no candidate satisfies this condition, then the candidate with the fewest votes is excluded and the second preferences shown on his voting papers are transferred to other candidates, the transfer value of each such second preference being equal to one. If no candidate then has the required majority, the process of exclusion is repeated until such time as one candidate secures the majority.

The method of counting is identical with that used in elections for the federal House of Representatives and is termed preferential. The full description is election by absolute majority through use of the alternative vote.

Boundaries, Legislative Council Divisions

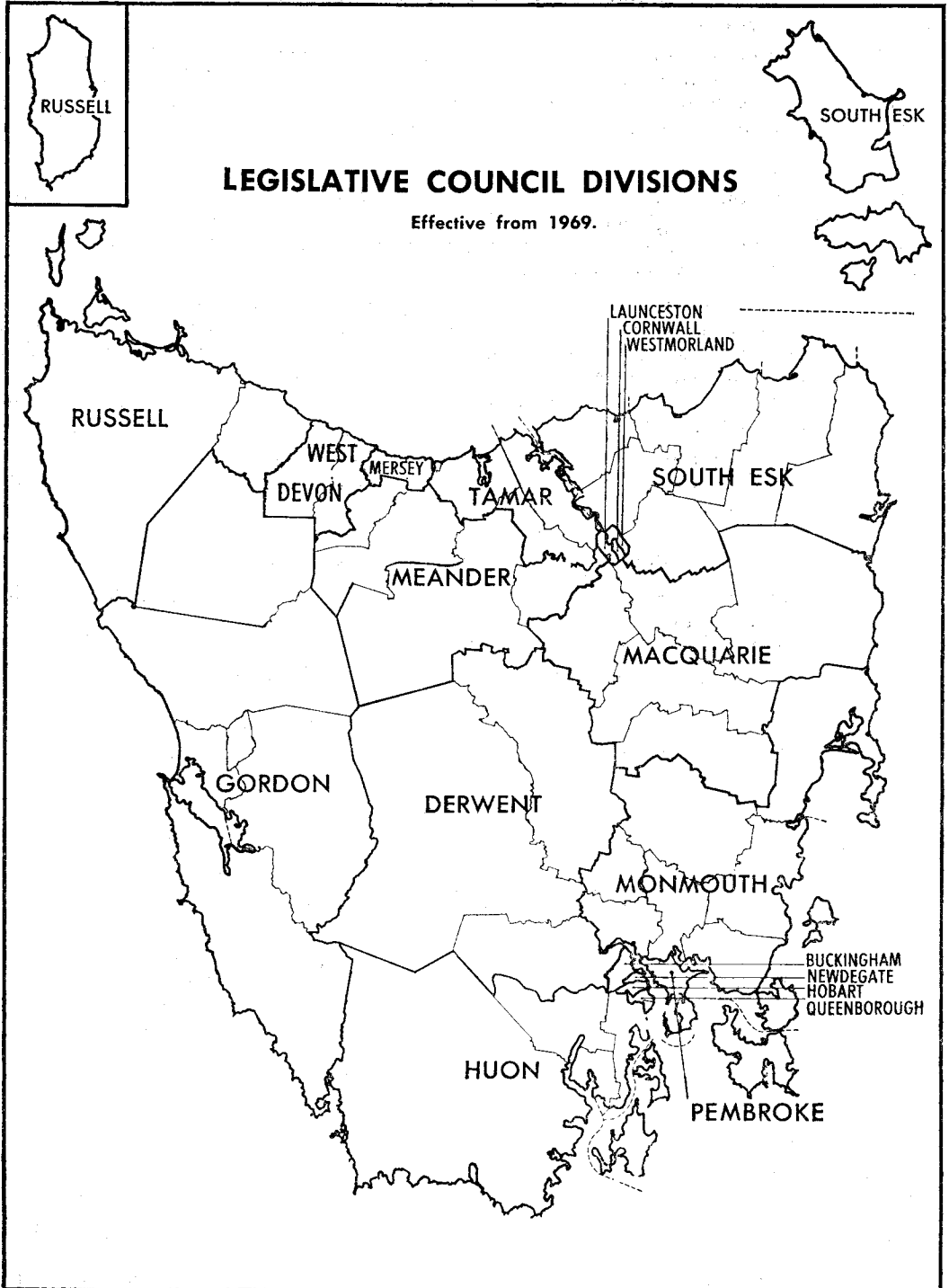
Late in 1967, the *Constitution Act* 1934 was amended to change the boundaries of the Legislative Council divisions, the new boundaries being used for the first time in 1969. The following table shows the number of electors in each division before and after redistribution:

Legislative Council: Effect of Changed Boundaries on Number of Electors in Each Division

Division (a)	Before redistribution	After redistribution			
		30 Sept. 1968	30 June		
			1971 (b)	1972	1973
Buckingham (H)	11,450	10,227	10,956	10,806	11,548
Cornwall (L)	6,556	9,499	10,171	12,231	12,049
Derwent (R)	13,370	6,078	6,775	6,947	7,388
Gordon (S)	4,039	3,731	5,313	5,526	5,305
Hobart (H)	4,565	10,091	13,312	13,146	13,116
Huon (R)	9,141	7,776	7,973	9,821	9,820
Launceston (L)	2,826	8,998	11,350	11,237	10,960
Macquarie (R)	7,107	5,819	5,796	5,804	6,399
Meander (R)	5,639	7,151	8,143	7,901	7,615
Mersey (DU)	11,023	11,037	13,537	15,047	14,889
Monmouth (R)	3,491	6,313	6,808	6,968	7,342
Newdegate (H)	7,867	11,822	12,228	12,534	12,699
Pembroke (H)	17,214	13,347	18,634	18,926	18,604
Queenborough (H)	7,824	9,495	11,595	11,265	10,879
Russell (R)	8,189	8,268	9,238	9,420	9,503
South Esk (R)	9,517	7,263	8,557	8,512	9,121
Tamar (R)	8,183	6,182	6,563	6,822	8,551
West Devon (BP)	9,249	9,438	12,610	13,013	12,757
Westmorland (L)	13,270	8,290	9,420	9,736	11,153
Total	160,520	160,825	188,979	195,662	199,698

(a) (H) = Hobart and suburban; (L) = Launceston and suburban; (BP) = Burnie and Penguin municipalities; (DU) = Parts of Devonport and Ulverstone municipalities; (R) = rural; (S) = special.

(b) Franchise widened 1 July 1969; figures not directly comparable.



The redistribution differentiated between the faster growing populations in urban electorates and the stationary or contracting populations in rural seats. Special provision was made for the isolated west coast seat of Gordon.

Although universal franchise replaced the former restricted franchise on 1 July 1969, the Electoral Department progressively updated the roll concentrating mainly on the three or four electorates contested each year.

Qualifications of Electors and Members

Qualifications of Electors, State Elections

An elector for both the House of Assembly and the Legislative Council is any person, aged at least 18 years, male or female, who has lived in the State six months continuously, who is a natural-born or naturalised subject of the Queen and whose name is on the electoral roll for an electoral division. (Legislation reducing the voting age to 18 years passed both houses of parliament in mid-1973.) Voting has been compulsory since the *Electoral Act* 1928. The special qualifications for electors of the Legislative Council were abolished on 1 July 1969 following amendments to the *Constitution Act* 1934 and the *Electoral Act* 1907.

Qualifications of Members, State Parliament

House of Assembly: To be eligible for election as a member of the House of Assembly, a candidate must comply with the following conditions: he must either be an elector or be qualified to be an elector for the House of Assembly and resident in Tasmania for five years at any one time or resident for two years immediately preceding the election.

Legislative Council: A candidate for the Legislative Council must be an elector or have the qualifications of an elector for the Council; in addition he must meet the residential restrictions imposed on candidates for the House of Assembly.

Persons of unsound mind or in prison under any conviction are barred from voting at elections for either house or from being elected to either house. No person shall be a member of both houses at the one time.

By-Elections

House of Assembly

In the case of a vacancy occurring in the House of Assembly, there is provision for the Chief Electoral Officer to publicly invite nominations from candidates who were unsuccessful at the last general election in the constituency which elected the vacating member. If one nomination only is received the consenting candidate is declared elected and the Governor notified to this effect.

If more than one such nomination is received, the Chief Electoral Officer is required to examine the voting papers counted for the vacating member at the last general election. In the simple case—where the vacating member obtained a surplus above the quota—this can be confined to voting papers expressing first choices. In the more difficult case—where the vacating member did not obtain a quota on first choices—it is necessary to take into account not only original first-choice papers but also all voting papers representing votes transferred to the vacating member.

The vacating member's voting papers, as defined above, are examined and all his votes are transferred to the consenting candidates according to the preferences expressed thereon. Second preferences derived from first choice votes of the vacating member have a transfer

value of one, but from votes he obtained by transfer, only the value at which he obtained them. For the purpose of the count, first-choice votes received by the consenting candidates at the general election are not relevant—the selection is based on preferences as revealed by the voting papers of the vacating member.

When the number of votes in favour of each consenting candidate has been ascertained, the final selection is by the method of the absolute majority through the alternative vote.

If no nominations are received from candidates unsuccessful at the last general election, then an election is held to fill the vacancy.

On the resignation in April 1974 of the former Deputy-Premier, Mr Everett, nominations were called from unsuccessful candidates at the 1972 election. The successful nominee was Mr Ian Kenneth Cole of Hobart, a former school teacher.

Legislative Council

In the case of a vacancy occurring in the Legislative Council, a writ is issued directing that an election be held to fill the vacancy. There is no provision for a re-count of voting papers of the vacating member as in by-elections for the House of Assembly.

Members of Parliament

Legislative Council

The following table shows members of the Legislative Council, the electoral division which they represent and the year in which each will retire from the Council:

Members of the Legislative Council

Electoral Division	Member's name	Year of retirement
Buckingham	Lowrie, The Hon. Kenneth Francis	1980
Cornwall	King, The Hon. Frank Barnard	1978
Derwent	Dixon, The Hon. Joseph Henry (a)	1979
Gordon	Broadby, The Hon. Albert James	1976
Hobart	Benjamin, The Hon. Phyllis Jean, MBE (b)	1976
Huon	Hodgman, The Hon. Peter	1978
Launceston	Shipp, The Hon. Raymond William	1976
Macquarie	Shaw, The Hon. George Arthur	1980
Meander	Coates, The Hon. Jeffrey Allan	1977
Mersey	Braid, The Hon. Henry William	1978
Monmouth	Bisdee, The Hon. Louis Fenn	1975
Newdegate	Miller, The Hon. Brian Kirkwall (b) (c)	1975
Pembroke	McKay, The Hon. Eric Charles	1977
Queenborough	Hodgman, The Hon. William Clark	1977
Russell	Fenton, The Hon. Charles Balfour Marcus (d)	1975
South Esk	Carins, The Hon. Lloyd Horton, O.B.E.	1980
Tamar	Hitchcock, The Hon. Daniel	1979
West Devon	Young, The Hon. William Thompson	1977
Westmorland	Gregory, The Hon. Oliver Harold	1979

(a) Chairman of Committees.

(b) Endorsed by the Australian Labor Party; other members are independents.

(c) Leader for the Government in the Legislative Council; Minister for Tourism.

(d) President.

House of Assembly

The following table shows members of the House of Assembly and their party allegiance:

Members of the House of Assembly at 30 May 1974

Electoral Division	Member's name	Party affiliation
Bass	Barnard, The Hon. Michael Thomas Claude Beattie, Eric William Bushby, Maxwell Holmes Farquhar, Hedley David Foster, The Hon. Allan John Le Fevre, Vernon Mackenzie Pitt, Neil Henry	A.L.P. Liberal Liberal A.L.P. A.L.P. A.L.P. Liberal
Braddon	Barker, Wilfrid George Bonney, Raymond Claude Chisholm, The Hon. Geoffrey Donald Costello, The Hon. Lloyd Edwin Albert Davies, Ronald Glen Reece, The Hon. Eric Elliott (a) Ward, Sydney Victor	Liberal Liberal A.L.P. A.L.P. A.L.P. A.L.P. A.L.P.
Denison	Austin, Kenneth Ernest Baker, Robert Wilfred Batt, The Hon. Neil Leonard Charles Bingham, The Hon. Eardley Max (b) Corby, Kevin Patrick Cole, Ian Kenneth Mather, Robert	A.L.P. Liberal A.L.P. Liberal A.L.P. A.L.P. Liberal
Franklin	Barnard, The Hon. Eric Walter (c) Beattie, John Maxwell Clark, Douglas Frank Frost, Stewart Charles Hilton (d) Lowe, The Hon. Douglas Ackley Neilson, The Hon. William Arthur (e) Pearsall, Geoffrey Allan	A.L.P. Liberal Liberal A.L.P. A.L.P. A.L.P. Liberal
Wilmot	Baldock, Darrel John Bessell, Leonard Hubert Bethune, Walter Angus Fagan, The Hon. Roy Frederick Ingamells, Christopher Robert Lohrey, Andrew Barnard Polley, Michael Robert	A.L.P. Liberal Liberal A.L.P. Liberal A.L.P. A.L.P.

(a) Premier. (b) Leader of the Opposition. (c) Speaker. (d) Chairman of Committees.
(e) Deputy Premier.

House of Assembly Elections, 22 April 1972

The election on 22 April 1972 resulted in a clear-cut victory for the Labor Party which was returned to power with a seven-seat majority, the largest obtained by a Tasmanian government since 1941 when Labor held 20 seats in the 30-member House of Assembly.

Salaries of Members of Parliament

Parliamentary Salaries Tribunal

From 1962, until abolished by legislation in 1973, parliamentary salaries and allowances were determined by an independent parliamentary salaries tribunal. Salary and allowance reviews were on a triennial basis and the next table gives details of salaries as determined by the tribunal in its decisions:

Determinations of the Parliamentary Salaries Tribunal, 1964, 1967 and 1970
(\$)

Particulars	Rate per annum from 1 October		
	1964	1967	1970
BASIC SALARY OF MEMBERS			
Member, Legislative Council	4,600	6,000	7,200
Member, House of Assembly	4,600	6,000	7,200
SPECIAL RATES (GROSS) (a)			
Cabinet—			
Premier (b)	10,000	13,300	16,000
Deputy Premier	8,200	11,300	13,400
‘Senior’ Ministers	7,600	} 10,200	12,200
‘Junior’ Ministers	7,600		
Legislative Council—			
President	6,200	8,060	9,600
Chairman of Committees	5,400	7,300	8,600
Leader for the Government	7,000	9,100	10,300
Deputy Leader	5,250	6,800	8,000
House of Assembly—			
Speaker	6,200	8,060	9,600
Leader of the Opposition	(c) 7,400	(c) 9,950	(d) 11,700
Deputy Leader	5,400	7,020	8,400
Chairman of Committees	5,400	7,300	8,600

(a) All rates included the basic salary received by the office-holder as a member.

(b) Excluded entertainment allowance of \$700 (1964) and \$900 (1967 and 1970).

(c) Excluded travelling allowance of \$500 (1964); and \$650 (1967).

(d) In addition travelling allowance, on the same basis as for ministers, was payable.

Parliamentary Salaries and Allowances Act 1973

This Act abolished the Parliamentary Salaries Tribunal and established the principle of annual review to establish a basic rate of pay to members. The basic rate was set at \$7,200 or the ‘interstate average’ of the rates payable to ordinary ‘back-bench’ members of the Legislative Assemblies of New South Wales, Victoria, Queensland and Western Australia and the House of Assembly of South Australia. Of the two rates (i.e. \$7,200 or the interstate average) the greater rate is chosen as the basic salary. Calculation of the interstate average is the responsibility of the ‘salaries committee’ comprising the Government Statistician, Clerk of the Legislative Council and Clerk of the House of Assembly. The committee is required to meet as soon as practical after 15 June each year (except for 1973) and make the necessary calculation. A report on the method adopted to make the calculation and the interstate-average is then forwarded to the Auditor-General who may accept the calculation or himself make a calculation replacing that of the salaries committee. Having either accepted the salaries committee’s calculation or substituted one of his own, the Auditor-General is required to publish in the Government *Gazette* the appropriate interstate average which then becomes the basic salary for payment of parliamentary salaries and allowances.

Additional amounts, as shown in the next table, are payable to the Premier, Deputy Premier, Ministers of the Crown, Leader of the Opposition and other officers of parliament. The extra salaries payable are all related to the basic salary.

Special Rates Payable in Addition to the Basic Salary (a)
(Per Cent)

Particulars	Additional salary payable as proportion of basic salary (b)	Particulars	Additional salary payable as proportion of basic salary (b)
Cabinet—		House of Assembly—	
Premier	125	Speaker	33½
Deputy Premier	85	Chairman of Committees	20
Ministerial office	70	Leader of the Opposition	70
Legislative Council—		Deputy Leader of the Opposition	17
President	33½	Government Whip	6
Leader for the Government	70	Opposition Whip	6
Chairman of Committees	20		
Deputy Leader for the Government	11		

(a) The basic salary was set at \$12,671 in 1974.

(b) Salary in excess of basic rate (i.e. the Premier receives basic rate + 1.25 × basic rate).

Allowances Payable to Members: Electoral allowances, and entertainment allowances are calculated as a proportion of the base rate. Travel allowances are related to rates payable to permanent heads of State Government Departments. The next table shows the electoral allowances payable as a proportion of the basic salary:

Electoral Allowances Payable as a Proportion of the Basic Salary (a)
(Per Cent)

Electoral division	Proportion of basic salary payable	Electoral division	Proportion of basic salary payable
Legislative Council—		Legislative Council— <i>continued</i>	
Buckingham	13	Queenborough	11
Cornwall	12	Russell	26
Derwent	18½	South Esk	26
Gordon	26	Tamar	18½
Hobart	11	West Devon	17
Huon	18½	Westmorland	14
Launceston	12	House of Assembly—	
Macquarie	20	Bass	26
Meander	22	Braddon	30
Mersey	17	Denison	15
Monmouth	24	Franklin	21
Newdegate	11	Wilmot	35
Pembroke	13		

(a) The basic salary was set at \$12,671 in 1974.

The Present System of Government

The system of responsible government in Tasmania requires that the executive power of the State shall be exercised by the Cabinet; in exercising this power, the ministers of the Cabinet are held responsible for the actions and administration of government departments and other governmental authorities which have been created for three basic purposes: (i) to put into practice the laws made by parliament; (ii) to give effect to the decisions of the ministry; and (iii) to advise the ministry on matters of policy.

The next section lists the departments and authorities at 18.4.74 under the various ministers but the allocation of responsibility is subject to change and Cabinet has the power to vary it at any time. A detailed account of the work of the various departments and authorities appeared in the first two issues of the Year Book series.

Premier, Treasurer and Minister for Mines

Premier's and Chief Secretary's Dept
Mines Dept
Treasury Dept

Government House
Agent-General's Office

Deputy-Premier, Attorney-General, Minister for the Environment and Police and Licensing

Attorney-General's Dept
Solicitor-General's Dept
Supreme Court and Sherriff's Dept
Magisterial and Court of Requests Dept
Parliamentary Counsel's Dept
Public Trust Office

Registrar-General's Dept
Prisons Dept
Police Dept
Licensing Court
Environmental Control

Minister for Education and Recreation and the Arts

Education Dept

Department of Recreation

Minister for Lands and Works and Local Government

Dept of Public Works
Dept of Lands
Rivers and Water Supply Commission
Metropolitan Water Board

Dept of Film Production
Town and Country Planning Commission
Local Government Office

Minister for Transport and Racing and Gaming

Transport Commission
Metropolitan Transport Trust

Racing Commission

Minister for Agriculture

Dept of Agriculture
Inland Fisheries Commission
Sea Fisheries Division

Agricultural Bank of Tasmania (Land Settlement Function)

Minister for Health, Social Welfare and Road Safety

Dept of Health Services
Mental Health Services Commission

Social Welfare Dept
Road Safety

Minister for Industrial Development, Forests and Minister in Charge of the Hydro-Electric Commission

Directorate of Industrial Development
Forestry Commission
Supply and Tender Department

Government Printing Office
Hydro-Electric Commission
Government Insurance Office

Chief Secretary and Minister for Housing

Premier's and Chief Secretary's Dept
Audit Dept
Public Service Commissioner's Dept
Electoral Dept
Dept of Labour and Industry
Public Service Tribunal Dept

Tasmanian Grain Elevators Board
State Library
Fire Brigades Commission
Rural Fires Board
Miners Pension Board
Housing Dept

Minister for Tourism and National Parks and Wildlife

Dept of Tourism and Immigration

National Parks and Wildlife Service

ACTS OF STATE PARLIAMENT

Summary of Recent Acts

The examples below illustrate the interpretation of the notations used in the following list of Acts:

- (A 1952)—An Act to amend an Act of the same title passed in 1952.
 (A Audit Act 1952)—An Act to amend an Act of this title passed in 1952.
 (R 1952)—An Act to repeal an Act of the same title passed in 1952.
 (R Audit Act 1952)—An Act to repeal an Act of this title passed in 1952.
 (P 1952)—An Act to be incorporated and to be read as one with the Principal Act passed in 1952.
 (P Audit Act 1952)—An Act to be incorporated and to be read as one with the Principal Act of this title passed in 1952.
 (RS 1952)—An Act to repeal an Act of the same title passed in 1952 and to substitute new legislation.
 (RS Audit Act 1952)—An Act to repeal an Act of this title passed in 1952 and to substitute new legislation.

State Acts, 1972

Number	Short title and summary
1	Loan Fund Appropriation (No. 3) 1971-1972—issue and appropriation of funds.
2	Loan Fund Supply 1972-1973—issue and appropriation of funds.
3	Consolidated Revenue Fund Supply 1972-1973—issue and appropriation of funds.
4	Acts Interpretation (A1931)—references in laws of the State to British subjects.
5	Tasmanian Sanatorium (A1950)—termination of trust for the Tasmanian Chest Hospital.
6	Mental Health Services (A1967)—conditions of service, etc. of officers of the mental health service and various other amendments.
7	Tasmanian Orchestra (Continuation) (A1951)—amend state contributions to the orchestra.
8	Public Trust Office (A1930)—amendments relating to administration of small estates, the investment board, investment of funds, accounting reports, etc.
9	Statutory Salaries (A1971)—amend salaries for various state officials.
10	Education (A1932)—amendments relating to the Board of Technical Education.
11	Parliamentary Retiring Allowances (A1955)—benefits to members.
12	Soft Fruit Industry Act (A Fruit and Vegetables Act 1953; R Stone and Berry Fruits Board Act 1939)—establishment of a Soft Fruit Industry Board, regulation of soft fruit industry.
13	Weights and Measures (A1934)—miscellaneous amendments relating to weights, units, etc.
14	Crown Lands (Miscellaneous Provisions) (A1970)—miscellaneous provisions.
15	Service Payments (Public Hospitals)—allow service payments to certain employees in public hospitals.
16	R. H. Houffe & Co. Proprietary Limited Loan Guarantee—guarantee loan raisings by R. H. Houffe Co. Pty Ltd.
17	Traffic (No. 2) (A1925)—application of penalties in respect of traffic infringement notices and application of regulations to the Crown.
18	Hydro-Electric Commission (Doubts Removal)—validate Hydro-Electric Commission's powers to continue with Gordon River power development scheme.
19	Consolidated Revenue Fund Appropriation 1972-1973—issue and appropriation of funds.
20	Loan Fund Appropriation 1972-1973—issue and appropriation of funds.
21	Smithton Harbour Trust Dissolution (A Marine Act 1921)—dissolve Smithton Harbour Trust.
22	Cosgrove Park (A1962)—powers of the board.
23	Ambulance (A1959)—constitution of the Ambulance Commission.
24	Superannuation (A1938)—right of Richard Selby Smith to continue to contribute to the State Superannuation Fund.
25	Daylight Saving (A1968)—amend period of daylight saving.
26	Albert Henry Jackson Pension (A1931)—adjustments to annual pension paid to Albert Henry Jackson.
27	Mining Companies (Repeal) (R1884; R Mining Companies (Foreign) Act 1884)—repeal of Mining Companies Act 1884 and provide for continuation of any companies or syndicates incorporated under that Act and to repeal the Mining Companies (Foreign) Act 1884.

State Acts, 1972—continued

Number	Short title and summary
28	Cinema (A1962)—objections to registration, duration and renewal of registrations and licences and other amendments.
29	Tobacco Act—levy a tax on consumption of cigarettes, cigars and tobacco, licensing of tobacco retailers, etc.
30	Medical (A1959)—registration of medical practitioners, Imperial and Commonwealth qualifications, special licences.
31	North East Land Development—ratification of the agreement to dispose of Crown land to W. D. & H. O. Wills (Australia) Ltd.
32	Parliamentary Retiring Allowances Act (A1955; R1968)—definition of basic wage and annual adjustment of pensions.
33	Retirement Benefits (A1970)—conversion of certain pensions.
34	Land Tax—rates of land tax for 1972-73.
35	Registration of Deeds (A1935)—attachment of a facsimile signature of the Registrar or Deputy Registrar to documents.
36	Softwood Forestry—State-Commonwealth agreement for financing softwood plantings.
37	Industrial Development (A1954)—powers of the minister, financial provisions and repeal of obsolete enactments.
38	Adoption of Children (A1968)—miscellaneous amendments.
39	Maintenance (A1967)—powers of the court to make orders on dismissal of complaints, relief in the case of de facto relationships and procedural matters.
40	Real Property (A1862)—deposit of maps certified correct by a registered surveyor.
41	Roads and Jetties (A1935)—application of Commonwealth aid road funds.
42	Cressy-Longford Irrigation Water—make better provision for the supply of water in the Cressy-Longford Irrigation Water District.
43	Companies (Death Duties) (A1969)—non-application of the Act in certain cases.
44	Local Government (A1962)—maximum number of votes by electors at municipal elections.
45	Goods (Trade Descriptions) (A1971)—trade description to be applied to boots and shoes.
46	Department of Mines (Investigations)—powers of investigation to officers of the Department of Mines.
47	Transport (A1938)—appointment of associate Commissioners, constitution of the Commission, suspension and removal of Commissioners.
48	Rural Fires Act (A1967)—special fire areas, fire danger periods, permits to light fires, contributions to the rural boards.
49	Municipality of Clarence (Poll)—hold a poll to decide form of local government for municipality.
50	Stipendiary Magistrates (A1969)—tenure of office, title of stipendiary magistrate, reference in other Acts as police or stipendiary magistrates.
51	Boy Scouts Association (A1954)—incorporation of the State Council of the Association, transfer of property to the corporation.
52	Legal Practitioners (A1959)—admission of barristers, effect of not practising, appropriation of fees, penalties and duty.
53	Land Surveyors (A1909)—amendment of other acts with respect to interpretation of 'authorised' or 'Government' surveyor.
54	Consolidated Revenue Fund Supplementary Appropriation 1971-1972—issue and appropriation of funds.
55	Licensing (A1932)—non-application of the Act, meal and entertainment permits, unlawful sale or keeping for sale of liquor.
56	Child Welfare (A1960)—public performances involving danger.
57	Rural Reconstruction (A1971)—miscellaneous amendments.
58	Workers' Compensation (A1927)—liability of employers for medical, hospital services, etc., amendments, to the first schedule, application of the Act.
59	Arbitration (Foreign Awards)—make provision for the recognition and enforcement in the State of arbitral awards made in certain foreign countries.
60	Motor Vehicle Tax (A1917)—taxes on motor vehicles, rebates for pensioners, exemption for vintage and veteran cars.
61	Fire Damage Relief (A1967)—owner to produce insurance documents, minister may insure dwelling house and other amendments.
62	Tourism Development (Staff) (A Tourism Development Act 1970)—transfer and classification of staff, validation of payments.
63	Traffic (A1925)—amendments to second schedule and operation of the amendments.
64	Crown Lands (Miscellaneous Provisions) Act (No. 2) 1972—miscellaneous provisions.
65	Guesdon Bequest (Administration)—administration of the bequest.
66	Constitution (No. 2) (A1934)—amendments relating to the holding of a seat in either house and financial involvement with the state.
67	Northern Casino—to assist the establishment of an international standard hotel and permit certain forms of gaming.

State Acts, 1972—continued

Number	Short title and summary
68	Long Service Leave (A1956)—definition of continuous employment, entitlement to long service leave, payment in lieu of long service leave on death of employee or by agreement, how and when long service leave may be taken, etc.
69	Education (No. 2) (A1932)—teachers' training, capitation grants to non-government schools, subsidies for loan interest to non-government schools and other amendments relating to loan subsidies.
70	Cigarettes (Labelling)—cigarettes only allowed to be sold in packages marked with the prescribed health warning.
71	Advanced Education (A1968)—composition and appointment of the Council of Advanced Education.
72	Fruitgrowing Industry Reconstruction Agreement—authorise implementation of the Commonwealth-State fruitgrowing industry reconstruction agreement.
73	Constitutional Convention—make provision for payment of expenses, etc. of delegates from state parliament to a convention to review the Commonwealth Constitution.
74	Second-hand Dealers (A1905)—licensing of second-hand dealers, penalties and amendments to the second schedule of the Act.
75	Local Government (No. 2) (A1962; A Launceston Corporation Act 1963)—regulation of timber, etc. carting, inter-municipal tolls, payment and expenditure of tolls on timber carted for export.
76	Apple and Pear Crop (Price Guarantee)—guarantee prices of apples and pears exported to the United Kingdom and Europe during the 1973 season.
77	Crown Land (Miscellaneous Provisions) (No. 3) (A1970)—miscellaneous provisions.
78	Stamp Duties (A1931)—assessment of duty where whole consideration is not provided by the transferee, duty to be paid on certain applications under the Traffic Act 1925.

State Acts, 1973

Number	Short title and summary
1	Homes (A1935)—miscellaneous amendments.
2	Probation of Offenders (RS1934, 1963, 1971)—provisions relating to probation of offenders, imposition of work orders.
3	Miners' Pensions (A1956)—amending the maximum government contribution to the pension fund.
4	Mines Inspection (A1968)—miscellaneous amendments.
5	St Luke's Hospital Loan Guarantee—guarantee repayment of a loan.
6	Loan Fund Supply 1973-1974—issue and application of Loan Fund.
7	Inspection of Machinery (A1960)—provision for notice of accidents.
8	Consumers Protection (A1970)—functions of council and requirements for written information
9	Unordered Goods and Services—making payment demands for unordered goods and services unlawful.
10	Registration of Births and Deaths (RS1895, 1968)—miscellaneous amendments.
11	Crown Advocate—appointment, remuneration, conditions of service and functions of a Crown Advocate.
12	King Island Port Facilities (Financial Assistance) Agreement—approval of a federal-state agreement for financial assistance for construction of port facilities.
13	Litter—making littering unlawful.
14	Consolidated Revenue Fund Supply 1973-1974—issue and application of funds.
15	Consolidated Revenue Fund Appropriation (No. 2) 1972-1973—issue and application of funds for subsidy payments to primary producers.
16	Savings Banks (A1948)—miscellaneous amendments.
17	Education (A1932)—miscellaneous amendments and provisions for establishing boards of advice.
18	Public Service (RS1923, 1960, 1961, 1963, 1964, 1965, 1966, 1967, 1969, 1970, 1971; RS Public Service Tribunal Act 1958, 1961, 1963, 1967, 1968, 1971)—consolidation and amendment of the law regarding appointment, remuneration, conditions of service of officers of the public service; establishment of a Public Service Board.
19	Electoral (A1907)—miscellaneous amendments.
20	Companies (A1962)—provisions relating to holding companies.
21	Age of Majority—making the age of majority 18 years.
22	Justices (A1959)—miscellaneous amendments.
23	Police Offences (A1935, A Traffic Act 1925, A Justices Act 1959)—driving or using a motor vehicle without consent of the owner made an offence of motor vehicle stealing.
24	Hospitals (A1918)—miscellaneous amendments.
25	Traffic (A1925)—revocation of sections dealing with continued registration of agricultural and horticultural machinery and implements.
26	Metropolitan Water (A1961)—raised amount obtainable through public borrowing to \$10m.

State Acts, 1973—continued

Number	Short title and summary
27	Parliamentary Salaries and Allowances (RS1962)—determination of salaries payable to members of parliament.
28	Parliamentary Superannuation (RS1955, 1961, 1964, 1968, 1972)—establishment of a superannuation scheme for members of parliament.
29	Long Service Leave (Casual Employment) (A1971)—miscellaneous amendments.
30	Criminal Code (A Criminal Code)—miscellaneous amendments.
31	Conveyancing and Law of Property (A1884)—amendments relating to strata titles.
32	Casino Company Control—restrictions imposed on ownership of specified companies.
33	Port of Hobart Reclamation (A1954)—additional area for reclamation.
34	Environment Protection—to make provision for protecting the environment.
35	Statute Law Revision (Environment Protection)—amendment of various Acts affected by the Environment Protection Act.
36	Stock (A1932)—amendments relating to artificial breeding.
37	Artificial Breeding (A1964)—miscellaneous amendments.
38	Water (A1957)—miscellaneous amendments.
39	Irrigation Clauses (A Water Act 1957)—consolidation of provisions generally applicable to irrigation schemes.
40	Local Government (A1962, 1972)—miscellaneous amendments.
41	Pay-roll Tax (A1971)—increasing pay-roll tax.
42	Abandoned Lands (RS1965)—provision for reversion and reversioning in the Crown of abandoned land.
43	Transport (A1938)—operation of shipping services by the Transport Commission.
44	Long Service Leave (Casual Employment) (No. 2) (A1971)—allow absence on a public holiday as countable service.
45	Transport (No. 2) (A1938)—conditions of service of Transport Commissioners.
46	Wages Boards (A1920)—provision for appointment of a deputy chairman of wages boards.
47	Public Welfare Institutions (A1935)—setting up of inmates' trust accounts and disposal of unclaimed property of former inmates.
48	Education (No. 2) (A Education Act 1932)—special grants to private schools.
49	Crown Land (Miscellaneous Provisions)—allowing sale of certain Crown land.
50	Police Regulation (A1898, 1971)—amendments concerning disciplinary offences.
51	Housing Agreement (A Homes Act 1935)—authorising the execution of a federal-state housing agreement.
52	Mental Health Services (A1967)—setting up of patients' trust accounts and removal of property from patients.
53	Consolidated Revenue Fund Appropriation 1973-1974—issue and appropriation of funds.
54	Public Health (A1962)—miscellaneous amendments.
55	Loan Fund Appropriation 1973-74—issue and appropriation of funds.
56	Local Government (Metric Conversion) (A Local Government Act 1962)—amendments to facilitate the use of metric measurements.
57	Land Tax—provision for State land tax.
58	Licensing (A1932)—establishment of a three-member licensing court and provision for types of licences.
59	Statutory Salaries (A1971)—amendments to salaries of judges, magistrates and other statutory office holders.
60	Service Payments (Public Hospitals) (A1972)—interpretation to be applied in certain cases of changes of employment.
61	Medical (A1959)—miscellaneous amendments.
62	Criminal Code (No. 2) (A Criminal Code)—abolition of whipping as punishment.
63	Inspection of Machinery (No. 2) (A Inspection of Machinery Act 1960)—miscellaneous amendments.
64	Factories, Shops, and Offices (A1965)—miscellaneous amendments.
65	Trustee (A1898)—distribution of estates or trusts provisions.
66	Probation of Offenders (No. 2) (A Probation of Offenders Act 1973)—discharge or suspension of probation orders.
67	Tasmanian Theatre and Performing Arts Council—provision for the establishment of a council and for the encouragement and promotion of arts and culture.
68	Theatre Royal (RS National Theatre and Fine Arts Society Act 1949, National Theatre Agreement Act 1962)—make provision for the management and control of the Theatre Royal.
69	Tourism Development (A1970)—miscellaneous amendments.
70	Parliamentary Superannuation (No. 2) (A Parliamentary Superannuation Act 1973)—amendments to contributions and pensions.
71	Motor Accidents (Liabilities and Compensation)—provision for the discharge of liabilities in respect of death or injury in a motor vehicle accident and for compensation payment.
72	Consolidated Revenue Fund Supplementary Appropriation 1972-1973—to grant and apply funds.
73	Consolidated Revenue Fund Appropriation (No. 2) 1973-1974—to grant and apply funds.
74	Railway Management (A1935)—miscellaneous amendments.

State Acts, 1973—continued

Number	Short title and summary
75	Metric Conversion—amendment to various Acts to facilitate the use of metric measurements.
76	Meteorites—provide for protection for meteorites and making them the property of the Crown.
77	Pharmacy (A1908)—miscellaneous amendments.
78	Long Service Leave (Casual Wharf Clerks) (A1966)—miscellaneous amendments.
79	Launceston Marine Board Loan (A1951)—lifting of borrowing powers.
80	Homes (No. 2) (A1935)—miscellaneous amendments.
81	Education (No. 3) (A Education Act 1932)—minor amendment.
82	Police Offences (No. 2) (A1935, R Trespass to Lands Act 1862, 1946)—making trespassing a police offence.
83	Rural Reconstruction—ratification of an agreement with the Australian Government to continue rural financial assistance.
84	Supreme Court Civil Procedure (A1932)—provisions for full Court to review determinations of a judge sitting without a jury.
85	Potato Marketing Board (A1952)—powers of the board to buy and sell land and to invest money.
86	Long Service Leave (A1956, 1964)—miscellaneous amendments.
87	Maintenance (A1967)—making of maintenance agreements.
88	Criminal Code (No. 4) (A Criminal Code, A Probation of Offenders Act 1973)—minor amendment.
89	Real Property (A1862, 1886, 1893)—miscellaneous amendments.
90	Church of England Constitution—consolidation of the law relating to the church in Tasmania.
91	Egg Industry Stabilisation—facilitation of stable conditions in the industry.
92	Rural Fires (A1967)—miscellaneous amendments.
93	Workers' Compensation (Alternative Remedies) (A Workers Compensation Act 1927)—miscellaneous amendments.
94	Real Property (Special Vesting Orders)—provisions under which a person may obtain registered proprietorship of land in certain circumstances.
95	Poisons (A1971)—miscellaneous amendments.
96	Local Government (No. 2) (A1962)—miscellaneous amendments.
97	Gas Franchises—to franchise the Hobart and Launceston Gas Companies to supply gas in certain areas.
98	Traffic (No. 2) (A Traffic Act 1925)—minor amendments.
99	Substandard Housing Control—provision for control of substandard housing rents and incidental matters.
100	Legal Practitioners (A1959)—allow for articulated clerks for the Crown Advocate and the Assistant Crown Solicitor.
101	Conveyancing and Law of Property (No. 2) (A1884)—miscellaneous amendments.
102	Fisheries (A1959)—powers of officers under the principal Act.
103	Mock Auctions—prohibition of mock auctions.
104	Wheat Industry Stabilisation (A1968)—miscellaneous amendments.
105	Licensing (No. 2) (A Licensing Act 1932)—reduction of legal drinking age to 18 years.
106	Workers' (Occupational Diseases) Relief Fund (A1954)—miscellaneous amendments.
107	Soft Fruit Industry (A1972)—miscellaneous amendments.
108	Racing and Gaming (A1952, 1971)—legislation of 'bingo', 'Calcutta' sweepstakes, miscellaneous amendments.
109	Advertisements (Terms of Purchase)—requirement to disclose terms of purchase in advertisements for sale of goods.
110	Fruitgrowing Industry Reconstruction Agreement (Supplemental Agreement) (A Fruitgrowing Industry Reconstruction Agreement Act 1972)—provisions for a supplemental agreement to that in the principal Act and incidental amendments.
111	Flammable Clothing—requirement for marking or labelling of clothing.
112	Deceased Persons' Estates Duties (A1931)—minor amendment.
113	Public Trust Office (A1930)—minor amendment.
114	Crown Lands (Miscellaneous Provisions) (No. 2)—provision for the sale of certain Crown land.
115	Unordered Goods and Services (No. 2) (A1973)—minor amendment.
116	Administration and Probate (A1935)—minor amendment.
117	Trust Companies (A1953)—amendment of a judge's powers to make orders for payment of moneys and securities.
118	Northern Casino (Supplemental Agreement)—ratification of supplemental agreement.
119	Traffic (No. 3) (A Traffic Act 1935)—amendments allowing for provision of 'hardship' driving licences.

Chapter 4

LOCAL GOVERNMENT

GENERAL

Local Government—Present Organisation

Authority and Functions

The authority for, and the forms of, local government are prescribed entirely by State legislation which has largely been consolidated in the *Local Government Act* 1962. Hobart and Launceston cities operate under separate corporation acts but the other authorities, including the City of Glenorchy, operate under the Act of 1962.

The functions of the municipalities are set out in broad general terms in Section 176 of the *Local Government Act* as:

‘A Municipality: (a) may for the welfare and good government of its district and the inhabitants thereof: (i) make by-laws; (ii) undertake, make and maintain works, buildings and services; and (iii) order and dispose the common affairs of its members; and (b) shall cause the Queen’s peace to be kept and maintained within its districts.’

Particular authority is given by Section 180 for a council clerk to be a deputy clerk of the peace, registrar of the court of general sessions and clerk of petty sessions in his municipality.

In addition, by certain acts, the municipalities are given specific responsibilities, e.g. *Health Act*, *Local Courts Act*, etc.

Administration of Justice

This responsibility of the municipality to administer the lower courts of justice is confined to Tasmania. It would appear to be a carry-over from the very early days of local government when the municipality was also required to provide the police force. In all other states the administration is in the hands of a state department. The practice here would now appear to be continued by reasons of expediency. (It should be noted that the process of removing this function from the municipalities has already commenced and the lower courts in the cities of Hobart, Launceston and Glenorchy and the municipalities of Burnie, Clarence, Kingborough and St Leonards are administered by the State. It should also be noted that where municipalities administer the courts, they receive all fines into their revenue and in some instances the council clerks receive additional salary for this court work.)

Electors

Persons eligible to vote in local government elections consist of owners or occupiers of rateable land and their spouses together with ex-servicemen, all of whom must be natural born or naturalised British subjects over the age of 18 years.

In Tasmania, a system of plural voting was employed in which the number of votes per elector was proportional to the assessed annual value of the particular property. However, in 1972 the *Local Government Act* 1962 was amended and plural voting abolished; an elector may exercise, at the most, three votes—one vote in his own right and two votes on behalf of other persons. Each spouse elector and ex-serviceman elector has one vote.

South Australia and Western Australia still have plural voting for local government elections, while New South Wales, Victoria and Queensland employ the principle of a single vote per owner-occupier. In states with plural voting, entitlement scales are comparatively low (having been set many years ago) so that a majority of electors are actually entitled to the maximum number of votes.

In no Australian state are unnaturalised aliens, who are owner-occupiers, eligible to vote at local government elections; Tasmania is the only state with a provision for aliens to have another person vote on their behalf.

Councillors

A councillor must be an elector of, and either reside in, or carry on business in, the municipality and is subject to disqualification for certain breaches of conduct. The term of office is three years and one-third of the council retires each year. Councils may comprise six, nine, 12 or 15 councillors. The warden, deputy warden and treasurer are elected by the council members on an annual basis. (The electors of the City of Hobart elect the Lord Mayor and in Launceston and Glenorchy the electors elect the Mayor.) The office of warden is comparable with that of the mayor of a city or the president of a shire in other states.

Government Intervention

For any of a number of reasons, the Minister administering the *Local Government Act* may consider it necessary to recommend suspension of the elected councillors and the appointment of a commission, or in certain cases an administrator, to carry on municipal government in a particular municipality.

Cities, Municipalities and Towns

In Tasmania there are only two categories of local government; a municipality or a city. The Act provides for the establishment of towns and indicates requirements before such towns are proclaimed but these are not municipal administrative units. Generally an area is proclaimed as a town to bring into action certain provisions relating to rating and to building requirements. Before a municipality can petition for a town to become a city, the town must have had, for five years before the petition, a population of not less than 20,000.

Other than this population requirement for a city there are no provisions, such as exist in some of the other states, for enlarging or diminishing the status of municipalities to accord with increasing or decreasing population.

Sources of Revenue

There are four main sources of local government revenue, namely rates, government grants, business undertakings and services. The rates are levied at so much in the dollar on the assessed annual value without any fixed maximum. Receipts from rates have not for sometime met the expense of the increasing range and cost of the services supplied. Government grants are a recognised means of increasing the revenue of municipalities.

The municipalities are unable to collect any rates for land owned by the Crown but services, where provided, are paid for. Grants and subsidies are made, generally speaking, to assist the municipalities to meet the overall costs of municipal government and sometimes the grant is made to assist in a particular project. Grants are sometimes made to induce the councils to provide or develop certain services and may also be made to assist in paying the costs of particular services shared by two or more adjoining municipalities. Earnings from business undertakings include charges for the supply of water and for the use of abattoirs. Some of these businesses show a small profit but, in most cases, the fees demanded are just sufficient to cover the cost of providing the services.

In the matter of water supply, where a number of local government areas could be served from a common source, the State Government did not consider a system of individual grants adequate and created two statutory authorities to act as 'wholesalers', the affected local government authorities acting as 'retailers'. This development is described later in the chapter under 'Water Supply and Sewerage'.

REPORT OF THE MUNICIPAL COMMISSION 1972

Historical

The first division of Tasmania into local administrative districts occurred in 1827 when the colony was split into nine police districts; each district was under the control of a magistrate whose functions were primarily disciplinary and connected with administering the convict system. From 1835 to 1857 several acts were passed relating to the local government of Hobart and Launceston—in 1852 both were granted elected municipal councils. In 1857 the City of Hobart was incorporated as was the Town of Launceston one year later. (In 1888 Launceston was proclaimed a city.)

The first step towards the creation of rural municipalities came with the *Rural Municipalities Act* of 1858. Between 1860 and 1863, 16 municipalities had been proclaimed but the nine police districts were also retained under magisterial control. The Act of 1858 was repealed in 1865 and a new *Rural Municipalities Act* became law. The State was then divided into thirty municipal districts with defined boundaries. However, only 19 of these actually had councils. One more district was added in 1880. The City of Hobart and the Town of Launceston were exempted from the Act.

By 1906 there were, in addition to the city councils for Hobart and Launceston and the municipal district councils, many boards and trusts in Tasmania created for specific local government purposes. These had been formed in respect of water, drainage, roads, rabbits, health, fruit, recreation grounds, schools, works and other matters. There were in existence 105 road trusts, 19 rural municipalities, 23 town boards and 2 city councils; a total of 149 local authorities.

The *Local Government Act* 1906 abolished all rural municipalities, town boards, water trusts, main road districts, etc. and replaced them with municipalities which took over the administration of all the local government functions previously administered by the numerous local bodies. Section 10 of the Act provided that a commission should divide the State into not more than sixty districts to be later proclaimed municipalities. The commission reported in 1907 and recommended that the State be divided into fifty municipalities. These did not include the cities of Hobart and Launceston which were governed respectively by the *Hobart Corporation Act* 1893 and the *Launceston Corporation Act* 1894. The above recommendations were carried into effect by proclamation of the fifty municipalities. Subsequently, three of the municipalities were amalgamated—Queenborough and New Town, with Hobart and Invermay with Launceston. In 1964 Glenorchy became a city; no other changes have taken place. Hence, there are 46 municipalities and three cities in existence at the present time. Apart from the enlargement of Hobart and Launceston caused by the above amalgamations, the boundaries are still substantially the same as those proclaimed in 1907.

Royal Commission 1938

A Royal Commission was set up in December 1938 to inquire into and report upon certain aspects of local government in Tasmania. It issued its report on 11 August 1939. Recommendations covered administration and finance, the bases of valuation and assessment, the best form of local government, the number of municipal bodies, wards, the system of rating and co-ordination between municipal and State governments. One of the specific recommendations was that the number of municipal bodies should be reduced to two cities, three urban municipalities and thirty-four rural municipalities.

The specific amalgamations recommended by the Commission in 1939 were: (i) Gormanston with Queenstown; (ii) Strahan with Queenstown; (iii) Tasman with Sorell; (iv) Spring Bay with Glamorgan; (v) Portland, part to go to Fingal and the remainder to Ringarooma; (vi) Green Ponds, part to Bothwell and the balance to Brighton; (vii) Lilydale with George Town; (viii) Ross with Campbell Town; (ix) Richmond with Brighton; and (x) St Leonards apportioned between Launceston, Lilydale and Evandale. In addition the Royal Commission also recommended severing the rural portion of Burnie and amalgamating it with Penguin. However, these recommendations were never implemented.

Select Committee 1960

On 16 November 1960, a select committee of the House of Assembly was appointed to inquire into and report on local government. One of its terms of reference was 'whether amalgamation of certain municipalities would be of advantage to local government administration by creating greater efficiency and cutting down administrative costs'. It made its report on 1 August 1961. In relation to the above term of reference, the Committee recommended that it was essential that there be a reduction in the number of municipalities in Tasmania and that to achieve this all boundaries should be reassessed as a matter of urgency by qualified experts, having regard to geographic, economic and population conditions. It further stated that it believed that a reduction in municipalities by approximately half would be the eventual means of creating greater efficiency within the municipalities and would cut administration costs.

Municipal Commissions

In 1962 the *Local Government Act* was passed; this statute repealed the 1906 *Local Government Act* and other legislation relating to local government and consolidated the legislation in one Act. The 1962 Act also included provision for establishment of a Municipal Commission to inquire into and report on local government administration in Tasmania. The Commission submitted its report in 1965 in which numerous amalgamations and boundary changes were recommended. If the changes had been put into effect there would have been two cities and 18 other municipalities, however, as a result of protracted litigation the State Government decided to amend the provisions of the 1962 Act under which the Commission was constituted. The 1965 report was not acted upon and the Commission was disbanded in March 1971. In the same year amendments were made to the *Local Government Act 1962* in relation to appointment, functions and powers of a new Municipal Commission. The new Municipal Commission was appointed on 31 May 1972. Apart from dealing with routine matters, the Commission was required to inquire into and report on any matter or question relating to local government referred to it by the Minister for Local Government. The Minister gave the Commission the following terms of reference:

- (i) Whether there should be creation, abolition, amalgamation or partitioning of any municipality.
- (ii) To inquire into and report on: (a) functions of municipalities and whether financial resources available are sufficient for these purposes; (b) basis of municipal rating and whether changes are needed; (c) whether the present pattern of municipal boundaries contributes to their financial problems and whether re-arrangement of boundaries would improve the situation; (d) means of increasing financial resources available to municipalities.
- (iii) Division of the State or any part of the State into counties or regional areas and, if desirable, how best to achieve the division. In the event of this type of partition being recommended the Commission was to state: (a) the functions, powers, responsibilities, composition, method of appointment, etc. of the governing body; (b) effect of the appointment of such bodies upon existing municipalities.

The 1972 Municipal Commission met for the first time at Hobart on 14 July 1972 and from then until March 1974 the Commission sat on 49 separate days. Evidence was taken from each municipality, from interested government organisations and several private individuals. In the case of local government authorities the Commission visited most municipalities to obtain information.

The Commission completed preparation of its report on 28 March 1974 and presented it to the Minister for consideration.

Financial Resources of Municipalities

Currently the revenue resources available to municipalities to enable them to carry out their functions are:

Rates and Charges: All municipalities in Tasmania levy rates on the basis of the assessed annual value of land. There is no system of progressive rating—i.e. the same rate in the dollar applies irrespective of the value of the land. In 1972-73 rates and charges represented over 80 per cent of the total ordinary revenue received by all municipalities in Tasmania. Charges are rates levied as a fixed amount by municipalities irrespective of the value of the property. Charges for water, sewerage, garbage disposal and cleansing are often fixed in this manner and in some cases a minimum amount per annum is set for such services. Where the State subsidises water and sewerage services, charges are imposed by municipalities in accordance with standards set by the Rivers and Water Supply Commission.

Court Fines and Fees: Fines in relation to proceedings in courts of requests and general sessions are paid to the council where the court is held, unless the registrar of the court is paid for by the State. This source of revenue represents only a small proportion of total municipal revenue.

Licence Fees, Tolls and Other Revenue: Revenue from this source is small and includes dog taxes, timber tolls, caravan park fees, impounding fees, etc.

Subsidies Under the Water Act 1957 and Similar Legislation: Under provisions of the Water Act municipalities must obtain approval of the Rivers and Water Supply Commission prior to undertaking any water, sewerage or drainage works. The Commission must be satisfied that the design conforms with accepted standards and that a realistic estimate of the capital cost has been made. The Commission also makes a financial appraisal of the scheme to determine whether the municipality is able to meet the scheme's annual running costs from its own sources. If unable to do so and the municipality requests government financial assistance the Commission assesses the level of government aid justified. The Commission also operates several regional water supply schemes for which the government meets the annual loss. Subsidies recommended by the Commission are on a revenue rather than a capital basis and are designed to place water, sewerage or drainage schemes on a sound financial basis.

Other Grants and Subsidies: The principal other source of grant revenue is the Australian Government aid roads grants. Under the federal *Aid Roads Act* a proportion of the total road grants paid to the State is set aside for payment to municipalities for expenditure on roads under their control. In 1972-73 the amount paid from the State Highways Trust Fund for this purpose was \$1,972,000 and included funds for maintenance, reconstruction and assistance on a dollar for dollar basis for sealing. State grants include funds paid to municipalities for fluoridation of water supplies, recreation and swimming pool facilities, libraries, rural fire brigades and roads.

Major capital works are financed by the issue of debentures, mortgages and, if a city, by the issue of inscribed stock. The level of borrowing is controlled by the 1962 *Local Government Act*—the level of indebtedness must not exceed 10 times the average income of the preceding three years.

Indirect Assistance: In addition to direct financial assistance the State provides considerable indirect assistance such as labour, equipment and expertise in a number of fields. The most important indirect aid is for rural fire brigade equipment, books for libraries, municipal valuations, audit of municipal accounts, flood relief, etc. Local government is also exempted from payment of certain State taxes—motor tax, land tax and to a limited extent stamp duties. However, on the other hand properties of the State and Australian Governments are generally exempted from the payment of rates.

The Basis and System of Rating

Basis of Rating

The basis of rating is the foundation upon which the rates are established. Section 234 of the *Local Government Act* 1962 sets out the basis for municipal rating as follows:

- '234—(1) Every rate under this Act may be based—
(a) on the annual value; or

(b) on—

- (i) the unimproved value;
- (ii) the capital value; or
- (iii) a composite value made up by adding to the unimproved value such proportion of the difference between that value and the capital value as the council determines as the basis of the composite value, of the land.

(2) When a rate has been made on any basis set forth in subsection (1), whether before or after the commencement of this Act, it shall continue to be made on that basis, unless the council by special resolution, passed not less than six months before the beginning of the financial year in which it is expressed to take effect determines that it shall be made on a different basis.

(3) Where in any Act a specified rate or a maximum or minimum rate is prescribed, and is based on the annual value of land, the rate so prescribed, if the council has determined that the rate shall be made on a different basis, shall be read and construed as meaning a rate which upon the basis so determined will produce the equivalent, as nearly as may be, of the amount which the prescribed rate based upon the annual value would produce.

(4) In adopting composite values under paragraph (iii) of paragraph (b) of sub-section (1) the council may determine different proportions for different areas in the municipality, being areas already defined or defined in the resolution determining the proportions, and a change of proportion or area shall be deemed to be a change in the basis of rating.

In Tasmania rates are currently based on the assessed annual value of the land. (The assessed annual value is the gross annual income, at the time of valuation, that the person owning the land might obtain by letting the land and its appurtenances to a tenant.) The Valuer General is responsible for carrying out valuations of the local government authorities—approximately one fifth of the municipalities are revalued each year.

The Commission received a lengthy written submission on the question of the basis of rating from the Municipal Reform Group and heard evidence in support of site value rating. The Municipal Reform Group made the following points in support of their advocacy of site value rating:

- (i) Site value or unimproved value rating is used by 75% of municipalities and shires in Australia.
- (ii) Land development is stimulated by this rating method.
- (iii) Owners are permitted to improve their properties without being taxed upon such improvements.
- (iv) Assessed annual value rating is inequitable because rates on average houses are up to twenty times higher than rates on adjoining vacant allotments although the services offered to each by the council are identical.

The Commission was impressed with the concept of unimproved value or land value rating as an alternative to assessed annual value rating. It did not consider that the concept should be dismissed out of hand. However, the matter is one upon which strong views for and against are held and the Commission felt that a more extensive inquiry was needed before it could say that the basis of rating should be compulsorily changed. The Commission's view was that a basis of rating should be available for municipalities to adopt which will suit the particular circumstances of each. Each council should have a discretionary power to decide its own basis of rating subject to safeguards to prevent a rating system being imposed on ratepayers against their will.

The Commission saw no merit in retaining a composite value as a basis for rating and recommended its deletion from the Act. It was also recommended that Section 234 of the Act be amended as follows:

- (i) by the addition of 'the land value' as a basis of rating, and by the omission of the reference to a composite value.
- (ii) by addition of the following provisions:
 - (a) that an absolute majority of the full number of the council be required before a change is made in the rating basis;
 - (b) that reasonable public notice of the proposal be given; and
 - (c) after any change in the rating basis is made, no further change in that basis should be permitted until the lapse of at least three years.'

Rating System

The system of rating is the arrangement which is adopted in raising rates upon a certain basis. Among the rating systems which may be used under the Act are: (i) a general rate with special rates for different purposes including separate local rates on particular areas in municipalities for specific purposes; (ii) a consolidated rate system now used by the cities and the Municipality of Devonport with rebates in respect of services not provided; (iii) a fixed rate for water supply and sewerage services together with separate rates in the dollar of assessed annual value for other purposes; or (iv) minimum rates for certain purposes.' These various systems enable Councils to establish rates to suit their own particular needs. Section 250 of the Act provides for a minimum payment of \$2.00 where the calculated rate would be less than that figure. The rates fixed by Councils vary considerably as to the amount in the dollar, as do the minimum rates or fixed rates for water, sewerage and other services such as garbage and cleaning

During the inquiry, the Commission raised with municipalities the question of a progressive system of rating similar to that which has been operated by the State Government for many years in respect of land tax. This system assumes that there is a close relationship between land values and incomes and ensures that a ratepayer in a high income bracket does not receive an undue benefit. The Commission believed that there was some merit in having a progressive system of rating to a limited extent so long as concessional deductions are allowed by the Australian Government for income tax purposes and stated in its report: 'We note that recently a limit of \$300 has been imposed as a concessional deduction for municipal rates and land tax. Such a system would provide another opportunity for Councils to increase their financial resources. We accordingly recommend that the Act be amended to provide for a progressive system of rating in accordance with an appropriate formula to be utilised at the discretion of Councils.'

Municipal Boundaries and Financial Problems

During the inquiry many councils expressed the view that their only problem was insufficient funds and an inability to increase those funds from their own resources. The councils felt that there were many functions and services which they should be performing but were unable to act on because of inadequate financial resources. The inadequacy of funds was most felt in the following areas: (i) construction and maintenance of roads; (ii) provision of water and sewerage services; and (iii) provision of recreation and sporting facilities. In general municipalities are unable to finance capital works to the extent considered desirable because their current revenues are insufficient to meet the resultant debt servicing costs.

The Commission then examined the question of whether existing local government boundaries contribute to this financial problem:

'A consideration of whether a re-arrangement of boundaries contributes to the financial problems of municipalities involves a consideration of whether the total of financial resources currently available to municipalities is being used inefficiently because of the existing arrangement of municipal boundaries. Expressed in yet another way, it involves the question of whether

the present number of municipalities results in inefficient use of available funds and, as a corollary, whether a reduction in the number of municipalities would result in greater efficiency. Greater efficiency, in this context, would be improved services for the same outlay, or the same services for a lower outlay.

Although the Commission pursued this line of enquiry with some diligence, municipal representatives were singularly unhelpful, probably because they had not given serious consideration to the question. Any opinions expressed were only in general terms. Indeed, in many cases, opinions were expressed that amalgamation of municipalities would lead to increased costs, particularly in respect of the maintenance of roads. It was suggested that greater distances would involve loss of time in movement of men and equipment.'

Observation indicated that there are a number of municipalities in Tasmania where the council chambers could accommodate more staff at little or no additional cost and similarly plant and equipment of small municipalities is under-utilised. Also many municipalities do not have sufficient funds to employ adequately qualified staff or sufficient staff necessary to efficiently discharge functions and services required. Amalgamation of two or more smaller municipalities would permit better utilisation of buildings, plant and equipment and hence lead to a reduction in costs. The increased financial resources would allow employment of better qualified staff who would perform their duties more efficiently.

Municipalities often claimed that an essential feature of local government was the 'closeness of the councillors and council staff to the people'. However, in some small municipalities this 'closeness' operates to the detriment of effective local administration as members of the council are influenced by particular cases rather than considering the needs of the community as a whole. It was further argued that increasing the size of municipalities would mean greater travelling costs for councillors and thus be a burden on municipal revenue. Furthermore, the greater travelling distances would be an inconvenience to ratepayers. However, the Commission felt that these latter arguments did not hold in today's situation of good transport and communication facilities. Council representatives also argued that extension of municipal areas would give rise to diseconomies in the sphere of road maintenance. The need for council plant and vehicles to cover greater area, it was claimed, would reduce efficiency because of the increased time needed to move plant and gangs between locations. The Commission was again not convinced and stated: 'In different circumstances a different organisation would need to be devised which, far from being less efficient, would probably be more efficient. This contention is borne out by the Director of Public Works, when asked to comment on suggestions of diseconomies in this area resulting from amalgamation.'

The Municipal Commission went on to state:

'The conclusion which must be reached is that the pattern of municipal boundaries in Tasmania is such that there must be some wasteful expenditure and a level of efficiency which is lower than would be obtained by some re-arrangement of boundaries. However, this generalised approach does not offer any basis for re-arrangement. For this purpose, it is necessary to develop appropriate criteria.

Before turning to a consideration of possible amalgamations, however, it may be desirable to consider a possible alternative. That is, the retention of all municipalities in their existing form and the super-imposition of a regional organisation over groups of municipalities to be responsible for certain functions, leaving existing municipalities to continue to be responsible for the remaining functions.

The Commission is satisfied that some amalgamation of municipalities is desirable even if a series of regional organisations were developed for the purpose of carrying out certain local government functions on a regional basis. Indeed, the establishment of any regional organisations would probably accentuate the need for amalgamation of those municipalities with small populations and rateable capacity.

The transfer of some functions from municipalities to regional organisations would weaken still further those municipalities which are already below optimum size. Those which now have some unused capacity would have even more unused capacity. The need for staff would be diminished but because existing staff is the minimum that can be employed, the present inefficiencies caused by smallness of size would be accentuated. Thus, the retention of all municipalities as at present, if some form of regional organisation were established, may be expected to increase the degree of under-utilisation of resources and increase inefficiency.

Therefore, the Commission believes that if regionalism were introduced, the need for re-arrangement of boundaries and a reduction in the number of municipalities would not be diminished. On the contrary, if regional organisations were to be superimposed upon the present structure of local government in Tasmania, there would be strong justification, in the interests of economy and efficiency, for more extensive amalgamation than would be contemplated if regionalism were not to be introduced.'

Increase of Financial Resources

When considering the question of adequacy of municipal resources the Commission examined both the possibility of obtaining additional income sources and whether municipalities are currently making full use of existing income sources. The Commission concluded that in respect of existing sources there existed significant untapped financial resources which resulted from: (i) some municipalities levying low rates compared to other municipalities; and (ii) the system of rating is regressive i.e. rates are not levied according to the property owner's capacity to pay. However, the additional revenue available from untapped rating resources would not be sufficient to overcome revenue deficiencies. The Commission considered that the possibility of giving municipalities access to new tax fields was remote; it was impractical for the State to vacate any field of taxation and the suggested poll tax was not feasible due to collection and coverage difficulties.

Increased aid from the State is not possible due to the Tasmanian Government's limited financial resources. However, the Commission did recommend that the State should reimburse municipalities for up to 25 per cent of rates remitted to pensioners.

The most probable new source of increased revenue appeared to be direct grants from the Australian Government. The Commission believed that funds from this source could considerably alleviate local government financial difficulties.

Regionalism

The Commission was also required to inquire and report on whether the State should be divided into counties or regions. The Commission stated in its report '... we do not favour the establishment of an extra tier of government in Tasmania. We see no need for it and would regard it as an unwarranted expense. If major functions were transferred to a region or a county and minor functions were left with a municipality, the latter would not, in our view, justify the existence of such municipality. We would prefer to see autonomous units dealing with all the functions of local government.' The Commission felt that the question of regionalism and additional amalgamations (see the following section) should be deferred and made the basis of a further report in five years time.

Amalgamation Proposals

The Commission felt that the following factors should be taken into account when considering amalgamations of municipalities.

Population: The number of people in a municipality determines the need for certain services and the extent of their utilisation. Population also bears on the calibre of local government representation—in a municipality of 10,000 better representation could be expected than in one with only 1,000 people. In the words of the Commission: '... One of the drawbacks of

administering a municipality with a relatively low population is that everyone is likely to know everyone else and it becomes impossible to form an independent judgment on public matters or to carry out municipal functions without becoming personally involved. It is not uncommon in certain of the smaller municipalities for the level of rates to be depressed on account of individual cases known to the Council.'

Rateable Area: The rateable area should neither be too large nor too small for efficient administration. Rateable area is the criterion and uninhabited and unproductive areas can be disregarded when considering amalgamations.

Assessed Annual Value: As income from rates is the principal source of revenue it is therefore necessary that the municipality have sufficient rating basis to provide the best services possible including administrative and technical expertise.

Geographical Features: As these affect settlement and communications they also influence any amalgamations.

Roads: Maintenance of roads is a principal municipal function; therefore location and length of roads is an important consideration affecting the administrative capacity of any amalgamation.

Central Place: Every local government authority should have an adequate administrative, commercial and recreational centre for the community it serves.

Unity of Interests: This factor was considered to be of less importance than in the past but could have a bearing on any final decision.

Benefit to Ratepayers: The Commission said in its report: 'In the final analysis it would seem that an amalgamation can be justified only if the same services can be provided at a lower cost or better services at the same or at no significantly greater cost.'

Amalgamations

The following shows the amalgamations proposed by the Commission:

- (i) Bothwell with Hamilton;
- (ii) Bruny with Kingborough;
- (iii) Esperance and Port Cygnet with Huon;
- (iv) Evandale with Longford;
- (v) Glamorgan with Spring Bay;
- (vi) Gormanston and Strahan with Queenstown;
- (vii) Green Ponds and the north ward of Richmond with Brighton;
- (viii) The balance of Richmond and Tasman with Sorell;
- (ix) Ross with Campbell Town;
- (x) Waratah with Zeehan.

Boundary Re-arrangements

The Commission felt that most of the urban areas in municipalities adjoining Launceston should be incorporated within the boundaries of Launceston City. This re-arrangement would result in a rationalisation of services (e.g. water supply, sewerage, garbage disposal) and reduce administrative difficulties currently encountered. The Commission therefore recommended that the following changes be made and that they become effective by 1 July 1975:

- (a) The severance from the Municipality of Beaconsfield of the urban areas known as Riverside, Riverside North and Riverside West.
- (b) The severance from the Municipality of Westbury of the urban areas known as Prospect and Prospect Vale.

- (c) The severance from the Municipality of St Leonards of the urban areas known as Kings Meadows, Youngtown, Punchbowl and Elphin.
- (d) The severance from the Municipality of Evandale of a small area South of Franklin Village through which the Midland Highway passes.
- (e) The extension of the boundaries of the City of Launceston to include the areas mentioned above.'

These alterations would add approximately 13,000 persons to the population of Launceston. The municipality most affected would be St Leonards (population loss approximately 8,600 persons). Hence the Commission recommended that the balance of St Leonards be amalgamated with Lilydale.

The Commission also recommended the following minor boundary alterations:

- '(a) An area in the North West corner of Spring Bay should be transferred to Oatlands.
- (b) Portland should take over the whole of the town of Scamander. At present the boundary between Portland and Fingal passes through the town.

Portland at present collects rates in its part of the town and pays them to Fingal which provides the services. It is obviously desirable for one municipality to look after the town. It has a permanent population of 60 or 70 of which the majority are at present within Portland.

It also has a greater affinity with Portland. For these reasons, we think that the whole town should come within Portland.

- (c) Ulverstone should take over an area known as Russells Flats and Thompson's Road from Penguin. This comprises about 300 acres. Ulverstone has direct access to it whereas there are difficulties in servicing it from the Penguin side. Penguin has no objection to such a transfer.
- (d) Devonport should take over an irregular area on the Roland Highway from Latrobe. This area comprises six houses and is at present serviced by Devonport.'

If the proposed amalgamations and boundary alterations are implemented the number of local government authorities will be reduced by 14 and most of the urban development around Launceston will be incorporated within the boundaries of Launceston City.

PLANNING AUTHORITIES

Town and Country Planning Commissioner's Office

Introduction

Before the federal Labor Government took office in 1941, governments (both state and Australian) had shown little interest in town planning legislation. The war-time federal Labor Government encouraged activity in this field and in the period 1944-45 four states, including Tasmania, passed legislation with provisions largely based on existing British and New Zealand planning statutes.

Passed in 1944, the Tasmanian *Town and Country Planning Act* applied only to areas which were proclaimed as a result of municipal requests. The Act created the position of Town and Country Planning Commissioner and made him responsible to the Minister for Lands and Works; any decisions made by the Commissioner are subject to ministerial approval. In 1962 the *Town and Country Planning Act* was repealed and its provisions incorporated in *PART XVIII* of the *Local Government Act 1962* under which the powers of the Commissioner were broadened so that, with the approval of the Minister, he could require any municipality to prepare a planning scheme.

The Governor appoints the Commissioner for a period not exceeding five years but may terminate his appointment at any time. The Commissioner is also a member of the following bodies: the Building Regulations and Nomenclature Boards; and the Co-ordination of Mapping Committee.

The Town and Country Planning Commissioner's office exercises statutory power in its own right but for administrative convenience it is regarded as a branch of the Public Works Department. The office consists of the Commissioner, the Deputy Commissioner and a small staff. The Town and Country Planning Commissioner's office should not be confused with the Southern Metropolitan Master Planning Authority, described next in this chapter.

Functions

Briefly the function of the Commissioner is to approve municipal planning schemes and to certify that sub-division proposals are in accordance with the schemes and meet the other requirements as laid down in the *Local Government Act 1962*. Also the Commissioner may require: (i) any municipality to prepare a planning scheme; or (ii) two or more municipalities to co-operate in the preparation of a master planning scheme; he is empowered to specify the completion date for such schemes. If the municipality fails to comply with the Commissioner's requests, then the Commissioner may prepare a scheme, the municipality meeting all preparation costs. A municipality may voluntarily prepare a planning scheme and submit it to the Commissioner for approval. If a scheme, prepared for an area to which a master plan applies, is submitted to the Commissioner for approval then the Commissioner, before giving a decision, must consult the authority which prepared the master plan.

The Commissioner is also empowered to deal with objections to any planning scheme, including master plans prepared by a master planning authority.

Legal Procedure for a Planning Scheme

After the Commissioner gives provisional approval to a planning scheme the municipality must make public the scheme and place a copy in the municipal office for public inspection. Following public notification a three month period is allowed for objections to the scheme by: (i) any owner or occupier of rateable property in the area affected; (ii) health officers as defined in the *Public Health Act 1962*; (iii) the municipality, only if the scheme has been altered or prepared by the Commissioner. Objections are lodged with the municipality which then forwards the objections, together with a statement of its opinion on them, to the Commissioner for his consideration. The Commissioner hears all the objections except in such cases where he considers the objection sound and the municipality agrees with it. The municipality may request and be entitled to a formal hearing.

If, because of the number and magnitude of objections to a planning scheme, the Commissioner considers it should be substantially modified, he may: (i) recommend that the Minister reject it; (ii) direct that a specified part of the scheme be done again. In both of these cases another scheme or part scheme has to be prepared and submitted to the Commissioner for provisional approval.

After all objections have been dealt with and the necessary modifications made to the plan, the Commissioner, with the Minister's approval, approves and seals the scheme. The sealed scheme is then publicly notified, placed before both Houses of Parliament and recorded in the central plan register.

Scope of Plan

A town and country planning scheme may deal with the following planning matters: (i) all roads (public and private), streets, footpaths, building lines and land adjacent to foreshores; the plan should cover both alteration to existing roads, streets, etc. and proposed new roads, streets, etc.; (ii) positioning of buildings and the general nature and design of buildings; (iii) preservation of land for afforestation, recreation and open spaces; (iv) preservation of objects of historical or natural interest; (v) sewerage and drainage; (vi) lighting and water supply systems; (vii) specification of the use to which areas may be put; (viii) provision of amenities; (ix) stages of development; (x) ancillary or consequential works.

Sub-division Approvals

Except where the Commissioner authorises a council to deal with sub-division plans, all such plans submitted to the council must be forwarded to the Commissioner for approval. (At any time a council's power to authorise sub-division plans without reference to the Commissioner may be withdrawn by him.) When considering sub-division plans the Commissioner may: (i) call for an amendment that either the council requires or the Commissioner considers the principles of town and country planning demand; or (ii) refuse consent to the council approval. The Commissioner is to ensure that areas for public use are retained along sea and lake shores and rivers and rivulets.

Southern Metropolitan Master Planning Authority*Introduction*

The Southern Metropolitan Master Planning Authority is responsible for planning the development of an area best defined broadly as a triangle based on Pontville (Brighton Municipality), Snug (Kingborough Municipality) and Seven Mile Beach (Clarence Municipality), which includes the City of Glenorchy and also those parts of Brighton, Kingborough and Clarence Municipalities which are likely, in the future, to experience urban expansion because of their proximity to Hobart.

Representation and Finance

The *Local Government Act* 1962 prescribes that each city shall have the right to appoint three representatives and each municipality two representatives to the authority. The authority is empowered to make contracts, accept trusts of properties for townplanning purposes, make by-laws for domestic purposes and obtain a townplanning contribution based on the annual value of all rateable property.

In March 1973 the Hobart City Council petitioned to withdraw from the authority. At a meeting of the authority in April it was decided to: (i) recommend to member councils that the authority be continued; and (ii) advise the Hobart City Council that the authority was prepared to continue to meet Hobart's mapping requirements, subject to a satisfactory financial arrangement being agreed to. Hobart withdrew from the Authority in August 1973.

Functions of the Authority

The main functions of the Authority are: (i) the technical and legal preparation of a master plan for the prescribed area (the detailed planning nevertheless remaining the responsibility of each constituent municipality or city); (ii) the conduct of surveys and studies to facilitate the preparation of the master plan; and (iii) preparation of maps of the developed and developing parts of the metropolitan area.

The Master Plan

The Master Plan 1962 was put up for statutory exhibition (for a compulsory period of three months). Following objections the Authority withdrew the plan and the State Government decided to undertake a full transportation study, the results of which became available late in 1964. An interim 'Townplanning Policies Map 1964' was issued as a guide to member councils in their detailed planning and to other authorities concerned with development in the Southern Metropolitan Area.

Tamar Regional Master Planning Authority

The Tamar Regional Master Planning Authority was established in September 1969, following a petition to the State Government by the City of Launceston and the Municipalities of Beaconsfield, George Town, Lilydale, Longford and St Leonards. Westbury and Evandale, two essentially rural municipalities, declined to join the Authority, however, they became members in April 1974.

The Authority consists of three representatives from the Launceston City Council and two from each of the member municipalities. Financial support is given by the constituent councils, in proportion to the annual value of rateable property.

The principal objective of the Authority is the unified promotion and development of the Tamar Valley region. A consortium of town planning consultants was engaged to produce a preliminary plan which was completed in mid-1971. This plan is the basis for the regional plan being developed by the Authority's staff. The basic approach to the plan has been to consider the region as four principal divisions aligned north to south along the Tamar-South Esk Rivers:

- (i) *Northern Tamar*—centred on the Port of Bell Bay and the Tamar Entrance. The principal theme of this area is the development of industrial potential and port facilities.
- (ii) *Central Tamar*—extends from Moriarty Reach to Dilston. It is proposed that this region should be promoted as a recreation and tourist area, and that the existing scenic landscape should be preserved.
- (iii) *Southern Tamar*—centred upon Launceston and contains the urban and administrative centre of the region. In this area tertiary industry, professional services, education facilities, trade and commerce are to be developed.
- (iv) *Esk Valley*—in this area the proposal is to rationalise transport links and develop transport oriented industries along with promotion of intensive agriculture.

While developing the master plan, consideration is being given to the environmental effects of proposals and how to preserve areas. Further tasks of the Authority are promotion of the region and evaluation of the region's resources. Early in 1973 the region was nominated as a study area for federal growth centre action. A programme of expenditure under the *Growth Centres Act 1973* was developed around the authority's planning policies, with implementation of the first stage commencing in 1974.

North West Master Planning Authority

This Authority was constituted in February 1971 in accordance with the provisions of the *Local Government Act 1962*. The eight member municipalities are Latrobe, Kentish, Devonport, Ulverstone, Penguin, Burnie, Wynyard and Circular Head. Constituent councils each have two members on the Authority. Finance is obtained from member municipalities in proportion to the annual value of rateable property.

Approximately 9,000 square kilometres in area and containing a population of approximately 87,000, the Authority's area of jurisdiction embraces eight principal towns, rich primary producing and grazing districts, substantial industrial establishments, four ports and three airports.

The objective of the authority is to promote the development of the region along sound economic and environmental lines. Under the *Local Government Act*, it has the responsibility of preparing a master plan for the region. A firm of planning consultants has completed a comprehensive survey of the region and an outline development plan and report. Current activities of the Authority include a comprehensive regional investigation into rural/residential sub-divisions and the establishment of various regional sport and recreational facilities.

The outline development plan for the North West Master Planning Authority was completed in October 1973. The \$28,000-plan contained the following alternative growth proposals for the area: (i) accept the present low growth rate as continuing for the foreseeable future and put a major planning effort into improving housing standards, communications, services and amenities; (ii) aim at a two per cent growth rate for the region and rely upon external stimulus to create this situation; or (iii) promote a higher growth rate by deliberately pursuing the goal of creating a city based on a major new industrial complex. This latter proposal would necessitate concentrating the growth in a single area, and the plan suggested a vertically integrated steel industry in the Smithton area as the basis for such a centre. The report also suggested greater emphasis on tourism, proposed new link roads for the area and warned of the pollution problem.

FINANCE**Introduction**

For local government purposes Tasmania is divided into 49 areas, comprising 46 municipalities and the Cities of Hobart, Launceston and Glenorchy. There are no unincorporated areas.

Local government finance statistics in Tasmania are compiled by the Australian Bureau of Statistics from the following sources:

(i) *The 46 Municipalities*: Each municipality is required to submit annually to the Auditor-General a 'Statement of Accounts' in pursuance of section 329 of the *Local Government Act 1962*; copies of these statements are made available to the Bureau. The 'Statements of Accounts' are compiled by the municipalities on a *cash receipts and payments* basis and two basic types of accounts are distinguished, namely revenue and loan accounts.

(ii) *The Cities*: The Cities of Hobart, Glenorchy and Launceston submit annually to the Auditor-General statements of accounts compiled on an *income and expenditure* basis but these are analysed on a cash receipts and payments basis by the Bureau for combination with municipal data.

The term 'local government' is employed only in relation to the municipalities and city corporations. Details of semi-government authorities concerned with water supply appear in the last section of this chapter; such authorities provide bulk water but reticulation and sale to householders remain a local government function. Since 1961 the Metropolitan Water Board has incurred loan debts which, under earlier arrangements, would have been entered as the water loan debts of Hobart, Glenorchy, Clarence and Kingborough local government authorities.

Value of Property

Revenue for local government authorities in Tasmania is derived principally from rates. Under the *Local Government Act 1962*, rates may be based on annual value (i.e. annual rental from a property if rented), unimproved value (i.e. value of land only), the capital value (i.e. value of land plus improvements), or finally upon a composite value incorporating the unimproved value plus some arbitrary proportion of the value of improvements.

In Tasmania, it has been usual for rates to be based on annual values despite isolated and unsuccessful campaigns in favour of taxing on unimproved value only. In estimating annual value, the valuer is taking into account not only the land but also the improvements (e.g. buildings) so there is, in actual fact, a close relationship between total capital value of any property and its assessed annual value. The *Land Valuation Act 1971* consolidated and amended the law relating to land valuation.

System of Valuation

The valuation of property is carried out by a State Government authority, the Land Valuation Branch; its valuations form the basis for two distinct taxes: (i) land tax collected by the State on the basis of unimproved land values; (ii) rates collected by local government authorities on the basis of assessed annual values. Since it is impossible to value all the properties within the State in the course of a single year, valuation is carried out on a rotational basis, e.g. Glenorchy, Circular Head and Westbury valued in 1968 and again in 1973.

The following table shows the total value of all properties in the State and gives individual details for local government authorities with a total capital value exceeding \$20m at 1 July 1973:

**Value of Properties: Principal Local Government Authorities
(\$ Million)**

Local government authority	Year of revaluation (a)	All property				Rateable property	
		Total capital value at 1 July		Unimproved value at 1 July		Assessed annual value	
		1972	1973	1972	1973	1971-72	1972-73
Hobart	1969	368.73	380.57	117.29	117.56	23.96	24.83
Launceston	1970	168.24	173.12	55.97	56.06	13.41	14.01
Glenorchy	1973	163.21	208.33	40.17	56.99	10.64	15.71
Clarence	1969	141.73	149.37	39.74	40.68	7.52	8.72
Burnie	1970	106.02	109.27	32.96	33.21	6.41	6.81
Devonport	1972	101.87	106.36	36.09	36.32	4.70	6.70
St Leonards	1971	55.46	57.18	11.86	12.05	3.70	4.00
Kingborough	1972	52.89	56.84	16.28	17.07	2.28	3.48
New Norfolk	1971	48.73	49.42	7.40	7.43	2.05	2.68
Wynyard	1972	43.59	44.82	10.13	10.15	1.76	2.56
Ulverstone	1969	42.49	43.75	9.54	9.70	2.32	2.63
Beaconsfield	1969	40.39	42.02	8.06	8.19	2.23	2.58
Circular Head	1973	34.17	44.82	4.88	8.11	1.68	2.31
George Town	1972	33.71	34.78	5.65	5.69	1.64	2.20
Latrobe	1971	29.21	29.67	4.77	4.78	1.31	1.54
Longford	1969	27.76	27.92	5.29	5.30	1.33	1.40
Lilydale	1971	25.81	26.77	5.61	5.68	1.60	1.76
Westbury	1973	24.91	26.81	4.54	5.07	1.11	1.37
Deloraine	1971	24.32	24.55	3.65	3.66	1.11	1.21
Scottsdale	1972	21.54	21.93	4.30	4.32	0.92	1.12
Oatlands	1971	21.52	21.53	4.33	4.33	0.87	0.90
Huon	1970	20.86	21.01	3.05	3.05	0.98	0.99
Sorell	1972	20.46	21.23	5.42	5.42	0.82	1.04
Remaining municipalities ..	..	245.90	273.84	45.54	50.57	11.38	14.06
Total Tasmania .. .. .	.. .. .	1,863.54	1,995.91	482.53	511.39	105.74	124.61

(a) Latest revaluation effective from 1 July of year shown.

The table that follows shows the value of property in Tasmania over the last 10 years:

**Total Property Valuation in All Local Government Areas
(\$ Million)**

Year	Total capital value at 1 July	Unimproved value at 1 July	Assessed annual value	Year	Total capital value at 1 July	Unimproved value at 1 July	Assessed annual value
1964-65 ..	1,140.40	290.52	61.27	1969-70 ..	1,571.96	411.72	94.39
1965-66 ..	1,202.22	316.91	68.54	1970-71 ..	1,691.37	441.88	100.96
1966-67 ..	1,271.87	328.50	72.47	1971-72 ..	1,768.07	454.47	105.74
1967-68 ..	1,350.74	350.81	76.76	1972-73 ..	1,863.54	482.53	124.61
1968-69 ..	1,452.38	374.49	83.30	1973-74 ..	1,995.91	511.39	

Total Receipts and Payments

The following table shows total receipts and payments of the Tasmanian municipalities and cities:

Local Government

Local Government Authorities
Total Receipts and Payments: All Funds
 (\$'000)

Year	Opening balance (a)	Receipts			Payments			Surplus (+) or deficit (-)
		Loan accounts (b)	Revenue accounts (c)	Total	Loan accounts	Revenue accounts	Total	
1966-67 ..	5,374	7,595	20,122	27,717	8,044	19,563	27,607	+ 109
1967-68 ..	5,486	9,611	21,708	31,320	9,325	20,942	30,267	+1,053
1968-69 ..	6,539	8,682	23,959	32,641	8,634	23,249	31,883	+ 758
1969-70 ..	7,297	7,469	25,914	33,383	7,972	24,816	32,788	+ 595
1970-71 ..	7,893	8,164	28,236	36,400	7,494	27,195	34,689	+1,711
1971-72 _p ..	9,604	8,639	31,601	40,240	8,569	31,784	40,353	- 113

(a) Bank balances (less unrepresented cheques), securities and cash on hand.

(b) Includes loan raisings, sales, capital grants received, etc.

(c) Includes grants from the Metropolitan Water Board to cover working expenses.

Business Undertakings

The classification 'business undertakings' is used in Australian local government finance statistics to include municipal tram and bus services, municipal electricity supply (generation or distribution), municipal water and sewerage schemes, municipal abattoirs, etc. In Tasmanian local government finance statistics, electricity supply ceased to appear as from 1948-49 (the Hydro-Electric Commission is now the sole supplier). Municipal tram and bus services ceased to appear as an item in 1955-56, the Metropolitan Transport Trust having acquired the city transport services operating in Hobart and Launceston. Consequently, the only activities under the heading of municipal 'business undertakings' in current Tasmanian statistics relate to water supply, sewerage and abattoirs.

Rate Collections

The following table shows details of the rates collected in Tasmania during a three-year period:

Rates Received (a) by Local Government Authorities
 (\$'000)

Rate	1969-70	1970-71	p1971-72
Ordinary services (b)—			
General	5,047	5,293	6,642
Light	254	259	271
Road	4,013	4,257	4,323
Health	354	377	349
Sanitary and garbage	247	254	292
Reserves and recreation	832	939	847
Halls	85	96	118
Library	144	145	148
Fire brigade	145	144	175
Drainage	104	119	136
Other	57	66	89
Total	11,282	11,950	13,390
Business undertakings—			
Water	3,613	3,910	3,949
Sewerage	2,287	2,673	2,982
Total	5,899	6,583	6,931
Grand total	17,181	18,533	20,321

(a) Net of refunds.

(b) Where a single consolidated rate has been charged (e.g. Hobart and Launceston), the collection has been dissected between 'ordinary' and the two 'business undertakings' components but the 'ordinary' component has been entered, without further analysis as 'general'.

Revenue of Local Government Authorities

The biggest proportion of local government revenue comes from rates (64 per cent in 1971-72) and these are direct charges on owners of property.

After rates, the next most important sources of revenue are: (i) government and semi-government grants; and (ii) charges for public works and services. The next table shows, for a three-year period, the total annual revenue receipts, according to source, of all municipalities and cities.

Local Government Authorities Revenue Fund Receipts, Ordinary Services and Business Undertakings Classified According to Source (\$'000)

Source of receipts	1969-70	1970-71	p1971-72
Ordinary services—			
Rates	11,282	11,950	13,390
Licences	180	175	185
Total	11,463	12,125	13,575
Public works and services—			
Health	59	74	80
Sanitary, garbage and street cleaning	19	21	20
Recreational facilities	415	466	512
Halls and community centres	71	73	85
Council residences	83	70	75
Cemeteries and crematoria	142	155	187
Roads	124	102	120
Parking	563	634	670
Private works	375	364	393
Plant sales	41	165	150
Other	864	838	998
Total	2,753	2,963	3,290
Government and semi-government grants—			
Roads	1,600	1,932	2,189
Other	272	314	813
Total	1,872	2,246	(a) 3,002
Other receipts (b)	862	1,021	1,182
Total ordinary services	16,949	18,351	21,049
Business undertakings—			
Water supply—			
Rates	3,613	3,910	3,949
Government and semi-governments grants	1,345	1,604	1,545
Other	550	549	612
Total	5,508	6,063	6,106
Sewerage—			
Rates	2,287	2,673	2,982
Government and semi-government grants	156	152	183
Other	207	223	419
Total	2,649	3,048	3,584
Abattoirs, other (c)	808	769	862
Total business undertakings	8,965	9,881	10,552
Grand total	25,914	28,236	31,601

(a) Includes unemployment grants totalling \$656,000.

(b) Includes additions to sinking funds, interest earnings, net deposits, donations and tolls.

(c) Comprises fees charged, sales of products, etc.

Revenue Receipts, Summary

The preceding table does not show combined figures for all rates and government grants; totals for these items are included in the summary which follows:

Revenue Fund Receipts, Ordinary Services and Business Undertakings
(£'000)

Year	All rates (net)	Licences	All govt and semi-govt grants	Business undertakings (a)	Ordinary services (a)	Other receipts	Total receipts
1966-67 ..	12,858	134	3,024	1,086	2,161	858	20,122
1967-68 ..	14,371	147	3,049	1,213	2,261	668	21,708
1968-69 ..	15,905	169	3,305	1,460	2,345	773	23,959
1969-70 ..	17,181	180	3,372	1,566	2,753	862	25,914
1970-71 ..	18,533	175	4,003	1,541	2,963	1,021	28,236
1971-72 <i>p</i>	20,321	185	4,730	1,893	3,290	1,182	31,601

(a) Excludes rates and grants which are shown separately.

Revenue Payments by Local Government Authorities

The following table shows annual payments by local government authorities from revenue funds:

Local Government Authorities
Revenue Fund Payments, Ordinary Services and Business Undertakings
Classified According to Service
(£'000)

Payments for—	1969-70	1970-71	<i>p</i> 1971-72
Ordinary services—			
General administration	2,217	2,544	2,802
Loan charges—Interest	1,875	2,013	2,221
Redemption	1,610	1,647	1,637
Sinking fund contributions	173	190	187
Total	3,658	3,850	4,044
Public works and services—			
Road, street and bridge construction	4,850	5,551	6,761
Other road services (a)	-154	-158	-84
Drainage	95	132	100
Health	395	416	486
Sanitary, garbage and street cleaning	641	674	801
Recreational facilities	1,279	1,431	1,729
Halls and community centres	220	217	284
Fire brigades	140	76	95
Cemeteries and crematoria	158	171	199
Libraries	116	298	214
Street lighting	387	392	424
Private works	254	233	240
Parking	281	502	135
Hotmix and asphalt plant	225	244	210
Other	553	477	173
Total	9,439	10,656	11,767
Grants	631	701	848
Other payments	132	-161	1,170
Total ordinary services	16,077	17,591	20,633

Local Government Authorities
Revenue Fund Payments, Ordinary Services and Business Undertakings
Classified According to Service—continued
(\$'000)

Payments for—	1969-70	1970-71	p1971-72
Business undertakings—			
Water supply—			
Loan charges—Interest	828	843	886
Redemption	613	796	700
Sinking fund contributions ..	25	19	24
Total	1,466	1,658	1,609
Other payments (b)	4,050	4,322	5,385
Total water supply	5,516	5,980	6,995
Sewerage—			
Loan charges—Interest	1,105	1,239	1,359
Redemption	539	582	627
Sinking fund contributions ..	43	38	48
Total	1,687	1,859	2,033
Other payments (c)	975	1,144	1,334
Total sewerage	2,662	3,002	3,368
Abattoirs—			
Loan charges—Interest	49	54	58
Redemption	27	34	31
Sinking fund contributions ..	10	9	11
Total	86	97	100
Other payments (c)	475	524	689
Total abattoirs	561	621	789
Total business undertakings	8,739	9,603	11,151
Grand total	24,816	27,195	31,784

(a) Net plant working (plant maintenance and operating expenses less hire charged to plant working accounts plus plant purchase).

(b) Comprises grants paid to semi-government authorities (principally the Metropolitan Water Board), working expenses, capital expenditure out of revenue fund and sundry payments.

(c) Comprises working expenses, capital expenditure out of revenue fund and sundry payments.

The Beaconsfield Municipality is served by the West Tamar Water Supply Scheme, which the municipality maintains and manages as agent for the Rivers and Water Supply Commission. All debt in the municipality in respect of water supply became the responsibility of the Commission on 1 July 1960; interest and principal repayments to the Commission on loans raised for the purpose of this water supply have been included in 'Water Supply—Other Payments' in the previous table.

Launceston, Burnie, Devonport and Campbell Town operate municipal abattoirs; other abattoirs in Tasmania are operated by the private sector.

The next table gives a summary of local government revenue fund payments and shows the importance of debt charges (24.5 per cent of total payments in 1971-72) and expenditure on roads, streets and bridges (21.3 per cent).

Payments, Ordinary Services and Business Undertakings
(\$'000)

Year	Adminis- tration (a)	Loan charges (b)			Other payments			Total
		Interest (c)	Redemp- tion (d)	Sinking fund contri- butions	Ordinary services		Business under- takings	
					Roads, streets, bridges	Other		
1966-67 ..	1,558	2,815	2,188	218	4,224	4,561	4,001	19,563
1967-68 ..	1,753	3,159	2,235	233	4,687	4,425	4,450	20,942
1968-69 ..	1,968	3,512	2,619	243	4,784	5,039	5,084	23,249
1969-70 ..	2,217	3,858	2,789	250	4,850	5,353	5,500	24,816
1970-71 ..	2,544	4,149	3,059	256	5,551	5,648	5,989	27,195
1971-72 ^p ..	2,802	4,524	2,994	269	6,761	7,024	7,408	31,784

(a) Administration charged to ordinary services only; includes interest on bank overdraft.

(b) Ordinary services and business undertakings.

(c) Excludes interest on bank overdraft.

(d) Includes redemption from sinking fund.

Pay-roll Tax (Partial Exemption)

In 1971 the Australian Government agreed to hand over pay-roll tax to state governments and to reimburse the states for some of the loss of revenue arising from partial pay-roll tax exemption for local government authorities. Exemption of non-trading activities from pay-roll tax saved local government approximately \$100,000 during the full financial year.

Loan Receipts, Payments and Debt

At 30 June 1972 the aggregate loan debt of all local government authorities was \$79,907,000, of which only \$1,063,000 (i.e. 1.3 per cent) was in respect of debt due to the State Government. The principal Tasmanian sources of loans for local government authorities are banks, superannuation and various trust funds, insurance companies; and for cities, public issues. The amount that any local government authority can raise is governed by: (i) the difficulty in finding willing lenders; (ii) the fact that the approval of the State Treasury is required; and (iii) under the *Local Government Act 1962*, total loan indebtedness is strictly controlled and cannot exceed a predetermined figure based on annual income for the preceding three years.

The next table shows the loan account receipts of all local government authorities:

Local Government Authorities: Loan Account Receipts
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72
Loan raisings for—				
Sewerage	2,671	2,004	2,134	2,418
Road, street and bridge construction ..	1,856	1,781	1,527	2,025
Water supply	666	700	1,020	683
Recreational facilities	530	578	587	874
Other	1,910	1,731	1,696	1,329
Total raisings	7,633	6,794	6,964	7,326
Government and semi-government grants ..	697	418	681	900
Other receipts (a)	350	258	519	410
Total receipts	8,682	7,469	8,164	8,639

(a) Includes recoveries of capital expenditure, sales of materials credited to loan funds, contributions from the private sector credited to loan funds, etc.

The next table shows, for a five-year period, details of payments from the loan accounts of all local government authorities:

**Local Government Authorities: Payments from Loan Accounts
Classified According to Purpose
(\$'000)**

Purpose	1967-68	1968-69	1969-70	1970-71	1971-72
Water	2,160	1,227	1,108	1,603	1,703
Sewerage	2,786	2,598	2,535	1,982	2,564
Drainage	268	359	371	293	336
Road, street and bridge construction ..	1,904	2,048	2,046	1,915	1,966
Recreational facilities	622	653	590	707	875
Halls and community centres	180	202	220	128	179
Other	1,405	1,548	1,101	867	946
Total	9,325	8,634	7,972	7,494	8,569

The following table shows, in summary form, loan raisings, loan debt and sinking funds:

**Local Government Authorities: Loan Raisings, Loan Debt and Sinking Funds
(\$'000)**

Year	Loan raisings during financial year			Loan debt at 30 June			Total of sinking funds at 30 June (c)
	From State Government (a)	From other sources (b)	Total	To State Government	To other creditors	Total	
1966-67 ..	21	6,960	6,981	907	55,980	56,888	1,206
1967-68 ..	79	8,104	8,183	917	61,903	62,821	1,496
1968-69 ..	35	7,599	7,633	917	66,922	67,839	1,706
1969-70 ..	44	6,751	6,794	934	70,918	71,854	1,893
1970-71 ..	179	6,784	6,964	r 1,052	74,826	r 75,878	r 2,162
1971-72 ..	50	7,276	7,326	1,063	78,844	79,907	2,451

(a) These advances were from the State Treasury direct, and exclude those from authorities such as the Housing Department and the Metropolitan Transport Trust.

(b) Includes advances from the Housing Department and the Metropolitan Transport Trust.

(c) Sinking funds maintained by municipalities and cities for debt redemption purposes.

Source of Loan Funds

It can be seen from the preceding table that the local government loan debt includes only a small liability in respect of advances made by the State Treasury. The proportion of total debt now owed to State authorities (but not directly to the Treasury) has increased somewhat, principally due to co-operation between individual municipalities and the State Housing Department. In planning the establishment of large housing estates, the Housing Department has been concerned with the provision of certain essential services (e.g. water and sewerage); where such services have required capital expenditure by a municipality, the Department has made some loan funds available.

Instalment Debentures

Much of the debt of the municipalities is in the form of instalment debentures which involve equal periodic payments (usually yearly or half-yearly); such payments are credited to redemption and interest in changing proportions, the accounting being the same as used to record home instalment purchase transactions.

Employees of Local Government Authorities

The following table shows total employees of local government authorities over a five-year period. The number of employees of individual authorities ranges from over 600 persons to as low as two persons.

Local Government Authorities: Persons Employed (a) at 30 June

Particulars	1969	1970	1971	1972	1973
General administration—					
Males	503	499	504	537	529
Females	188	202	220	221	222
Persons	691	701	724	758	751
All other services—					
Males	1,813	1,885	1,923	(b) 2,442	(b) 2,152
Females	62	58	37	20	37
Persons	1,875	1,943	1,960	2,462	2,189
Total—					
Males	2,316	2,384	2,427	2,979	2,681
Females	250	260	257	241	259
Persons	2,566	2,644	2,684	(b) 3,220	(b) 2,940

(a) Includes permanent and temporary employees but excludes part-time employees.

(b) Includes persons employed on local government work programmes financed by special Australian Government unemployment relief grants.

WATER SUPPLY AND SEWERAGE

Introduction

Water supply and sewerage were once exclusively the responsibility of the cities and municipalities; two semi-government authorities now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart and Launceston areas, and directly to certain industrial consumers.

Metropolitan Water Board: This semi-government authority is responsible for the supply of water in the Hobart, Clarence, Glenorchy and Kingborough local government authority areas. A detailed description of the Board's functions and financial relationships with the individual local government authorities is given in the next section of this chapter, 'Metropolitan Water Board'.

Rivers and Water Supply Commission: The *Water Act 1957*, proclaimed as from 1 September 1958, conferred on the Rivers and Water Supply Commission all powers which had been previously exercised by the Water, Sewerage and Drainage Board. The Commission exercises a general control over the utilisation of the State's water resources and has specific functions in relation to local government authority water and sewerage schemes. It also operates the North Esk Regional Water Supply, West Tamar Water Supply, Prosser River Supply and Cressy-Longford Irrigation Schemes. (Details of the last scheme appear in the chapter 'Primary Industry—Rural'.) A more detailed description of the Commission's functions in relation to local government and of the three water supply schemes is contained in a later section, 'Rivers and Water Supply Commission'.

Metropolitan Water Board

The overall control of water supply in Hobart, Clarence, Glenorchy and Kingborough is vested in the Metropolitan Water Board, but the four local government authorities retain primary responsibility for reticulation and sale to consumers. The Board has a large pumping station and treatment plant at Bryn Estyn on the Derwent, pipeline capacity being 136 megalitres per day. Before the Board came into operation in 1962, the four metropolitan local government authorities had their own supply schemes (e.g. Hobart was supplied from Lake Fenton and Mount Wellington); these schemes still operate but the Board's pumping works based on the Derwent now give an assured supply.

The Board also controls the Southern Regional Water Supply Scheme which draws water from the Derwent and was originally constructed to supply Hobart's eastern shore suburbs. (Reticulation is, however, still the responsibility of the local government authorities.) On the eastern shore, the Board has now extended its service to the towns of Cambridge, Midway Point, Sorell, Seven Mile Beach, Lauderdale and Rokeby, while western shore extensions serve Margate, Snug and Howden.

Financial Relationship

Under the *Metropolitan Water Board Act 1961*, the four metropolitan local government authorities no longer borrow money for metropolitan water works, but are provided with the necessary capital by the Board which obtains its funds from private lenders and the State Loan Fund; the local authorities in turn being required to make revenue contributions to the Board. The effect of this arrangement can be seen in State local government loan debt tables where the debt in respect of water shows only very minor annual increases; in effect, the expenditure of the four metropolitan local government authorities for water works undertaken since 1961 is reflected in the debt of the Board and not in debt of the municipalities. At 30 June 1973, the loan debt of the Board to the State Treasury was \$16.56m and to other lenders \$5.69m.

The financial relationship between the Board and the four metropolitan local government authorities is summarised in the following table:

Metropolitan Water Board: Income and Expenditure
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
INCOME					
Municipal contributions—					
Hobart	710	735	787	788	959
Glenorchy	496	486	521	504	595
Clarence	555	524	553	517	592
Kingborough	94	90	97	98	114
Special consumers	256	315	341	352	351
Direct earnings, Southern Regional Scheme	194	232	255	279	353
Other revenue	12	23	45	82	71
Total	2,316	2,406	2,599	2,620	3,035
EXPENDITURE					
Reimbursement of working expenses—					
Hobart	313	327	340	372	390
Glenorchy	217	238	247	267	270
Clarence	133	137	144	144	146
Kingborough	38	43	45	46	53
Bulk supply, operation costs	329	322	340	463	673
Administrative expenses	52	54	74	86	83
Interest	801	928	1,013	1,161	1,254
Depreciation	220	250	287	323	346
Investigation expenses written-off .. .. .	..	39	..	..	..
Total	2,101	2,339	2,490	2,862	3,216

The preceding table excludes capital contributions, these are shown in the next table:

Metropolitan Water Board: Contributions to Southern Local Government Authorities
('\$000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Hobart—					
Construction and improvement	299	161	333	317	244
Redemption and conversion	29	116	104	43	26
Total	328	276	436	359	270
Glenorchy—					
Construction and improvement	170	129	128	250	100
Redemption and conversion	75	55	57	153	124
Total	245	184	186	403	224
Clarence—					
Construction and improvement	82	30	40	r 261	50
Redemption and conversion	41	55	64	45	47
Total	123	85	104	r 306	97
Kingborough—					
Construction and improvement	52	19	92	125	81
Redemption and conversion	11	12	12	12	13
Total	63	31	104	137	94
Total—					
Construction and improvement	602	339	593	r 953	475
Redemption and conversion	155	237	237	252	210
Grand total	757	576	830	r 1,205	685

The Board makes capital contributions to the four local government authorities for: (i) construction and improvement of their water works; and (ii) redemption of their water debt raised prior to creation of the Board. The Board finances these capital contributions by: (i) borrowing from the State Government; (ii) borrowing from the public; and (iii) application of internal funds, e.g. depreciation funds. The cost of servicing loans, raised by the Board to meet local government requirements, is met from revenue contributions by the four local government authorities.

Capital Expenditure

The Board's total allocation of funds for capital purposes in 1972-73 was \$850,000 made up of \$250,000 from State Loan Funds and \$600,000 from semi-government loans. Of the allocation \$100,000 was for augmentation of the Derwent Water Supply, \$450,000 for municipal reticulation systems and \$60,000 for the construction of the Blackmans Bay reservoir.

In the 11 years of the Board's operations, the annual loan expenditure has averaged slightly more than \$2m. During this time the Board has completed such major projects as the Derwent Water Supply (\$6.3m); Sorell-Clarence extension (\$1.5m); Kingborough extension (\$0.6m); Risdon Brook Dam (\$2.9m); and made capital advances to the metropolitan municipalities for works under their control (\$7.5m) and loan conversions (\$2.2m).

Rivers and Water Supply Commission

Relations with Local Government Authorities

The Commission examines all proposed municipal water supply and sewerage schemes before construction commences to ensure that the schemes are economically sound. (Schemes proposed by the three cities, Hobart, Launceston and Glenorchy, are exempted from examination by the Commission.) If a scheme is considered to be beyond the financial resources of

the local government authority and proposed rates meet or exceed the standards established by the Commission then it may recommend to the Minister, payment of a subsidy. (Subsidies are paid solely to assist municipalities in balancing their revenue working accounts.) At 1 July 1973 the standard revenue requirement for subsidised sewerage schemes was between \$42 and \$44 per tenement and \$20 per vacant lot. For water supply schemes it was \$35 per tenement and \$17 per vacant lot, with a \$2 increase to apply in 1974-75 and a further such increase in 1975-76. An above standard revenue requirement is imposed for vacant blocks where such blocks comprise more than 25 per cent of the total number of properties served. The Commission is also empowered to recommend subsidies for the purpose of assisting councils to pay for water supplied from the North Esk and Southern Regional Water Supply Schemes.

Regional Schemes

North Esk Regional Water Supply: The scheme, managed by the Commission, serves portions of the municipalities of Evandale, George Town, Lilydale, St Leonards and Westbury. In addition the scheme provides water for industrial purposes to Bell Bay. Total income from the scheme during 1972-73 was \$411,000 which included sale of water to: (i) municipalities, \$247,000 (ii) industrial users, \$128,000; and (iii) wayside consumers, \$9,000. Total expenditure for the year amounted to \$384,000. At 30 June 1973 capital cost of the scheme amounted to \$3.75m. During 1972-73 the Commission authorised its consulting engineers to prepare plans for a 29.2 million litres per day water treatment plant, construction of which was expected to start about mid-1974.

West Tamar Water Supply: This scheme was partially completed by the Beaconsfield Municipality but under the *West Tamar Water Act* 1960 was vested in the Rivers and Water Supply Commission. The Act provided that the scheme should be managed and maintained by the Beaconsfield Council as agent for the Commission. The level of charges is determined by the Commission; Beaconsfield Municipality collects revenue on behalf of the Commission and is reimbursed for expenditure incurred. The scheme serves the west shore of the Tamar located in the Beaconsfield Municipality. Total income from the scheme during 1972-73 was \$178,000 while expenses of the scheme were \$276,000. Capital cost of the scheme to 30 June 1973 was \$2.42m.

Prosser River Scheme

This scheme was originally designed to supply water to a sodium alginate industry at Louisville, on the east coast near Orford, and to supplement the water supply for the town of Orford in the Spring Bay Municipality. A water storage dam was constructed near Orford for this purpose and later an additional storage dam was built further upstream. Recently agreements have been made to supply water to the Triabunna woodchip and fish meal plants. Income for the year 1972-73 was \$43,000 while expenses of the scheme also amounted to \$43,000. Capital cost of the Prosser River Scheme to 30 June 1973 amounted to \$434,000.

Chapter 5

PUBLIC FINANCE

AUSTRALIAN AND STATE GOVERNMENT

Change in Relationship Since 1901

Prior to the establishment of the Commonwealth in 1901, the individual states exercised complete autonomy with respect to their raising of revenue and the manner in which this was spent. Due to developments since Federation, the states now have only limited ability to raise the money required for revenue and capital purposes. The Australian Government has become almost the exclusive channel for loan funds for state purposes, and supplements state revenue by massive grants from its own funds. The emergence of the Australian Government as the dominating influence in the financial transactions of the state governments can be traced to three events:

- (i) under the Constitution the states surrendered the right to levy customs and excise duties, which passed exclusively to the Australian Government;
- (ii) under the *Financial Agreement Act 1927*, the Australian Government became the borrowing agent for the states; and
- (iii) during World War II, under the uniform tax scheme, the Australian Government became the sole authority levying taxes upon the income of persons and companies, a war-time measure which has continued to this day.

The result of these changed relationships can be summarised as follows: (i) the Australian Government, as the channel for loan funds for state purposes, exercises a substantial degree of control over public investment; (ii) to carry out functions for which their revenue is entirely inadequate, the states have become heavily dependent on the Australian Government for general and specific grants. The Australian Government is therefore placed in a position to exercise a substantial degree of control over the ordinary public expenditure of the states.

Principal Activities of the States

The Federal Constitution lists the matters over which the Australian Parliament has power to legislate. Some of these powers are given exclusively to the Australian Government (e.g. defence, customs and excise) but, in many matters, the Australian and state governments have concurrent powers; federal law prevailing where there is conflict. Matters other than those listed in the Constitution remain the concern of the states. Principal government activity at state level embraces education, health and welfare services, the development of internal resources, land settlement, soil conservation, maintenance of law and order and the provision of public utility services such as roads, electricity, public transport and water supply. Such activities are undertaken either by state departments or by statutory and local government bodies created under state legislation. The most obvious form of revenue for the discharge of these functions is state taxation but the Australian Government exercises a practical monopoly over the more lucrative tax sources (e.g. customs and excise, income tax, sales tax). A responsibility therefore rests on the Australian Government to supplement state revenues.

Australian Government Payments To or For Tasmania

Summary of Australian Government Payments

In the following sections, the main forms of Australian Government assistance are described; the following table shows the total annual payments to Tasmania from the Australian Government Consolidated Revenue Fund:

**Australian Government Payments To or For Tasmania
(\$'000)**

Particulars	1970-71	1971-72	1972-73
GENERAL REVENUE ASSISTANCE			
Financial assistance grants (a)	67,088	71,673	79,498
Special grants (Section 96) (b)	13,680	7,800	7,600
Total	80,768	79,473	87,098
SPECIFIC PURPOSE PAYMENTS			
Revenue payments—			
Payments under financial agreement—			
Interest on State debt	534	534	534
Sinking fund on State debt	1,694	1,825	1,934
Debt charges assistance	795	1,590	2,385
Universities	1,818	2,105	2,530
Colleges of advanced education	754	887	1,113
Schools	556	660	914
Tuberculosis hospitals	347	337	289
Assistance for deserted wives	188	201	338
Unemployment relief .. .. .	..	1,485	5,970
Housing grants .. .. .	..	232	388
Agricultural extension services	314	349	380
Other	345	301	398
Total revenue payments	7,345	10,506	17,173
Capital payments—			
Universities	429	665	842
Colleges of advanced education	514	1,385	1,175
Teachers and pre-school teachers colleges	100	650	250
Technical training	325	380	380
Schools	1,043	1,251	1,708
Housing advances .. .. .	..	..	300
Australian Government road aid	10,230	10,820	12,150
Bell Bay railway .. .. .	..	3,094	1,156
King Island harbour works .. .. .	..	..	1,113
Hydro-electricity	3,211	2,500	..
Softwood forestry	700	45	1,101
Rural reconstruction .. .. .	..	400	2,200
Cressy-Longford irrigation works	200	449	101
Other	779	891	764
Total capital payments	17,531	22,530	23,240
Total specific purpose payments	24,876	33,036	40,413
GENERAL AND SPECIFIC PURPOSE PAYMENTS			
Total payments (c)	105,644	r 112,509	127,511

(a) Includes special financial assistance grants (in \$'000): 1970-71, 2,017; 1971-72, 2,517; 1972-73, 5,094.

(b) Actual payments plus or minus adjustment.

(c) This total cannot be identified as such in state accounts since part is taken into Consolidated Revenue Fund, part into Loan Fund, and the balance into Trust and Special Funds.

Financial Assistance Grants

The Federal *States Grants (Income Tax Reimbursement) Act* 1942 provided for grants to the states as compensation for vacating the field of income tax. Various formulae have been employed to calculate each state's grant, the principles of the present system dating from 1959. These involved annually increasing the grant by taking account of three factors: (i) increased state population; (ii) increased average wages; and (iii) a 'betterment' multiplier. This 'betterment' multiplier was a constant 1.2 per cent from 1965-66 to 1970-71; for 1971-72 and 1972-73, it was 1.8 per cent. When calculating the 1972-73 financial assistance grant a notional pay-roll tax deduction was included in the formula.

The calculation of the Tasmanian grant for 1972-73 illustrates the application of the formula: (i) formula grant (1971-72) \$75,006,143 less notional pay-roll tax deduction of \$8,153,838; (ii) percentage increase in Tasmanian population in year 1972, 0.6945; (iii) percentage increase in wages per Australian employed (1972-73 over 1971-72) 8.57338; (iv) betterment factor 1.8 per cent.

$$\begin{aligned} \text{Calculated grant (1972-73)} &= \\ &(\$75,006,143 - \$8,153,838) \times 1.006945 \times 1.0857338 \times 1.018 \\ &= \$74,403,473 \end{aligned}$$

The Australian Government added to the calculated grant a special financial assistance grant of \$5,094,377 giving a total of \$79,497,850.

The following shows the amounts received as financial assistance grants from 1955-56:

Financial Assistance Grants (a): Receipts by Tasmania
(**\$**)

Year	Amount	Year	Amount	Year	Amount
1955-56	10,704,450	1961-62	25,671,238	1967-68	37,968,098
1956-57	12,048,712	1962-63	26,616,104	1968-69 (b) ..	42,208,983
1957-58	13,435,384	1963-64	27,626,296	1969-70 (b) ..	48,514,433
1958-59	14,539,428	1964-65	29,297,286	1970-71 (b) ..	67,087,841
1959-60	21,826,000	1965-66	32,130,632	1971-72 (b) ..	71,673,202
1960-61	23,960,360	1966-67 (b) ..	34,772,852	1972-73 (b) ..	79,497,850

(a) Referred to as tax reimbursement grants from 1942-43 to 1958-59. (Formula grants plus supplementary grants.)

(b) Calculated formula grant and other adjustments (e.g. special supplements).

Tertiary Education

At the June 1973 Premiers' Conference the Australian Government's offer to accept the full financial responsibility for tertiary education from 1 January 1974 was accepted by the states. Furthermore, it was agreed that the revenue expenditure which the states would save should be deducted from the financial assistance grants. (Estimated capital expenditure of which the states are relieved is to be deducted from state loan programmes.) The agreed reductions to the financial assistance grants for Tasmania were (in \$'000): 1973-74, 3,500; 1974-75, 7,200. (The 1973-74 amount represents only a half-year saving.) It is intended that the 1974-75 amount will be subtracted from the base amount used to calculate the 1975-76 formula grant.

Special Grants (Section 96 of the Constitution)

Section 96 of the Constitution reads: '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'.

The Commonwealth Grants Commission was established in 1933 and consists of three members on a part-time basis assisted by a full-time staff. In its third report (1936) it fixed upon the principle of financial need, which was expressed in the following terms: 'Special grants are justified when a State through financial stress from any cause is unable efficiently to discharge its functions as a member of the federation and should be determined by the amount of help found necessary to make it possible for that State by reasonable effort to function at a standard not appreciably below that of other States'. In arriving at its recommendations, the Commission each year makes a detailed comparison of the budget results of the claimant states with those of the non-claimant states.

Prior to the passage of the *Federal States Grants Act 1959*, the claimant states had been Tasmania, W.A. and S.A. The new formula evolved under the *States Grants Act 1959* had been devised partly in reaction to a claim by Victoria and Queensland to be also considered as claimant states; in effect, the new scale of increased grants under this legislation resulted in the number of claimant states falling to two, W.A. and Tasmania. The Grants Commission could then have used the accounts of the four non-claimant states to reach a basis for comparison: it finally decided to adopt a two-state standard, based on the budgets of N.S.W. and Victoria. Recent developments have included: (i) the withdrawal of W.A. as a claimant state from 1968-69; (ii) the acceptance of S.A. as a claimant state from 1970-71; (iii) the acceptance of Queensland as a claimant state from 1971-72. In effect the pre-1959 situation with three claimant states was restored with Queensland replacing W.A.

For developments in 1974 in relation to Tasmania's position as a claimant state see Appendix A 'Chronology and Later Information'

Since 1949-50, the special grant has been in two parts. One part is an advance to meet the estimated financial needs of the State during the current financial year and the other part is an adjustment (positive or negative), the magnitude of which depends on whether the advance made two years earlier proved greater or smaller than the amount of financial assistance deemed justified by the Grants Commission. The special grant for 1973-74 was \$10m subject to a negative adjustment of \$1.35m on 1971-72 accounts.

The negative adjustment applied in 1973-74 meant that the Grants Commission considered its 1971-72 advance grant too high in the light of its critical examination, not only of the 1971-72 accounts of Tasmania, but also those of the standard states (N.S.W. and Victoria). The accounting principles followed by the Grants Commission are necessarily complicated and can be examined in the annual reports of that authority. It is sufficient to say that the existence of the special grant has exercised considerable influence on the financial policy of successive Tasmanian governments. Two principles employed by the Grants Commission will serve to illustrate the nature of this influence:

- (i) if state taxation in a claimant state is below average rates and average exemption scales in the standard states, an unfavourable adjustment will result; and
- (ii) if state social service expenditure in a claimant state is above comparable per capita expenditure in the standard states (after allowing for certain difficulties encountered in the claimant state), an unfavourable adjustment will result.

Claimant states must endeavour to raise revenue from taxation at least at the rates and exemption scales adopted by the standard states and must not exceed the per capita expenditure of the standard states in certain fields. Departure from these standards can result in adverse grant adjustments.

The following table shows Tasmanian special grant receipts:

Special Grant (Section 96): Receipts by Tasmania
 (\$'000)

Year	Advance grant	Adjustment assessed (a)	Adjustment applied (b)	Actual receipt (c)
1962-63	9,800	+ 982	+ 282	10,082
1963-64	10,200	+1,332	+ 556	10,756
1964-65	13,618	+1,166	+ 982	14,600
1965-66	16,400	+ 889	+1,332	17,732
1966-67	19,500	-1,190	+1,166	20,666
1967-68	19,000	- 100	+ 889	19,889
1968-69	18,000	+1,680	-1,190	16,810
1969-70	22,000	-3,200	- 100	21,900
1970-71	(d) 12,000	-2,400	+1,680	(d) 13,680
1971-72	11,000	-1,350	-3,200	7,800
1972-73	10,000		-2,400	7,600
1973-74	10,000		-1,350	8,650

(a) Assessment is shown against the year for which accounts have been examined by the Grants Commission, although its effect does not become apparent until two years later.

(b) The two-year delay in application is due to the Grants Commission's obligation to analyse the accounts of claimant and non-claimant states before announcing the adjustments.

(c) Advance grant plus or minus the adjustment applied.

(d) In 1970-71 the Australian Government agreed to transfer \$10m from the special grant to the financial assistance grant; hence the apparent reduction.

The treatment of special grant adjustments in Tasmanian accounts is as follows:

- (i) If a favourable adjustment is made, an equal amount is paid into a suspense account (Accumulated Revenue Account) and the Consolidated Revenue Fund records only the advance grant.
- (ii) If an unfavourable adjustment is made, an equal amount is transferred from the suspense account (Accumulated Revenue Account) to the Consolidated Revenue Fund. Thus the Consolidated Revenue Fund again shows as a receipt the amount of the advance grant and not, as might be expected, the advance grant *less* the unfavourable adjustment.

In effect, the State Treasury carries forward, in the Accumulated Revenue Account, unadjusted budget surpluses and deficits until the Grants Commission announces a favourable or unfavourable adjustment; action can then be taken to charge the net adjusted deficit against the Loan Fund.

Payments Under the Financial Agreement (1927)

Under the Financial Agreement, which was entered into by the Australian Government and the states in 1927, the Australian Government contributes towards interest and sinking fund payments in respect of state debts existing at 30 June 1927, and towards sinking fund payments in respect of state debts incurred after that date for purposes other than the funding of revenue deficits.

The Australian Government contribution towards payment of interest on the Tasmanian State debt is a constant annual sum of \$533,718 and will be continued until 1985.

The sinking fund contributions made by the Australian Government under the Agreement in respect of state debts vary according to the date and nature of the borrowings. On state debts existing at 30 June 1927 the Australian Government is making sinking fund contributions at the rate of 0.125 per cent a year until 1985 and in respect of cash loans raised for the states since that date, the Australian Government makes sinking fund payments for 53 years at the annual rate of 0.25 per cent. Each state is obliged to make sinking fund payments for corresponding periods at the rate of 0.25 per cent per annum regardless of the date on which the debt was incurred. The only exception is in relation to debt incurred for the purpose of funding revenue deficits. In these instances, the Australian Government makes no sinking fund con-

tributions and the states are obliged to make annual contributions to the sinking fund of not less than four per cent. However, in respect of Treasury Bills issued to cover states' revenue deficits accruing between July 1927 and June 1935, special arrangements were made under which the Australian Government contributes 0.25 per cent per annum on the amount outstanding until June 1983.

Recent Australian Government sinking fund contributions in respect of the Tasmanian public debt are shown in the following table:

Australian Government Contributions to National Debt Sinking Fund: Tasmanian Debt (\$'000)

Year	Amount	Year	Amount
1963-64	1,062	1968-69	1,485
1964-65	1,129	1969-70	1,598
1965-66	1,212	1970-71	1,694
1966-67	1,293	1971-72	1,825
1967-68	1,398	1972-73	1,934

The acceptance of some Australian Government liability for interest and sinking fund payments on state debts was only one part of a more extensive agreement setting up an Australian Loan Council and a National Debt Sinking Fund. The raising of loan money for the states under the Agreement is described later in this chapter.

New Assistance for Debt Charges

At the 1970 February Premiers' Conference, the Australian Government announced that it was prepared to take over state debt totalling \$1,000m during the five-year period 1970-71 to 1974-75. However, this would have necessitated amendments to the *Financial Agreement Act* 1927 and caused considerable delay. The Australian Government then proposed an alternative which involved grants to the states equal to interest on specific parcels of state debt. The distribution between the states is to be in proportion to Australian Government Securities on issue on behalf of each state at 30 June 1970. Tasmania's estimated receipts under this scheme are (in \$m): 1970-71, 0.8; 1971-72, 1.6; 1972-73, 2.4; 1973-74, 3.2; and 1974-75, 3.9. It is intended to amend the *Financial Agreement Act* 1927 by 30 June 1975 and formally transfer the \$1,000m of state debt to the Australian Government.

Grants for Capital Purposes

To assist the states in meeting their capital works programmes during the period 1970-71 to 1974-75 the Australian Government is providing annual grants for financing non-reproductive capital works. Total approved borrowing programmes from 1970-71 to 1973-74 have been (in \$m): 1970-71, 823; 1971-72, 892; 1972-73, 982; and 1973-74, 867. The proportion of the total states' capital works programme provided by Australian Government grants in this period has been: 1970-71, 24.3 per cent; 1971-72, 24.6; 1972-73, 25.3; and 1973-74, 32.1. However, changes in the composition of total state capital works programmes have occurred during this period: (i) the 1970-71 figure excludes borrowings for state housing; (ii) 1971-72 and 1972-73 figures include borrowings for state housing; (iii) the 1973-74 figure excludes borrowings for welfare housing and from 1 January 1974 tertiary education—the latter has become an Australian Government function following an agreement at the June 1973 Premiers' Conference.

Distribution of the grants is by agreement between the states or by the Australian Government if the states fail to reach agreement. Tasmania's share of the 1972-73 grant was \$17.37m which was credited to the State's Loan Fund. Expected capital grant receipts for 1973-74 for Tasmania are \$20.55m and expected borrowings (excluding funds for tertiary education from January 1974 and welfare housing) are \$43.47m.

The provision of these grants reduces the amount which the State needs to borrow in order to carry out its capital works programme. The result of this decrease in the amount borrowed means that the burden of debt charges (interest payments and sinking fund contributions) on the Consolidated Revenue Fund is eased.

Australian Government Aid for Roads

The Federal *Main Roads Development Act* 1923 provided for annual Australian Government contributions to the states, the basis of distribution being a formula weighted 40 per cent according to state area and 60 per cent according to state population. This basis was explicitly expressed in the *Federal Aid Roads Act* 1926 and continued to operate until 1959-60.

A new formula for distribution was embodied in the *Commonwealth Aid Roads Act* 1959 when the Australian Government undertook to provide a total sum of \$500m over a five-year period. Of this amount, \$440m represented basic grants, and the remaining sum of up to \$60m was, subject to certain annual limits, payable to the states on the basis of \$1 for each \$1 allocated by the state governments from their own resources for expenditure on roads over and above the amounts allocated by them for roads expenditure in 1958-59.

The amounts being made available by the Australian Government were distributed between the states in each year in the proportion of five per cent of the total for Tasmania, and the balance shared between the other five states on the basis of one-third according to census population, one-third according to area and one third according to vehicles registered at 31 December preceding the year concerned. It will be observed that Tasmania, with less than one per cent of the area of Australia, was specifically exempted from the operation of the formula applied to the other states.

The *Commonwealth Aid Roads Act* 1964 contained provision for a second five-year plan but the total distribution over this period was raised to an amount of \$750m. A third five-year plan, based upon a distribution of \$1,252m is embodied in the *Commonwealth Aid Roads Act* 1969. Of this amount \$1,200m is divided between the states according to a new formula which includes characteristics of the old formula and a scheduling formula suggested in a Bureau of Roads report. The remaining \$52m is distributed thus: W.A., \$40.8m; S.A., \$9m; and Tasmania, \$2.25m. Tasmania's total receipts under the new five-year plan will be \$56.25m. The 1969 Act specifies that 50.06 per cent of the Australian Government grant to a state is to be spent on urban roads; 15.56 per cent on main trunk roads; 32.88 per cent on other rural roads and 1.5 per cent on planning and research. To qualify for a specified part of the total grant, each state, during the five-year period, is required to increase its expenditure on the roads from its own resources above a base-year level at the same rate as the number of motor vehicles on register in the state increases.

The method of allocating road grants, outlined above, became operative from 1 July 1969.

Details of Tasmanian receipts of Australian Government contributions in respect of road expenditure are shown in the following table:

**Australian Government Aid for Roads: Receipts by Tasmania
(\$'000)**

Year	Amount	Year	Amount	Year	Amount
1956-57	3,126	1962-63	5,400	1968-69	8,500
1957-58	3,466	1963-64	5,800	1969-70	9,100
1958-59	3,624	1964-65	6,500	1970-71	10,230
1959-60	(a) 4,366	1965-66	7,000	1971-72	10,820
1960-61	4,600	1966-67	7,500	1972-73	12,150
1961-62	5,000	1967-68	8,000	1973-74	13,950

(a) Payment under the *Commonwealth Aid Roads Act* 1959 was \$4.2m; the balance represents a final adjustment of Australian Government commitments under previous legislation.

State Revenue Raising Difficulties

Introduction

The financial relationships described in the opening section of this chapter have at times caused difficulties for individual states, especially when there has been an urgent need to increase revenue. In these circumstances, the complaint has been that the Australian Government exercises a practical monopoly over the best 'growth' taxes and that, because of this, the states lack budget flexibility.

This section in the 1973 Year Book described: (i) a legal challenge to uniform income tax; (ii) the imposition and abandonment of states' receipts taxes; (iii) an attempt by a state to avoid paying Australian Government pay-roll tax. The following text describes: (i) the transfer of pay-roll tax from the Australian Government to the states; (ii) the imposition by the Tasmanian Government of a tobacco tax.

Growth Tax for the States

Increasing budgetary difficulties in recent years led to pressure from the state premiers for access to a growth tax, preferably re-entry into the field of income taxation. The initial attempts involved the levy of a receipts duty tax. At the 1971 June Premiers' Conference the Prime Minister refused to give the states access to the field of income taxation; however, he did offer to hand over pay-roll tax to the states. The proposal put forward was that the states would receive receipts from pay-roll tax but the amounts received would be deducted from the states' financial assistance grants. The premiers unanimously rejected this proposal. After discussion the state premiers agreed to take over pay-roll tax and have a matching reduction in the formula base for their financial assistance grants, subject to the following conditions:

- (i) The Australian Government would give the states a non-recurring special financial assistance grant totalling \$40m during 1971-72; Tasmania's share was \$1.9m.
- (ii) The states, by a variation of the formula grants in the period 1971-72 to 1974-75, were to receive approximately an extra \$100m.
- (iii) The Australian Government agreed to bear the full cost resulting from the exemption from pay-roll tax of certain areas of local government.

The state premiers decided to raise the pay-roll tax rate from 2½ per cent to 3½ per cent. Receipts from pay-roll tax in Tasmania in 1972-73 were \$11.86m.

Tobacco Tax

In the September 1972 Budget the Premier and Treasurer, the Hon. E. E. Reece, announced his intention to: (i) impose a tax on the consumption of tobacco; and (ii) license tobacco retailers and vending machines. Despite an adverse reaction from the Federal Treasurer the Tasmanian Government decided to proceed with the tobacco tax proposal and legislation was introduced into the House of Assembly. In November 1972 the *Tobacco Act* received the Governor's assent.

Tobacco Act 1972: The Act, which became effective on 1 January 1973, imposed a tax on the consumption (by smoking or chewing) of tobacco and required the licensing of tobacco retailers and vending machines. The consumption tax was set at 7½ per cent of the value of the tobacco consumed. (The value on which the tax was based was the price at which the tobacco, together with its container, was ordinarily sold.) Licence fees for retailers were based on the value of tobacco stocks while vending machine fees were set according to the capacity of the machine. The consumption tax, licences and fees collected under the Act were to be paid into the Consolidated Revenue Fund.

Challenge to the Act: The Retail Tobacco Sellers' Association decided to challenge the consumption tax on the grounds that it was in fact a sales tax and therefore constitutionally invalid. The challenge was heard by the High Court. In March the Australian Government announced that it would seek leave to intervene in the case and that it would oppose the tax.

Court's Decision: In May 1973 the High Court reserved its decision on the question of validity of the tax and licences. Almost one year later on 1 April 1974 the Court ruled that the tobacco tax did not constitute an excise duty and that both the licence fee and tax were valid. However, the Court decided that the method of collecting the 7½ per cent tax was illegal. The decision validating the Tasmanian tobacco consumption tax was generally regarded as giving the states access to an important new field of taxation. The basic difficulty confronting the states was one of devising a method of collection that is legal and administratively feasible.

Reaction: Both the State Government and the Tasmanian Retail Tobacco Trader's Association claimed the decision as a victory—the association advised members to cease collection of the tax, however, the Premier, Mr Reece, stated that the problem was purely administrative and that the tax would be operative as soon as a new method of collection was devised. Later in April an alternative collection method was announced; principal features were: (i) purchasers may pay the tax prior to leaving the vendor's establishment and at the end of the month tobacco and cigarette retailers forward all taxes collected to the Commissioner of Taxes; (ii) if a buyer elects not to pay the tax at time of purchasing then a form procedure is invoked and the seller is required to ensure accuracy of information and forward completed forms to the Commissioner. Tobacco retailers were vocal in their opposition to the new method, however, Parliament allowed the regulations covering the method of collection to stand and the tax again became operative in May 1974. However, later in the same month, following discussions between Australian and State Government treasury officials, it was announced that if the Australian Government agreed to reimburse the State tobacco tax would be repealed. Later developments are outlined in 'Appendix A', Chronology and Later Information of this Year Book.

Loan Council (Financial Agreement)

The original Financial Agreement was made on 12 December 1927, but Tasmania did not become a party to it until 1 July 1928. The basic intention of the agreement was a co-ordinated approach to the loan market, the establishment of sound sinking fund arrangements and the sharing of State debt charges by the Australian Government. The main provisions are summarised as follows:

- (i) The Australian Government assumed certain liabilities in respect of state debts (see previous section on interest and sinking fund payments made by the Australian Government in respect of Tasmanian State debt—'*Payments under the Financial Agreement 1927*').
- (ii) The Australian Loan Council was set up to co-ordinate the public borrowings of the Australian Government and the states. It consists of the Prime Minister (or his nominee) as chairman, and the state premiers (or their nominees). Each financial year the Australian Government and the states submit programmes to the Loan Council setting out the amounts they desire to raise by loan during the next year. Revenue deficits to be funded are included in the borrowing programmes but borrowing by the Australian Government for defence purposes is excluded from the terms of the agreement.

If the Loan Council decides that the total amount of the loan programmes for the year cannot be borrowed at reasonable rates and conditions, it then decides the amount which shall be borrowed and may, by unanimous decision, allocate that amount between the Australian Government and the states. In default of a unanimous decision, the Australian Government is entitled to one-fifth of the total amount to be borrowed and each state to a proportion of the remainder equal to the ratio of its net loan expenditure in the preceding five years to the net loan expenditure of all states during the same period.

Subject to the decisions of the Loan Council, the Australian Government arranges all borrowings, including those for conversions, renewals and redemptions. However, the Australian Government or a state may borrow for 'temporary purposes' by way of overdraft or fixed deposit, subject to limits fixed by the Loan Council. In addition, the Australian Government may borrow within Australia, or a state within its own territory, from authorities, bodies, institutions, or from the public by counter sales of securities, subject to Loan Council approval. Australian Government securities are issued for money borrowed in this way and amounts so borrowed are treated as part of the borrowing programme for the year.

- (iii) The Agreement involved setting up a National Debt Commission to administer one consolidated sinking fund in respect of the debt of the Australian Government and the states. Sinking fund moneys are used to redeem unconverted securities at maturity and to re-purchase securities on the stock market.
- (iv) It was realised at the inception of the Loan Council that, in the interests of co-ordinated borrowing, the Council should be advised of borrowings of large amounts by semi-government authorities (such loan raisings do not form part of state or Australian Government debt and therefore are not within the scope of the original agreement). A set of rules evolved in 1936 is regarded as the 'Gentlemen's Agreement' and makes provision for the submission to the Council of annual loan programmes in respect of larger semi-government and local government authorities (in conjunction with the loan programmes of the governments concerned) and for the fixing of the terms of individual loans coming within the scope of the annual programme. From 1972-73 larger authorities are those semi-government and local government authorities borrowing more than \$400,000 in a year. (For 1972-73 borrowings approved by the Loan Council for Tasmanian semi-government and local government authorities amounted to \$14,363,000.)

It should be emphasised that the Australian Loan Council does not itself raise money for Tasmanian semi-government and local government authorities; its concern is to assess the total impact of government borrowing for the year and then to fix ceilings for semi-government and local government authorities in the interests of a co-ordinated programme.

For 1971-72 and 1972-73 money made available from the Australian Loan Fund to the State of Tasmania was recorded in the State Loan Fund only. Prior to 1971-72 borrowings for housing had been credited to Trust and Special Funds. For 1973-74 two major changes were operative: (i) The Australian Government provided loan funds for welfare housing; these funds are not included in receipts recorded in the Tasmanian Loan Fund; (ii) borrowing for tertiary education capital works became an Australian Government responsibility from 1 January 1974 and reduced Tasmania's borrowing programme for 1973-74 by \$1.1m.

The following table shows Loan Council borrowings undertaken on behalf of the State of Tasmania to finance new capital works and for 1971-72 and 1972-73 housing:

Tasmania: New Cash Borrowings Authorised by Australian Loan Council (a)
(\$'000)

Year	Amount	Year	Amount	Year	Amount
1956-57	22,800	1962-63	30,708	1968-69	42,120
1957-58	24,200	1963-64	32,020	1969-70	45,370
1958-59	25,180	1964-65	34,136	1970-71 (b)	34,570
1959-60	27,080	1965-66	34,834	1971-72	(c) 47,020
1960-61	28,388	1966-67	37,580	1972-73	(c) 51,252
1961-62	28,996	1967-68	40,610	1973-74	(d) 43,467

- (a) For State works programmes; amounts credited to State Loan Fund.
- (b) Commencing in 1970-71 the Australian Government has provided a capital grant to replace some amounts which would otherwise have been obtained as loan borrowings; hence the reduced amount in 1970-71.
- (c) New cash borrowings for 1971-72 and 1972-73 include allocations for State housing.
- (d) Excludes borrowings for State welfare housing and from 1 January 1974 for tertiary education.

For years prior to 1971-72 the previous table excluded allocations under the Australian Government and State Housing Agreements, which were also part of the Loan Council's programme. The following table shows allocations to Tasmania for housing purposes:

Tasmania: Allocations For Housing
(\\$'000)

Year	Amount	Year	Amount	Year	Amount
1957-58	4,000	1963-64	6,000	1968-69	7,500
1958-59	4,400	1964-65	6,400	1969-70	7,600
1959-60	3,900	1965-66	7,448	1970-71	8,700
1960-61	4,000	1966-67	7,500	1971-72	(a)
1961-62	5,856	1967-68	6,700	1972-73	(a)
1962-63	5,200				

(a) Allocations included with other borrowings in the previous table (1971-72, \$8.3m and 1972-73, \$9.1m).

STATE FINANCIAL TRANSACTIONS

Tasmanian Public Account

The State Public Account includes the Consolidated Revenue Fund, the Trust and Special Funds, 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 public debt charges, education, development of State resources, health and hospitals, general administration, subsidies to State business undertakings, law and order, and certain welfare activities. The Trust and Special Funds cover special transactions outside the ordinary operations of departmental expenditure, such as funds from the Australian Government for specific purposes and moneys held for expenditure by the State at some future time. The Loan Fund receives its funds from public borrowings and grants, and the main expenditure is on State public works and on advances to State business undertakings.

A summary of transactions on the Tasmanian Public Account for a three-year period is given in the following table:

Public Account: Summary of Transactions
(\\$'000)

Particulars	1970-71	1971-72	1972-73
Cash and investments at beginning of year	9,972	11,934	7,585
Receipts—			
Consolidated Revenue Fund	138,229	157,782	181,866
Special grant adjustment	1,680	-3,200	-2,400
Borrowings for new capital purposes	34,576	47,028	51,254
Other Loan Fund receipts	18,666	22,079	26,937
Net increase, Trust and Special Funds	-1,085	744	2,517
Total	192,066	224,434	260,174
Expenditure—			
Consolidated Revenue Fund	138,207	160,237	185,998
Loan Fund, public works and purposes	51,891	68,538	74,312
Discount	6	8	1
Total	190,103	228,783	260,311
Cash and investments at end of year	11,934	7,585	7,448

The State Public Account is a complete record of the Government's operation of three specific funds, i.e. Consolidated Revenue, the Trust and Special Funds, and the Loan Fund. It is by no means a complete record of government activity, since statutory authorities and semi-government authorities such as the Hydro-Electric Commission, Transport Commission and Agricultural Bank carry on financial operations which are not recorded in the State Public Account. In a later section of this chapter, there appears the heading '*Exclusions from Consolidated Revenue*' and this lists the relationship between the finances of the principal authorities and the Consolidated Revenue Fund; the general principle is that gross receipts and expenditure of the authorities are excluded from the Consolidated Revenue Fund.

In the following table are shown the balances credited to each fund constituting the Public Account and the form in which the balances are held:

Public Account: Summary of Balances at 30 June
(\$'000)

Year	Balance				Location			
	Accumulated Revenue Account	Loan Fund	Trust and Special Funds	Total	Cash in Treasury or bank	Advanced to departments	Govt and other securities (a)	Total
1969	-5,545	3,354	7,452	5,261	3,831	768	662	5,261
1970	-2,830	3,754	9,048	9,972	3,257	773	5,942	9,972
1971	-1,128	5,099	7,963	11,934	3,541	993	7,400	11,934
1972	-2,433	1,310	8,707	7,585	5,427	890	1,268	7,585
1973	-6,586	2,810	11,224	7,448	3,467	905	3,075	7,448

(a) Includes fixed deposits.

In the previous table, 'Accumulated Revenue Account' is a suspense account recording accumulated surpluses and deficits in the Consolidated Revenue Fund, and also the funding of deficits. Details of the account are as follows:

Accumulated Revenue Account: Summary of Transactions
(\$'000)

Year	Opening balance	Transactions			Closing balance
		Budget result, Consolidated Revenue	Special grant adjustment (a)	Deficits charged to Loan Fund	
1968-69	-2,423	-3,695	-1,190	+1,762	-5,545
1969-70	-5,545	+2,815	-100	..	-2,830
1970-71	-2,830	+22	+1,680	..	-1,128
1971-72	-1,128	-2,455	-3,200	+4,350	-2,433
1972-73	-2,433	-4,132	-2,400	+2,378	-6,586

(a) It is Tasmanian Treasury practice to record special grant adjustments in the Accumulated Revenue Account and to include, in published Consolidated Revenue receipts, only the advance grant as determined by the Commonwealth Grants Commission.

In the following section dealing with Consolidated Revenue, Treasury practice of eliminating special grant adjustments from Consolidated Revenue total receipts has been followed.

Consolidated Revenue Fund

General

The financial transactions of the State of Tasmania are recorded under: (i) Consolidated Revenue; (ii) Trust Funds; and (iii) Loan Fund.

Payments from Consolidated Revenue are made only on the basis of authority found in: (i) the annual Appropriation Act of the Parliament; (ii) Acts of the Parliament made in previous years and under which certain annual payments are classified as 'reserved by law'; and (iii) the *Public Account Act 1957* (as amended in 1962) and the *Audit Act 1918*.

The third category of authority listed above is designed to give the Treasurer and the government some flexibility in public expenditure since the Appropriation Act cannot be expected to anticipate, to the nearest dollar, the expenses that are likely to be incurred for each and every item. The relevant sections of the amended *Public Account Act* are 5A and 5B which provide that, in relation to Consolidated Revenue, the Treasurer may authorise transfers between votes within certain sub-divisions of the appropriation and, on the authority of the Governor, supplement certain appropriations and provide funds to meet expenditure for which no other provision exists. Transfers, as described under 5A, are a matter for the Treasurer but additional expenditure, as described under 5B, needs ratification by Parliament before the close of the following financial year. Regulations 20 and 21 of the second schedule of the *Audit Act* provide for expenditure by the Treasurer to meet emergencies for which no vote exists; the Governor must first authorise such expenditure and the Auditor-General investigate the circumstances before payment can be made.

Exclusions from Consolidated Revenue

It should be observed that the Consolidated Revenue Fund does not include all revenue and expenditure in respect of activities undertaken or authorised by the State Government. Some moneys are paid directly into State Trust Funds; e.g. the Australian Government Aid Roads Grant is paid into the State Highways Trust Fund and the various expenditures on roads, etc. are made directly from that Fund. The gross receipts and payments of a number of State business undertakings and State authorities are excluded from the Consolidated Revenue Fund, their relation to the Fund being as follows:

- (a) In Tasmania, the railways (in common with government shipping services) are administered by the Transport Commission and, since 1939-40, only the *net* losses of this authority have been met from the Consolidated Revenue Fund. Annual payment of debt charges (interest and sinking fund contributions) on advances made by the Government is credited to the Consolidated Revenue Fund.
- (b) Omnibus services in Hobart, Launceston and Burnie are operated by the Metropolitan Transport Trust. The *net* annual loss of the authority is a charge against Consolidated Revenue. Annual payment of debt charges on government advances is credited to the Fund.
- (c) The gross receipts and expenditure of the Hydro-Electric Commission are excluded from the Consolidated Revenue Fund to which is credited annual payment of debt charges by the Commission. Net profit or loss on the Commission's activities is carried forward in the authority's own suspense account; however, from 1971-72 the Commission has been required to pay an annual contribution to Consolidated Revenue. The amount to be credited is five per cent of the total revenue derived from retail sales of electricity in the preceding year.
- (d) Also excluded from the Consolidated Revenue Fund are the gross receipts and payments of: regional water schemes, Government Printing Office, Government Insurance Office, Public Trustee, State housing authorities, closer settlement, rural credits and other activities of the Agricultural Bank, etc. In accordance with various Acts, it is usual for the net profits or losses of the previous year to be paid to or from the Consolidated Revenue Fund for the current year. Debt charges on government money loaned to the authorities are paid to Consolidated Revenue.

Consolidated Revenue Fund—Summary

The following table shows the consolidated revenue and expenditure of Tasmania, the surplus or deficit, and the aggregate deficit at the end of each year. It also calls attention to the special grant adjustments and shows how these Australian Government payments modify the original budget result.

Consolidated Revenue Fund: Surpluses and Deficits
(\$'000)

Year	Revenue			Expenditure	Budget result		Aggregate net deficit at end of year
	Before adjustment	Special grant adjustment	After adjustment		Before adjustment	After adjustment	
1961-62 ..	60,636	+ 556	61,192	61,352	- 716	- 160	11,492
1962-63 ..	63,036	+ 982	64,018	64,020	- 983	- 1	11,493
1963-64 ..	67,836	+1,332	69,167	69,020	-1,185	+ 147	11,346
1964-65 ..	74,846	+1,166	76,012	76,465	-1,618	- 452	11,799
1965-66 ..	83,564	+ 889	84,453	85,585	-2,021	-1,132	12,931
1966-67 ..	92,676	-1,190	91,486	93,248	- 572	-1,762	14,693
1967-68 ..	100,563	- 100	100,463	102,413	-1,851	-1,951	16,644
1968-69 ..	107,846	+1,680	109,526	111,540	-3,695	-2,015	18,659
1969-70 ..	123,819	-3,200	120,619	121,004	+2,815	- 385	19,044
1970-71 ..	138,229	-2,400	135,829	138,207	+ 22	-2,377	21,421
1971-72 ..	157,782	(a)	(a)	160,237	-2,455		23,876
1972-73 ..	181,866	(b)	(b)	185,998	-4,132		28,008

(a) Negative adjustment of \$1,350,000, will be applied in 1973-74.

(b) Adjustment not yet determined but will be taken into account in 1974-75.

Deficit Funding

In the previous table, the original budget result is treated as provisional because the Grants Commission's adjustment is used to amend the original surplus or deficit and also the aggregate deficit. The Tasmanian Government refrains from immediately charging revenue deficits against the Loan Fund since the precise amount of the final deficit is not known until the Commission's adjustment is taken into account two years later. While the aggregate of all deficits at 30 June 1973 was \$28,008,000, the sum of \$21,421,000 has been charged against the Loan Fund as 'revenue deficits funded': thus the unfunded aggregate deficit is only \$6,587,000 carried as a negative balance in the Accumulated Revenue Account.

The next table shows the adjusted budget result for recent years and how the result was treated.

Consolidated Revenue Fund: Adjusted Budget Result and Treatment
(\$'000)

Budget result			Budget result		
Year	Amount	Treatment	Year	Amount	Treatment
1962-63	- 1	Funded	1967-68 ..	-1,951	Funded
1963-64	+147	Offset	1968-69 ..	-2,015	Funded
1964-65	-452	Funded	1969-70 ..	-385	Funded
1965-66	-1,132	Funded	1970-71 ..	-2,377	Funded
1966-67	-1,762	Funded	1971-72 ..	-3,805	To be funded

Consolidated Revenue Fund—Receipts

The following table shows Tasmanian Consolidated Revenue receipts for a three-year period:

Consolidated Revenue Fund: Receipts
(**\$'000**)

Item	1970-71	1971-72	1972-73
Australian Government grants—			
Financial agreement	534	534	534
Financial assistance	(a) 67,088	71,673	79,498
Special	(a) 13,680	7,800	8,650
Debt charges assistance	795	1,590	2,385
Unemployment relief grant .. .. .	..	1,485	4,670
Unemployment relief capital grant .. .. .	..	..	1,300
Total	82,096	83,082	97,036
Debt charge recoveries (b)—			
Interest	21,770	24,536	26,725
Sinking fund	2,625	2,895	3,157
Total	24,395	27,431	29,882
State taxation (c)	21,012	30,437	37,570
Lands and forests—			
Forestry	1,815	2,127	2,517
Other rents, sales, etc.	372	411	598
Total	2,187	2,538	3,115
Semi-government authorities	401	216	157
Departmental revenue, fees, rents, etc.	7,979	9,015	10,551
Victorian lotteries agreement	196	179	200
Australian Government national welfare fund	1,643	1,683	2,006
Total actual receipts	139,909	154,582	180,516
Transfer, Accumulated Revenue Account (d)	-1,680	+3,200	+1,350
Grand total	138,229	157,782	181,866

(a) In 1970-71, the Australian Government agreed to transfer \$10m from the Special Grant to the Financial Assistance Grant.

(b) Mainly on advances made to semi-government authorities.

(c) See later section, 'State Taxation'.

(d) Special grant adjustments: if sign positive, transfer is from suspense; if negative, transfer is to suspense.

The relative importance of the various components of the Consolidated Revenue Fund can be assessed by expressing them on a per capita basis using the state mean population for the relevant financial year.

Consolidated Revenue Fund: Receipts Per Head of Population
(**\$**)

Item	1970-71	1971-72	1972-73
Australian Government grants	210.9	211.7	245.7
Debt charge recoveries	62.7	69.9	75.7
State taxation	54.0	77.6	95.1
Lands and forests	5.6	6.5	7.9
Semi-government authorities	1.0	0.6	0.4
Departmental revenue, fees, rents, etc.	20.5	23.0	26.7
Victorian lotteries agreement	0.5	0.5	0.5
Australian Government national welfare fund	4.2	4.3	5.1
Transfer, accumulated revenue account	-4.3	8.2	3.4
Total	355.1	402.1	460.5

State Taxation

In 1972-73 in Tasmania the chief state taxes, in order of importance, were pay-roll tax; motor taxes; stamp duties (on cheques, legal documents, etc.); probate and succession duties; and land tax. Pay-roll tax, which was handed over to the State by the Australian Government for the 1971-72 financial year, has now become the largest single source of State tax revenue.

In the following tables, the figures shown for total taxes paid to Consolidated Revenue do not agree with those published by the State Treasurer. Excluded from the tables are amounts received from the Victorian Government under the Victorian Lotteries Agreement while 'motor taxes' include amounts not treated as taxes by the State Treasurer. The following table gives a summary, for a three-year period, of State taxation taken into the Consolidated Revenue Fund:

State Taxation Collections Paid into Consolidated Revenue
(*\$'000*)

Tax or licence	1970-71	1971-72	1972-73
Pay-roll tax .. .. .	..	8,249	11,857
Deceased persons' estate duties	3,065	3,143	3,235
Stamp duties (a)	5,305	4,743	5,800
Land tax	2,851	2,799	2,961
Liquor tax and licences	1,266	1,346	1,426
Racing taxes	1,079	1,172	1,242
Motor taxes (b)	7,312	8,058	8,637
Hydro-Electric Commission statutory levy .. .. .	..	804	1,251
Entertainment tax	90	109	126
Casino tax and licence fees .. .. .	..	..	464
Tobacco tax and licence fees .. .. .	..	..	559
Other licences	44	14	13
Total (c)	21,012	30,437	37,570

(a) Excludes: (i) stamp duties on bookmakers' tickets (included in 'racing taxes'); (ii) stamp duty on third party insurance (included in 'motor taxes'); and (iii) stamp duty on motor vehicle registrations (included in 'motor taxes').

(b) See following section 'Motor Taxes'.

(c) Excluded are the following amounts received from the Victorian Government under the Victorian Lotteries Agreement: 1970-71, \$196,000; 1971-72, \$179,000; 1972-73, \$200,000.

Motor Taxes: In the preceding table motor taxes are shown as \$8,637,000 for the year 1972-73. The next table shows how this figure can be reconciled with motor tax figures published by the State Treasurer:

Motor Taxes (a) Paid to Consolidated Revenue Fund, 1972-73
(*\$'000*)

Item	Amount
Motor taxes	8,637
Less Stamp Duty on—Vehicle registration (b)	508
Third party insurance (b)	342
Traffic fees (c) paid to—Police Department	717
Consolidated Revenue Fund	1,158
'Motor tax' as published by State Treasurer	5,912

(a) See preceding table 'State Taxation Collections Paid into Consolidated Revenue Fund'.

(b) Treated as 'stamp duty tax' items by the State Treasurer.

(c) Includes motor vehicle registration fees, drivers' licences, charges for number plates, transfer of ownership fees and learners' permits.

Not all State taxation is paid into the Consolidated Revenue Fund, as shown in the following table:

State Taxation Collections Paid to Special Funds
(\$'000)

Particulars	1970-71	1971-72	1972-73
Motor taxation—			
Retained by Transport Commission	80	80	82
Racing taxation—			
Paid to racing clubs and Racing Commission ..	430	477	522
Insurance companies—			
Contributions to fire authorities	736	988	1,135
Total	1,246	1,545	1,739

The following summarises total State taxation collections:

Total State Taxation Collections (a)
(\$'000)

Particulars	1970-71	1971-72	1972-73
Paid into—Consolidated Revenue	21,012	30,437	37,570
Special Funds	1,246	1,545	1,739
Adjustment (b)	-26	-5	-38
Total	22,231	31,977	39,270

(a) Taxation is described more fully in a subsequent section, 'Taxation in Tasmania'.

(b) An adjustment item is necessary to reconcile items referring to different accounting periods.

Debt Charge Recoveries

After Australian Government grants and State taxation, debt charge recoveries is the next largest receipt item in Consolidated Revenue. The following table shows details of the payments of interest and sinking fund made by various authorities on advances which have been made to them by the State Government; since the advances have been made primarily from State loan borrowings, the Government has accepted an annual liability for debt charges (in respect of these authorities) approximately equal to the recoveries shown.

Debt Charge Recoveries: Consolidated Revenue Fund
(\$'000)

Source of recovery	Interest			Sinking fund contributions		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Transport Commission	1,304	1,481	1,986	163	172	203
Metropolitan Transport Trust	137	143	145	20	21	21
Hydro-Electric Commission	16,340	18,282	19,613	2,130	2,375	2,587
Regional water supplies	982	1,064	1,123	131	143	149
Government Printing Office	20	14	6	3	3	4
King Island Abattoirs	18	20	21	3	3	3
Tasmanian grain elevators	40	38	34	9	10	10
Aluminium industry agreement	153	131	131	..	..	..
Closer settlement	83	89	95	..	..	..
Returned soldiers settlement	17	17	16	..	..	..
Homes Act advances	44	39	30	..	..	..
Homes construction (Housing Department)	773	808	1,128	163	166	179
State advances, primary producers	229	271	265	..	..	..
Loans to local bodies	56	56	57	..	..	..
Tourist accommodation loans	101	119	135	..	..	..
Loans to industry	336	373	381	..	..	..
Iron ore (Savage River Agreement Act)	215	208	200	..	..	..
Forestry Department	392	451	500	..	..	..
Other	533	931	858	2	2	2
Total	21,770	24,536	26,725	2,625	2,895	3,157

Consolidated Revenue Fund—Expenditure

In the following table a summary is given of the principal items of Consolidated Revenue Fund expenditure classified according to purpose:

Consolidated Revenue Fund: Expenditure by Purpose (a)
(\$'000)

Purpose	p1970-71	p1971-72	p1972-73
General administration <i>n.e.c.</i>	49,798	54,908	58,379
Law, order and public safety—			
Law courts and legal services	2,213	2,388	2,811
Correctional and custodial services	1,222	1,637	1,954
Police services	4,989	6,356	7,806
Fire protection	477	554	646
Road safety	66	92	108
Other	30	44	37
Total	8,997	11,071	13,362
Civil defence	51	55	72
Education—			
General administration, regulation and research	1,868	1,462	1,658
Student transport	1,995	2,252	2,459
Primary and secondary	23,274	26,574	30,316
Technical	1,411	1,710	2,227
University	2,260	2,664	3,312
Other higher education	3,810	4,975	6,605
Handicapped children	408	442	529
Other	184	184	207
Total	35,210	40,263	47,313
Health—			
General administration, regulation and research	1,422	1,637	1,926
Mental health	2,505	2,773	3,261
Other hospital and clinical services	11,181	12,501	14,713
Preventive services	375	453	497
Maternal and infant health	341	374	435
Other health services	787	893	973
Ambulance services	154	164	263
Total	16,765	18,795	22,068
Social security and welfare—			
General administration, regulation and research	226	222	285
Aged persons	2,163	2,304	2,516
Unemployed and sick persons and unemployment relief	62	794	3,167
Family and child care and assistance	514	612	683
Other	515	667	1,138
Total	3,480	4,599	7,789
Housing—			
General administration, regulation and research	338	361	514
Home finance services, <i>n.e.c.</i>	56	52	51
Total	394	413	565
Protection for the environment .. .. .	..	..	76
Recreation and related cultural services—			
Cultural facilities	1,032	1,326	1,757
Support of creative and performing arts	46	46	55
Recreational facilities	726	877	795
Other	108	130	122
Total	1,912	2,379	2,729

Consolidated Revenue Fund: Expenditure by Purpose (a)—continued
(\\$'000)

Purpose	p1970-71	p1971-72	p1972-73
Economic services—			
General administration, regulation and research ..	576	654	793
Soil and water resources management	978	2,487	3,102
Forest resources management	1,653	1,815	2,127
Other services to agricultural and pastoral industries ..	4,025	4,238	5,044
Mining and services to mining	794	934	1,074
Manufacturing and services to manufacturing ..	154	154	230
Electricity supply services	16	20	31
Water supply services	967	982	1,182
Transport and communication—			
Roads and ancillary services	5,134	5,723	6,058
Sea transport	128	163	184
Urban bus services	1,418	1,310	1,692
Other (including railways)	3,985	6,316	6,837
Other	1,547	1,751	2,239
Total	21,375	26,546	30,593
Other	226	1,208	3,051
Total	138,207	160,237	185,998

(a) Based on Australian purpose classification developed for analysis of government sector accounts; not strictly comparable with functional classifications published in previous year books.

Public Debt Charges

This is the largest item of expenditure but a high proportion is recovered from semi-government authorities. The next table shows the net burden on Consolidated Revenue Fund of debt charges:

Public Debt Charges: Net Burden on Consolidated Revenue
(\\$'000)

Particulars	Interest			Sinking fund contribution		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Expenditure from Consolidated Revenue	(a) 33,229	(a) 37,890	(a) 40,169	(b) 5,287	(b) 5,595	(b) 6,027
Recovered from semi-government bodies, etc.	21,770	24,536	26,725	2,625	2,895	3,157
Net burden on Consolidated Revenue (c)	11,459	13,354	13,444	2,662	2,700	2,870

(a) Includes loan management charges.

(b) Contribution payable under the Financial Agreement to the National Debt Sinking Fund.

(c) In respect of non-revenue producing assets such as schools, roads, etc.

Government Railways and Bus Services

Unlike the Consolidated Revenue Funds of some Australian states, the Tasmanian Fund excludes the *gross* receipts and expenditure of State business undertakings such as railways, bus services, etc. The principal charge in 1972-73 under this item was in respect of the *net* loss incurred by the Transport Commission during 1971-72 (\$6,340,348). Another major item was a contribution of \$1,692,000 to the Metropolitan Transport Trust which experienced a net trading loss of \$1,310,154 in 1971-72.

Roads and Bridges

The chief expenditure under this item in 1972-73 was a transfer of \$5,911,929 to the State Highways Trust Fund, representing revenue received from motor tax and public vehicle fees. Grants totalling \$1,270,000 were paid from Consolidated Revenue Fund to the Transport Commission to cover the cost of vehicle registration and traffic control.

State Trust and Special Funds

State revenues are payable to Consolidated Revenue with the exception of certain revenues which have been set aside by acts of Parliament for specific purposes and which are payable into special funds or accounts at the State Treasury. The volume of these transactions is high, \$154,679,702 being received in 1972-73, \$152,162,886 being expended and the balance in the funds changing from \$8,707,493 (1 July 1972) to \$11,224,309 (30 June 1973).

It should be noted that many accounts in the Trust and Special Funds indicate Treasury transactions which are merely supplementary to those recorded under Consolidated Revenue and Loan Funds; the following examples are given:

State Trust and Special Funds: Selected Accounts, 1972-73
(\$'000)

Account	Receipts	Expenditure
Commonwealth Tax Deductions Suspense Account (a)	14,130	14,130
Hydro-Electric Commission Suspense Account (b)	259	238

(a) Wages and salaries included under Consolidated Revenue and Loan Fund expenditure are shown at gross value; however, the deductions applicable to wage and salary earners on Tasmanian Government pay-rolls are passed, via this account, to the Australian Government.

(b) The Treasury acts as agent for meeting overseas liabilities incurred by the Hydro-Electric Commission; these liabilities, mainly incurred in the acquisition of plant and equipment, are largely accounted for in Loan Fund expenditure.

Some accounts are concerned with government activities financed by the Australian Government, the state acting as trustee or agent in the transactions; examples follow:

State Trust and Special Funds: Selected Commonwealth Accounts, 1972-73
(\$'000)

Account	Receipts	Expenditure
Tasmanian University (Commonwealth Grants) Account (a)	2,487	2,487
Commonwealth Free Milk Scheme Account (b)	505	383
Home Builders Fund (c)	2,186	2,315

(a) Treasury passes Australian Government grants to University of Tasmania.

(b) Education Department administers Free Milk Scheme for school children on behalf of the Australian Government.

(c) Agricultural Bank administers loans to home builders, the source of funds being the Australian Government.

In the case of some accounts, there is provision for crediting the Trust and Special Funds with contributions from Consolidated Revenue, an important example being the State Highways Trust Fund:

State Trust and Special Funds: State Highways Trust Fund, 1972-73
(\$'000)

Item	Receipts	Expenditure
Australian Government contribution	12,150	..
Grant from Consolidated Revenue	5,912	..
Roads, bridges, jetties, ferries and planning	318	18,165
Self-balancing entries	1,499	1,499
Fund entries	19,879	19,663

The Forestry Fund Account records transactions under legislation requiring revenue from forestry to be paid to Consolidated Revenue, and for Consolidated Revenue to expend an equal amount on forestry in the following year:

State Trust and Special Funds: Forestry Fund Account, 1972-73
(\$'000)

Item	Receipts	Expenditure
Grants from Consolidated Revenue (a)	2,127	
Expenditure on forestry		2,149
Reimbursement, Softwood Forestry Agreement	21	
Self-balancing entries	865	865
Fund entries	3,013	3,013

(a) Consolidated Revenue recorded forestry receipts of \$2,127,000 in 1971-72; this sum therefore became the 1972-73 contribution from Consolidated Revenue.

Some of the funds held in trust are not owned by the State Government, e.g. St John's Park Inmates Trust Account. Other funds are held on behalf of semi-government authorities, e.g. Agricultural Bank.

State Loan Fund

Expenditure from the Loan Fund is devoted to two main purposes: (i) the making of advances to State semi-government authorities; and (ii) the carrying out of the State's own works programme. Such funds, whether lent to other authorities for their works programmes or spent directly by the State, result in the creation of new capital assets, a large proportion of which are revenue earning and therefore capable of reimbursing the State for the debt charges which it has incurred. (An earlier section on Consolidated Revenue expenditure shows the gross and net expenditure on annual debt charges.) In addition, conversion of existing loans is effected from the Loan Fund, but the amounts involved have been excluded from the next two tables as these transactions only alter the rates, sources or terms of existing public debt. Details of these debt servicing transactions are contained in a later table, 'Net Loan Fund Expenditure—Reconciliation.'

In addition to money from loan raisings, the Loan Fund may record other receipts such as repayment of advances and Australian Government capital grants; it is usual, therefore, to record loan expenditure on both gross and net bases. The annual net loan expenditure is, in effect, the disbursement of the new borrowings, as distinct from loan conversion borrowings, for the year, augmented or diminished by the net movement in the Loan Fund balance. The following table shows the calculation of net loan expenditure from two viewpoints: (i) as a residue from gross loan expenditure; and (ii) as the algebraic sum of new loan raisings for new capital purposes, the net movement in the Loan Fund balance and discount and capital appreciation expenses.

State Loan Fund: Calculation of Net Loan Expenditure
(\$'000)

Particulars	1970-71	1971-72	1972-73
(i) Gross loan expenditure	52,079	73,037	76,813
Less Repayments	2,437	3,000	4,324
Less Australian Government grants	2,249	3,769	5,246
Net loan expenditure	47,393	66,268	67,243
(ii) Gross borrowings for new capital purposes	(a) 34,576	(a) 47,028	(a) 51,254
Australian Government grant (b)	13,980	15,310	17,367
Movement in Loan Fund balance (c)	-1,345	+3,789	-1,500
Other (d)	182	141	122
Net Loan Expenditure	47,393	66,268	67,243

(a) Includes discount on borrowings for new capital purposes. Amounts were: \$6,000, 1970-71; \$8,000, 1971-72; \$2,000, 1972-73.

(b) Commencing in 1970-71 the Australian Government is providing grants to replace amounts which would otherwise have been obtained as loan borrowings.

(c) Negative sign (-) indicates an increase from opening to closing balance, plus sign (+) indicates the opposite.

(d) Discount on borrowings for conversion and re-financing purposes and capital appreciation items.

The following table shows annual gross and net loan expenditure:

Loan Fund: Gross and Net Loan Expenditure
('\$000)

Year	Loan expenditure		Year	Loan expenditure	
	Gross	Net		Gross	Net
1955-56	35,212	27,048	1964-65	35,816	33,352
1956-57	23,544	22,038	1965-66	39,411	36,573
1957-58	23,390	21,666	1966-67	40,161	36,636
1958-59	27,610	25,112	1967-68	46,054	42,128
1959-60	29,130	26,442	1968-69	44,458	40,164
1960-61	33,866	30,612	1969-70	49,411	45,069
1961-62	32,520	30,088	1970-71	52,079	47,393
1962-63	33,332	30,510	1971-72	73,037	66,268
1963-64	35,354	32,905	1972-73	76,813	67,243

The next table shows loan fund payments classified according to purpose:

Loan Fund Payments Classified by Purpose (a)
('\$000)

Purpose	p1970-71	p1971-72	p1972-73
Part 1: Net payments by purpose (b)—			
General administration, <i>n.e.c.</i>	2,011	1,344	1,874
Law, order and public safety—			
Law courts and legal services	90	165	161
Correctional and custodial services	189	215	112
Police services	1,104	1,277	1,884
Fire protection services	73	65	60
Other	147	110	80
Total	1,603	1,832	2,297
Education—			
General administration, regulation and research	2,406	2,013	2,638
Primary and secondary	2,474	4,764	5,223
Technical	-21	114	612
University	172	338	1,260
Other higher education	659	1,179	2,021
Adult education .. .. .	..	..	47
Total	5,690	8,408	11,802
Health—			
Mental health	249	386	180
Other hospital and clinical services	4,808	4,068	2,655
Preventive services	18	12	2
Other health services	24	-4	..
Ambulance services	74	106	93
Total	5,173	4,568	2,930
Social security and welfare—			
Aged persons	-1	488	435
Family and child care and assistance .. .. .	..	..	75
Total	-1	488	510

Loan Fund Payments Classified by Purpose (a)—continued
(\$'000)

Purpose	p1970-71	p1971-72	p1972-73
Housing and home finance services	- 364	(c) 7,882	(c) 8,518
Recreation and related cultural services—			
Cultural facilities	1,496	791	419
Recreational facilities	164	296	284
Total	1,660	1,087	703
Economic services—			
Soil and water resource management	13	94	134
Forest resources management	1,870	2,143	2,560
Other services to agricultural and pastoral industries	840	604	126
Mining and services to mining	- 233	- 273	- 236
Manufacturing and services to manufacturing ..	- 53	148	- 312
Electricity supply (H.E.C.)	24,500	26,000	22,360
Water supply services	1,001	605	486
Transport and communication—			
General administration, regulation and research..	766	193	- 50
Rail transport	900	4,837	11,494
Sea transport	381	896	- 1,087
Road and ancillary systems	973	901	515
Other	372	232	176
Total	31,330	36,380	36,166
Natural disaster relief	103	- 220	- 60
Deficits funded .. .. .	..	4,350	2,377
Sinking fund and redemption (incl. conversions) ..	73,483	61,622	47,992
Part 2: Total repayments to Loan Fund (b) (d)	4,686	6,769	9,570
Total payments from Loan Fund	125,374	134,510	124,682

(a) Based on Australian purpose classification developed for analysis of government sector accounts; not strictly comparable with functional classification published in previous year books.

(b) Part 1 payments for each purpose are gross less repayments; part 2 shows repayments in total.

(c) For 1971-72 and 1972-73 allocations for state housing programmes formed part of state borrowings and were credited to Loan Fund.

(d) Includes minor Australian Government grants taken into Loan Fund.

The item 'Total repayments to Loan Fund' in the preceding table includes minor grants received from the Australian Government and credited to Loan Fund (the total amount in 1972-73 was \$5,246,000. The major grant for capital purposes (\$17,367,000, 1972-73) is excluded from the 'Total repayments to Loan Fund' in the preceding table. Principal minor Australian Government grants credited to Loan Fund in 1972-73 were for: (i) Department of Education, \$1,854,000; (ii) advanced education, \$1,162,000; (iii) King Island harbour works, \$1,113,000; and (iv) University of Tasmania, \$802,000. Principal payments to Loan Fund from state sources were: (i) repayments under the *Industrial Development Act 1954*, \$1,301,000; (ii) *State Advances Act 1935*, \$900,000; (iii) repayments under the *Homes Act 1935*, \$428,000; (iv) repayments by the Transport Commission under the *Transport Act 1938*, \$300,000; and (v) repayment of tourist and accommodation loans, \$273,000.

The following table shows how a reconciliation may be obtained between total Loan Fund payments in the previous table and net Loan Fund expenditure:

Net Loan Fund Expenditure: Reconciliation
(\$'000)

Particulars	1970-71	1971-72	1972-73
Total payments from Loan Fund	125,374	134,510	124,682
<i>Less</i> Debt service transactions—			
Conversion (Australia)	45,254	56,567	41,688
Conversion (State Saving Bank Agreement)	960	960	960
Redemption for new cash borrowing	27,269	4,096	5,344
Loan Fund expenditure for new capital purposes	51,891	72,888	76,689
<i>Plus</i> Capital appreciation on special bonds	182	141	122
<i>Plus</i> Discount allowed on borrowings	6	8	2
Gross Loan Fund expenditure	52,079	73,037	76,813
<i>Less</i> Total repayments to Loan Fund	4,686	6,769	9,570
Net Loan Fund expenditure (a)	47,393	66,268	67,243

(a) As specified in the Treasurer's Statement.

The relationship between aggregate net loan expenditure, total loans raised and the State Public Debt is established in the following table:

Aggregate Net Loan Expenditure and State Public Debt at 30 June
(\$'000)

Particulars	1971	1972	1973
Aggregate net loan expenditure	767,042	833,310	900,554
Unexpended balance, Loan Fund	5,099	1,310	2,810
Grand total loans raised	772,142	834,621	903,364
<i>Less</i> Aggregate redemptions from sinking funds	84,073	91,368	98,432
<i>Less</i> Liability for exchange on overseas redemption	8,692	8,692	8,692
<i>Less</i> Australian Government grant (a)	13,980	29,290	46,657
State public debt (b)	665,397	705,271	749,583

(a) Capital grant provided to replace amounts which would otherwise have been obtained as loan borrowings.

(b) Overseas component is \$8,911,000, quoted at rates of exchange prevailing on 1 July 1972.

The *Public Account Act* 1962 has, amongst other things, the following provisions relating to the Loan Fund: (i) the Governor, on Treasury advice, may make transfers between block votes as long as the total authorised amount is not exceeded; (ii) a sum of up to \$400,000 may be spent for purposes not previously authorised; (iii) for purposes previously authorised, an additional sum of up to \$1m may be spent; (iv) in instances of expenditure outside the provisions of a specific Loan Fund appropriation Act, the ratification of such action is to be sought from Parliament before the close of the following financial year. The Act also provides that the unexpended balances of votes at the close of the financial year lapse.

State Public Debt

The State public debt is calculated on two bases: (i) with overseas debt calculated at 'mint par of exchange', i.e. at the exchange rates prevailing on 1 July 1927; and (ii) with overseas debt calculated at current rates of exchange. 'Mint par debt' is the official debt for the purpose of determining sinking fund contributions payable under the Financial Agreement, 1927.

The following table shows the State public debt calculated on both bases:

State Public Debt at 30 June 1973: At Mint Par of Exchange and at Current Rates of Exchange

Place in which debt repayable	\$ Aust. at mint par of exchange		\$ Aust. at current rates of exchange	
	Conversion rate of \$A (a)	Debt (\$'000)	Conversion rate of \$A (b)	Debt (\$'000)
Australia .. ..	.. ..	740,672	.. ..	740,672
London	£0.5 sterling	5,412	£0.5481 sterling	4,937
New York	U.S. \$2.43325	2,657	U.S. \$1.4165	4,565
Canada	C. \$2.43325	309	C. \$1.4137	533
Switzerland	S. Francs 12.61965	293	S. Francs 4.1394	895
Netherlands	Guilders 6.053925	240	Guilders 3.7227	390
Total .. ..	.. ..	749,583	.. ..	751,990

(a) Exchange rates at 1 July 1927 (rate for £A 0.5).

(b) Exchange rates at 30 June 1973 for \$A.

The most significant changes between the 1927 rates of exchange and those current today occurred in six stages: (i) 1930, when the Australian pound was devalued 20 per cent in relation to sterling; (ii) 1949, when the Australian pound was devalued by 30.5 per cent parallel to a similar devaluation in sterling; (iii) 1967, when the pound sterling was devalued 14.3 per cent (but the decision was taken not to devalue the \$A); (iv) 1971, when the Australian dollar, although remaining within the fluctuation limits of the International Monetary Fund, was devalued 2.25 per cent following a 7.89 per cent devaluation of the United States dollar; (v) December 1972, when the Australian dollar was revalued against the United States dollar to give an effective appreciation of the Australian dollar of 7.05 per cent; (vi) this was followed in February 1973 by the retention of the value against gold of the Australian dollar despite a 10 per cent devaluation of the United States dollar (this had the effect of further appreciating the Australian dollar).

The growth of the public debt, expressed at mint par of exchange, is shown in the following table:

State Public Debt: Place of Flotation and Interest Payable (\$'000)

At 30 June	Debt redeemable in—						Total debt	Interest payable (a)
	London	New York	Canada	Switzerland	Netherlands	Australia		
1964	17,724	4,684	486	293	399	408,724	432,311	19,790
1965	17,544	4,430	473	293	399	439,163	462,302	21,707
1966	13,733	5,743	444	293	399	471,045	491,658	23,987
1967	13,643	5,284	419	293	399	504,880	524,918	25,940
1968	8,382	4,913	393	293	372	546,539	560,893	27,778
1969	8,082	4,549	387	293	346	586,078	599,736	30,040
1970	6,674	4,178	368	293	319	625,575	637,407	32,939
1971	6,154	3,778	350	293	293	654,530	665,397	36,203
1972	5,914	3,301	330	293	266	695,167	705,271	39,202
1973	5,412	2,657	309	293	240	740,672	749,583	41,620

(a) Interest payable at rate of exchange which was current in the year of payment.

A notable feature of the State public debt is that approximately 98 per cent of indebtedness (at current rates of exchange) is now domiciled in Australia. There has been a gradual change from the situation which existed a century ago when nearly all loans were financed in London. In 1870, the State's public debt (\$2,537,400) was wholly redeemable in London and even in 1900, less than 10 per cent of the State debt was redeemable in Australia.

Public Debt Transactions

The following table shows particulars of loans raised and redeemed annually during the most recent three-year period (expressed at mint par of exchange) and also the transactions for the current year expressed at current rates of exchange. It will be observed that redemption of loans falling due in any particular year is achieved, in the main, by conversion (i.e. by renewal of the original loans on new terms and conditions).

State Public Debt: Conversion and Redemption
(**\$'000**)

Particulars	At mint par of exchange			At current rates
	1970-71	1971-72	1972-73	1972-73
Loans raised for—				
New capital purposes	34,576	47,028	51,254	51,254
Conversion purposes	46,214	57,527	42,648	42,648
Redemption, maturing loans	27,269	4,096	5,344	5,344
Total raisings	108,059	108,651	99,245	99,245
Less Loans redeemed—				
By conversion	46,214	57,527	42,648	42,648
From new cash raisings	27,087	3,955	5,222	5,222
From National Debt Sinking Fund	6,768	7,295	7,064	(a) 9,306
Net increase in public debt	27,990	39,874	44,312	42,069
Debt at end of year	665,397	705,271	749,583	751,990

(a) Includes a balancing item due to fluctuation in exchange rates during the year, the actual redemption being \$7,491,000.

The following table shows the due dates of loans outstanding *at current exchange rates* (i.e. at the rates prevailing at 30 June 1973) and also the country in which the loans will fall due:

Due Dates of Loans at 30 June 1973
(**\$'000**)

Maturing during—	Amount maturing in—				Total
	Australia	London	New York	Other overseas countries	
1973-74	70,706	..	..	43	70,749
1974-75	54,499	1,022	..	43	55,564
1975-76	89,628	117	..	938	90,683
1976-77	26,228	..	..	43	26,271
1977-78	38,906	865	..	43	39,814
1978-79	34,070	1,259	295	43	35,667
1979-80	17,706	..	373	43	18,122
1980-81	24,080	..	412	576	25,068
1981-82	31,434	1,531	441	43	33,449
1982-83 to 1985-86	118,453	144	3,044	..	121,641
1986-87 to 1990-91	115,801	..	..	..	115,801
1991-92 to 1995-96	52,713	..	..	..	52,713
1996-97 to 2005-06	66,449	..	..	..	66,449
Total	740,672	4,937	4,565	1,815	751,990

The next table summarises the transactions of the National Debt Commission in relation to the Tasmanian public debt:

**National Debt Commission: Transactions in Respect of Tasmanian Public Debt
(\$'000)**

Particulars	1969-70	1970-71	1971-72	1972-73
Balance at beginning of period	2,354	724	555	209
Contributions—				
From—Australian Government	1,598	1,694	1,825	1,934
State Government	4,861	5,263	5,579	6,008
Interest received (net)	67	16	13	11
Funds available	8,880	7,697	7,972	8,162
<i>Deduct</i>				
Redemption and re-purchase (a)—				
At mint par of exchange	7,797	6,768	7,295	7,063
Exchange adjustment	359	373	468	428
Balance at end of period	724	555	209	671

(a) At rates of exchange which were current at the date of redemption or re-purchase.

The National Debt Commission was established as part of the 1927 Financial Agreement and its function is to administer one consolidated sinking fund in respect of the debt of the Australian Government and states. (The obligations of the states and the Australian Government in contributing to the consolidated sinking fund are set out earlier in this chapter in a section headed 'Payments Under the Financial Agreement (1927)').

TAXATION

Taxation in Tasmania

As Australian citizens, Tasmanians are subject to taxes levied both by the State and the Australian Government. The next table shows taxes (total amounts and per capita figures) collected by the State Government and semi-government authorities in Tasmania and Australian Government collections for Australia:

Taxation: State of Tasmania and Australian Government, 1972-73 (a)

Tax	Amount (\$'000)		Per head of population (\$)	
	Tasmania (b)	Australian Government (c)	Tasmania	Australian Government
Income .. ..	..	5,718,385	..	437.08
Customs and excise .. ..	..	1,781,498	..	136.17
Sales .. ..	..	764,868	..	58.46
Pay-roll	11,857	6,338	30.02	0.48
Probate and succession duties	3,235	66,408	8.19	5.07
Motor	8,719	..	22.08	..
Stamp duties	5,801	..	14.69	..
Land	2,961	..	7.50	..
Racing	1,726	..	4.37	..
Liquor	1,426	..	3.61	..
H.E.C. statutory levy	1,251	..	3.16	..
Levy on insurance companies for fire authorities	1,135	..	2.87	..
Entertainment	126	..	0.32	..
Broadcast listeners' and television viewers' licences .. ..	..	67,051	..	5.12
Casino tax and licence fees	464	..	1.17	..
Tobacco tax and licence fees	559	..	1.42	..
Primary production taxes .. ..	..	37,195	..	2.84
All other	13	50,669	0.03	3.87
Total	39,270	8,492,412	99.44	649.11

(a) Collections from all sources, including amounts paid to special funds.

(b) State taxes collected by Tasmanian Government and other state authorities.

(c) Australian Government taxes collected for Australia as a whole.

In addition to the taxes shown in the above table Tasmanian property owners also pay rates and licence fees to local government authorities. Total rates and licence fees collected during 1971-72 amounted to \$22.5m or \$56.98 per head of mean population.

Assuming that Tasmanians contributed to Australian Government taxation in strict proportion to the relative mean populations of the State and Australia, it would be theoretically correct to add the two per capita figures (\$99.44 and \$649.11) and arrive at a figure of \$748.55 as the total per capita taxation of the Tasmanian and Australian Governments within the State. An alternative way of examining the problem is to refer to total Australian Government taxes collected in Tasmania but this measure is unsatisfactory for a number of reasons, the chief defects being:

- (i) Central office collections of Australian Government taxation ceased at 30 June 1970 and for the income years after 1969-70 all assessments are being handled in state offices of the Taxation Department. The effects of this change are deceptive because income tax collected in Tasmania does not necessarily directly relate to income earned in Tasmania since a company with branches in Tasmania but with its head-office in Melbourne may make its return to the Victorian Taxation Office.
- (ii) Goods shipped to Tasmania will, in some cases, already have been taxed in another state in respect of customs, excise or sales taxes. Even though other states are credited with the collection of these three taxes, the fact remains that Tasmanians bear their incidence in the form of increased commodity prices. The amount of tax collected in other Australian states on goods shipped to Tasmania is not known.

Estimated Incidence

In assessing the collection in other Australian states of the main taxes affecting Tasmanians, account is taken of selected sales figures derived from the latest Retail Census which showed Tasmanian *per head* sales to be 92.5 per cent of the corresponding Australian figure. Accordingly the *per head* incidence of customs, excise and sales taxes in Tasmania is taken to be 92.5 per cent of the Australian *per head* collection figure for each tax. Estimates are compiled using these *per head* figures and the State's mean population.

The following table shows actual collections of the Australian Government taxes in the State and also the estimated incidence of taxes collected elsewhere in Australia:

Taxation: Collected by the Australian Government in Tasmania and Elsewhere, and Estimated Incidence in Tasmania (\$'000)

Tax	1970-71	1971-72	1972-73
Collected in Tasmania—			
Income tax (a)	92,414	103,715	110,888
Estate duty (a)	1,624	1,136	1,156
Pay-roll tax	6,965	2,035	49
Gift duty	228	134	169
Stevedoring industry charge	964	1,043	1,183
Broadcast listeners' and television viewers' licences ..	1,429	1,670	1,870
Primary production taxes	608	594	836
Sales tax	14,029	13,584	12,861
Customs	3,164	2,490	4,239
Excise	27,490	32,053	33,147
Other	57	77	144
Total collected in Tasmania	148,972	158,530	166,542
Collected elsewhere in Australia (b)—			
Sales tax	4,001	5,576	8,494
Customs	10,120	10,704	10,095
Excise	2,539	2,084	2,260
Estimated incidence	165,632	176,894	187,391

(a) Central Office collections ceased; however, tax collected in Tasmania may not directly relate to income earned and assets in Tasmania since a multi-state return can be lodged in any one state office.

(b) Estimated; goods on which these taxes were paid are assumed to have been sold in Tasmania.

Australian Government Income Tax

Income tax, the most important revenue raising levy in Australia, was introduced in 1884 by the colony of South Australia. In the course of time this form of taxation was adopted by all the Australian governments between 1884 and 1915. From 1915 to 1942 the state and Australian governments imposed taxation concurrently, the rate of state income tax varying from state to state.

Uniform taxation on incomes throughout Australia was adopted in 1942, as a war measure, when the Australian Government became the sole authority levying this tax.

Expenses incurred in producing assessable income and certain losses incurred in previous years may be allowable deductions in calculating taxable income.

For the income year 1973-74, tax was payable on the incomes of individuals and commenced at a taxable income of \$1,041. However, certain limitations applied to the tax payable by aged persons, over 65 years of age in the case of a male and over 60 years in the case of a female. Concessional deductions were allowed to taxpayers on account of dependants, certain medical and dental expenses, life insurance premiums and superannuation contributions (up to \$1,200), medical or hospital benefit fund contributions and education expenses (up to \$400 per dependant), self-education expenses of the taxpayer (up to \$400), etc.; these outlays can be subtracted from gross income to calculate taxable income. Dependants included spouse, parents, parents-in-law, children under 16 years of age, student dependants under 25 years of age, invalid relative over 16 years of age, or daughter-housekeeper for widow or widower so long as they were maintained wholly or in part by the taxpayer during the year. A concessional deduction might be allowed for a housekeeper having the care of children under 16 years of age or of an invalid relative where the taxpayer did not contribute to the maintenance of a spouse or daughter-housekeeper. The maximum concessional deduction allowable in respect of each type of dependant and housekeeper was:

spouse, \$364; parent or parent-in-law, \$364; children under 16 years, one child, \$260, other children, \$208; student dependants, 16 to 25 years, \$260 each; invalid relative not less than 16 years, \$260 each; housekeeper or daughter-housekeeper, \$364.

The following table shows the rates of income tax for individuals for the income year 1973-74:

Australia: Personal Income Tax Payable on Selected Incomes, Income Year 1973-74

(\$)

Taxable Income		Tax Payable	Taxable Income		Tax Payable
1,041 (a)	.. .. .	0.66	8,400	.. .. .	2,192.30
1,120	.. .. .	53.46	8,800	.. .. .	2,359.50
1,200	.. .. .	61.30	9,200	.. .. .	2,535.90
1,600	.. .. .	109.30	9,600	.. .. .	2,712.30
2,000	.. .. .	168.30	10,000	.. .. .	2,888.70
2,400	.. .. .	237.10	11,000	.. .. .	3,370.70
2,800	.. .. .	315.50	12,000	.. .. .	3,852.70
3,200	.. .. .	403.50	13,000	.. .. .	4,398.70
3,600	.. .. .	501.10	14,000	.. .. .	4,944.70
4,000	.. .. .	608.30	15,000	.. .. .	5,490.70
4,400	.. .. .	729.50	16,000	.. .. .	6,036.70
4,800	.. .. .	850.70	17,000	.. .. .	6,639.70
5,200	.. .. .	983.90	18,000	.. .. .	7,242.70
5,600	.. .. .	1,117.10	19,000	.. .. .	7,845.70
6,000	.. .. .	1,259.90	20,000	.. .. .	8,448.70
6,400	.. .. .	1,402.70	25,000	.. .. .	11,648.70
6,800	.. .. .	1,554.30	30,000	.. .. .	14,848.70
7,200	.. .. .	1,705.90	35,000	.. .. .	18,048.70
7,600	.. .. .	1,865.50	40,000 (b)	.. .. .	21,248.70
8,000	.. .. .	2,025.10			

(a) In cases where personal taxable income exceeds \$1,040 but does not exceed \$1,120, the tax is not to exceed two-thirds of the excess of the taxable income over \$1,040.

(b) Taxable income in excess of \$40,000 was taxed at 66.7 cents for each dollar of excess.

For income years 1954-55 to 1969-70 the basic scale for income tax on individuals remained the same except that general five per cent rebates were allowed in 1959-60, 1961-62, 1962-63, and 1963-64; and a 2½ per cent levy was added for the period 1965-66 to 1969-70. For 1970-71 the basic scale was revised as follows: (i) on incomes up to \$10,000 a reduction of 10 per cent; (ii) on incomes \$10,000 to \$32,000 a lesser reduction tapering to zero (the reduction at \$20,000 was 4.4 per cent). The revised 1970-71 basic scale was still subject to a 2½ per cent levy. The levy for 1971-72 averaged out at 4.375 per cent.

The 1972 budget introduced major changes to personal income taxation rates. The changes were:

- (i) a relaxation of the minimum taxable income from \$417 to \$1,041;
- (ii) a sliding scale reduction to give greater reduction to lower income levels; and
- (iii) an increase in the level above which the maximum marginal rate of tax applies (66.7c for 1972-73) from \$20,000 to \$40,000.

An explanation of the operation of the sliding scale reduction can be best shown by means of the following examples:

Taxable income (\$)	Percentage change in tax, 1972-73 over 1971-72
2,000	-14.2
4,000	-12.4
6,000	-9.4
10,000	-8.0
40,000	-6.5

The next table shows the number of taxpayers, taxable income and income tax assessed during the year 1971-72 (income year 1970-71):

Tasmania, Income Tax: Income Year 1970-71
Individuals—Residents and Non-Residents (a)

Grade of actual income	Number of taxpayers			Net income	Taxable income	Net income tax assessed
	Males	Females	Persons			
\$				\$'000	\$'000	\$'000
417- 599	1,180	3,018	4,198	2,163	2,074	37
600- 799	1,656	3,516	5,172	3,609	3,348	96
800- 999	1,467	3,325	4,792	4,318	3,950	158
1,000- 1,199	1,584	3,551	5,135	5,642	5,091	257
1,200- 1,399	1,811	3,604	5,415	7,021	6,248	370
1,400- 1,599	1,993	3,622	5,615	8,437	7,534	503
1,600- 1,799	2,335	3,666	6,001	10,204	9,034	678
1,800- 1,999	2,473	3,797	6,270	11,905	10,532	878
2,000- 2,199	2,616	3,858	6,474	13,613	11,953	1,090
2,200- 2,399	2,973	3,513	6,486	14,911	12,983	1,287
2,400- 2,599	3,557	3,114	6,671	16,670	14,325	1,517
2,600- 2,799	4,301	2,353	6,654	17,951	15,084	1,681
2,800- 2,999	4,726	1,766	6,492	18,811	15,499	1,796
3,000- 3,999	28,345	4,794	33,139	115,656	91,899	12,069
4,000- 5,999	31,911	3,353	35,264	168,962	131,587	21,926
6,000- 7,999	8,991	805	9,796	66,533	52,306	11,155
8,000- 9,999	2,759	266	3,025	26,692	21,222	5,357
10,000-19,999	2,172	220	2,392	30,538	25,433	8,300
20,000-29,999	180	22	202	4,721	4,262	1,967
30,000 and over	48	11	59	2,312	2,157	1,199
Total	107,078	52,174	159,252	550,670	446,520	72,323

(a) For definitions see the following text.

The following definitions apply to the preceding table:

- (i) Actual income: Gross income *including exempt income* less expenses incurred in earning that income.
- (ii) Individuals: *Excluding companies*. Residents assessed both in Tasmania and at Central Office, also non-residents assessed in Tasmania.
- (iii) Taxable income: Actual income *less* exempt income and *less* allowable deductions.

A system operates whereby the majority of taxpayers have regular deductions made from their salaries or wages, i.e. the 'pay-as-you-earn' principle. The amounts deducted are regulated so that the employee will have paid the approximate amount of his taxation by the end of the income year when he makes a return in which he may claim the refund of any overpayment of taxation instalments.

Companies (Income Tax)

The tax payable by companies for the financial year 1973-74 is based on income derived during the year ended 30 June 1973 or substituted accounting period. (In the case of tax on individuals, financial year and income year are usually synonymous.)

The following table shows the rates of tax and contribution payable by companies for the 1973-74 financial year:

Rates of Income Tax Contribution for Companies: Financial Year 1973-74
(Cents in the Dollar)

Type of company	Taxable income	
	First \$10,000	Balance
Private	37.5	42.5
Public—		
Co-operative	42.5	47.5
Life assurance—		
Mutual	37.5	42.5
Other life assurance—		
Resident—		
Mutual income	37.5	42.5
Other income	47.5	47.5
Non-resident—		
Mutual income	37.5	42.5
Dividend income	42.5	47.5
Other income	47.5	47.5
Non-profit—		
Friendly society dispensary	37.5	37.5
Other	42.5	47.5
Other—		
Resident	47.5	47.5
Non-resident—		
Dividend income	42.5	47.5
Other income	47.5	47.5

State Taxation

In the section on Consolidated Revenue, taxes collected by the Tasmanian Government were shown in summarised form.

The next table gives full details of State taxation. It should be noted that certain taxes are reserved for special purposes. Examples are: (i) motor taxation—the 'motor tax' and 'public vehicle fees' components of this item (\$5,912,000 in 1972-73) are passed from Consolidated Revenue to the State Highways Trust Fund; and (ii) racing and gaming taxes—prior to 1970-71, part of the 'paid to special funds' item was passed to the racing clubs and the remainder spent on administration of racing. From 1970-71, all racing and gaming taxes paid to special funds were passed to the racing clubs.

State Taxation Collections (a)

(\$'000)

Tax	1970-71	1971-72	1972-73
Deceased persons' estate duties	3,065	3,143	3,235
Entertainment tax	90	109	126
Stamp duties (excluding bookmakers' tickets)—			
Cheques	681	722	831
Bills of exchange and lading	4	1	..
Hire purchase and related agreements	569	641	711
Legal documents, etc.	1,413	1,520	2,237
Adhesive revenue stamps	378	418	408
Insurances	1,198	1,300	1,443
Marketable securities	126	115	169
Receipts duty	936	25	..
Land tax	2,851	2,799	2,961
Motor taxation—			
Paid to—Consolidated Revenue	7,312	8,058	8,637
Special funds	80	80	82
Tax paid to fire authorities (b)	736	988	1,135
Liquor tax and related licences—			
Tax	1,097	1,162	1,227
Publicans' licences, etc.	41	31	28
Wholesale licences	123	147	163
Registration of clubs	6	6	7
Racing and gaming taxes—			
Paid to—Consolidated Revenue	1,079	1,172	1,242
Adjustment (c)	-26	-5	-38
Special funds	430	477	522
Pay-roll tax .. .. .	..	8,249	11,857
Hydro-Electric Commission statutory levy .. .. .	..	804	1,251
Casino tax and licence fees .. .. .	..	..	464
Tobacco tax and licence fees .. .. .	..	..	559
Sundry licences—			
Animals' and Birds' Protection Act	35	3	..
Auctioneers and estate agents	5	5	6
Other (including Firearms Act)	4	5	7
Total	22,231	31,977	39,270

(a) Collections from all sources of taxation, including amounts paid to special funds.

(b) Paid by insurance companies direct to the Fire Brigades Commission and the Rural Fires Board.

(c) For different accounting periods.

State Land Tax

The rates of land tax on urban land assessed on urban unimproved land values for the year 1972-73 are shown in the following table:

Selected Rates of State Land Tax (a): Urban Land 1972-73

(\$)

Taxable value (b)	Tax payable	Taxable value	Tax payable
1,000	2	15,000	105
2,000	5	25,000	225
4,000	13	50,000	575
6,000	23	100,000	1,575
10,000	55	150,000	2,825

(a) Tax on unspecified values may be calculated by simple proportion, e.g. tax on \$5,750 equals \$13 plus 1,750/2,000 × (\$23 less \$13) i.e. \$21.75. Land values exceeding \$150,000 were further taxed at 3 cents in the \$ on the excess.

(b) Properties having an unimproved value of less than \$1,000 are not subject to land tax.

The rates of land tax assessed on rural land values for the year 1972-73 are shown in the following table:

Rates of State Land Tax: Rural Land 1972-73 (a)

Unimproved value (\$)	Taxable value	Tax rate
1-20,000	Nil	Nil
20,001-25,000	Unimproved value—(\$20,000—\$4 × each dollar of excess over \$20,000)	As for urban land with a 25 per cent rebate allowed
25,001 and over	Unimproved value	As for urban land with a 25 per cent rebate allowed.

(a) Since 1 July 1971 a 25 per cent rebate on land tax payable has been allowed to rural land owners.

State Land Tax: Value of Properties and Tax Assessed (\$'000)

Year	Gross unimproved value				Tax assessed			
	Urban	Rural	Compo- site (a)	Total	Urban	Rural	Compo- site (a)	Total
1968-69 ..	219,577	134,405	21,038	375,020	1,857	247	274	2,379
1969-70 ..	254,833	133,534	24,344	412,710	2,097	269	306	2,672
1970-71 ..	277,257	140,960	24,234	442,451	2,313	277	312	2,903
1971-72 ..	283,154	145,209	26,698	455,062	2,319	(b) 224	(b) 309	2,852
1972-73 ..	296,176	21,011	26,392	343,579	2,494	178	283	2,954

(a) Properties made up of both urban and rural land.

(b) Decrease due to 25 per cent rebate applicable to rural land.

State Deceased Persons' Estate Duties

The legislation dealing with State deceased persons' estate duties is contained in Acts No. 42 of 1957 and No. 62 of 1962. The following table gives details of assessments for 1972-73:

**State Deceased Persons' Estate Duties
Number of Estates, Net Value and Tax Assessed, 1972-73**

Grade of dutiable value	Estates		Net value as assessed	Total duty assessed (a)	Average duty	
	Examined	Taxable			Per estate examined	Per taxable estate
\$	no.	no.	\$'000	\$'000	\$	\$
1- 500	69	4	9	..	2.5	42.8
501- 1,000	53	7	40	1	11.5	86.9
1,001- 1,500	83	29	105	2	27.3	78.2
1,501- 2,000	50	22	86	3	55.1	125.2
2,001- 3,000	100	26	246	5	54.4	209.3
3,001- 4,000	109	23	378	7	68.5	324.6
4,001- 5,000	95	68	425	10	108.7	151.8
5,001- 6,000	94	67	494	14	145.0	203.4
6,001- 8,000	188	137	1,300	51	269.4	369.7
8,001- 10,000	140	99	1,200	44	313.7	443.6
10,001- 15,000	242	190	2,816	149	615.7	784.3
15,001- 20,000	119	118	1,990	141	1,181.7	1,191.8
20,001- 30,000	110	110	2,384	194	1,767.8	1,767.8
30,001- 40,000	78	78	2,317	217	2,783.7	2,783.7
40,001- 50,000	38	38	1,242	131	3,443.8	3,443.8
50,001-100,000	114	114	6,277	846	7,420.1	7,420.1
100,001 and over	64	64	6,568	1,400	21,880.0	21,880.0
Adjustments .. ..	..	..	..	..	..	..
Total	1,746	1,194	27,877	3,215	..	..

(a) Rates of duty and levels of exemption vary according to the class of beneficiary and the type of asset contained in the estate.

Motor Taxation

The chief components of motor taxation are: (i) motor tax assessed on a power-weight formula; (ii) vehicle registration fees; (iii) drivers' and riders' licences; and (iv) other registration fees mainly related to public vehicles.

Details of motor taxation collections are shown in the following table:

State Motor Taxation
(**\$'000**)

Particulars	1970-71	1971-72	1972-73
Motor tax	4,670	5,294	5,548
Public vehicle fees (a)	443	445	364
Stamp duty on—Third party insurance	315	328	342
Vehicle registration	388	436	507
Other traffic fees (b)	1,576	1,635	1,957
Total	7,393	8,139	8,719
Paid into Consolidated Revenue Fund	7,312	8,058	8,637
Retained by Transport Commission	80	80	82

(a) Includes public vehicle fees retained by Transport Commission.

(b) Includes registration fees, licences, number plate charges, transfer fees and learners' permits.

'Motor tax' plus most of the item 'public vehicle fees' shown in the above table is paid to the State Highways Trust Fund. (The amount paid over in 1972-73 was \$5,912,000.)

Racing Taxation

Under the *Racing and Gaming Act* 1952 and amending legislation, licensed bookmakers pay a turnover commission of 2½ per cent on all bets made. Also racing clubs are required to pay a totalisator tax on turnover at the rate of five per cent in respect of race meetings conducted on race courses in a city area, and 2½ per cent in the case of other meetings. An amendment to the *Racing and Gaming Act* in 1971 provided that from 1 June 1971, instead of issuing betting tickets for telephone bets, bookmakers pay two cents duty to Consolidated Revenue on each telephone bet. Details of racing taxation collections and distribution are shown in the next table:

State Racing Taxation: Collection and Distribution
(**\$'000**)

Particulars	1970-71	1971-72	1972-73
RACING TAXATION RECEIPTS			
Totalisator tax	61	69	70
Bookmakers' commission and licences	1,206	1,343	1,418
Stamp duty on bookmakers' tickets	216	232	238
Total	1,483	1,644	1,726
DISTRIBUTION OF RACING TAXATION RECEIPTS			
Paid into Consolidated Revenue Fund	1,079	1,172	1,242
Adjustment (a)	-26	-5	-38
Commission payable to racing clubs	430	477	522
Total	1,483	1,644	1,726

(a) An adjustment item is necessary to reconcile items referring to different accounting periods.

Following amendment to the *Racing and Gaming Act* 1971 betting turnover tax is paid into Consolidated Revenue. Previously two charges had been made on the tax: (i) the administrative costs of the Racing Commission; and (ii) a contribution to the racing assistance fund. Both charges were limited to a maximum of \$40,000.

The turnovers on which taxes were levied are as follows:

Betting: Bookmakers' and Totalisator Turnover
((\$'000))

Turnover	1970-71	1971-72	1972-73
Licensed bookmakers	47,380	52,871	58,220
Totalisator	1,287	1,453	1,493
Total betting turnover	48,667	54,323	59,713

State Taxation on Lotteries

From 1942 (when the Australian Government became the sole collector of income tax), lotteries conducted from Hobart by Tattersalls (George Adams Estate) were Tasmania's chief source of revenue through State taxation. On 14 July 1954, the promoters transferred their operations to Victoria. A new organisation—Tasmanian Lotteries—was granted a licence and operated until 30 September 1961, when the proprietor surrendered the licence. No operator is now licensed.

In September 1960, the *Racing and Gaming Act* 1952 was amended to permit agreements with other States for the sale of their lottery tickets in Tasmania. Under an agreement with the Victorian Government, Tattersalls were allowed to sell tickets through accredited Tasmanian representatives; the Victorian Government was to pay quarterly to the Tasmanian Government 1½ per cent of the value of subscriptions made as a result of this concession.

For the purpose of public finance statistics, these amounts are classified not as 'taxation' but as 'payments from other States'.

The following table shows the payments made under the interstate agreement since 1965-66:

Payments to Tasmanian Government Based on Sale of Tattersalls Lottery Tickets
(\$)

Year	Amount	Year	Amount
1965-66	152,338	1969-70	116,196
1966-67	140,995	1970-71	(a) 196,038
1967-68	138,372	1971-72	179,343
1968-69	141,624	1972-73	200,059

(a) Includes \$33,858 due for the year 1969-70 but not received until early 1970-71.

Fees and Licences under the Licensing Act

The State raises revenue from hotels, clubs, restaurants and liquor wholesalers by: (i) licensing; and (ii) imposing a levy related to turnover. Originally a liquor tax was charged on liquor purchases by hotels, etc. and on wholesalers' direct sales to the public, the year for calculating taxable values and the year of collection being the same. During 1965-66, the *Licensing Act* 1932 was amended to substitute 'percentage fees' based on similar values except that they were those calculated for the year *preceding* collection.

**Fees and Related Licences Collected Under the Licensing Act
(\$'000)**

Tax or licence	1970-71	1971-72	1972-73
Percentage fees (a)	1,097	1,162	1,227
Publicans' and other licences under the Licensing Act	41	31	28
Wholesale licences	123	147	163
Registration of clubs	6	6	7
Total	1,266	1,346	1,426

(a) Based on liquor purchases by hotels and direct sales by wholesalers to the public.

Casino Tax and Licence Fees

The rate of casino tax and the licence fee were established by an agreement made in September 1968 between the State Treasurer, Federal Hotels Ltd and Australian National Hotels Ltd. The agreement was ratified by the *Wrest Point Casino Licence and Development Act 1968*. The casino tax is calculated according to a graduated scale based upon monthly gross profit and is payable monthly. Rates range from five per cent of gross profit where that profit is less than \$25,000 for the month to 30 per cent where the gross profit exceeds \$125,000. The licence fee is fixed at \$2,500 per month.

Wrest Point Casino commenced business in February 1973; total tax collections for 1972-73 from the casino were \$463,608, comprising \$451,108 casino tax and \$12,500 licence fees.

Tobacco Tax and Licence Fees

The *Tobacco Act 1972* imposed a tobacco consumption tax and licence fee to become operative from 1 January 1973. (For details of the High Court challenge and decision see earlier section of this chapter 'State Revenue Raising Difficulties'.) Total revenue from the tobacco tax and licence fees for 1972-73 was \$558,559 comprising \$448,537 from the consumption tax and \$110,022 from licence fees.

OFF-COURSE TOTALISATOR BETTING (T.A.B.)

Historical

Tasmania is the only Australian state with a long history of legal off-course betting. The 1932 *Racing and Gaming Act* legalised off-course betting with bookmakers in approved establishments and provided for the registration of bookmakers. A registrar, appointed by a committee of racing and trotting clubs, was responsible for bookmaker registration. Amendments in 1935 replaced the committee with a betting control board. The racing and betting subject continued to be an area of controversy and in 1951 the House of Assembly appointed a select committee to investigate and make recommendations on the administration and control of trotting, horse and dog racing and of betting thereon. The committee placed its findings before the House in November 1951—its most significant recommendations were: (i) that a racing commission be established to oversee racing and betting in Tasmania; and (ii) that an investigation of the New Zealand on-course and off-course totalisator betting system be made with a view to its suitability for Tasmania. The first recommendation was put into effect with passage of the *Racing and Gaming Act 1952*. Colonel A. P. Crisp, D.S.O., O.B.E., L.L.B. was appointed to investigate the New Zealand betting system. Crisp concluded that the New Zealand off-course totalisator system was sound in concept and there were not any obvious difficulties to establishing a similar system in Tasmania. He also stated in his conclusions: "That an "off-course" betting scheme in Tasmania could not be successfully operated (either in whole or in part) in competition with licensed bookmakers." Principal recommendations were: (i) that the totalisator matter be reconsidered in two or three years time by when the New Zealand scheme would have been thoroughly tested; and (ii) that negotiations with the Australian Government be undertaken prior to establishment of the scheme to ensure adequate telephone services would be available to the system.

Apart from debate on the relative merit of totalisator and bookmaker betting systems no further action was taken until 1964 when the Commissioner for Racing, Mr A. R. Neilson, was requested by the Premier to investigate and report on: (i) off-course totalisator betting; (ii) any proposals put forward with respect to totalisator betting; (iii) the effects that introduction of off-course totalisator betting would have on the betting public, racing clubs and state finances; and (iv) legislation and other measures necessary to implement the system. The racing, trotting and greyhound clubs all claimed that the introduction of a totalisator system was necessary for their continued existence. The Tasmanian Bookmakers' Association submitted a lengthy case opposing the scheme claiming that it would be detrimental to the betting public and would reduce revenues available to the government and racing clubs. Mr Neilson concluded that: 'The proposal that off-course totalisator betting be established in this State is not the simple straight-forward proposition many appear to believe and it is unfortunate that its advocates discuss the proposal primarily in terms of the success of off-course totalisator betting in other States or New Zealand'. A major problem confronting the introduction of totalisator betting was Tasmania's small population and the dispersed distribution of this population which would place a serious limitation on the size of totalisator pools. No opinion was expressed in the report as to whether an off-course totalisator system should or should not be introduced.

From the mid-1960s the totalisator debate gained impetus but, the Labor and then the Liberal-Centre Party Coalition governments declined to introduce the system. However, several outside groups prepared reports urging adoption of off-course totalisator betting. In February 1970 the Premier, Mr Bethune, requested a report from the All Clubs T.A.B. Committee on the cost and feasibility of introducing a T.A.B. scheme in Tasmania. The All Clubs Committee commissioned Mr A. J. Smith, Assistant Manager of the New South Wales Totalisator Agency Board, to prepare a feasibility study of a T.A.B. system for Tasmania.

The Racing Commission in its 1970 report came out in favour of replacing the off-course bookmaker betting system with off-course totalisator betting and made the following statements on the subject:

'Over the last several years we have kept in close touch with TAB organisations in the various states and the chairman has, by invitation, attended the last two conferences of General Managers of Totalisator Agency Boards from all mainland States and from New Zealand.

We do not propose to make any substantial reference to this subject because it is not one which comes within the scope of an annual report by the Commission on the exercise of its powers, duties and functions under the Act. Nevertheless some brief comment appears unavoidable in view of the reports we have been called upon to make during the last twelve months.

It is now widely accepted that, in addition to on-course betting facilities, a legal means to bet off-course on horse and greyhound racing should be provided. The extent to which and the means by which gambling will be permitted, both on and off-course, is determined by the State in the exercise of its regulatory powers in this field.

The aim of any system of off-course betting will be to provide the public with a reasonable opportunity to bet. It is also desirable that it should provide revenue for the maintenance of racing on the highest possible level.

It is not our purpose to examine these broad aims in this report but, clearly, to achieve them requires some nice judgements to be made. There can always be some conflict between the business of betting and the business of racing but, for reasons we have referred to elsewhere, we believe the greatest degree of compatibility will be achieved if off-course betting is conducted by means of the totalisator system.'

The All Clubs T.A.B. Committee's report was completed in August 1971 and copies were presented to the Premier, Mr Bethune. The principal points to emerge from the investigation were: (i) off-course totalisator betting would yield considerably more revenue to the government than the off-course bookmaking system; (ii) greater financial benefits would accrue to the racing industry; and (iii) the betting service provided would not be inferior to that provided by off-course bookmakers. Estimated cost of establishing an off-course totalisator betting system was put at \$458,000. The main criticism of the off-course bookmaking system was the comparatively low revenue yield for the State and racing clubs compared with the revenue yield from off-course totalisator operations in other states. The 1971 Racing Commission's report again reaffirmed the Commission's general support for the proposed new betting system.

To forestall possible introduction of an off-course totalisator scheme bookmakers offered to agree to a one cent increase in betting ticket stamp duty. The bookmakers estimated that this would yield an extra \$80,000 annually for the State. They also claimed that introduction of the off-course totalisator system would in fact reduce revenue available from racing and a submission to this effect was passed through the State Treasury Department to the Commonwealth Grants Commission.

In January 1972 a joint meeting of members of the Liberal and Centre Parties was held to consider the T.A.B. issue. The decision was not to proceed with the T.A.B. proposal but to increase taxes on bookmakers—the turnover tax was increased from 2½ to 3½ per cent and the stamp duty on betting tickets raised by one cent.

At the April 1972 elections the totalisator question was not an issue and when the Labor Party resumed office as the government no commitment was given to the introduction of off-course totalisator betting.

Role of the Commonwealth Grants Commission

In the 1969 report of the Grants Commission the question of determining an appropriate base for assessing Tasmania's efforts in raising revenue from racing taxes was raised. The Commission concluded that turnover from race betting in Tasmania was insufficient to allow the profitable operation of an independent off-course totalisator system. The method of assessing a notional betting turnover for Tasmania was reviewed and resulted in a reduction in the unfavourable adjustment made to Tasmania's special grant on account of racing taxation. However, two years later the Commission had cause to review its 1969 decision. In the 1971 report the Grants Commission stated:

'At the Canberra hearings in May 1971 the Commonwealth Treasury repeated the arguments it had put forward in the previous year in support of the adoption of a higher notional T.A.B. turnover for Tasmania. The Commission has noted that the A.C.T. Totalisator Agency Board now conducts its operations independently from the N.S.W. Totalisator Agency Board to which body the Australian Capital Territory turnover was formerly transmitted. This demonstrates that a T.A.B. system can be conducted successfully by a State or Territory with a small population where the betting is mainly on races in larger states, . . .'

As a consequence of the successful independent operation of the A.C.T. off-course totalisator system the Grants Commission reviewed the level of notional T.A.B. turnover for Tasmania. The level of notional turnover was raised and as Tasmania's efforts to raise revenue from racing taxes were found to be below those of the standard states (New South Wales and Victoria) the magnitude of the unfavourable adjustment in relation to racing taxation was increased.

Following the 1970-71 and 1971-72 assessment of Tasmanian accounts, the State suffered substantial reductions in its special grant receipts because of the relatively low level of racing taxation imposed in Tasmania. The loss of revenue factor finally prompted a change of policy on off-course T.A.B. and in November 1972 the Labor Government Minister for Racing and Gaming, Mr Everett, announced that the parliamentary party had given approval to a cabinet recommendation that an off-course T.A.B. scheme be introduced. The Minister stated that the principal reason for the decision (a reversal of former policy) was the Grants Commission. The decision received approbation from the racing clubs and vocal disapproval from the bookmakers.

In April 1973 a bill to establish an off-course totalisator betting system was placed before the House of Assembly for consideration. The Legislation was passed in May 1973 and went before the Legislative Council for debate. The bill met stiff opposition in the Council and finally in June it was referred to a select committee for investigation. The committee was required to inquire into and report on:

- (i) Whether the introduction of T.A.B. and the abolition of off-course bookmaking betting was in the best interests of the people of Tasmania.
- (ii) Whether there were any alternative measures to the introduction of off-course totalisator betting available to assist the State's and racing club's finances.

The Legislative Council committee's report was tabled in December 1973.

Report of Legislative Council Select Committee

The committee was not appointed to inquire into the legislation itself but to investigate the general question of off-course betting. The committee met on 29 occasions, received evidence from 169 witnesses (57 represented organisations) and also received written submissions from 40 persons who did not appear before the committee. The committee, during its investigation visited Western Australia, South Australia, New South Wales and the Australian Capital Territory to hear evidence and make inspections of T.A.B. operations. Bookmakers, racing clubs, trainers, owners and breeders were well represented at hearings of the committee.

Conclusions

The more important conclusions of the Legislative Council Select Committee were:

- (i) Tasmania was not too small to support a feasible off-course totalisator betting pool, however, consideration should be given to linking the Tasmanian pool with a mainland pool, during early stages of establishment.
- (ii) A T.A.B. system would support a higher level of taxation than the current off-course bookmaker system without detrimentally affecting the bettor. It would therefore yield greater revenue to the State and the racing clubs.
- (iii) Introduction of an off-course totalisator system would avoid the adverse adjustment for racing taxation imposed by the Grants Commission.

The Committee also stated that Tasmanian racing was in critical need of financial assistance and that it was both proper and necessary that the required money should be derived from proceeds of off-course betting. Furthermore the Committee expressed the view that the preclusion of bookmakers from off-course betting would be the removal of a privilege not a right. The Committee did not concur with the bookmakers' argument that introduction of an off-course T.A.B. system would lead to an upsurge in illegal betting. In fact the Committee felt that the system would offer greater safeguards against racing malpractices than a bookmaker system.

Recommendations

The Committee recommended:

- (1) That the off-course bookmaker system be replaced by an off-course totalisator designed to provide for a late closing of betting times and early post race pay-out.
- (2) That the following services be provided by the off-course totalisator:
 - (a) a wide variety of betting types;
 - (b) race broadcasts in branches and agencies;
 - (c) pre-post betting fluctuations;
 - (d) newspaper form guides;
 - (e) names of jockeys and drivers;
 - (f) track reports;
 - (g) collection of dividends on lost or destroyed tickets; and
 - (h) seating for patrons.
- (3) That provision be made to allow the services of bookmakers (other than telephone betting) to be made available on the West Coast and the Bass Strait Islands, in fair competition with T.A.B. and that no additional licences for bookmakers be issued for the said areas in excess of the number operating as at 1 January 1974.

Debate on the bill resumed in March 1974 in the Legislative Council, where the recommendations of the Select Committee were accepted. During debate in the Council several amendments were made to the bill: (i) a provision for establishment of a racing trust to set up and maintain horse and dog racing studs was deleted; (ii) West Coast and Bass Strait Island bookmakers may continue to operate off-course for a period of four years after introduction of T.A.B.; (iii) racing clubs were given the right to appeal against discontinuance or amalgamation orders made by the Racing Commissioner; and (iv) a provision was included that placed the onus on the totalisator board to pay out bets 'as soon as practicable' after the correct weight signal for each race. The bill incorporating the amendments was returned to the House of Assembly for consideration where they were accepted on 4 April 1974. Following passage through parliament of the legislation the Minister for Racing and Gaming announced that a board, under chairmanship of the Racing Commissioner (Mr A. R. Neilson), would be appointed to conduct the T.A.B. operations. Among the first matters for the Board to decide are where to locate the T.A.B. headquarters and which bookmakers' premises are suitable for take-over as T.A.B. sites.

The Legislation

The Totalisator Agency Board

The *Racing and Gaming Act 1974* created the Totalisator Agency Board which is to consist of not less than three members nor more than five. The Totalisator Agency Board is responsible for implementing a scheme of off-course totalisator betting and administering the system once established. Members are appointed by the Governor; the chairman of the Racing Commission is also chairman of the Totalisator Agency Board. When the chairman of the Racing Commission is unable to attend a meeting of the Board the deputy chairman of the Racing Commission is empowered to act as chairman of the Board. Maximum length of office for any board member (other than the chairman who retains membership while chairman of the Racing Commission) is three years. The Governor may remove a member from office if: (i) he is convicted of an offence which, in the Governor's opinion, makes it improper for the member to continue to hold office; (ii) the member is absent without leave of the Minister for three consecutive meetings or from five meetings in any 12-month period; (iii) applies or takes advantage of any law relating to bankruptcy, insolvent debtors or compounds with his creditors; (iv) he is, in the Governor's opinion, guilty of misbehaviour, negligence or incompetence and/or has become incapable of performing his duties; or (v) without the Governor's approval enters into any contract with the Board or participates in the profit of any contract with the Board.

At meetings of the Board a quorum is two members if membership is three and where more than three members have been appointed attendance of three members constitutes a quorum. All members are to be notified of Board meetings. When voting on a question is equal the matter is postponed until the next meeting and a notice of the question and the fact that voting was equal is included in the meeting notice.

The Totalisator Agency Board is required to prepare and submit an annual report on its activities to the Minister for Racing and Gaming. The report is for the fiscal year ended 31 July and is to be presented to the Minister not later than 31 October following completion the Board's accounting year. Accounts are subject to audit by the Auditor-General and the report is to incorporate audited income and expenditure and balance sheet statements. In addition to the annual report the Minister may, at any time, require the Board to supply any information on its performance of functions or duties under the Act.

Financing

The Treasurer may guarantee loans not exceeding \$500,000 for the establishment of a totalisator betting system in Tasmania. Before the guarantee is given the Treasurer may require the Board to provide security in which case the Board is to execute all necessary legal documents. If a lender demands repayment of a guaranteed loan the Treasurer is empowered to make payment from the Consolidated Revenue Fund and recover the amount from the Board.

Appointment of Officers

The Totalisator Board is required to appoint a general manager responsible for administering operations of the betting system. Applications for this position were called in April 1974. In addition to the general manager, the Board may appoint such permanent and temporary employees as necessary for efficient operation of the Board. When appointing staff preference is to be given to applicants with experience as either bookmakers or bookmakers' clerks.

Powers and Functions of the Totalisator Agency Board

The Totalisator Agency Board is to establish and conduct totalisator betting in Tasmania and for these purposes may establish (by purchasing, leasing or building) and equip premises for totalisator betting and produce the stationery (tickets, ledgers, etc.) to run the system. To facilitate operations the Board may enter into agreements with other Boards in Australia—such agreements cover placing or acceptance of bets with or from other boards, transmission of dividends between boards and the amount of commission to be paid.

Betting: The Board is empowered to conduct and accept a variety of totalisator bets (win, place, double, treble, quadrella and quinella). Acceptable bets are \$0.50 or multiples thereof. The bets may be placed on any horse race or coursing event on which the Board is conducting totalisator betting. Bets are to be made in cash or in the case of telephone betting only if the punter has established a deposit account. Bets made by letter or telegram will also be accepted providing the money amount has also been transmitted to the same branch. Credit betting is not permitted. Before calculating a dividend on a race the Board deducts a commission from the betting pool: (i) 16 per cent of the total amount wagered if on doubles betting; or (ii) 15 per cent if on any other form of betting. After making the appropriate deduction the pool balance is divided by the number of winning bets to give the return for each successful bettor. No dividend is to be less than \$0.50.

Disbursement of Totalisator Commission: Where the amount deducted from the betting pool is 15 per cent, 10 per cent of the pool is credited to the Board's revenue account and five per cent is paid to the Racing Commission. In the case of a 16 per cent deduction the division is the same as above except one per cent of the pool is paid to the Racing Trust, which was established to invest money paid to it and, with Ministerial approval, make grants or loans for the administration, maintenance or improvement of racing. From the commission received, the Board is to cover its operating expenses and establish a capital fund for loan repayments and purchase, lease or construction of premises or land for totalisator operations. The Board may invest any credit balance of the capital account. At the end of the Board's financial year it is required to calculate its net profit and an equal amount is paid to the Racing Trust. From the money transferred to the Racing Commission is paid revenue to the State and to racing clubs.

Chapter 6

DEMOGRAPHY

POPULATION

Introduction

Census of 30 June 1971

Detailed analysis of the population according to its principal characteristics as at the Census of 30 June 1971 is included in this chapter.

Inclusion of Aborigines in Population Statistics

Section 127 of the Australian Constitution required the exclusion of Aborigines from Australian Government conducted population censuses from 1911 to 1966. As this section was repealed after the 1967 referendum, total population figures have been adjusted after 1961 to include full-blood Aborigines. The effect in this State is very slight.

Historical

In 1803 Lieutenant John Bowen's expedition of 49 persons made the first white settlement at Risdon Cove; at 30 June 1973, Tasmania's estimated population was 396,000 persons.

The Statistical Tables, Tasmania 1804 to 1823 show the first population record in 1816 when the white inhabitants numbered 1,461, and analysed as 1,032 free settlers, 409 convicts and 20 children of convicts. From the year 1816, there exists a continuous annual record of Tasmania's population.

Source of Population Figures

There are two principal methods by which population figures are obtained: (i) by census enumeration; and (ii) intercensal estimates based on the application of vital and migration statistics to census data. The second method involves taking account of natural increase (excess of births over deaths); and net migration (excess of arrivals over departures) and applying these net figures to information obtained from an earlier census, the result being termed an intercensal estimate. (*Net migration* may be ascertained by two methods: taking account of *all* arrivals and departures; or only of arrivals and departures related to permanent change of place of residence. The former method was used for all estimates up to 30 June 1961, the latter method for later series. In relation to this change, see later section headed 'Changed Method of Estimating Population'.)

Censuses were conducted by the State in 1841, 1847, 1851, 1857, 1861, 1870, 1881, 1891 and 1901; the Commonwealth Statistician became responsible for censuses with the establishment of the Commonwealth Bureau of Census and Statistics (now the Australian Bureau of Statistics) and conducted them in 1911, 1921, 1933, 1947, 1954, 1961, 1966 and 1971.

Population from 1820

The table that follows is based on the traditional historical series and has been compiled to show the population at the end of each decade from 1820, the average annual growth in total population for each decade and the contribution made by natural increase.

Historical Summary of Tasmanian Population in Decades

Year	Estimated population (a)			Average annual increase for decade (b)	
	Males	Females	Persons	In total population	From natural increase (c)
1820 (d)	4,057	1,343	5,400	..	..
1830 (d)	18,108	6,171	24,279	1,888	..
1840 (d)	32,040	13,959	45,999	2,172	106
1850	44,229	24,641	68,870	2,287	656
1860	49,653	40,168	89,821	2,095	1,214
1870	53,517	47,369	100,886	1,107	1,622
1880	60,568	54,222	114,790	1,390	1,542
1890	76,453	68,334	144,787	3,000	2,496
1900	89,763	83,137	172,900	2,811	2,776
1910	97,026	92,781	189,807	1,691	3,322
1920	106,236	103,189	209,425	1,962	3,649
1930	111,148	108,835	219,983	1,056	3,127
1940	121,911	118,280	240,191	2,021	2,438
1950	140,339	135,563	275,902	3,571	3,768
1960	174,379	169,531	343,910	6,801	5,523
1970	195,280	192,440	387,720	4,381	5,116

(a) Up to 1900, at 31 December; from 1910, at 30 June.

(b) Decade ending in year shown.

(c) Excess of births over deaths in calendar years.

(d) Imperial military establishment of about 1,000 troops included; excluded after 1842.

Pattern of Net Migration

From the first settlement until 1850, the rapid growth in population was partly due to the British Government's convict transportation policy. After the cessation of transportation in 1853, the immigration rate slowed and natural increase became the more important component of population growth.

By comparing the last two columns in the previous table, it is possible to make an assumption as to whether net migration (excess of arrivals over departures) tended to be positive or negative in any decade.

In the two decades ended 1870 and 1880, for example, natural increase was becoming a more significant factor but the growth of population was checked by negative net migration. Important mining discoveries (e.g. Mt Bischoff, Zeehan and Mt Lyell) brought prosperity to the State, and the two decades ended 1890 and 1900 were characterised by positive net migration.

The main characteristic of the five decades up to 1950 was a persistent loss of population due to negative net migration, the decade most affected ending in 1930. This trend of net migration loss persisted till the end of World War II (1945). The Australian Government's post-war immigration policy and the increasing industrialisation of the State combined to reverse the adverse trend of the previous half-century and the decade ending 1960 was characterised by positive net migration. However, in the decade ending 1970, some loss of population by negative net migration must be inferred.

The next table shows the annual increases in population for the most recent 10-year period:

Annual Increase in Population from 1964

Year ended 30 June	Persons	Year ended 30 June	Persons
1964	3,584	1969	5,244
1965	3,594	1970	2,827
1966	3,531	1971	2,693
1967	3,808	1972	1,762
1968	4,405	1973	3,824

Census Populations From 1841

The following table records the population and masculinity at each census since 1841 and compares the rate of intercensal growth:

Population and Masculinity at Each Census from 1841

Census date (a)	Population			Average annual percentage rate of increase (b)	Masculinity (c)
	Males	Females	Persons		
31 Dec. 1841	34,469	16,981	51,450	..	202.99
31 Dec. 1847	45,000	22,313	67,313	4.70	201.68
1 Mar. 1851	44,648	25,482	70,130	1.07	175.21
31 Mar. 1857	46,606	34,886	81,492	2.53	133.60
7 Apr. 1861	49,593	40,384	89,977	2.51	122.80
7 Feb. 1870	52,853	46,475	99,328	1.11	113.72
3 Apr. 1881	61,162	54,543	115,705	1.40	112.14
5 Apr. 1891	77,560	69,107	146,667	2.40	112.23
31 Mar. 1901	89,624	82,851	172,475	1.64	108.17
3 Apr. 1911	97,591	93,620	191,211	1.04	104.24
4 Apr. 1921	107,743	106,037	213,780	1.12	101.61
30 June 1933	115,097	112,502	227,599	0.52	102.31
30 June 1947	129,244	127,834	257,078	0.87	101.10
30 June 1954	157,129	151,623	308,752	2.65	103.63
30 June 1961	177,628	172,712	350,340	1.82	102.85
30 June 1966	187,391	184,045	371,436	1.18	101.82
30 June 1971	196,442	193,971	390,413	r1.00	101.27

(a) Imperial military establishments included until 1870, when British troops were withdrawn.

(b) Intercensal increase in total population as compound rate of growth per cent.

(c) Number of males per 100 females.

Population growth varied widely during the nineteenth century. From 1841 to 1847 the annual population increase averaged 4.70 per cent, largely due to the transportation system. Following self-government, the colony entered a period of depression and the growth rate fell until the development of mining at the end of the century. The lowest growth rates in this century were associated with the period 1921-1947; and the highest rate with the period 1947-1954 when the State benefited from an influx of European migrants.

Comparison With Other States

The following table compares the Tasmanian population at censuses from 1901 with that of other states and territories (full-blood Aboriginals are included as from 1966):

Australia: Census Populations of States and Territories (a)
(*000 Persons)

State or territory	1901	1933	1947	1954	1961	1966 (b)	1971 (b)
N.S.W.	1,355	2,601	2,985	3,424	3,917	4,238	4,601
Victoria	1,201	1,820	2,055	2,452	2,930	3,220	3,502
Queensland	498	947	1,106	1,318	1,519	1,674	1,827
S.A.	359	581	646	797	969	1,095	1,174
W.A.	184	439	502	640	737	848	1,030
Tasmania	172	228	257	309	350	371	390
N.T.	5	5	11	17	27	57	86
A.C.T. (c) .. .. .	..	9	17	30	59	96	144
Australia	3,774	6,630	7,579	8,987	10,508	11,599	12,756

(a) Censuses of 1911 and 1921 are not shown.

(b) Includes full-blood Aborigines.

(c) Part of N.S.W. prior to 1911.

The next table shows the average annual rates of increase:

Australia: Average Annual Rate of Increase of Population During Intercensal Periods (a)
(Per Cent)

State or territory	1921-33	1933-47	1947-54	1954-61	1961-66	1966-71
N.S.W.	1.76	0.99	1.98	1.94	1.51	1.66
Victoria	1.42	0.87	2.56	2.58	1.80	1.69
Queensland	1.86	1.11	2.53	2.04	1.86	1.77
S.A.	1.31	0.76	3.05	2.83	2.29	1.40
W.A.	2.29	0.97	3.51	2.03	2.63	3.97
Tasmania	0.52	0.87	2.65	1.82	1.18	r1.00
N.T.	1.87	5.93	6.12	7.37	10.41	8.86
A.C.T.	10.71	4.65	8.70	9.93	7.75	8.45
Australia	1.63	0.96	2.46	2.26	1.88	1.92

(a) Full-blood Aborigines excluded for 1961-66 and earlier periods but included for 1966-71.

Intercensal Adjustment

Earlier, mention was made of the method for calculating intercensal estimates of population by taking account of recorded natural increase and recorded net migration. The following two tables show these factors in successive intercensal periods from 1921; 'arrivals' and 'departures' in the first table refer to both short-term and long-term movements.

Analysis of Intercensal Increase in Tasmanian Population
(i) Recorded Natural Increase and Recorded Net Migration

Intercensal period	Births	Deaths	Natural increase	Arrivals	Departures	Net migration
4.4.1921 to 30.6.1933 (a)	61,955	25,174	36,781	507,209	535,780	-28,571
30.6.1933 to 30.6.1947 ..	73,130	34,767	38,363	482,577	493,305	-10,728
30.6.1947 to 30.6.1954 ..	51,615	17,557	34,058	870,768	845,009	+25,759
30.6.1954 to 30.6.1961 ..	59,282	18,631	40,651	1,070,297	1,065,254	+ 5,043
30.6.1961 to 30.6.1966 ..	41,276	14,786	26,490	1,071,892	1,077,942	- 6,050
30.6.1966 to 30.6.1971 ..	40,474	16,297	24,177	1,467,075	1,471,663	- 4,588

(a) Numbers recorded from the March quarter of 1921.

(ii) Census Population, Intercensal Records and Intercensal Adjustment

Census date	Population	Numbers recorded since previous census		Intercensal adjustment (a)
		Natural increase	Net migration	
4.4.1921 ..	213,780	36,448	-10,265	- 3,614
30.6.1933 ..	227,599	36,781	-28,571	+ 5,609
30.6.1947 ..	257,078	38,363	-10,728	+ 1,844
30.6.1954 ..	308,752	34,058	+25,759	- 8,143
30.6.1961 ..	350,340	40,651	+ 5,043	- 4,106
30.6.1966 ..	371,436	26,490	- 6,050	+ 656
30.6.1971 ..	390,413	24,177	- 4,588	- 612

(a) For definition, see following section; adjustment is to reconcile increase as disclosed by census counts with net increase recorded in second and third columns.

In general, two population estimates are made for any specific date: (i) *original* estimates for dates subsequent to a census and made before another census is taken; and (ii) *revised* estimates for each newly-completed intercensal period to adjust for the difference between the new census result and the comparable estimate. Thus, all original estimates of population for the intercensal periods from 1911 to 1971 have been revised to reconcile with the results of successive censuses from 1921 to 1971 and can be regarded as final.

Population Estimates, Intercensal Years

The following are estimates of Tasmanian population at 30 June and 31 December for successive years since 1956:

Estimated Population, 30 June and 31 December

Year	At 30 June			At 31 December		
	Males	Females	Persons	Males	Females	Persons
1956	162,196	156,274	318,470	168,695	162,645	331,340
1957	165,940	160,190	326,130	172,186	166,621	338,807
1958	169,123	163,943	333,066	174,465	169,433	343,898
1959	172,097	167,279	339,376	178,109	173,240	351,349
1960 (a)	174,379	169,531	343,910	180,511	175,458	355,969
1961 (a) (b)	177,628	172,712	350,340	178,864	174,394	353,258
1962	179,966	175,702	355,668	181,085	177,002	358,087
1963	182,439	178,288	360,727	183,330	179,469	362,799
1964	184,074	180,237	364,311	185,051	181,457	366,508
1965	185,789	182,116	367,905	186,483	183,125	369,608
1966 (b)	187,391	184,045	371,436	188,180	185,129	373,309
1967	189,195	186,049	375,244	190,369	187,472	377,841
1968	191,288	188,361	379,649	192,871	190,184	383,055
1969	193,888	191,005	384,893	194,788	192,210	386,998
1970	195,280	192,440	387,720	196,363	193,890	390,253
1971 (b)	196,442	193,971	390,413	197,444	195,380	392,824
1972	197,201	194,974	392,175	198,461	197,091	395,552
1973	198,756	197,243	395,999	199,849	199,244	399,093

(a) Break in series; see following paragraphs.

(b) Figures at 30 June as recorded at census.

'De Facto' and 'De Jure'

Australian censuses allot persons to the state where they happen to be at the census date (*de facto* basis) and not to the state where they normally reside (*de jure* basis); net migration, as defined and measured prior to 1961, was also on a *de facto* basis. Thus the Tasmanian December estimates in the table for dates prior to 1961 are consistently higher than those for the preceding June by anything from 10,000 to 15,000 persons, due to the seasonal tourist influx.

Changed Method of Estimating Population

Until the Census of 1966, the quarterly intercensal population of each state had been estimated using three components: (i) the previous census population; (ii) accumulated natural increase; and (iii) accumulated net migration. In this calculation, net migration was the total of all arrivals *less* all departures, recorded for shipping and aircraft (Tasmania) and for shipping, aircraft, rail and omnibus movements (other states); it therefore included overseas and interstate travel irrespective of purpose.

The changed method of estimation, introduced after the 1966 Census, still relies on the same three components but defines and measures net migration in a different way, so that holiday, business or other similar short-term movements between states are eliminated. *Intercensal estimates for the period 1961 to 1971 have been revised in accordance with the new method, and incorporate the changed concept of net migration.*

In the changed method, population of each state is estimated by adding to the previous census population the natural increase and the allocation of the net gain by overseas migration for that State; gains or losses that result from movements between states are also taken into account, in so far as they are recorded as transfers of residence under child endowment procedures or Australian Government electoral procedures, supplemented by the results of any sample surveys. Revised estimates subsequent to the 1961 Census omit the effect of holiday, business or other similar short-term movements between the states.

Mean Population

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* is the population at the end of the quarter immediately preceding the year and *b*, *c*, *d* and *e* are the populations at the end of the quarters making up the year under consideration (e.g. in the case of a mean population for the calendar year 1974, the populations in the formula represented by *a*, *b*, *c*, *d* and *e* are those at the following dates: 31.12.1973, 31.3.1974, 30.6.1974, 30.9.1974 and 31.12.1974).

The following table shows Tasmania's mean population on two bases: (i) for financial years; and (ii) for calendar years.

Estimated Mean Population, Financial and Calendar Years

Year	Year ended—		Year	Year ended—	
	30 June	31 December		30 June	31 December
1964	362,758	364,554	1969	382,710	385,079
1965	366,366	367,970	1970	386,665	388,180
1966	369,600	371,483	1971	389,739	391,242
1967	373,321	375,397	1972	392,399	393,183
1968	377,582	379,916	1973	394,928	396,889

Arrivals and Departures

Earlier in this chapter, reference was made to net migration as one factor determining the growth of the State population. Net migration, on a *de facto* basis for any period, is the difference between arrivals and departures, such movements being reported by the shipping companies and airlines. 'Arrivals' in the following table applies to all persons arriving in Tasmania from overseas or from other Australian states; it includes Tasmanians returning home. Similarly, 'departures' applies to all persons leaving Tasmania for overseas or for other Australian states; it includes visitors returning home from Tasmania. The table below shows annual arrivals and departures and also quarterly arrivals and departures for recent years, but the intercensal adjustments referred to in an earlier section have not been applied to the figures.

Recorded Arrivals and Departures: Tasmania (a)

Year	Arrivals	Departures	Quarter	Arrivals	Departures
1930	40,291	41,110	1970—March Qtr ..	93,497	100,102
1935	42,470	42,912	June Qtr ..	72,885	79,630
1940	51,672	53,644	September Qtr ..	67,347	68,957
1945	<i>n.a.</i>	<i>n.a.</i>	December Qtr ..	87,138	74,760
1950	127,709	122,333	1971—March Qtr ..	94,843	100,923
1955	137,834	137,144	June Qtr ..	81,969	87,968
1960	182,537	183,513	September Qtr ..	68,683	70,921
1962	185,268	186,023	December Qtr ..	94,668	80,830
1963	198,443	199,918	1972—March Qtr ..	104,678	113,697
1964	219,930	223,380	June Qtr ..	76,164	81,387
1965	248,964	249,617	September Qtr ..	71,955	71,769
1966	257,463	256,068	December Qtr ..	103,892	88,659
1967	270,934	271,812	1973—March Qtr ..	118,177	127,753
1968	276,798	276,856	June Qtr ..	104,384	111,358
1969	296,186	297,069	September Qtr ..	101,187	102,621
1970	320,867	323,449	December Qtr ..	127,046	107,033
1971	340,163	340,642			
1972	356,689	355,512			
1973	450,794	448,765			

(a) Arrivals and departures on a *de facto* basis.

It should be noted that the data shown in the preceding table are compiled only on the basis of individual journeys. There is no classification of the arrival or departure figures into 'Tasmanians' and 'others' nor is any information obtained about the type of movement involved i.e. whether the arrival or departure is of a permanent, long-term or short-term nature. It therefore follows that while increased tourist movements have made a principal contribution to the growth in the arrival and departure figures, as shown in the table, it is not possible to isolate tourist movements from other movements to and from Tasmania.

If annual arrivals and departures are added, the result may conveniently be termed 'annual movements', and a comparison of 'annual movements' over the years gives some indication of the degree to which tourism and other travel have affected the State. Thus in 1901, the year of Federation, annual arrivals and departures together totalled 51,000; in 1913, 91,800; in 1931, 58,500; in 1939, 120,200; and in 1973, over 899,000. The increase in 'annual movements' since World War II is largely attributable to the growing use of air travel and roll-on roll-off ferries. Another factor has been industrial legislation providing for paid holidays; this has not only increased the tourist inflow but also has resulted in more Tasmanians taking holidays in other states.

The quarterly figures show a marked seasonal pattern with arrivals at their maximum in the spring and summer quarters (those ending December and March). Net migration figures on a *de facto* basis also show a seasonal pattern with substantial deviations from the quarterly average, approximating *plus* 11,000 to 13,000 persons in the December quarter; they also reflect the tourist outflow in the March quarter.

Population in Local Government Areas

The next table shows the population in cities, municipalities and statistical divisions at successive censuses and also gives post-censal estimates:

Population in Local Government Areas and Statistical Divisions at 30 June

Local government area (statistical division and sub-division in bold type)	Census			Estimated	
	1961	1966	1971	1972	1973
Hobart (H)	54,021	53,257	52,426	52,400	52,500
Glenorchy (H)	35,682	39,053	42,651	42,900	43,500
Clarence (H)	23,140	30,236	37,104	37,940	39,340
Brighton (H) (S)	2,115	2,207	2,333	2,400	2,540
Kingborough (H) (S)	10,025	10,322	10,815	11,140	11,680
New Norfolk (H) (S)	10,217	10,315	10,613	10,610	10,610
Sorell (H) (S)	2,878	3,309	3,636	3,690	3,820
Bothwell (S)	1,288	1,008	813	750	750
Bruny (S)	504	400	311	300	290
Esperance (S)	3,436	3,740	3,508	3,410	3,320
Glamorgan (S)	1,128	1,125	1,120	1,140	1,180
Green Ponds (S)	969	880	881	850	830
Hamilton (S)	4,178	4,329	4,060	4,040	4,040
Huon (S)	5,460	5,264	4,756	4,660	4,560
Oatlands (S)	2,691	2,501	2,132	2,060	2,010
Port Cygnet (S)	2,754	2,550	2,070	1,980	1,890
Richmond (S)	1,673	1,658	1,579	1,560	1,560
Spring Bay (S)	1,155	1,205	1,413	1,520	1,620
Tasman (S)	1,108	1,126	1,035	960	1,000
HOBART (a)	} 164,422 {	141,311	153,216	154,720	157,870
SOUTHERN (a)		33,174	30,040	29,590	29,170
Launceston	38,118	37,217	35,107	34,780	34,330
Beaconsfield	8,550	9,983	10,970	11,170	11,530
Deloraine	5,574	5,205	4,807	4,780	4,760
Evandale	1,608	1,554	1,462	1,460	1,450
George Town	3,677	5,101	6,029	6,120	6,160
Lilydale	6,744	7,841	8,308	8,430	8,600
Longford	6,762	5,354	5,145	5,070	5,000
St Leonards	11,032	13,660	16,093	16,260	16,760
Westbury	4,581	4,964	4,863	4,860	4,900
Tamar	86,646	90,879	92,784	92,930	93,490
Campbell Town	1,893	1,753	1,641	1,590	1,580
Fingal	4,475	3,791	3,441	3,370	3,270
Flinders	1,407	1,234	968	950	1,000
Portland	1,274	1,391	1,497	1,500	1,500
Ringarooma	3,056	2,866	2,474	2,450	2,430
Ross	672	617	541	530	520
Scottsdale	3,417	3,628	3,615	3,580	3,580
North Eastern	16,194	15,280	14,177	13,970	13,880
NORTHERN	102,840	106,159	106,961	106,900	107,370
Burnie	16,745	18,611	19,954	20,240	20,300
Circular Head	7,733	7,884	7,981	7,980	8,000
Devonport	14,276	16,758	19,802	20,290	20,930
Kentish	4,167	5,614	5,325	4,790	4,340
King Island	2,784	2,462	2,793	2,790	2,850
Latrobe	4,367	4,807	5,115	5,120	5,150
Penguin	4,673	4,677	4,791	4,840	4,860
Ulverstone	9,365	10,150	11,052	11,170	11,350
Wynyard	8,835	9,564	10,600	10,770	10,880
North Western	72,945	80,527	87,413	87,990	88,660

Population in Local Government Areas and Statistical Divisions at 30 June—*continued*

Local government area (statistical division and sub-division in bold type)	Census			Estimated	
	1961	1966	1971	1972	1973
Gormanston	507	540	489	450	400
Queenstown	4,624	4,393	5,123	5,100	5,100
Strahan	565	470	447	440	440
Waratah	367	698	1,940	2,000	2,010
Zechan	3,191	3,489	4,369	4,570	4,570
Western	9,254	9,590	12,368	12,560	12,520
MERSEY-LYELL	82,199	90,117	99,781	100,550	101,180
Migratory	879	675	415	420	410
TASMANIA	350,340	371,436	390,413	392,180	396,000

(a) Symbols above indicate the statistical division in which the local government area is located: (H) = Hobart Division; (S) = Southern Division; (H) (S) = part of municipality in Hobart Division and remainder in Southern Division.

Distinction Between Urban and Rural

After the Censuses of 1954 and 1961, the Commonwealth Statistician published a population classification using the terms 'metropolitan', 'urban' and 'rural'. Delineation of the urban boundaries was subjective and the methods used were not completely comparable between states.

In order to develop an objective definition of 'urban' and 'rural' areas, Dr G. J. R. Linge of the Australian National University was commissioned by the Commonwealth Statistician to make a report.

At the 27th Conference of Statisticians in 1965, the following resolutions relating to the delimitation of urban areas based substantially on Dr Linge's report were passed:

- (i) (a) That the concept of an *inner* and *outer* boundary around each of the state capitals and other cities with an urban population of at least 75,000 and a regional population of at least 100,000 be adopted; and
- (b) that the inner boundary be drawn to delimit the extent of urban development at each Census and it should, therefore be a moving boundary to be adjusted after each Census, except that any state may extend the inner boundary during intercensal years to encompass significant and well-defined peripheral population growth; and
- (c) that the outer boundary be designed to contain the anticipated urban development of a city for a period of at least 20 to 30 years.
- (ii) (a) That an urban boundary be defined as soon as possible for all other settlements with a population of 1,000 or more; and
- (b) that state, statistical division, local government area, and other boundaries be ignored in delimiting these urban areas.
- (iii) That urban boundaries be defined so as to include all contiguous census collector's districts which have a population density of 200 or more per square kilometre (subject to certain special rules).

Effect of Change in Tasmania

The resolution previously quoted as (i) affected only one centre in Tasmania since only the Hobart area has 'an urban population of at least 75,000 persons and a regional population of at least 100,000'. Resolutions (ii) and (iii) affected all other cities and towns, including Launceston. The concept of ringing the capital city with two statistical boundaries, an inner and an outer, was discussed in depth in the 1968 and 1969 *Year Books*. The following section broadly outlines the current situation in Tasmania.

Population Centred on Hobart

The Basic Criterion (1966 and 1971 Censuses)

The basic criterion adopted for the delimitation of urban boundaries was *population density* as applied to small areas. As urbanisation increases, the change from rural to urban uses is accompanied by increasing population density. Extensive field investigations have shown that areas at the fringe, which have largely lost their rural characteristics and are developing towards urbanisation, have densities varying over only a small range. The adoption of a specific density from within that range provided a criterion which adequately delimits urban boundaries, and which can be applied objectively, uniformly, easily and without undue delay. *The criterion adopted was a density of 200 or more persons per square kilometre.* The geographic units classified according to the density criterion are census collectors' districts, the smallest units available. These areas vary in size and shape, but as far as possible they have been designed to ensure that significant urban development in large rural collectors' districts is split off as a separate collectors' district.

Rigid application of the 200-person density criterion in every case would have created non-urban enclaves in obviously urban areas, e.g. sports grounds, industrial sites, etc., so special rules had to be formulated. The special rules are set out in the 1968 *Year Book*.

The Two-Boundary Concept

For the purposes of presenting the results of the 1966 and 1971 Censuses, *two* boundaries around Hobart were drawn:

(i) a fixed *Outer Boundary (Hobart Statistical Division)* enclosing the area of expected urban growth during the next 20 to 30 years (broadly this comprises the cities of Hobart and Glenorchy, Clarence municipality and parts of Kingborough, New Norfolk, Brighton and Sorell municipalities); and

(ii) a flexible *Inner Boundary (Urban Hobart)* which moves outwards towards the Outer Boundary as urbanisation develops. This area in 1966 comprised the continuous area of urban development from Tarooma in the south to Granton in the north and the eastern shore suburbs from Risdon Vale southward to Tranmere (the area includes only contiguous *urban* portions of the cities of Hobart and Glenorchy and of the municipalities of Clarence and Kingborough). In 1971 Rokeby was added to the area.

A detailed account of the *Two-Boundary Concept* was included in the 1968 and 1969 *Year Books*.

The Hobart Statistical Division

The next table shows the population of the components of the Hobart Statistical Division at the Census of 1971, and also gives comparative figures from the Census of 1966.

Population of Hobart Statistical Division

Components	Census, 30 June 1966	Census, 30 June 1971			Intercensal increase	
	Persons	Males	Females	Persons	Persons	Per cent
Urban Hobart	119,469	64,011	65,917	129,928	10,459	8.75
Other urban centres—						
Urban New Norfolk ..	5,770	3,451	3,388	6,839	1,069	18.53
Urban Kingston ..	3,263	1,838	1,850	3,688	425	13.02
Urban Sorell-Midway Pt	1,652	1,013	1,016	2,029	377	22.82
Urban Lauderdale ..	916	666	663	1,329	413	45.09
Total other urban	11,601	6,968	6,917	13,885	2,284	19.69
Total urban	131,070	70,979	72,834	143,813	12,743	9.72
Rural	10,241	4,826	4,577	9,403	-838	-8.18
Total Hobart Statistical Division..	141,311	75,805	77,411	153,216	11,905	8.42

Population Centred on Launceston

Population of Launceston and Suburbs

In 1891 the Tasmanian Government Statistician first published figures for an area called *Launceston and Suburbs* which comprised Launceston City plus the urban areas of surrounding municipalities, a practice continued until 1966. In 1966, to coincide with the population census, the new terminology *Urban Launceston* was adopted in lieu of *Launceston and Suburbs*; however, at the time of this change, the *Urban Launceston* boundary differed very little from that of the former *Launceston and Suburbs*.

Urban Launceston's population at 30 June was: 1961 Census, 56,465 persons; 1966 Census 60,456; 1971 Census, 62,241; 1972 estimated, 62,250; 1973 estimated, 62,730.

Urban and Rural Population of Tasmania

The next table has been compiled to show a dissection of each local government area into urban and rural components; *Urban Hobart* and *Urban Launceston* are specified separately but it should be noted that these two areas are identical in statistical concept with other urban localities.

The localities classified as urban had to have populations exceeding 1,000 persons and a population density of 200 or more per square kilometre but special rules applied to holiday resorts where housing density was taken into account. The urban-rural dissection for Tasmania follows:

Population in Local Government Areas Classified as Urban and Rural at Census, 30 June 1971

Local government area (statistical division and sub-division in bold type)	Total	Rural	Urban Hobart	Urban Launceston	Other urban (a)
Hobart (H)	52,426	685	51,741	..	..
Glenorchy (H)	42,651	985	41,666	..	..
Clarence (H)	37,104	2,112	33,663	..	1,329
Brighton (H) (S)	2,333	2,333	..	..	..
Kingborough (H) (S)	10,815	4,269	2,858	..	3,688
New Norfolk (H) (S)	10,613	3,774	..	..	6,839
Sorell (H) (S)	3,636	1,607	..	..	2,029
Bothwell (S)	813	813	..	..	..
Bruny (S)	311	311	..	..	..
Esperance (S)	3,508	3,508	..	..	..
Glamorgan (S)	1,120	1,120	..	..	..
Green Ponds (S)	881	881	..	..	..
Hamilton (S)	4,060	4,060	..	..	..
Huon (S)	4,756	4,756	..	..	..
Oatlands (S)	2,132	2,132	..	..	..
Port Cygnet (S)	2,070	2,070	..	..	..
Richmond (S)	1,579	1,579	..	..	..
Spring Bay (S)	1,413	1,413	..	..	..
Tasman (S)	1,035	1,035	..	..	..
HOBERT (b)	153,216	9,403	129,928	..	13,885
SOUTHERN (b)	30,040	30,040	..	..	..
Launceston	35,107	..	..	35,107	..
Beaconsfield	10,970	5,312	..	4,789	869
Deloraine	4,807	2,995	..	..	1,812
Evandale	1,462	1,403	..	59	..
George Town	6,029	1,191	..	..	4,838
Lilydale	8,308	2,229	..	6,079	..
Longford	5,145	2,320	..	..	2,825
St Leonards	16,093	911	..	15,182	..
Westbury	4,863	3,838	..	1,025	..
Tamar	92,784	20,199	..	62,241	10,344

Population in Local Government Areas Classified as Urban and Rural at Census, 30 June 1971—*continued*

Local government area (statistical division and sub-division in bold type)	Total	Rural	Urban Hobart	Urban Launceston	Other urban (a)
Campbell Town	1,641	1,641	..	..	..
Fingal	3,441	3,441	..	..	..
Flinders	968	968	..	..	..
Portland	1,497	1,497	..	..	..
Ringarooma	2,474	2,474	..	..	..
Ross	541	541	..	..	..
Scottsdale	3,615	1,800	..	..	1,815
North Eastern	14,177	12,362	..	..	1,815
NORTHERN	106,961	32,561	..	62,241	12,159
Burnie	19,954	2,635	..	..	17,319
Circular Head	7,981	4,773	..	..	3,208
Devonport	19,802	1,619	..	..	18,183
Kentish	5,325	5,325	..	..	..
King Island	2,793	2,793	..	..	..
Latrobe	5,115	2,651	..	..	2,464
Penguin	4,791	2,497	..	..	2,294
Ulverstone	11,052	3,043	..	..	8,009
Wynyard	10,600	3,826	..	..	6,774
North Western	87,413	29,162	..	..	58,251
Gormanston	489	489	..	..	..
Queenstown	5,123	98	..	..	5,025
Strahan	447	447	..	..	..
Waratah	1,940	774	..	..	1,166
Zeehan	4,369	518	..	..	3,851
Western	12,368	2,326	..	..	10,042
MERSEY-LYELL	99,781	31,488	..	..	68,293
Migratory	415	..	..	..	..
TASMANIA	390,413	103,492	129,928	62,241	94,337

- (a) Details of 'Other urban' localities and of Urban Hobart and Urban Launceston are given in the next section.
 (b) Symbols above indicate the statistical division in which the local government area is located: (H) = Hobart Division; (S) = Southern Division; (H)(S) = part of municipality in Hobart Division and remainder in Southern Division.

Details of Urban Localities

The next table shows localities classified as urban (but excludes Urban Hobart and Urban Launceston):

Populations in Localities Classified as Urban (Excluding Urban Hobart and Urban Launceston) at Census, 30 June 1971

Locality classified as urban (a)	Local government area (b)	Persons in urban locality	Locality classified as urban (a)	Local government area (b)	Persons in urban locality
Beauty Point (c) ..	Beaconsfield ..	869	Penguin	Penguin	2,294
Burnie-Somerset ..	Burnie	17,319	Perth	Longford	1,112
Burnie-Somerset ..	Wynyard	2,768	Queenstown ..	Queenstown ..	5,025
Deloraine	Deloraine	1,812	Rosebery	Zeehan	2,380
Devonport	Devonport	18,183	Savage River ..	Waratah	1,166
George Town	George Town ..	4,838	Scottsdale	Scottsdale	1,815
Kingston	Kingborough ..	3,688	Smithton	Circular Head ..	3,208
Latrobe	Latrobe	2,464	Sorell-Midway Pt	Sorell	2,029
Lauderdale	Clarence	1,329	Ulverstone	Ulverstone	8,009
Longford	Longford	1,713	Wynyard	Wynyard	4,006
New Norfolk	New Norfolk	6,839	Zeehan	Zeehan	1,471

- (a) Population exceeding 1,000 persons and with a population density of 200 or more per square kilometre.
 (b) See previous table for total population of local government areas.
 (c) Defined as urban under special rules relating to holiday resort areas.

An analysis of the Hobart Statistical Division according to its urban and rural areas follows:

Population of the Hobart Statistical Division at Census, 30 June 1971

Local government area	Total	Rural	Urban Hobart	Other urban	Locality classified as other urban
Hobart	52,426	685	51,741	..	..
Glenorchy	42,651	985	41,666	..	..
Clarence	37,104	2,112	33,663	1,329	Lauderdale
Brighton (part)	1,336	1,336	..	..	..
Sorell (part)	2,575	546	..	2,029	Sorell-Midway Point
Kingborough (part)	9,781	3,235	2,858	..	Kingston
New Norfolk (part)	7,343	504	..	6,839	New Norfolk
Total Hobart Division	153,216	9,403	129,928	13,885	..

A similar analysis of Launceston and the local government areas enclosing it appears below:

Population of Launceston and Surrounding Local Government Areas at Census, 30 June 1971

Local government area	Total	Rural	Urban Launceston	Other urban	Locality classified as other urban
Launceston	35,107	..	35,107	..	..
Beaconsfield	10,970	5,312	4,789	869	Beauty Point (a)
Evandale	1,462	1,403	59	..	..
Lilydale	8,308	2,229	6,079	..	..
St Leonards	16,093	911	15,182	..	..
Westbury	4,863	3,838	1,025	..	..
Total	(b)	(b)	(b) 62,241	(b)	..

(a) Defined as *urban* under the special rules relating to *holiday resort areas*.

(b) Included as part of Tamar Statistical Sub-division.

Australian Comparison

The next table compares the proportions of urban and rural population of the Australian states at the Census of 30 June 1971. (In the table, Urban Launceston is included with 'Other urban'.)

Proportion of Urban and Rural Population, Australian States and Territories at Census, 30 June 1971 (Per Cent)

Classification	Proportion of total population of state or territory								
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Urban—									
Capital city	59.20	68.33	44.80	69.02	62.26	33.29	41.26	98.00	60.32
Other	29.35	19.39	34.56	15.59	19.11	40.11	23.16	..	25.23
Rural	11.32	12.22	20.43	15.24	18.37	26.49	35.21	2.00	14.32
Migratory	0.13	0.06	0.21	0.15	0.26	0.11	0.37	..	0.13
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Tasmania's proportion of population in the 'capital city' urban area is less than for any other state. This is explained by the fact that Tasmania has a second major urban centre, Launceston, in the north.

CHARACTERISTICS OF THE POPULATION

Age Distribution

In addition to giving the number of the State's population, the Census of 30 June 1971 provided a variety of data on characteristics of that population.

The table which follows shows the age distribution at 30 June 1971 and changes since 1966:

Age Distribution of the Population at Census, 30 June 1971

Age last birthday (years)	Males	Females	Persons				
			Total	Proportion of total	Intercensal increase (a)		
					Number	Per cent (b)	
0-4	20,103	19,222	39,325	per cent 10.07	-781	-1.95	
5-9	20,667	19,688	40,355	10.34	-1,332	-3.20	
10-14	21,318	20,325	41,643	10.67	3,272	8.53	
15-19	18,179	17,697	35,876	9.19	991	2.84	
20-24	16,059	15,708	31,767	8.14	6,106	23.79	
25-29	13,515	12,865	26,380	6.76	3,096	13.30	
30-34	11,950	11,364	23,314	5.97	2,154	10.18	
35-39	10,947	10,478	21,425	5.49	-1,544	-6.72	
40-44	11,752	10,939	22,691	5.81	-834	-3.55	
45-49	11,761	11,295	23,056	5.91	2,072	9.87	
50-54	10,089	9,896	19,985	5.12	-113	-0.56	
55-59	9,388	9,126	18,514	4.74	1,968	11.89	
60-64	7,429	7,616	15,045	3.85	1,961	14.99	
65-69	5,483	5,774	11,257	2.88	882	8.50	
70-74	3,638	4,825	8,463	2.17	430	5.35	
75-79	2,215	3,565	5,780	1.48	-64	-1.10	
80-84	1,299	2,259	3,558	0.91	448	14.41	
85-89	503	990	1,493	0.38	207	16.10	
90-94	129	280	409	0.10	58	16.52	
95-99	16	56	72	0.02	4	5.88	
100 and over	2	3	5	..	-3	-37.50	
Total	196,442	193,971	390,413	100.00	18,978	5.11	

(a) Increase 1966-1971; decrease indicated by a minus (-) sign.

(b) Increase (or decrease) expressed as a percentage of each age group total recorded in 1966.

An analysis of the change in the composition of the major age groups follows:

Age Distribution of Major Age Groups, 1966 and 1971

Particulars	Age group (years)			Total
	Under 18	18-64	65 and over	
Males—				
30 June 1966 no.	72,021	103,006	12,363	187,390
30 June 1971 no.	73,343	109,814	13,285	196,442
Percentage increase (1966-1971) %	1.84	6.61	7.46	4.83
Females—				
30 June 1966 no.	69,220	98,113	16,712	184,045
30 June 1971 no.	70,393	105,826	17,752	193,971
Percentage increase (1966-1971) %	1.69	7.86	6.22	5.39

Marital Status

The next table compares the marital status of the population at the Censuses of 1966 and 1971:

Marital Status of the Population

Particulars	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of total			Total	Proportion of total
		per cent				per cent
Never married—						
Under 15 years of age	120,164	32.35	62,088	59,235	121,323	31.08
15 years and over ..	64,365	17.33	37,768	27,445	65,213	16.70
Total	184,529	49.68	99,856	86,680	186,536	47.78
Married	163,131	43.92	88,698	88,359	177,057	45.35
Married but permanently separated	4,290	1.15	2,314	2,484	4,798	1.23
Divorced	2,526	0.68	1,678	1,723	3,401	0.87
Widowed	16,959	4.57	3,896	14,725	18,621	4.77
Total	371,435	100.00	196,442	193,971	390,413	100.00

Birthplaces of the Population

The following table is of particular interest in view of the Australian Government's post-war policy of actively encouraging migration from Europe. It shows birthplaces of the population at the Census of 1971 and at the previous Census of 1966:

Birthplaces of the Population

Birthplace	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of total			Total	Proportion of total
		per cent				per cent
Australia and territories ..	335,672	90.37	174,629	175,648	350,277	89.72
New Zealand	1,237	0.33	806	744	1,550	0.40
United Kingdom and Eire	19,101	5.14	11,480	11,033	22,513	5.77
Germany	2,016	0.54	1,109	900	2,009	0.51
Greece	755	0.20	520	391	911	0.23
Italy	1,448	0.39	928	557	1,485	0.38
Netherlands	3,367	0.91	1,709	1,474	3,183	0.82
Poland	1,567	0.42	964	492	1,456	0.37
Yugoslavia	821	0.22	739	281	1,020	0.26
Other European countries	2,890	0.78	1,764	1,033	2,797	0.72
Total Europe	31,965	8.61	19,213	16,161	35,374	9.06
Other birthplaces	2,561	0.69	1,794	1,418	3,212	0.82
Total	371,435	100.00	196,442	193,971	390,413	100.00

The analysis of the birthplaces of the population at 30 June 1971 can be viewed broadly as a measure of the degree to which migration from overseas has contributed to population growth over a long period.

The next table contrasts the position in the various states and territories at 30 June 1971:

Australia: Birthplaces of the Population at Census, 30 June 1971
Proportion of Population of State or Territory According to Birthplace
(Per Cent)

Birthplace	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Australia and territories	81.06	77.95	87.85	76.54	73.43	89.72	80.64	74.76	80.33
New Zealand	0.79	0.46	0.77	0.25	0.58	0.40	1.29	0.86	0.62
United Kingdom and Eire	7.45	7.75	6.45	11.97	14.29	5.77	6.63	9.94	8.33
Other European countries	8.01	11.60	3.57	9.97	8.46	3.29	7.58	11.47	8.47
Other	2.69	2.24	1.36	1.28	3.23	0.82	3.85	2.97	2.25
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

It will be observed that the Tasmanian pattern differs significantly from that of the other states and territories, except Queensland.

The following table shows particulars for Tasmania and Australia of the period of residence in Australia of persons born outside Australia:

Period of Residence in Australia of Persons Born Outside Australia at Census, 30 June 1971

Period of residence (years)	Tasmania		Australia	
	Persons		Persons	
	Total	Proportion of total	Total	Proportion of total
Born outside Australia—		per cent		per cent
Under 1 year	2,371	0.61	185,377	1.45
1 and under 2	2,134	0.55	165,599	1.30
2 and under 3	2,027	0.52	141,619	1.11
3 and under 4	1,587	0.41	103,369	0.81
4 and under 5	1,547	0.40	99,941	0.78
5 and under 10	5,609	1.44	401,636	3.15
10 years and over	23,737	6.08	1,313,138	10.29
Not stated	1,251	0.32	168,639	1.32
Total born outside Australia	40,263	10.31	2,579,318	20.22
Born in Australia	350,150	89.69	10,176,320	79.78
Total	390,413	100.00	12,755,638	100.00

During the intercensal period 1966-1971, the number of persons born outside Australia in the Tasmanian and Australian populations increased by 12.3 per cent and 21.0 per cent respectively. This can be related to the Australian Government's policy of encouraging migration.

The previous table shows that this policy has had less effect upon the Tasmanian population than upon the Australian population.

Nationality of the Population

It should be noted that the federal *Nationality and Citizenship Act* 1948 created, for the first time, the status of 'Australian Citizen'; all Australian citizens under the provisions of this Act are declared to be British subjects. From the earlier table on birthplaces of the Tasmanian population, it is established that 95.84 per cent were born in Australia and its territories, N.Z., the United Kingdom or Eire. While birthplace does not necessarily determine nationality in all cases, comparison of birthplace with nationality suggests that the percentage of naturalised British subjects was probably about three per cent of the Tasmanian population at 30 June 1971.

The following table shows the nationality of the Tasmanian population at 30 June 1971 and also at 30 June 1966:

Nationality (i.e. Allegiance) of the Population

Nationality	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of total			Total	Proportion of total
		per cent				per cent
Australian citizens and other British subjects (a)—						
Born in Australia	335,582	90.35	174,560	175,590	350,150	89.69
Born outside Australia	30,140	8.11	18,309	15,838	34,147	8.75
Total	365,722	98.46	192,869	191,428	384,297	98.43
Foreign—						
Dutch	1,265	0.34	432	397	829	0.21
German	792	0.21	307	223	530	0.14
Greek	556	0.15	279	259	538	0.14
Italian	913	0.25	464	315	779	0.20
Polish	417	0.11	125	93	218	0.06
U.S. American	221	0.06	169	112	281	0.07
Yugoslavian	378	0.10	265	98	363	0.09
Other (incl. stateless)	1,171	0.32	1,532	1,046	2,578	0.66
Total foreign	5,713	1.54	3,573	2,543	6,116	1.57
Total	371,435	100.00	196,442	193,971	390,413	100.00

(a) All persons of individual citizenship status who, by virtue of the federal *Nationality and Citizenship Act 1948-1966*, are deemed to be British subjects. Includes naturalised British. For purposes of this table, Irish nationality is included with British.

Occupational Status

The table below shows the occupational status of persons in the labour force at the respective census dates (30 June 1966 and 1971):

Occupational Status: Analysis of Those in Labour Force

Occupational status	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of labour force			Total	Proportion of labour force
		per cent				per cent
In labour force—						
Employed—						
Employer	10,004	6.79	6,841	1,727	8,568	5.59
Self-employed	10,806	7.33	8,442	1,892	10,334	6.74
Employee (a)	123,023	83.51	90,627	39,649	130,276	85.00
Unpaid helper (b)	1,372	0.93	277	760	1,037	0.68
Total	145,205	98.56	106,187	44,028	150,215	98.01
Unemployed	2,117	1.44	1,786	1,261	3,047	1.99
Total labour force	147,322	100.00	107,973	45,289	153,262	100.00
Not in labour force	224,113	..	88,469	148,682	237,151	..
Total	371,435	..	196,442	193,971	390,413	..

(a) On wage or salary.

(b) Not on wage or salary.

The following table shows the status of persons not in the labour force in the 1966 and 1971 Censuses:

Occupational Status of Those Not in Labour Force

Occupational status	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of those not in labour force			Total	Proportion of those not in labour force
		per cent				per cent
Not in labour force—						
Home duties	61,113	27.27		75,568	75,568	31.86
Child not at school ..	44,018	19.64	21,358	20,508	41,866	17.65
Child at school	86,428	38.56	45,665	43,121	88,786	37.44
Full-time student			2,757	2,503	5,260	2.22
Other	32,554	14.53	18,689	6,982	25,671	10.82
Total not in labour force	224,113	100.00	88,469	148,682	237,151	100.00
In labour force	147,322	..	107,973	45,289	153,262	..
Total	371,435	..	196,442	193,971	390,413	..

In the next table, the proportions of the population in the labour force in Tasmania and Australia at the respective census dates are shown:

**Tasmania and Australia: Proportion of Population in Labour Force
(Per Cent)**

Particulars	Census, 30 June 1966			Census, 30 June 1971		
	Males	Females	Persons	Males	Females	Persons
Tasmania	56.86	22.15	39.66	54.96	23.35	39.26
Australia	58.83	25.02	42.05	56.76	26.66	41.79

Industry

For the Census of 30 June 1971 a new industry classification was adopted; therefore the 1966 and 1971 classifications of the population by industry are not strictly comparable. The following principal comparisons should be regarded as approximate only: manufacturing—1971, 20.57 per cent of the labour force (1966, 23.05 per cent); wholesale and retail trade—1971, 17.69 (1966, 15.59); community services—1971, 11.59 (1966, 11.87); agriculture, forestry, fishing and hunting—1971, 8.99 (1966, 11.69); and construction—1971, 8.43 (1966, 9.70).

In the case of employees, the basis of classification is the industry of the employer; thus a carpenter employed by a mining company will appear under 'Mining', not under 'Construction'. Employees in the government sector (Australian, state, semi-government and local government) are not recorded separately but are allocated to appropriate industry groupings, e.g. state railway workers to 'Transport and storage', postal workers to 'Communication', etc. Government employees not classified under any of the major industry groups in the following table appear under 'Public administration and defence'.

'Labour force' should not be confused with wage and salary earners since the term, by definition, includes employees, employers, self-employed, unpaid helpers and those classified as unemployed.

The next table shows the main groups of industry in which the labour force of Tasmania was employed at 30 June 1971:

Industry of Employed Population in Labour Force: Census, 30 June 1971

Particulars	Males	Females	Persons	
			Total	Proportion of total in labour force
				per cent
Industry group—				
Agriculture, forestry, fishing and hunting—				
Agriculture and services to agriculture ..	10,469	1,616	12,085	7.89
Forestry and logging	1,095	41	1,136	0.74
Fishing and hunting	530	21	551	0.36
Total	12,094	1,678	13,772	8.99
Mining	4,375	204	4,579	2.99
Manufacturing	25,313	6,219	31,532	20.57
Electricity, gas and water	3,389	293	3,682	2.40
Construction	12,502	415	12,917	8.43
Wholesale and retail trade	16,522	10,594	27,116	17.69
Transport and storage	6,919	676	7,595	4.96
Communication	2,443	794	3,237	2.11
Finance, insurance, real estate and business services	4,537	3,285	7,822	5.10
Public administration and defence	4,987	2,223	7,210	4.70
Community services	6,516	11,244	17,760	11.59
Entertainment, recreation, restaurants, hotels and personal services	2,904	4,713	7,617	4.97
Other and not stated	3,686	1,690	5,376	3.51
Total employed	106,187	44,028	150,215	98.01
Unemployed	1,786	1,261	3,047	1.99
Total in labour force	107,973	45,289	153,262	100.00
Not in labour force	88,469	148,682	237,151	..
Total	196,442	193,971	390,413	..

For Australia, the principal industry groups in which the labour force was employed were: manufacturing, 22.8 per cent of those in the labour force; wholesale and retail trade, 18.5 per cent; community services, 10.6 per cent; construction, 7.3 per cent; and agriculture, forestry, fishing and hunting, 7.2 per cent.

Religion

Commencing with the Census of 1933, and in subsequent censuses, the collection forms carried a note reminding the public that there was no legal obligation to answer the question on religion.

At the 1966 Census the householder was asked to state his religious denomination; however, for the 1971 Census an additional instruction was included in the religion question—'(If no religion write 'none')'. This led to a large increase in the number of persons answering 'none' to the religious question, whereas previously these householders had made no reply to the question. Therefore in the following table, the classifications 'no religion' and 'no reply' are not comparable between censuses, but the total of the two classifications is comparable.

The following table analyses the Tasmanian population according to religion reported at the Censuses of 1966 and 1971:

Religions of the Population

Religion	Census, 30 June 1966		Census, 30 June 1971			
	Persons		Males	Females	Persons	
	Total	Proportion of total			Total	Proportion of total
		per cent				per cent
Christian—						
Baptist	7,759	2.09	3,867	4,172	8,039	2.06
Brethren	3,062	0.82	1,906	2,023	3,929	1.01
Catholic	71,089	19.14	38,761	38,489	77,250	19.79
Churches of Christ	2,701	0.73	1,165	1,335	2,500	0.64
Church of England	166,023	44.70	83,776	85,313	169,089	43.31
Congregational	4,530	1.22	1,937	2,197	4,134	1.06
Greek Orthodox	1,514	0.41	1,096	822	1,918	0.49
Lutheran	1,742	0.47	966	871	1,837	0.47
Methodist	43,084	11.60	20,412	21,761	42,173	10.80
Presbyterian	17,498	4.71	8,459	8,822	17,281	4.43
Salvation Army	1,497	0.40	1,508	1,668	3,176	0.81
Seventh-day Adventist	1,924	0.52	665	895	1,560	0.40
Protestant undefined	2,661	0.72	2,119	2,124	4,243	1.09
Other	5,243	1.41	3,582	3,684	7,266	1.86
Total christian	330,327	88.93	170,219	174,176	344,395	88.21
Non-christian—						
Hebrew	207	0.06	54	44	98	0.03
Other	278	0.07	321	142	463	0.12
Total non-christian	485	0.13	375	186	561	0.14
Indefinite	2,275	0.61	529	464	993	0.25
No religion (a)	2,020	0.54	12,229	7,992	20,221	5.18
No reply (a)	36,328	9.78	13,090	11,153	24,243	6.21
Total	371,435	100.00	196,442	193,971	390,413	100.00

(a) See section preceding the table for an explanation of the lack of comparability between the 1966 and 1971 figures.

VITAL STATISTICS

Historical

In 1839, John Montagu, Colonial Secretary of Van Diemen's Land, submitted to the Governor, Sir John Franklin, a series of statistical returns; below is shown part of Return No. 17 relating to births, deaths and marriages:

Vital Statistics of Van Diemen's Land

Year	Births	Deaths	Marriages
1824	177	132	75
1828	309	250	120
1829	301	260	166
1830	460	270	163
1831	422	282	114
1833	455	379	257
1834	714	557	370
1835	730	525	356
1836	684	443	496
1837	754	597	381
1838	717	403	331

The complete table covers the period 1824-1838 but entries for 1825, 1826, 1827 and 1832 read 'No Returns'. In a commentary for the Governor's guidance, Montagu wrote: 'I would also observe that the number of births and deaths are those only returned by ministers of the Church of England, and the former column refers to those only who have been christened, and although the number of deaths must be near the truth, yet the actual number of births has been very much under-stated'. Thus even though the Tasmanian record of births, deaths and marriages covers a period of 140 years, these early figures cannot be accepted as complete.

Registration Provisions

Franklin's Legislative Council had passed in 1838 *An Act for Registering Births, Deaths and Marriages in the Island of Van Diemen's Land and its Dependencies*. This provided for a Registrar in Hobart with subordinate Deputy Registrars in registration districts throughout the colony; they were to record births and deaths and report them to the Registrar. Ministers celebrating marriage were required to report direct to the Registrar; Deputy Registrars could also officiate and had certain licensing functions. As late as 1867, the Government Statistician complained that accurate death rates could not be compiled because Section 22 of the 1838 Act excluded the registration of the death of any prisoner of the Crown serving an unexpired sentence of transportation. In 1868, he reported that the death rate could be accepted as correct since 'only one transported offender died during the year'. This would certainly suggest that *total* deaths for the island were not recorded for the years 1839 to 1866.

From 1857 to 1882, the Registrar of the Supreme Court was also Registrar of Births, Deaths and Marriages; from 1882 to 1919, the Government Statistician was the Registrar; from 1919, the Registrar-General's Department operated as a separate entity.

The Registrar-General

The principal Act under which the Registrar-General operates is the *Registration of Births and Deaths Act 1895*, as amended, which provides for District Registrars and the appointment of a Registrar-General to be responsible for the maintenance of central registers; in essence, the regional approach of the 1838 Act is retained. The functions of the Registrar-General in relation to the registration of marriages were last defined in the *Marriage Act 1942*. However, in 1961, the Australian Parliament passed the *Marriage Act 1961*. A few minor provisions (relating mainly to certain extensions of the application of the prohibited degrees) came into operation on the date the Act received the Royal Assent (6 May 1961) and the remainder of the Act came into operation on 1 September 1963. On this date, the Act superseded the marriage laws of all the states but did not affect the essential function of the Registrar-General in the central registration of marriages.

Summary of Principal Statistics

The principal numbers and rates relating to vital statistics in Tasmania for recent years are given in the following table:

Summary of Vital Statistics

Year	Number of—				Rate per 1,000 of mean population			Infant mortality (deaths under one year per 1,000 live births)
	Marriages	Live births	Deaths	Infant deaths (a)	Marriages	Live births	Deaths	
1968	3,426	8,317	3,284	143	9.02	21.89	8.64	17.2
1969	3,532	8,445	3,309	139	9.17	21.93	8.59	16.5
1970	3,535	8,185	3,174	116	9.11	21.09	8.18	14.2
1971	3,578	8,321	3,295	114	9.15	21.27	8.42	13.7
1972	3,426	7,824	3,227	127	8.71	19.90	8.21	16.2
1973	3,395	7,326	3,347	137	8.55	18.46	8.43	18.7

(a) Deaths under one year; included also in total deaths.

Crude Rate Comparisons

The rates per 1,000 of mean population for births, deaths and marriages are referred to as *crude rates*. It will be seen, in regard to marriages, that not *all* the population is 'at risk', children and those already married being obvious excluded examples. Similarly, births are clearly events related to certain fertile age groups of women and not to the total population; births also are directly related to the number of married persons and to the age structure of the married proportion of the community. Finally, deaths have a definite relationship with the numbers of each sex and the age structure of the community. Crude rates are valid measures of comparison in the short term only.

Subject to this limitation, the following Tasmanian historical comparisons exist as from 1880:

1. Crude marriage rate: highest 10.51 (1946); lowest 5.50 (1859 and 1896).
2. Crude birth rate: highest 36.63 (1884); lowest 18.46 (1973).
3. Crude death rate: highest 17.41 (1883); lowest 7.70 (1960).

It is probably significant that 1946 was the year of rapid demobilisation after World War II and that a similar marriage trend was recorded for 1919 and 1920 after World War I. The crude birth rate for 1973 (18.46 per 1,000 of mean population) is the lowest recorded. (The previous lowest recorded crude birth rate was 19.39 in 1935.) The popularly accepted theory attributes the low figure to deliberate family planning. This is supported by the fact that, although girls born in the immediate post-war period have now entered the ranks of those likely to marry and have therefore increased the number of potentially fertile women, the fertility rate is declining (as described in a later section under 'Births').

The effect of the post-war increase in births on the number of potentially fertile women may be inferred from the following table:

Pre-War, War-Time and Post-War Female Births

Year	Number	Year	Number	Year	Number
Pre-war—		War-time—		Post-war—	
1934	2,127	1940	2,425	1946	3,287
1935	2,211	1941	2,574	1947	3,517
1936	2,226	1942	2,612	1948	3,452
1937	2,359	1943	2,677	1949	3,532
1938	2,366	1944	2,503	1950	3,490
1939	2,409	1945	2,882	1951	3,553
				1952	3,790
				1953	3,843

Review of Infant Mortality

Infant mortality relates to the number of deaths *under one year* and the rate is expressed as the number of such deaths per 1,000 live births. It follows that comparisons over long periods of time are valid and not affected by the limitations attached to crude rates. In the following record of infant mortality, the drop in rates has been dramatic with the 1971 rate (13.7) being the lowest yet experienced.

Infant Mortality Rate (Deaths under One Year Per 1,000 Live Births) Selected Years from 1880

Year	Rate	Year	Rate	Year	Rate
1880	112.3	1920.. ..	65.5	1960.. ..	19.1
1890	105.6	1930.. ..	50.6	1970.. ..	14.2
1900	80.0	1940.. ..	35.2	1972.. ..	16.2
1910	101.7	1950.. ..	23.8	1973.. ..	18.7

The peak year since 1880 was 1883 with a rate of 124.0. In the period 1880-1910, the annual infant mortality rate exceeded 100 on 14 occasions. There has been a steady improvement in infant mortality rates over the past 50 years. The rate for the period 1916-1920 was 64, for the year 1961, 16.8, and in 1971 a record minimum of 13.7 was achieved.

At the turn of the century, 20 to 25 per cent of all deaths were those of infants under one year. The rapid fall in infant mortality rates had a marked effect on the crude death rates as infant deaths are a component of total deaths. Infant mortality has fallen largely due to advances in medical science enabling the control of disease and the development of techniques to reduce perinatal deaths; improvements in child care and nutrition also have made a significant contribution.

Marriages

The following table summarises the number of marriages and the crude marriage rate since 1880:

Marriages and Crude Marriage Rates, Selected Years from 1880

Year	Marriages		Year	Marriages	
	Number	Crude rates (a)		Number	Crude rates (a)
1880	840	7.39	1940.. ..	2,476	10.27
1890	954	6.66	1950.. ..	2,560	9.18
1900	1,332	7.72	1960.. ..	2,713	7.82
1910	1,493	7.82	1970.. ..	3,535	9.11
1920	1,999	9.50	1972.. ..	3,426	8.71
1930	1,450	6.56	1973.. ..	3,395	8.55

(a) Number of marriages per 1,000 of mean population.

The number of persons under 21 years of age married in recent years is shown in the next table:

Marriages: Persons Under 21 Years of Age

Year	Age in years						Persons under 21 years	
	15	16	17	18	19	20	Number	Percentage of all marriages
BRIDEGROOMS								
1969	5	130	214	309	658	18.63
1970	6	160	235	348	749	21.19
1971	1	8	111	244	362	726	20.29
1972	1	8	127	235	336	707	20.64
1973	4	111	218	375	708	20.85

Marriages: Persons Under 21 Years of Age—*continued*

Year	Age in years						Persons under 21 years		
	15	16	17	18	19	20	Number	Percentage of all marriages	
BRIDES									
1969	2	96	236	396	521	517	1,768	50.06	
1970	2	111	269	425	541	505	1,853	52.42	
1971	2	120	247	437	557	534	1,897	53.02	
1972	8	131	247	432	490	503	1,811	52.86	
1973	4	93	225	445	532	515	1,814	53.43	

The following table gives the average age of brides and bridegrooms in recent years:

**Average Age of Bridegrooms and Brides
(Years)**

Particulars	1968	1969	1970	1971	1972	1973
Average age of bridegrooms—						
Bachelors	24.06	24.10	23.85	24.01	23.98	23.96
Widowers	58.07	54.85	56.87	55.46	56.15	57.87
Divorcees	40.73	40.47	39.75	38.73	39.53	38.39
All bridegrooms	25.97	25.79	25.81	26.02	26.08	26.11
Average age of brides—						
Spinsters	21.36	21.36	21.38	21.24	21.16	21.21
Widows	50.47	48.23	49.03	48.59	50.18	49.90
Divorcees	37.35	37.27	35.47	35.66	35.95	35.46
All brides	23.12	23.03	22.96	23.14	23.23	23.26

The next table analyses the ages of all bridegrooms and brides contracting marriages:

Age of Bridegrooms and Brides, 1973

Age (years)	Bridegrooms		Brides	
	Number	Per cent of total	Number	Per cent of total
Under 20	333	9.80	1,299	38.26
20-24	1,902	56.02	1,481	43.62
25-29	628	18.49	277	8.16
30-34	190	5.59	94	2.77
35-39	96	2.83	51	1.50
40-44	54	1.59	48	1.41
45-49	51	1.50	52	1.53
50-54	43	1.30	36	1.06
55-59	29	0.85	15	0.44
60-64	27	0.79	17	0.50
65 and over	42	1.24	25	0.74
Total	3,395	100.00	3,395	100.00

In the next table, the conjugal condition of persons marrying is shown for a six-year period:

Conjugal Condition of Persons Marrying

Year	Bridegrooms			Brides			Total marriages
	Bachelors	Widowers	Divorcees	Spinsters	Widows	Divorcees	
1968 ..	3,138	99	189	3,126	118	182	3,426
1969 ..	3,252	96	184	3,234	103	195	3,532
1970 ..	3,202	95	238	3,236	101	198	3,535
1971 ..	3,214	109	255	3,224	129	225	3,578
1972 ..	3,072	102	252	3,063	120	243	3,426
1973 ..	3,028	102	265	3,025	118	252	3,395

The numbers of marriages performed according to the rites of the principal religious denominations and of civil marriages contracted before registrars are shown for recent years in the next table. Almost 12 per cent of all marriages in 1968 were civil marriages contracted before registrars. In 1973 the figure reached 14.9 per cent of all marriages.

Marriages, Religious and Civil

Particulars of celebration	1968	1969	1970	1971	1972	1973
Religious rites—						
Church of England ..	1,433	1,483	1,431	1,359	1,332	1,265
Catholic	732	759	738	757	721	696
Presbyterian	144	148	160	150	161	148
Methodist	417	444	477	498	412	466
Congregational ..	39	52	45	43	47	53
Baptist	91	90	97	86	101	89
Churches of Christ ..	16	25	23	19	21	19
Salvation Army ..	32	25	23	17	26	35
Seventh-day Adventist	14	12	7	12	12	5
Other	83	80	90	112	92	112
Civil ceremonies (a) ..	425	414	444	525	501	507
Total	3,426	3,532	3,535	3,578	3,426	3,395

(a) Marriages contracted before registrars.

Divorce

Divorce in Tasmania was provided for under the *Matrimonial Causes Act* 1860, as amended. However, as from 1 February 1961, Australia came under a uniform divorce law, the *Matrimonial Causes Act* 1959 of the Australian Parliament having come into effect on that date.

In 1973 dissolutions of marriage represented 13.08 per cent of the number of marriages contracted for that year (444 dissolutions compared with 3,395 marriages). The increase in the number of dissolutions is illustrated in the historical table which follows:

Dissolutions of Marriage Granted (a): Summary from 1881

Decade ending—	Maximum in decade		Minimum in decade	
	Year	Number	Year	Number
1890	1886	6	1884	..
1900	1894	6	1896	3
1910	1909	13	1904	2
1920	1920	18	1916	2
1930	1928	55	1924	20
1940	1938	109	1937	30
1950	1949	266	1942	83
1960	1954	233	1958	176
1970	1970	426	1964	230

(a) Includes nullities of marriage and judicial separations.

The following table gives the number of petitions filed by husbands and wives respectively, and the number of dissolutions of marriage during the last six years. Every decree of dissolution of marriage is, in the first instance, a decree *nisi* and is normally made absolute after a period of three months.

Petitions Filed and Dissolutions Granted

Particulars	1968	1969	1970	1971	1972	1973
Petitions for dissolution (a) filed by—						
Husband	198	202	224	221	237	281
Wife	210	227	279	267	288	354
Total petitions	408	429	503	488	525	635
Dissolutions (a) granted on petition of—						
Husband	154	159	187	198	200	186
Wife	149	172	239	234	246	258
Total dissolutions	303	331	426	432	446	444

(a) Includes nullities of marriage and judicial separations.

The next table contains separate details of petitions filed for dissolutions and nullities:

Petitions Filed, 1973

Petition for	Petitioner		Total
	Husband	Wife	
Dissolution	281	353	634
Nullity .. .. .	..	1	1
Total	281	354	635

The table that follows analyses the grounds on which dissolutions were granted:

Dissolutions (a) Granted According to Grounds, 1973

Grounds	Petitioner		Total
	Husband	Wife	
Single ground—			
Desertion	80	92	172
Adultery	69	83	152
Separation	34	60	94
Cruelty .. .. .	..	9	9
Drunkenness	1	4	5
Other .. .. .	..	4	4
Dual grounds—			
Desertion and adultery	1	1	2
Desertion and separation	1	..	1
Cruelty and drunkenness .. ..	..	1	1
Other .. .. .	..	4	4
Total	186	258	444

(a) Includes nullities of marriage and judicial separations.

The more frequent grounds for the granting of dissolutions in recent years are shown in the next table:

Dissolutions (a) Granted According to Principal Grounds: Summary

Grounds	1968	1969	1970	1971	1972	1973
On petition of husband—						
Adultery	49	61	74	80	84	69
Desertion	59	74	72	76	76	80
Separation	32	17	34	39	30	34
Other	14	7	7	3	10	3
On petition of wife—						
Adultery	36	43	73	71	80	83
Desertion	54	70	74	74	88	92
Separation	37	38	59	59	45	60
Other	22	21	33	30	33	23
Total	303	331	426	432	446	444

(a) Includes nullities of marriage and judicial separations.

An analysis of the ages of the parties is made in the table below:

Dissolutions of Marriage 1973 (a): Ages of Parties at Time of Dissolution

Age of husband (years)	Age of wife (years)							Total husbands
	Under 20	20-29	30-39	40-49	50-59	60 and over	Not stated	
Under 20 .. ..	..	..	..	..	..	..	..	..
20-29	2	91	4	..	..	..	..	97
30-39 .. ..	..	50	82	2	..	..	1	135
40-49 .. ..	..	2	31	71	6	..	..	110
50-59 .. ..	..	..	2	27	26	1	..	56
60 and over ..	..	..	..	5	4	5	..	14
Not stated ..	..	2	1	..	..	..	29	32
Total wives	2	145	120	105	36	6	30	444

(a) Includes nullities of marriage and judicial separations.

The duration of marriage and issue are analysed below:

Dissolutions of Marriage, 1973 (a): Duration of Marriage and Issue

Duration of marriage (years)	Dissolutions of marriages with—						Total marriages dissolved	Total number of children (b)
	No children	1 child	2 children	3 children	4 children	5 or more children		
0- 4	24	16	4	..	..	..	44	24
5- 9	36	39	40	9	4	..	128	162
10-14	5	15	46	18	2	1	87	174
15-19	8	9	11	13	6	9	56	143
20-24	4	8	13	9	12	11	57	175
25-29	14	12	6	5	3	2	42	62
30-34	19	..	2	..	..	1	22	9
35-39	4	2	..	..	..	..	6	2
40-44	2	..	..	..	..	..	2	..
45 and over ..	..	..	..	..	..	..	..	..
Total	116	101	122	54	27	24	444	751

(a) Includes nullities of marriage and judicial separations.

(b) Under 21 years of age.

Births

The following table summarises births and crude birth rates from 1880:

Number of Births and Crude Birth Rates, Selected Years from 1880

Year	Births		Year	Births	
	Number	Per 1,000 of mean population		Number	Per 1,000 of mean population
1880	3,739	32.90	1930	4,785	21.66
1885	4,637	36.29	1935	4,456	19.39
1890	4,813	33.60	1940	4,994	20.71
1895	4,790	31.16	1945	5,785	23.27
1900	4,864	28.18	1950	7,242	25.96
1905	5,257	28.50	1955	8,089	25.63
1910	5,586	29.25	1960	8,853	25.52
1915	5,845	29.78	1965	7,535	20.48
1920	5,740	27.29	1970	8,185	21.09
1925	5,218	24.21	1973	7,326	18.46

The next table shows the number of births classified according to the age of mother and also crude birth rates for recent years:

Number of Births Classified According to Age of Mother, and Crude Birth Rates

Age group (years)	1969	1970	1971	1972	1973
10-14	1	6	9	4	7
15-19	1,201	1,175	1,153	1,176	1,101
20-24	3,259	3,127	3,277	2,871	2,677
25-29	2,346	2,328	2,364	2,382	2,322
30-34	1,037	999	1,013	939	836
35-39	464	420	374	359	291
40-44	125	120	120	86	87
45 and over	12	10	11	7	5
Total births	8,445	8,185	8,321	7,824	7,326
Crude birth rate (a) ..	21.93	21.09	21.27	19.90	18.46

(a) Births per 1,000 of mean population.

One observation of interest is that births of males, in total, usually exceed those of females. The next table shows births by sex and indicates masculinity:

Births by Sex and Masculinity

Particulars	1969	1970	1971	1972	1973
Births of—					
Males	4,337	4,232	4,205	3,935	3,744
Females	4,108	3,953	4,116	3,889	3,582
Total	8,445	8,185	8,321	7,824	7,326
Masculinity (a)	105.57	107.06	102.16	101.18	104.52

(a) Number of male births per 100 female births.

In the following table, births are analysed by sex and by the age of the mother and classified as nuptial or ex-nuptial:

Births by Sex, Age of Mother and Nuptial State, 1973

Age group (years)	Nuptial births		Ex-nuptial births		All births		
	Male	Female	Male	Female	Male	Female	Total
10-14 ..	..	..	4	3	4	3	7
15-19 ..	365	367	208	161	573	528	1,101
20-24 ..	1,242	1,245	98	92	1,340	1,337	2,677
25-29 ..	1,141	1,072	59	50	1,200	1,122	2,322
30-34 ..	414	384	18	20	432	404	836
35-39 ..	146	120	8	17	154	137	291
40-44 ..	37	46	3	1	40	47	87
45 and over	1	3	..	1	1	4	5
Total ..	3,346	3,237	398	345	3,744	3,582	7,326

The table that follows summarises, for a six-year period, births according to whether the child was first-born or the issue of a subsequent birth:

Births of First Born and Subsequent Births; Nuptial State of Mothers

Classification of births	1968	1969	1970	1971	1972	1973
Nuptial—						
First born (a)	2,721	2,731	2,641	2,691	2,544	2,358
Subsequent birth	4,939	5,067	4,894	4,908	4,585	4,225
Ex-nuptial	657	647	650	722	695	743
Total births	8,317	8,445	8,185	8,321	7,824	7,326
Ex-nuptial births as percentage of total births ..	7.9	7.7	7.9	8.7	8.9	10.1

(a) In case of multiple births with no previous issue, first child born alive is recorded as 'First born' and subsequent child or children as 'Subsequent birth'.

It should be noted that 'First born' in the previous tables refers specifically to the union from which the child originates; thus a mother married for the second time could be credited with a 'First born' child despite having issue from the previous union.

Birth Rates

The *crude birth rate* is expressed as the number of births per 1,000 of mean population; this is obviously an unsatisfactory measure since births are events strictly related to the number of women in the fertile age groups. A more satisfactory index is the *fertility rate*, expressed as the number of births per 1,000 women aged 15-44 years. However, there are profound differences between the relative fertility of various age groups and a further refinement is the calculation of *age-specific birth rates*. The following table shows age-specific birth rates for each five-year age group of females from 10-49 years, the fertility rate applicable to all women in the age group 15-44 years and the crude birth rate. The table also illustrates two principal factors affecting the number of births in any one year: (i) the relative numbers of women within each fertile age group; and (ii) the relative fertility of the women in each age group.

Demography

Birth and Fertility Rates

Particulars	1968	1969	1970	1971	1972	1973
AGE SPECIFIC BIRTH RATES (a)						
Age group (years)—						
10-14	0.4	0.1	0.3	0.4	0.2	0.3
15-19	65.8	66.7	64.3	65.2	64.0	58.6
20-24	217.7	210.1	190.7	208.6	186.2	166.9
25-29	196.4	196.3	189.2	181.0	176.3	162.8
30-34	96.8	95.1	89.8	89.1	81.3	71.4
35-39	44.0	43.9	40.8	35.7	34.4	27.6
40-44	14.2	11.2	10.9	11.0	8.0	8.2
45-49	0.7	1.1	0.9	1.0	0.6	0.5
FERTILITY RATE (b)						
Fertility rate	109	108	103	105	98	96
CRUDE BIRTH RATE (c)						
Crude birth rate	21.9	21.9	21.1	21.3	19.9	18.5

(a) Number of births per 1,000 women in age groups shown.

(b) Number of births per 1,000 women aged 15-44 years.

(c) Number of births per 1,000 of mean population.

Infant Mortality

Infant mortality relates to children dying within one year of birth. The table that follows analyses such deaths in further detail and shows that the greatest mortality rate is associated with infants in their first day of life. To obtain a correct picture of relative risk, it should be noted that deaths in the 'one day and under one week' class are spread over six days; in the 'one week and under four weeks' class spread over 21 days; and in the final class, spread over 338 days.

Infant Mortality: Number of Deaths and Mortality Rates at Specific Ages

Year	Infant deaths		Mortality rate (a) at age specified			
	Number	Per 1,000 live births	Under 1 day	1 day and under 1 week	1 week and under 4 wks	4 weeks and under 12 months
1968	143	17.2	6	4	1	6
1969	139	16.5	5	4	2	6
1970	116	14.2	4	4	1	5
1971	114	13.7	3	4	1	6
1972	127	16.2	5	2	2	7
1973	137	18.7	6	4	1	7

(a) Infant deaths per 1,000 live births; rates have been rounded to whole numbers.

Infant Mortality (a): Tasmania-Australia Comparison

State/country	1968	1969	1970	1971	1972	1973
Tasmania	17.2	16.5	14.2	13.7	16.2	18.7
Australia	17.8	17.9	17.9	17.3	16.7	16.5

(a) Infant deaths per 1,000 live births.

Causes of Infant Deaths

The following table has been compiled on the basis of the Eighth Revision (1965) of the International Classification of Diseases (World Health Organisation).

Infant Mortality: Causes of Deaths Under One Year

Cause		1970	1971	1972	1973
009	Diarrhoeal diseases	1	3	2	1
036	Meningococcal infection .. .. .	..	2	1	1
000-008	Other general diseases (a)	2	3	..	4
010-035					
037-315					
320	Meningitis	1	..	1	..
321-389	Other diseases of the nervous system and sense organs	1	1	1	..
390-458	Diseases of the circulatory system .. .. .	..	..	1	1
460-466	Acute respiratory infection (except influenza)	3	5	13	9
470-474	Influenza .. .. .	..	..	..	..
480-486	Pneumonia	27	37	36	20
490-493	Bronchitis, emphysema and asthma .. .. .	..	1	..	..
500-519	Other diseases of respiratory system	1	1	..	..
520-577	Diseases of the digestive system	3	..	3	2
580-629	Diseases of genito-urinary system .. .. .	..	..	..	..
680-709	Diseases of skin and subcutaneous tissue .. .. .	..	..	..	..
710-738	Diseases of musculoskeletal system and connective tissue .. .. .	..	..	..	..
740-759	Congenital anomalies	18	14	24	19
760-763	Certain maternal conditions	7	2	2	3
764-768	Birth injury, difficult labour and other anoxic and hypoxic conditions	22	18	18	28
772, 776					
769-771					
773-775	Other causes of perinatal mortality	28	20	22	32
777-779					
780-796	Symptoms and ill-defined conditions .. .. .	..	1	..	(b) 13
800-999	Accidents, poisonings and violence	2	6	3	4
Total		116	114	127	137

(a) Principally infective and parasitic diseases.

(b) Includes sudden death in infancy syndrome (previously included in causes 480-486); 13 in 1973.

Deaths

The following table summarises the number of deaths and crude death rates from 1880 to 1973:

Number of Deaths and Crude Death Rates, Selected Years from 1880

Year	Deaths		Year	Deaths	
	Number	Rate (a)		Number	Rate (a)
1880	1,832	16.12	1930.. .. .	1,948	8.82
1885	2,036	15.94	1935.. .. .	2,353	10.24
1890	2,118	14.79	1940.. .. .	2,387	9.90
1895	1,811	11.78	1945.. .. .	2,413	9.71
1900	1,903	11.02	1950.. .. .	2,466	8.85
1905	1,844	10.00	1955.. .. .	2,489	7.89
1910	2,120	11.10	1960.. .. .	2,670	(b) 7.70
1915	2,015	10.27	1965.. .. .	3,043	8.27
1920	2,036	9.68	1970.. .. .	3,174	8.18
1925	1,996	9.26	1973.. .. .	3,347	8.43

(a) Per 1,000 of mean population.

(b) Lowest on record.

A marked difference exists between male and female crude death rates:

Male and Female Deaths and Crude Rates

Year	Number of deaths			Deaths per 1,000 of mean population			Ratio of male to female crude death rates
	Males	Females	Persons	Males	Females	Persons	
1963 ..	1,601	1,217	2,818	8.75	6.83	7.82	1.281
1964 ..	1,797	1,377	3,174	9.76	7.64	8.71	1.277
1965 ..	1,716	1,327	3,043	9.24	7.29	8.27	1.267
1966 ..	1,726	1,433	3,159	9.21	7.78	8.50	1.184
1967 ..	1,790	1,438	3,228	9.45	7.73	8.60	1.223
1968 ..	1,906	1,378	3,284	9.96	7.31	8.64	1.363
1969 ..	1,876	1,433	3,309	9.67	7.50	8.59	1.289
1970 ..	1,785	1,389	3,174	9.13	7.21	8.18	1.266
1971 ..	1,805	1,490	3,295	9.17	7.66	8.42	1.197
1972 ..	1,793	1,434	3,227	9.08	7.33	8.21	1.239
1973 ..	1,894	1,453	3,347	9.51	7.35	8.43	1.304

Australian States: Number of Deaths (a)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia (b)
1969 ..	40,665	28,976	15,786	9,337	7,350	3,309	106,496
1970 ..	43,601	30,335	17,055	10,138	7,543	3,174	113,048
1971 ..	41,691	30,598	16,339	9,686	7,806	3,295	110,650
1972 ..	41,652	29,856	16,598	9,764	7,441	3,227	109,760
1973 ..	41,145	30,696	16,920	9,835	7,845	3,347	110,033

(a) Includes deaths of Aborigines.

(b) Includes A.C.T. and N.T.

Australian States: Crude Death Rates, (a) Census Years

State	1921	1933	1947	1954	1961	1966	1971
New South Wales	9.50	8.58	9.53	9.46	8.95	9.57	9.04
Victoria	10.52	9.59	10.44	9.20	8.37	8.90	8.72
Queensland	9.37	8.83	9.15	8.64	8.42	8.90	8.93
South Australia	10.02	8.44	9.62	9.02	8.06	8.54	8.23
Western Australia	10.42	8.64	9.39	8.38	7.77	8.13	7.57
Tasmania	10.30	9.60	9.17	8.67	7.89	8.50	8.42
Australia (b)	9.91	8.92	9.69	9.10	8.47	9.01	8.66

(a) Deaths per 1,000 of mean population.

(b) Includes A.C.T. and N.T.

Death Rates for Specific Age Groups

Previously in this chapter, crude death rates were described as unsuitable for comparisons over long periods of time due to changes in the age structure of the community. In the following table, this difficulty is overcome by calculating death rates for specific age groups. The method employed is to obtain the average annual deaths for specific age groups over those three-year periods which are broken into equal parts by a census of population (e.g. 30 June 1947 is the census date for a calculation of rates in the three years, 1946-1948 inclusive). Rates can then be calculated by comparing the average number of deaths for each group with the number of persons in each group as revealed by the census. In theory, the calculation of such rates need not be restricted to periods for which a census date forms the midpoint but the advantage of accepting such restriction lies in the accuracy of the age distribution obtained from the census. In the table, three-year periods have been selected appropriate to the Censuses of 1947 and 1971 (the data relate to the Tasmanian population):

Death Rates for Specific Age Groups (a)

Age group (years)	Males		Females		Persons	
	1946-48	1970-72	1946-48	1970-72	1946-48	1970-72
0-4	9.13	4.46	7.24	2.93	8.21	3.71
5-9	1.15	0.47	0.69	0.36	0.92	0.42
10-14	0.67	0.56	0.39	0.30	0.53	0.43
15-19	1.62	2.42	1.46	0.60	1.54	1.53
20-24	2.10	2.10	1.79	0.53	1.94	1.96
25-29	2.12	1.87	1.74	0.83	1.93	1.37
30-34	2.27	1.84	1.90	0.79	2.09	1.33
35-39	3.10	2.10	2.59	1.34	2.85	1.73
40-44	3.93	3.43	3.51	1.89	3.73	2.69
45-49	5.88	5.36	4.66	3.10	5.28	4.25
50-54	9.52	9.65	7.84	5.79	8.65	7.74
55-59	16.98	15.77	10.03	8.26	13.44	12.06
60-64	23.87	25.71	17.30	12.82	20.53	19.19
65-69	41.82	41.10	27.35	22.40	34.56	31.51
70-74	58.43	64.05	49.47	37.51	53.80	48.92
75-79	103.22	94.96	77.00	62.46	89.78	74.91
80-84	156.64	140.11	123.49	99.45	138.41	114.30
85 and over	292.36	220.56	220.32	204.67	250.16	210.54

(a) Rate per 1,000 of the population in the specified age group at census date.

Causes of Death

The Eighth (1965) Revision of the International Classification of Diseases was adopted for use in 1968 but has not materially affected comparability with details based on the Seventh Revision (1955). The following table shows causes of deaths, the rates per 100,000 of mean population and the proportion of deaths from each cause.

Causes of Death: Numbers and Rates, 1973

Cause of death	Inter-national classification	Number of deaths	Rate per 100,000 of mean population	Percentage of total deaths
0-4. (a)	(a)	7	2	0.2
5. Tuberculosis of respiratory system	010-012	7	2	0.2
6. Other tuberculosis including late effects	013-019	..	..	..
7-16. (b)	(b)	1	..	..
17. Syphilis and its sequelae	090-097	1	..	..
18. All other infective and parasitic diseases	(c)	13	3	0.4
19. Malignant neoplasms—				
Digestive organs and peritoneum	150-159	230	58	6.9
Trachea, bronchus and lung	162	77	19	2.3
Breast	174	51	13	1.5
Genito-urinary organs	180-189	102	26	3.1
Leukaemia	204-207	14	4	0.4
Other malignant and lymphatic neoplasms	(d)	98	25	2.9
20. Benign and unspecified neoplasms	210-239	4	1	0.1
21. Diabetes mellitus	250	58	15	1.7
22. Nutritional deficiencies	260-269	..	..	..
23. Anaemias	280-285	4	1	0.1
24. Meningitis	320	1	..	..
25. Active rheumatic fever	390-392	..	..	..
26. Chronic rheumatic heart disease	393-398	16	4	0.5
27. Hypertensive disease	400-404	46	12	1.4
28. Ischaemic heart disease	410-414	960	242	28.7
29. Other forms of heart disease	420-429	136	34	4.1

Causes of Death: Numbers and Rates, 1973—continued

Cause of death	International classification	Number of deaths	Rate per 100,000 of mean population	Percentage of total deaths
30. Cerebrovascular disease	430-438	448	113	13.4
31. Influenza	470-474	6	2	0.2
32. Pneumonia	480-486	102	26	3.0
33. Bronchitis, emphysema and asthma	490-493	135	34	4.0
34. Peptic ulcer	531-533	19	5	0.6
35. Appendicitis	540-543	2	1	0.1
36. Intestinal obstruction and hernia	550-553	9	2	0.3
	560	10	3	0.3
37. Cirrhosis of liver	571	27	7	0.8
38. Nephritis and nephrosis	580-584	27	7	0.8
39. Hyperplasia of prostate	600	10	3	0.3
40. Abortion	640-645	..	..	..
41. { Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	630-639	..	..	..
	650-678	..	..	..
42. Congenital anomalies	740-759	29	7	0.9
43. { Birth injury, difficult labour and other anoxic and hypoxic conditions	764-768	2	1	0.1
	772, 776	26	7	0.8
	760-763	3	1	0.1
	769-771	16	4	0.5
44. Other causes of perinatal mortality	773-775	3	1	0.1
	777-779	13	3	0.4
	780-796	23	6	0.7
45. Symptoms and other ill-defined conditions	Remainder of	..	..	..
46. All other diseases	240-738	345	87	10.3
47. Motor vehicle accidents	810-823	118	30	3.5
48. All other accidents	800-807	1	..	..
	825-949	85	21	2.5
49. Suicide and self-inflicted injuries	950-959	55	14	1.6
50. All other external causes	960-999	7	2	0.2
All Causes .. .. .	..	3,347	843	100.00

(a) 000-009. (See following text for specification of diseases.)

(b) 020, 032, 033, 034, 036, 040-043, 050, 055, 080-084. (See following text for specification of diseases.)

(c) 021-027, 030, 031, 035, 037, 038, 039, 044-046, 051-054, 056, 057, 060-068, 070-079, 085-089, 098-117, 120-136.

(d) 140-149, 160, 161, 163, 170-173, 190-203, 208, 209.

It will be noted that items 0-4 and 7-16 in the table were not listed individually, few associated deaths having been recorded. The specification of causes reads: (1) cholera; (2) typhoid fever; (3) dysentery, all forms; (4) enteritis and other diarrhoeal diseases; (7) plague; (8) diphtheria; (9) whooping cough; (10) streptococcal sore throat and scarlet fever; (11) meningococcal infection; (12) acute poliomyelitis; (13) smallpox; (14) measles; (15) typhus and other rickettsial diseases; (16) malaria. Uncertainty as to diagnosis in earlier periods makes comparison difficult but, at the turn of the century, whooping cough, diphtheria, typhoid fever and scarlet fever were diseases associated with numerous deaths.

Causes of Death in Age Groups

The previous tables showing causes of death make no reference to age, a complete dissection by age and cause being beyond the scope of a year book. Nevertheless, there is an extremely significant relationship between age and cause of death and the next table indicates, in summary form, their close inter-connection. For each of the specified causes in the next table, two percentages are shown: (i) deaths in a particular age group as a proportion of total deaths from all causes in that age group; (ii) deaths in a particular age group as a proportion of total deaths from the same cause at all ages. The causes chosen and specified are such that they account, in total, for approximately 75 per cent or more of deaths in most of the given age groups.

Attention is called to 'Accidental and violent deaths' (800-999) which account for over 63 per cent of deaths in the ages from 1 to 34 years inclusive. Also noteworthy is the present relative unimportance of 'Infective and parasitic diseases' (001-136). The most important group, in a total sense, is 'Diseases of the heart' (390-398, 400-404, 410-429) followed by 'Cancer (all forms)' (140-209); then 'Cerebrovascular diseases' (430-438); 'Diseases of the respiratory system (460-519); nevertheless, the inter-connection between age and cause of death is so close that none of these causes needs to be specified for some age groups in the table.

Principal Causes of Death in Age Groups, 1973

Age group in years	International classification	Cause of death	Death from specified causes in age groups		
			Number	Proportion of deaths	
				In age group (per cent)	At all ages (per cent)
Under 1 ..	460-519 776 740-759 795 777 ..	Diseases of respiratory system ..	29	21.2	10.9
		Anoxic and hypoxic conditions ..	23	16.8	100.0
		Congenital anomalies	19	13.9	65.5
		Sudden death in infancy	13	9.5	100.0
		Immaturity unqualified	8	5.8	100.0
		Other causes	45	32.8	..
		All causes	137	100.0	4.1
1-4	800-999 740-759 140-209 ..	Accidental and violent deaths ..	13	56.5	4.9
		Congenital anomalies	2	8.7	6.9
		Cancer (all forms) (a)	1	4.4	0.2
		Other causes	7	30.4	..
		All causes	23	100.0	0.7
5-14 ..	800-999 140-209 740-759 ..	Accidental and violent deaths ..	16	51.6	6.0
		Cancer (all forms) (a)	3	9.7	0.5
		Congenital anomalies	3	9.7	10.3
		Other causes	9	29.0	..
		All causes	31	100.0	0.9
15-19 ..	800-999 140-209 ..	Accidental and violent deaths ..	36	78.3	13.5
		Cancer (all forms) (a)	3	6.5	0.5
		Other causes	7	15.2	..
		All causes	46	100.0	1.4
20-24 ..	800-999 ..	Accidental and violent deaths ..	32	84.2	12.0
		Other causes	6	15.8	..
		All causes	38	100.0	1.1
25-34 ..	800-999 140-209 390-398 400-404 410-429 ..	Accidental and violent deaths ..	24	46.2	9.0
		Cancer (all forms) (a)	11	21.2	1.9
		Diseases of heart	5	9.6	0.4
		All causes	52	100.0	1.6

Principal Causes of Death in Age Groups, 1973—continued

Age group in years	Inter- national classifi- cation	Cause of death	Deaths from specified causes in age groups		
			Number	Proportion of deaths	
				In age group (per cent)	At all ages (per cent)
35-44 ..	800-999	Accidental and violent deaths	31	28.7	11.7
	140-209	Cancer (all forms) (a)	25	23.1	4.4
	390-398	} Diseases of heart	18	16.7	1.6
	400-404				
	410-429				
	430-438	Cerebrovascular diseases	9	8.3	2.0
	460-519	Diseases of respiratory system	7	6.5	2.6
	..	Other causes	18	16.7	..
	All causes	108	100.0	3.2	
45-54 ..	390-398	} Diseases of heart	99	38.2	8.5
	400-404				
	410-429				
	140-209	Cancer (all forms) (a)	80	30.9	14.0
	800-999	Accidental and violent deaths	37	14.7	14.3
	430-438	Cerebrovascular diseases	29	11.2	6.5
	460-519	Diseases of respiratory system	11	4.2	4.1
	..	Other causes	2	0.8	..
	All causes	258	100.0	7.7	
55-64 ..	390-398	} Diseases of heart	215	39.4	18.6
	400-404				
	410-429				
	140-209	Cancer (all forms) (a)	130	23.8	22.7
	430-438	Cerebrovascular diseases	43	7.9	9.6
	460-519	Diseases of respiratory system	37	6.8	13.9
	800-999	Accidental and violent deaths	32	5.9	12.0
	571	Cirrhosis of liver	15	2.7	55.6
..	Other causes	74	13.7	..	
	All causes	546	100.0	16.3	
65-74 ..	390-398	} Diseases of heart	318	40.4	27.5
	400-404				
	410-429				
	140-209	Cancer (all forms) (a)	171	21.7	29.9
	430-438	Cerebrovascular diseases	109	13.8	24.3
	460-519	Diseases of respiratory system	68	8.6	25.5
	404-448	Diseases of arteries	27	3.4	18.4
	250	Diabetes	16	2.0	27.6
..	Other causes	79	10.0	..	
	All causes	788	100.0	23.5	
75 and over	390-398	} Diseases of heart	503	38.1	43.4
	400-404				
	410-429				
	430-438	Cerebrovascular diseases	254	19.2	56.7
	140-209	Cancer (all forms) (a)	164	12.4	28.7
	440-448	Diseases of arteries	106	8.0	72.1
	460-519	Diseases of respiratory system	106	8.0	39.7
	250	Diabetes	33	2.5	56.9
..	Other causes	154	11.7	..	
	All causes	1,320	100.0	39.4	

(a) Includes Hodgkin's disease and the leukaemias.

Heart Diseases

As the previous two tables indicate, heart diseases (list items 390-398, 400-404, 410-429) are the greatest single cause of death. In the following record of deaths due to heart diseases, 1950 has been chosen as a starting point since earlier figures are not strictly comparable. It can be seen from the table that heart diseases account for over one-third of the 'Deaths from all causes'.

Deaths from Heart Diseases (All Causes) (a)

Year	Number of deaths			Death rate per 100,000 of mean population	Deaths as a percentage of deaths from all causes
	Males	Females	Persons		
1950	413	304	717	257	29.1
1968	680	493	1,173	309	35.7
1969	701	483	1,184	308	35.8
1970	681	454	1,135	292	35.8
1971	647	491	1,138	291	34.5
1972	619	474	1,093	278	33.9
1973	700	458	1,158	292	34.6

(a) List items 400-416, 420-443 in 1950; 390-398, 400-404, 410-429 from 1968.

Malignant Neoplasms

In the next table, deaths from 'Malignant neoplasms including Hodgkin's disease and the leukaemias' are summarised:

Deaths from all Types of Malignant Neoplasms (a)

Year	Number of deaths			Death rate per 100,000 of mean population	Deaths as a percentage of deaths from all causes
	Males	Females	Persons		
1950	159	164	323	115	13.1
1968	273	220	493	130	15.0
1969	282	228	510	132	15.4
1970	253	229	482	124	15.2
1971	284	268	552	141	16.8
1972	278	270	548	139	17.0
1973	312	259	571	144	17.1

(a) List items 140-207 in 1950; 140-209 from 1968.

Lung Cancer

There has been considerable interest recently in lung cancer because of its suspected connection with smoking habits. The following table shows deaths attributed to 'Malignant neoplasm of respiratory system' since 1950:

Deaths from Malignant Neoplasm of Respiratory System (a)

Year	Males	Females	Persons	Year	Males	Females	Persons
1950 ..	20	4	24	1966 ..	76	16	92
1959 ..	43	11	54	1967 ..	78	9	87
1960 ..	40	3	43	1968 ..	69	12	81
1961 ..	47	3	50	1969 ..	85	11	96
1962 ..	70	8	78	1970 ..	72	19	91
1963 ..	44	9	53	1971 ..	76	18	94
1964 ..	51	16	67	1972 ..	78	13	91
1965 ..	60	11	71	1973 ..	75	8	83

(a) List items 160-165 to 1967; 160-163 from 1968.

EXPECTATION OF LIFE AND LIFE TABLES

General

Previously, reference was made to the limitations of crude death rates as a measure of mortality. However, a correct measurement of the mortality of the population can be obtained from life tables.

A life table is, in effect, a mathematical model, its starting point being a hypothetical population (say 100,000) of newly-born males or females. Using data for a given period (e.g. single year age distribution of an actual population, deaths at single ages, etc.), the compiler calculates the theoretical number of survivors at each age in the hypothetical population until there are no survivors remaining.

Calculation of Life Expectancy

In the table that follows, l_x is the number of persons surviving at exact age x . From this survivors' table, other measures can then be computed, namely:

- L_x : the average number living between any year x and $x + 1$
 e^o_x : the complete expectation of life (i.e. the average number of years lived after age x by each of a group of persons aged exactly x).

Not only does the l_x column give numbers of survivors at each age but, if accumulated, it gives an approximate measure of the total number of years lived by the life-table population. To obtain a more refined measure of the total number of years lived, it is necessary to accumulate L_x values. These can be obtained by averaging each consecutive pair of l_x values.

Taking the male life table for 1965-67 as an example and using rounded figures:

- Total of all l_x values (0-105) = 6,813,000 years
 Total of all $l_x + 1$ values (1-105) = 6,713,000 years
 Therefore, total L_x values (0-105) = 6,763,000 years

According to the table, 100,000 males live a total of 6,763,000 years. It follows then, that the complete expectation of life (e^o_x) can be taken as 67.63 years as from birth.

The above calculation shows the derivation of e^o_x where x is 0. The same logic applies to all other ages:

Again taking the male life table as an example:

- Total of l_x values (10-105) = 5,835,000 years
 Total of all $l_x + 1$ values (11-105) = 5,738,800 years
 Therefore, total L_x values (10-105) = 5,786,500 years

According to the table, 97,258 males live a total of a further 5,786,500 years. It follows then that each male aged 10 has an average life expectancy of a further 59.50 years $\left(\text{i.e. } \frac{5,786,500}{97,258} \right)$

From these examples, it will be seen that e^o_x is simply an average or per capita figure, the two elements involved being the total number of years lived by a given population, and the given population itself.

For the sake of brevity in the table, the following usual values have not been given:

- dx : the number of deaths in the year of age x to $x + 1$ among the l_x persons who enter on that year.
 px : the probability of a person aged x living a year.
 qx : the probability of a person aged x dying within a year.

If required, these values can be computed from the tables as follows:

$$dx = l_x - l_{x+1}$$

$$px = \frac{l_x + l_{x+1}}{2}$$

$$\text{and } qx = 1 - px$$

The next table gives the number of survivors (l_x values) and complete expectation of life (e°_x values) for Australian males:

Australia: Life Tables, 1965-1967
Survivors (l_x) and Complete Expectation of Life (e°_x)
Males

Age x	l_x	e°_x	Age x	l_x	e°_x	Age x	l_x	e°_x
0.. ..	100,000	67.63	35.. ..	94,056	36.04	70.. ..	53,749	9.52
1.. ..	97,907	68.07	36.. ..	93,865	35.11	71.. ..	50,785	9.05
2.. ..	97,722	67.20	37.. ..	93,658	34.18	72.. ..	47,746	8.59
3.. ..	97,621	66.27	38.. ..	93,435	33.27	73.. ..	44,647	8.15
4.. ..	97,540	65.32	39.. ..	93,191	32.35	74.. ..	41,510	7.73
5.. ..	97,481	64.36	40.. ..	92,925	31.44	75.. ..	38,358	7.33
6.. ..	97,430	63.39	41.. ..	92,636	30.54	76.. ..	35,214	6.93
7.. ..	97,383	62.42	42.. ..	92,321	29.64	77.. ..	32,102	6.56
8.. ..	97,339	61.45	43.. ..	91,976	28.75	78.. ..	29,046	6.20
9.. ..	97,298	60.48	44.. ..	91,598	27.87	79.. ..	26,070	5.85
10.. ..	97,258	59.50	45.. ..	91,183	26.99	80.. ..	23,194	5.51
11.. ..	97,219	58.53	46.. ..	90,727	26.12	81.. ..	20,431	5.19
12.. ..	97,180	57.55	47.. ..	90,226	25.27	82.. ..	17,801	4.88
13.. ..	97,138	56.57	48.. ..	89,674	24.42	83.. ..	15,320	4.59
14.. ..	97,092	55.60	49.. ..	89,066	23.58	84.. ..	13,008	4.32
15.. ..	97,034	54.63	50.. ..	88,396	22.76	85.. ..	10,885	4.07
16.. ..	96,958	53.68	51.. ..	87,659	21.94	86.. ..	8,967	3.83
17.. ..	96,857	52.73	52.. ..	86,849	21.14	87.. ..	7,268	3.61
18.. ..	96,722	51.80	53.. ..	85,961	20.36	88.. ..	5,792	3.41
19.. ..	96,560	50.89	54.. ..	84,988	19.58	89.. ..	4,535	3.22
20.. ..	96,378	49.98	55.. ..	83,925	18.83	90.. ..	3,486	3.05
21.. ..	96,191	49.08	56.. ..	82,766	18.08	91.. ..	2,629	2.88
22.. ..	96,013	48.17	57.. ..	81,506	17.35	92.. ..	1,944	2.73
23.. ..	95,846	47.25	58.. ..	80,136	16.64	93.. ..	1,408	2.59
24.. ..	95,689	46.33	59.. ..	78,650	15.95	94.. ..	998	2.45
25.. ..	95,544	45.40	60.. ..	77,043	15.27	95.. ..	692	2.33
26.. ..	95,405	44.47	61.. ..	75,307	14.61	96.. ..	468	2.21
27.. ..	95,266	43.53	62.. ..	73,439	13.97	97.. ..	310	2.11
28.. ..	95,126	42.59	63.. ..	71,433	13.35	98.. ..	200	2.01
29.. ..	94,986	41.66	64.. ..	69,289	12.74	99.. ..	126	1.91
30.. ..	94,845	40.72	65.. ..	67,008	12.16	100.. ..	77	1.82
31.. ..	94,703	39.78	66.. ..	64,594	11.60	101.. ..	46	1.74
32.. ..	94,554	38.84	67.. ..	62,052	11.05	102.. ..	27	1.65
33.. ..	94,399	37.90	68.. ..	59,393	10.52	103.. ..	15	1.57
34.. ..	94,233	36.97	69.. ..	56,623	10.01	104.. ..	8	1.49

The following table shows the l_x and e°_x values for Australian females:

Australia: Life Tables, 1965-1967
Survivors (l_x) and Complete Expectation of Life (e°_x)
Females

Age x	l_x	e°_x	Age x	l_x	e°_x	Age x	l_x	e°_x
0.. ..	100,000	74.15	35.. ..	96,329	41.56	70.. ..	72,033	12.23
1.. ..	98,361	74.39	36.. ..	96,210	40.61	71.. ..	69,886	11.59
2.. ..	98,206	75.50	37.. ..	96,080	39.66	72.. ..	67,574	10.97
3.. ..	98,127	72.56	38.. ..	95,937	38.72	73.. ..	65,098	10.37
4.. ..	98,068	71.60	39.. ..	95,781	37.78	74.. ..	62,459	9.78
5.. ..	98,018	70.64	40.. ..	95,610	36.85	75.. ..	59,657	9.22
6.. ..	97,977	69.67	41.. ..	95,424	35.92	76.. ..	56,693	8.67
7.. ..	97,942	68.70	42.. ..	95,221	35.00	77.. ..	53,567	8.15
8.. ..	97,910	67.72	43.. ..	94,999	34.08	78.. ..	50,281	7.65
9.. ..	97,882	66.74	44.. ..	94,755	33.16	79.. ..	46,845	7.17
10.. ..	97,856	65.75	45.. ..	94,486	32.26	80.. ..	43,281	6.72
11.. ..	97,830	64.77	46.. ..	94,191	31.35	81.. ..	39,619	6.30
12.. ..	97,806	63.79	47.. ..	93,866	30.46	82.. ..	35,902	5.90
13.. ..	97,781	62.80	48.. ..	93,508	29.58	83.. ..	32,176	5.52
14.. ..	97,755	61.82	49.. ..	93,117	28.70	84.. ..	28,496	5.17
15.. ..	97,723	60.84	50.. ..	92,693	27.83	85.. ..	24,913	4.85
16.. ..	97,682	59.86	51.. ..	92,233	26.96	86.. ..	21,480	4.54
17.. ..	97,636	58.89	52.. ..	91,736	26.11	87.. ..	18,244	4.26
18.. ..	97,582	57.93	53.. ..	91,201	25.26	88.. ..	15,251	4.00
19.. ..	97,521	56.96	54.. ..	90,625	24.41	89.. ..	12,536	3.76
20.. ..	97,460	56.00	55.. ..	90,005	23.58	90.. ..	10,124	3.53
21.. ..	97,398	55.03	56.. ..	89,340	22.75	91.. ..	8,027	3.33
22.. ..	97,335	54.07	57.. ..	88,627	21.93	92.. ..	6,246	3.14
23.. ..	97,273	53.10	58.. ..	87,861	21.12	93.. ..	4,766	2.97
24.. ..	97,211	52.14	59.. ..	87,038	20.31	94.. ..	3,564	2.81
25.. ..	97,148	51.17	60.. ..	86,152	19.52	95.. ..	2,611	2.66
26.. ..	97,085	50.20	61.. ..	85,195	18.73	96.. ..	1,872	2.52
27.. ..	97,020	49.23	62.. ..	84,162	17.95	97.. ..	1,313	2.38
28.. ..	96,952	48.27	63.. ..	83,043	17.19	98.. ..	900	2.26
29.. ..	96,880	47.30	64.. ..	81,829	16.43	99.. ..	602	2.15
30.. ..	96,803	46.34	65.. ..	80,513	15.70	100	393	2.04
31.. ..	96,721	45.38	66.. ..	79,085	14.97	101	250	1.93
32.. ..	96,633	44.42	67.. ..	77,534	14.26	102	155	1.84
33.. ..	96,539	43.46	68.. ..	75,850	13.56	103	94	1.74
34.. ..	96,438	42.51	69.. ..	74,019	12.89	104	55	1.64

These tables are extracts from those produced by the Commonwealth Actuary, the source data being supplied by the Commonwealth Statistician and comprising: (i) the number of males and females living at each age last birthday, as shown by the 1966 Census; and (ii) the number of male and female deaths at each age (last birthday) in the years 1965, 1966 and 1967.

There are no life tables prepared on the basis of Tasmanian experience and in most legal and actuarial situations, it is normal to use the Australian Life Tables.

True Death Rates

The true death rate is the reciprocal of the complete expectation of life of a person at birth. In calculating e°_x where x is 0, the sum of the L_x values was taken as the total number of years lived by the original 100,000 over a period of a century or more. To arrive at the true death rate, the life-table can also be regarded as the experience of a *single year* so that the sum of the L_x

values no longer represents years lived but simply persons 'at risk' in association with 100,000 deaths. By way of illustration, in the male life table the sum of all survivors (L_x values) is 6,763,000 males associated with 100,000 deaths:

$$\text{True Death Rate} = \frac{100,000}{6,763,000} = 14.786 \text{ per } 1,000$$

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:

Australia: Complete Expectation of Life at Birth and True Death Rates

Period	Complete expectation of life at birth (years)		True death rate (a)	
	Males	Females	Males	Females
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
1960-1962	67.92	74.18	14.72	13.48
1965-1967	67.63	74.15	14.79	13.49

(a) Number of deaths per 1,000 in stationary (or life-table) population.

While the complete expectation of life at birth has shown a marked increase in successive tables, the increase at other ages has not been so pronounced. The following table compares the complete expectation of life at selected ages for the period 1891-1900 with that for 1965-67:

Australia: Comparative Complete Expectation of Life

Age x	Expectation of life ($e^{\circ}x$) at each age according to experience of period			
	Male lives		Female lives	
	1891-1900	1965-1967	1891-1900	1965-1967
0	51.06	67.63	54.76	74.15
5	55.61	64.36	58.64	70.64
10	51.43	59.50	54.46	65.75
15	46.98	54.63	49.97	60.84
20	42.81	49.98	45.72	56.00
25	38.90	45.40	41.69	51.17
30	35.11	40.72	37.86	46.34
35	31.34	36.04	34.14	41.56
40	27.65	31.44	30.49	36.85
45	23.99	26.99	26.69	32.26
50	20.45	22.76	22.93	27.83
55	17.08	18.83	19.29	23.58
60	13.99	15.27	15.86	19.52
65	11.25	12.16	12.75	15.70
70	8.90	9.52	9.89	12.23
75	6.70	7.33	7.37	9.22
80	5.00	5.51	5.49	6.72

It will be noted that e°_x for age five years in the period 1891-1900 was actually higher than for age 0 years. This peculiarity was associated with the extremely high rate of infant mortality then prevailing.

Number of Life Table Survivors

The following table shows the number of survivors (i.e. l_x values) at various ages as presented in Australian Life Tables since 1901 i.e. for the periods 1901-1910, 1953-1955, 1960-1962 and 1965-1967.

Australia: Number of Survivors (l_x) at Selected Ages out of 100,000 Births

Age x	Period			
	1901-1910	1953-1955	1960-1962	1965-1967
MALES				
0	100,000	100,000	100,000	100,000
10	86,622	96,488	97,062	97,258
20	84,493	95,460	96,215	96,378
30	80,844	93,801	94,726	94,845
40	75,887	91,861	92,859	92,925
50	68,221	87,553	88,473	88,396
60	56,782	76,256	77,456	77,043
70	38,275	54,054	54,944	53,749
80	14,330	23,658	24,669	23,194
FEMALES				
0	100,000	100,000	100,000	100,000
10	88,395	97,228	97,664	97,856
20	86,459	96,774	97,278	97,460
30	82,909	96,055	96,649	96,803
40	78,001	94,715	95,481	95,610
50	71,945	91,573	92,713	92,693
60	63,247	84,665	86,537	86,152
70	46,793	69,613	72,505	72,033
80	21,356	39,633	43,453	43,281

The most significant feature is the increased number of survivors at age 10 years and this can be related directly to the dramatic fall in infant mortality rates since the turn of the century. Attention is called also to the wide disparity between male and female survivors at ages 60, 70 and 80 years.

Chapter 7

PRIMARY INDUSTRY—RURAL

LAND TENURE AND SETTLEMENT

Introduction

The area of Tasmania is 6,833,100 hectares, all of which had been proclaimed as Crown property when the first settlers arrived in 1803. In the period since their landing 39.9 per cent of the State's total area has been alienated by grant or sale; the Crown still owns 58.2 per cent and the residual 1.9 per cent is in the process of alienation (i.e. being purchased from the Crown by instalment payments).

Historical

The first concern of the settlers on the Derwent and the Tamar in 1804 was the growing of grain, for which small holdings were adequate; thus by 1820, land obtained as grants from the Crown was confined to areas within easy reach of Hobart and Launceston and less than 28,500 hectares had been alienated.

In the 1820s the successful export of wool to Britain created a demand for land in very much larger holdings and annual alienation of Crown land by free grant increased rapidly as shown in the following table:

Area of Land Alienated by Grants in Van Diemen's Land, 1820 to 1843
(⁰⁰⁰ Hectares)

Year	Area granted	Year	Area granted	Year	Area granted	Year	Area granted
1820 ..	} 28	1826 ..	24	1832 ..	13	1838 ..	18
1821 ..		1827 ..	31	1833 ..	10	1839 ..	6
1822 ..	<i>n.a.</i>	1828 ..	67	1834 ..	4	1840 ..	4
1823 ..	176	1829 ..	84	1835 ..	4	1841 ..	3
1824 ..	17	1830 ..	44	1836 ..	3	1842 ..	..
1825 ..	(a) 187	1831 ..	83	1837 ..	9	1843 ..	..

(a) Includes 142,000 hectares granted to Van Diemen's Land Company.

From the previous table, it can be calculated that the alienation of Crown land by grant exceeded, in total, half a million hectares by 1828 and 800,000 hectares by 1840 (when this early system of free grants had virtually ceased). By 1850 the total area of land alienated was 1.09 million hectares. The next table summarises land alienations from 1860:

Primary Industry—Rural.

Land Alienations from 1860
(*000 Hectares)

Year (a)	Land		Year (a)	Land	
	Aggregate alienated	In process of alienation		Aggregate alienated	In process of alienation
1860		1,242	1960	2,584	77
1880		1,713	1965	2,679	83
1900		1,957	1968	2,692	93
1910	1,996	447	1969	2,693	96
1920	2,121	390	1970	2,697	100
1930	2,315	219	1971 (b)	2,697	100
1940	2,393	171	1972 (b)	2,697	100
1950	2,486	148	1973 (b)	2,729	133

(a) At 31 December until 1948; at 30 June from 1950.

(b) Estimates only.

Present Use of Crown Lands

The next table classifies the area of the State by ownership (i.e. alienated or Crown). Crown forestry reservations, apart from one component, is land used or to be used exclusively for forestry purposes; the exception is the forested area of recreation and conservation reservations. The forestry reservations account for 29 per cent of the State's area.

Alienation and Occupation of Crown Lands at 30 June
(*000 Hectares)

Classification of land	Area		
	1971	1972	1973
Alienated (aggregate) (a)	2,697	2,697	2,729
In process of alienation (a)	100	100	133
Crown lands—			
Leased or licensed—			
Through Lands Department (a)—			
Pastoral	344	235	200
Closer settlement	12	12	12
Soldier settlement			
Short-term	24	27	36
Through Mines Department			
Total	381	274	248
Forestry reservations—			
State forests	1,094	1,148	1,199
Other land reserved for forestry purposes (b)	1,168	1,115	1,029
Total	2,262	2,263	2,228
Other Crown land	1,393	1,497	1,495
Total area of State	6,833	6,833	6,833

(a) Estimates only.

(b) Includes estimated forested component of State reserves.

The previous table includes the item 'Forestry reservations'. Cutting rights, either by exclusive forestry permit or by the award of pulpwood concessions, have been granted for just over 1.8m hectares of this area. A large proportion of the logs for sawmills, paper mills, etc. is obtained from these forestry reservations. Further details of Crown land reserved for forestry appear in the Forestry section of Chapter 8, 'Primary Industry—Non-Rural'.

Although the possibility of rapidly alienating more Crown land for farming purposes on any large scale may seem remote, it should be noted that much of this land is nevertheless of importance to the State's economy, specifically for forestry and tourism purposes.

State Reserves and Conservation Areas

The National Parks and Wildlife Service is responsible for the administration of State reserves and conservation areas. Areas designated as State reserves have maximum protection and include areas previously classified as national parks, scenic reserves or historic sites. Conservation areas are usually set aside for the protection of fauna and flora.

State Reserves

The following gives a brief description of principal State reserves:

Ben Lomond National Park: Is located 45 kilometres south-east of Launceston. This high plateau area includes Legges Tor and Stacks Bluff and is Tasmania's principal skiing area.

Cradle Mountain-Lake St Clair National Park: This is an area of rugged mountain scenery; it contains some of Tasmania's highest peaks (Mt Ossa, Barn Bluff, Mt Pelion West and Cradle Mountain), numerous lakes, deep gorges and several waterfalls. Flora and fauna in the park are representative of Tasmania's montane species and are in a largely untouched condition. The weather of the area is unpredictable and at times extremely severe—blizzards are common and may occur in mid-summer. The principal walking track extends from Cradle Valley (in the north) to Lake St Clair, a distance of 85 kilometres.

Frenchmans Cap National Park: The park boundary is three kilometres from the Lyell Highway and about midway between Queenstown and Derwent Bridge. Access to the park is by foot. It is an area of rugged glaciated landscape and is an ideal wilderness area for experienced bushwalkers. Frenchmans Cap, an enormous white quartz peak with a 305 metre face on the eastern side, is the principal feature of the park.

Freycinet National Park: Occupies the whole of Freycinet Peninsula on the east coast. A principal feature of the park is the 300 metres high red granite Hazards. The park provides pleasant walking throughout the year, although during summer water may be scarce. To the south of Freycinet Peninsula is Schouten Island, also a State reserve.

Hartz Mountains National Park: Is located south-west of Geeveston. The main features of the park are Hartz Mountain, 1,253 metres high, several small picturesque lakes, and the superb eastward view from Waratah Lookout. The park is renowned for its display of wildflowers during summer.

Maria Island: Is situated off the east coast from Orford and may be reached by chartered fishing boat or aeroplane. Principal attractions include convict ruins from two penal settlements, the main one being at Darlington on the north-west corner of the island. Forester kangaroo, Bennett's wallaby and other Tasmanian fauna have been established on the island and emu have been introduced. At the north-east corner of the island high fossil cliffs rise abruptly from the sea.

Mount Field National Park: This park, near Maydena and only 75 kilometres from Hobart, is the only southern ski resort in Tasmania and includes spectacular mountain scenery. Principal peaks are Mt Field East and West; other features include Russell Falls, Lake Dobson, several tarns and one of the few stands of native pine forest in the State.

Port Arthur and Tasman Peninsula: This historic and scenic area is possibly the best known and most visited tourist attraction in Tasmania. The area, in addition to the historic convict ruins of the Port Arthur penal settlement, contains many small reserves of either historic or scenic significance. Port Arthur, site of the convict gaol from 1830 to 1877, has a number of historic ruins. Unfortunately, many of the buildings are in an extreme state of disrepair, however, some restoration work has been undertaken. Other historic sites include the old convict coal mines at Saltwater River and Eagle Hawk Neck where guards were stationed and a line of ferocious dogs tethered to prevent escape from the Peninsula. The Eagle Hawk Neck is also renowned for its spectacular coastal landforms e.g. The Blowhole, Devils Kitchen, Tasmans Arch and the Tessellated Pavement.

South West National Park: Is Tasmania's largest State Reserve and covers 191,582 hectares of Tasmania's rugged south-west. It is a true wilderness area and encompasses the Western and Eastern Arthur Ranges, Federation Peak, Frankland Range, Mt Anne, Lake Pedder and part of the rugged south coast. Dense scrub, which covers much of the area, frequent harsh weather and a lack of many cleared tracks make this area the domain of the experienced self-contained bushwalker.

A list of State reserves follows:

State Reserves at 31 March 1973

Name of reserve	Area	Locality	Remarks
	hectares		
Baldock Caves (three)	43	Mole Creek	Cave reserve, wet sclerophyll forest
Batchelors Grave .. .. .	..	Hobart	Historic site
Ben Lomond National Park	16,032	North-east	Highland area
Bluff Battery	2	Hobart	Historic site
Bowen's Monument and Park	3	Hobart	Historic site
Brady's Lookout	1	West Tamar	Scenic
Brown Mt-Remarkable Cave	61	Tasman Peninsula	Scenic coastal area
Bruny Island—			
Cookville-Penguin Island	1	} South-east	Coastal
Fluted Cape-Cloudy Bay	243		
Waterfall Creek	24		
Cape Pillar	3,200	Tasman Peninsula	Coastal
Convict Coal Mines, Saltwater River	214	Tasman Peninsula	Historic, scenic
Corinna	3	West coast	Historic, scenic
Corra Linn	0.5	Launceston	Scenic
Cradle Mt-Lake St Clair National Park	124,848	W. central	Mountains, lakes, wet sclerophyll forest
Croesus Cave	47	North central	Cave reserve
Davey St, No. 161 .. .. .	..	Hobart	Historic
D'Entrecasteaux—Monument	0.5	South	Historic
Watering Place	1	South	Historic
Derwent Cliffs	5	New Norfolk	Scenic
Devils Gullet	146	Near L. Mackenzie	Scenic river gorge
Eagle Hawk Neck—Foreshore	36	} Tasman Peninsula	Scenic coastal area
Taranna	25		
East Risdon	44	Hobart	Eucalypt species
Entally House	34	Central north	Historic
Fairy Glade	39	Lake Highway	Scenic fernglade
Ferndene Gorge	3	Penguin	Scenic glade
Forth Falls	55	Forth River	Waterfalls
Fossil Island	1	Tasman Peninsula	Coastal, scenic
Frenchmans Cap National Park	10,214	Central west	Mountain area
Freycinet National Park	7,541	Freycinet Peninsula	Coastal, red granite outcrops
George III Monument	10	Southport	Historic shipwreck
Gordon River	2,509	West coast	Scenic river
Grummet Island .. .. .	..	Macquarie Harbour	Historic
Gunns Plains	10	North-west	Caves
Hartz Mountains National Park	8,620	South	Scenic, flora
Hastings Caves, Chalet and Thermal Springs	61	Hastings	Caves, scenic

State Reserves at 31 March 1973—continued

Name of reserve	Area	Locality	Remarks
	hectares		
Hellyer Gorge	569	North-west	Rain forest, scenic
Henty Glacial Moraine	1	Henty River	Geological
Isle of the Dead	2	Tasman Peninsula	Historic
King Solomon Caves	202	Mole Creek	Caves
Liffey Falls	101	Bracknell	Scenic waterfall
Lookout, Port Arthur	1	Tasman Peninsula	Scenic
Lookout Rock, Bicheno	2	Bicheno	Scenic coastal area
Lyell Highway	7,284	West central	Scenic, rainforest, mountains
Macquarie Island	12,343	Sub-Antarctic	Scientific research, wildlife
Marakoopa	71	Mole Creek	Caves, geological
Maria Island National Park	9,672	East coast	Historic, wildlife park
Mariott	121	Maydena	Waterfall
Mt Arthur	4	Tasman Peninsula	Scenic lookout
Mt Barrow Falls	81	North-east	Waterfalls
Mt Barrow National Park	459	North-east	Mountain area, wet sclerophyll forest
Mt Field National Park	16,212	South central	Mountains, rainforest, scenic
Mt Montgomery	299	Ulverstone	Scenic
Mt Strzelecki National Park	3,946	Flinders Island	Highlands, dry sclerophyll forest
Mt William National Park	8,640	North-east	Dry sclerophyll forest
Murchison Highway	613	West coast	Scenic, rainforest
Notley Gorge	11	West Tamar	Scenic fern gully
Oatlands Mill	0.5	Oatlands	Historic
Pieman River	3,325	West coast	Scenic river, button grass plains
Point Puer-Crescent Bay	53	Tasman Peninsula	Historic, scenic, coastal
Port Arthur	88	Tasman Peninsula	Historic, convict ruins, scenic
Port Davey—Foreshore	546	} South-west coast	Scenic coastal area
Islands	82		
Richmond Old Gaol	0.5	Richmond	Historic
Rocky Cape	1,619	North-west	Coastal heath area, aboriginal middens
Roger River Pass	174	Roger River N.-west	Scenic, rain forest
St Columba	314	Pyengana	Waterfall
St Marys Pass	273	St Marys	Scenic road
St Patricks Head	150	St Marys	Scenic
Sarah Island (Settlement Island)	6	Macquarie Harbour	Historic, scenic
Schouten Island	3,440	East coast	Scenic coastal island
Shot Tower	3	Taroona	Historic
South West National Park	191,582	South-west	Rugged wilderness area
Steppes—Bird Sanctuary	6	Lake Highway	Sclerophyll forest
Homestead	10	Lake Highway	Historic
Stewarts Bay	4	} Tasman Peninsula	Scenic coastal area
Stewarts Bay Esplanade	23		
Sundown Point	132	West coast	Aboriginal relics
Tasman Arch (Blowhole)	57	Tasman Peninsula	Sandstone geology, scenic
Tasman Monument .. .. .	..	Tasman Peninsula	Historic
Tessellated Pavement	4	Tasman Peninsula	Geological, scenic
Thermal Springs (Kimberley)	1	Kimberley	Geological, scenic
Toll House .. .. .	..	New Norfolk	Historic
Truchanas Huon Pine Reserve	406	South-west	Huon pine forest
Waterfall Bay	12	Tasman Peninsula	Scenic coastal area
Waubadebar's Grave .. .. .	..	Bicheno	Historic
Zeehan-Renison Bell	110	West coast	Scenic road
York Town	2	North Tamar	Historic
Total area	437,134	..	..

In addition to the State reserves, listed in the preceding table, there are many State conservation areas. These are dealt with in the next section.

Conservation Areas

Areas of Crown or privately owned land may be designated as conservation areas. Wildlife and flora in conservation areas cannot be disturbed without specific approval from the National Parks and Wildlife Service. The following table lists the State's major conservation areas and indicates whether they are on privately owned or Crown land.

Major Conservation Areas (a) at 31 March 1974

Name of area	Area	Locality	Remarks
	hectares		
Deal Island	1,623	Bass Strait	State, coastal area
Derwent River	1,568	Lower Derwent	State and part private estuarine area, water-fowl
Four Mile Creek	607	East Tamar	Australian Government, estuarine area
Glenorchy Water Reserve	712	Glenorchy	Private and council, dry sclerophyll
Hunter Island	8,500	Far north-west	State, mutton bird rookery
Lavinia	1,543	King Island	State, coastal heath and dunes
Logans Lagoon	1,902	Flinders Island	State, coastal area
Moulting Lagoon	498	North of Swansea	State, coastal area, water-fowl
Reekara	2,428	King Island	Private, sandy heath
Sandspit River	429	East coast	Private, coastal estuarine area, birds
Sea Elephant River	510	King Island	Mainly private, coastal dunes and heath
South West Conservation Area	450,260	South-west	State, rugged wilderness area
East Sisters Island	405	} Furneaux Group	State, mutton bird rookery
West Sisters Island	607		
Three Hummock Island	9,308			Far north-west
Tooms Lake	22,660	Central east	State, dry sclerophyll forest and lake
Wayatinah Lagoon	1,809	Wayatinah	H.E.C., freshwater lagoon

(a) Total conservation area at 31 March 1974 was 514,455 hectares.

War Service Land Settlement

After both World War I and World War II, government schemes were operated with the aim of assisting ex-servicemen to settle on the land. The following section deals only with the scheme initiated to settle on the land eligible ex-servicemen from the 1939-45 War and the Korean and Malaysian operations.

Finance for capital expenditure under the scheme has been provided under the authority of the Australian Parliament's Loan (War Service Land Settlement) Acts but the State Government is the administrative authority for actual operations, control being exercised through the War Service Land Settlement Division of the Agricultural Bank. The basic work of the Division involved land acquisition and the development of rural holdings on which eligible ex-servicemen were then settled. Work has now been completed and all holdings have been made over to settlers.

The following table summarises progress in physical terms (farms allotted, etc.) and in financial terms (loans to settlers, payments for acquisition, etc.):

War Service Land Settlement
1939-1945 War and Korea-Malaya Operations
Summary to 30 June 1973

Operations		Australian Government expenditure (aggregate)	
Particulars	Total to 30 June 1973	Advances in respect of Tasmania	Total to 30 June 1973 (\$'000)
Land acquired (net) .. hectares	183,215	For acquisition of land	5,069
Farms allotted—		For development and improvement of land ..	36,028
Number	481	Contribution to excess cost over valuation ..	31,768
Area hectares	183,215	Settlers' credit facilities	16,748
		Concessions, remissions, moneys written off—	
		Interest	812
		Principal	541
		Living allowances for settlers	492
		Irrigation projects	6
		Cost of administration of credit facilities ..	1,079
		Total	92,543

Of the farms allotted to 30 June 1973, the largest concentrations were at King Island, Flinders Island, the Lawrenny Estate and the Montagu Project. The 481 farms both allotted and occupied at 30 June 1973 comprised: dairy farms, 191; fat lamb farms, 171; fat lamb and beef farms, 72; orchards, 24; wool-sheep farms, 20; beef, 3.

Advances to Primary Producers

Although the principal efforts in land settlement since World War II have been made under the War Service Land Settlement Scheme, the State Government has also operated its own loan schemes to assist primary producers. However, present economic problems facing rural industries have directed government attention towards rural reconstruction. The State Government is involved in the administration of three rural reconstruction schemes under the *Marginal Dairy Farms Reconstruction Act 1971*, *Rural Reconstruction Act 1971* and the *Fruitgrowing Industry Reconstruction Act 1972*. Funds are provided by the Australian Government for implementation of these three schemes; administrative costs are borne by the State. The following table shows particulars of advances under various Acts:

Advances to Primary Producers by the Agricultural Bank

Act	Total advances made during 1972-73	Total advances to 30 June 1973	Balances outstanding at 30 June 1973	
			Number	Amount
State Advances Act (including rural credits) 1935 ..	\$'000 1,659	\$'000 20,057	1,751	\$'000 7,410
Australian Government Re-establishment and Employment Act 1945 .. .. .	..	834	34	19
Primary Producers' Relief Act—				
1947 .. .. .	..	595	3	3
1962 .. .. .	..	19	1	1
1968 .. .. .	..	587	102	446
1970 .. .. .	..	177	41	176
1971	100	100	18	100
Marginal Dairy Farms Reconstruction Act	69	150	9	112
Rural Reconstruction Act	2,145	2,600	120	1,698
Closer Settlement (Soldiers) Act .. .. .	..	191	51	51
Closer Settlement Act	25	725	138	636
Fire Damage Relief Act 1967 .. .. .	..	2,599	638	2,006
Total	3,998	28,634	2,906	12,658

The main forms of assistance now available are: (i) Under Part III of the *State Advances Act* 1935, loans may be made to persons in rural industries for the purchase of farm properties, discharge of mortgage or for making improvements. Loans may be made for periods up to 30 years at an interest rate determined by the Treasurer. In October 1973, the rate was increased from 7.0 per cent to 7.75 per cent. The present limit on any single advance is \$50,000. (ii) Under Part IV of the Act (Short Term Rural Credits), loans may be made to persons engaged in prescribed rural industries for the purchase of stock, plant, seeds and manures and for other purposes considered necessary for carrying on their industry. There is no statutory limit to the amount which may be advanced to each applicant. Usual periods of loans are: plant, 10 years; stock, five years; land development, 10 to 15 years; structural improvements, 20 years; working expenses, one to three years. (iii) Under the various rural reconstruction Acts loans are made for rural reconstruction, debt reconstruction, etc.; see the next section for further details.

The *Fire Damage Relief Act* 1967 was part of the State Government's reaction to the disastrous bushfires of February 1967 when 260,000 hectares of farm land, bush and forest were devastated in 14 southern municipalities; the fire caused severe stock and fodder losses and destroyed farm homes, barns, fences, etc. Assistance for the rebuilding of farmers' homes was provided under the general scheme applicable to all citizens but other types of farm rehabilitation were provided for in a loan scheme administered by the Agricultural Bank.

RURAL RECONSTRUCTION

Rural Reconstruction Act

On 4 June 1971 an agreement was signed between the Australian Government and the State of Tasmania, the object being the implementation of a national scheme of rural reconstruction; in essence, the Australian Government provides the financial assistance but the detailed administration is vested in the State. Similar federal-state agreements were entered into by the other Australian states on the same date. In October the Tasmanian Parliament passed the *Rural Reconstruction Act* 1971 which established the mechanism for administering the scheme in Tasmania.

The original amount made available for national application during the period 1970-71 to 1974-75 was \$100m of which Tasmania was to receive \$3.3m. Subsequently the Australian Government made a further \$51m available for use during 1973-74, Tasmania's share of the additional amount being \$1.7m. The increase followed reviews in April 1972 when Tasmania received an extra \$0.5m and March 1973 when the State gained a further \$1.2m.

The concepts underlying the scheme were originally framed with the particular circumstances of the Australian sheep and wheat industries in mind. However, the operation of the scheme now provides for the inclusion of all types of agricultural industry except for 'farm build-up' cases covered under the *Marginal Dairy Farms Reconstruction Act* 1971. In March 1973, at a conference of state and federal ministers for primary industries, it was agreed that farm build-up was the preferred form of assistance since it led to permanent restructuring within the rural sector. For 1973-74 the states agreed the objective should be 70 per cent of approved allocations for farm build-up, and approvals for debt reconstruction were not to exceed 50 per cent of approvals without prior approval by the Australian Government.

Debt Reconstruction

This is to apply to the farmer who has sound prospects of successful operation but who has used all his cash resources and cannot meet his financial commitments.

The assistance can encompass a rearrangement and/or a composition of debts, the negotiation of a concessional rate of interest in substitution for existing rates, and advances of additional funds for carry-on expenses, the purchase of livestock and further property development. The rearrangement and/or composition of debts may be accomplished by the reconstruction authority

advancing money to pay existing creditors in whole or in part; or making arrangements with creditors to refrain from taking action against a debtor for a specified time; and in some cases asking creditors to defer or write-off part of their debts.

Advances made under the scheme may be for a maximum term of 20 years and there is provision for an initial period where no principal repayment may be required, interest is at an average of four per cent.

Farm Build-up

The basic intention is to assist in the build-up of properties to a size commensurate with economic operation; the concern is with the amalgamation of adjoining holdings.

When an adjoining property is sold to a farmer, the reconstruction authority may make a grant to cover the value of acquired assets which are not useful to the enlarged property (e.g. the farm dwelling). Advances may also be made by the authority for carry-on expenses, plant, livestock and property development if these demands are associated with the additional land. Advances will be restricted to a maximum term of 30 years and interest to a minimum of 6.25 per cent.

If a farmer participates in the debt reconstruction scheme, he is not thereby disqualified from the farm build-up scheme if circumstances warrant his inclusion.

Rehabilitation

Loans of up to \$3,000 may be made to those obliged to leave a rural industry. Those eligible comprise: (i) those selling a property to an adjoining owner who has been assisted under the farm build-up scheme; (ii) those unable to secure assistance under the debt reconstruction scheme because of poor long-term prospects of success.

Re-training

Certain farmers, family members and farm employees are eligible for re-training under a scheme administered by the Department of Labor and Immigration.

Tasmanian Authority

In Tasmania, the administering authority is the Rural Reconstruction Board, composed as follows: chairman (the manager of the Agricultural Bank); one representative each from the Agricultural Department and the State Treasury; a public accountant with farmers as clients; and two practical farmers. The machinery of the Agricultural Bank is available to help in the administration of the scheme.

Rural Reconstruction

Particulars	1972-73	Total to 30.6.1973
Farm build-up—		
Applications—Received no.	75	157
Approved no.	33	41
Assistance approved \$'000	618	787
Debt reconstruction—		
Applications—Received no.	73	353
Approved no.	55	119
Assistance approved \$'000	953	2,338
Rehabilitation loans—		
Applications—Received no.	11	14
Approved no.	7	8
Assistance approved \$'000	21	22

Marginal Dairy Farm Reconstruction Scheme

To achieve some stability in the dairying industry the Australian Government introduced, in 1970, the Marginal Dairy Farm Reconstruction Scheme. The Australian Government agreed to make available \$25m to the states over a four-year period commencing in July 1970 for implementation of the scheme. Half of the money made available is by way of grant and the other half by way of loans repayable over 23 years in half yearly instalments. The states are required to administer the scheme; in Tasmania management of the scheme is vested in The Board of Management of the Agricultural Bank of Tasmania.

The Tasmanian *Marginal Dairy Farms Reconstruction Act* 1971 ratified the scheme for Tasmania and in December the State-Australian Government agreement was signed. The scheme provides for dairy farmers, who produce milk and cream for manufacturing purposes and whose farms have insufficient potential to become economic units, to voluntarily dispose of their properties at market value to the State Government. The land and any useful improvements are then sold on the basis of the most practicable and economic land use for farm build-up purpose.

Eligible Dairy Farmers

A marginal dairy farm is defined as a rural property: (i) from which not less than one half of the gross income is derived from the production of milk and milk products; (ii) where the production is derived from not less than 20 cows; and (iii) which, if used only for dairying and related purposes, is not reasonably capable of producing more than 5,443 kilograms of butterfat or its equivalent. An owner of a property, which meets these requirements, may offer his farm for sale to the State under the scheme. If the application is approved then the owner is paid the market value of the farm or a mutually agreed price. Only the land and structural improvements are acquired by the Government; the farmer has to make his own arrangements for the disposal of livestock and plant.

State Disposal of Marginal Dairy Farms

The purchaser of a marginal dairy farm from the State must fulfil the following conditions: (i) he must already own land suitable for amalgamation with the property to be purchased; (ii) if the property is to be used for dairying, the buyer must have owned his existing property for at least two years; (iii) after purchase the amalgamated properties must be capable of producing the equivalent of 6,804 kilograms but not more than 20,412 kilograms of butterfat; and (iv) the properties must be within reasonable working distance from each other. An applicant may purchase more than one marginal dairy property or two or more farmers may acquire portions of such a property providing each amalgamation creates an economic unit and the preceding conditions are met. A buyer of a marginal dairy farm is not required to pay for structural improvements not required by him for satisfactory operation of the property.

Activities of the Board

To 30 June 1973 50 applications for assistance had been received of which 13 were approved involving a total amount of \$192,000.

Fruitgrowing Reconstruction Scheme (Tree Removal)

Serious economic problems confronting the Australian fruit industry led to the establishment, by the Australian Government, of a scheme to assist reconstruction of the fruit industry. In Tasmania the scheme applied only to apple or pear growers in serious financial difficulties. The Tasmanian *Fruitgrowing Industry Reconstruction Act* 1972 authorised implementation of the Australian Government-State fruitgrowing reconstruction agreement and made the State Rural Reconstruction Board responsible for administering the scheme. In November 1973 a further agreement was entered into between the Australian Government and the states which extended operation of the scheme for a further 12 months.

Total financial assistance provided under the scheme to all states by the Australian Government was limited to \$4.6m. Administrative expenses incurred are borne by the states.

Eligible Fruitgrowers

Growers involved in the apple or pear industry in Tasmania could apply for assistance if the Board was satisfied that the number of trees which the grower had constituted a commercial operation and either the grower: (i) was predominantly a horticulturist in severe financial difficulties and intended to remove all of his trees and leave the apple or pear industry; or (ii) did not have adequate resources to withstand the short-term economic effects of removal of surplus trees, but in the opinion of the Board his farm enterprise had sound long-term prospects after tree removal and putting the released land to an alternative use. A time limit was placed on applications for assistance—they had to be lodged not earlier than 14 July 1972 and no later than 30 June 1973 and the trees had to be removed by 31 October 1973. However, the November 1973 supplementary agreement varied the dates—the final date for tree removal was set at 31 October 1974. Trees removed after that date did not qualify for compensation. Any person assisted under this scheme could also apply for assistance under the Rural Reconstruction Scheme.

Type of Assistance

Assistance was based on tree removal and compensation up to a maximum \$141.64 per hectare (\$350 per acre) for fresh apples and pears with an overall average of \$101.17 per hectare (\$250 per acre) was payable for approved tree removals. When determining the amount of compensation, consideration was given to the age, variety and condition of the trees, the markets and any other matters deemed relevant to the case.

Growers, who received compensation and remained on their holdings, had to undertake not to re-plant apple or pear trees on their properties within a period of five years. To ensure compliance compensation is provided in the form of an interest bearing loan—the interest is rebateable annually if the grower observes the undertaking not to replant.

Activities of the Board

At the end of March 1974 the following progress had been made: (i) applications received for (a) partial removal, 228 (b) complete removal 315; (ii) assistance approved for (a) partial removal, \$518,000 (b) complete removal, \$712,000 (c) total approvals, \$1,230,000; (iii) total area of trees approved for removal, 2,112 hectares.

AGRICULTURAL INDUSTRY

General

The Tasmanian rural economy is marked by great diversity and even allowing for the special regional adaptations made necessary by soil, climate, terrain and altitude, there are many agricultural holdings which individually exhibit an extremely varied range of activities.

The present pattern of farming puts an increasing emphasis on livestock rearing for meat production. This is borne out by the continuing increase in the area of sown and semi-improved pasture. Wool and dairy products are still very important but production of these has tended to level off because of depressed prices. However, in 1973 there was a marked improvement in wool prices and sheep numbers in 1974 showed an increase over the 1973 level. Orcharding, hop growing and growing of vegetables for processing are also of considerable significance but each (especially orcharding) has also suffered from severe marketing difficulties in recent years. This has resulted in a number of small holdings being absorbed into larger and more economic farm units.

The next section deals with the early history of Tasmanian farming and emphasises the importance of wheat growing in the early colonial era.

Historical

The pattern of early crop development can be inferred from the following summary of official farm statistics:

Area Under Crop: Van Diemen's Land, 1818-1841
(Hectares)

Year	Wheat	Barley	Oats	Peas	Beans	Pota- toes	Turnips	English grasses	Tares	Total crops
1818	2,043	87	<i>n.a.</i>		60	108	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	(<i>a</i>)
1828	8,238	1,564	637	261	14	523	524	2,011	..	13,773
1838	16,900	5,461	8,732	351	52	1,429	3,664	6,940	177	43,706
1841	25,792	3,646	6,666	299	41	1,694	6,452	8,936	141	53,667

(*a*) Not available on a comparable basis.

Livestock statistics for the same period are summarised as follows:

Livestock: Van Diemen's Land, 1818-1841

Year	Horses	Horned cattle	Sheep	Goats
1818	267	12,356	127,883	..
1828	2,034	84,476	553,698	708
1838	9,656	75,087	1,214,485	2,400
1841	12,000	90,498	1,167,737	2,630

In 1842 the island colony was Australia's principal wheatgrower and, with over 30,000 hectares sown to this crop, contained nearly half the Australian wheat area. Throughout the 19th century wheat was a principal cash crop but eventually competition from the other states (both in type and price) caused a decline, as shown in the following table:

Wheat for Grain: Area and Total Production, Selected Years

Year	Area	Production	Year	Area	Production
	hectares	tonnes		hectares	tonnes
1860-61	26,891	38,538	1930-31	7,732	10,641
1870-71	23,222	24,413	1940-41	3,253	3,810
1880-81	20,243	20,412	1945-46 (<i>b</i>) ..	2,016	1,823
1890-91	13,133	17,500	1950-51	2,152	2,586
1898-99 (<i>a</i>) ..	34,514	62,706	1960-61	2,797	4,028
1900-01	20,973	30,210	1970-71	4,479	7,691
1910-11	21,142	30,509	1971-72	4,570	8,357
1920-21	11,446	15,404	1972-73	4,251	7,701

(*a*) Peak production year.

(*b*) Record low production year.

The home-grown product is now used to make high quality biscuit flours (for which it is well suited) and for stock feed.

Before the 1850s, most farmland had been confined to the eastern half of the State where open plains and open forest country encouraged penetration. Further development required the clearing of more thickly timbered land, the principal attraction being the fertile chocolate coloured volcanic soils of the north-west coast; at the same time, the discovery of the basalt lands in the Scottsdale-Ringarooma area was followed by settlement in the north-east. In the 1840s pioneers began to develop orchards, mainly for apples, in the heavily timbered Huon Valley; later in the 19th century orchards were established in the Tamar and lower Mersey Valleys. In the decade after Federation, annual apple production first exceeded one million bushels (as compared with the 1963-64 record crop of 8½ million bushels).

In the 20th century, the State and Australian Governments played major parts in encouraging rural development and settlement, comprehensive soldier settlement schemes being introduced after both World Wars. In the last decade, major private schemes have concentrated on pastoral development in the far north-east.

Agricultural Industry Statistics

Sources of Information

The statistics are, in the main, compiled from census returns of crop, pastoral and dairying production collected from agricultural holdings in Tasmania at 31 March each year. In conjunction with the general census, supplementary collections from farms are conducted where the harvesting of certain crops has not been completed by 31 March (e.g. apples, potatoes).

Additional information is also obtained from various marketing and other authorities and from a number of entirely separate collections covering such data as slaughtering and meat and dairy production.

Period Covered

Data relating to area sown, production and number of holdings growing crops are, in general, for the season ended 31 March. In cases where harvesting has not been completed by 31 March (e.g. potatoes), total production is nevertheless collected and included in published figures. Livestock numbers are also reported as at 31 March.

Agricultural Holdings

An 'agricultural holding' is defined as a piece of land of one acre or more (0.4 hectares) in extent used for the production of crops or for the raising of livestock and the production of livestock products. Care should be exercised in drawing conclusions from changes in the number of agricultural holdings over a series of years. There are many small sub-commercial holdings, a proportion being no more than large residential blocks with perhaps a small plot of potatoes or other crops, or carrying a house-cow or poultry. It is very difficult, in some cases, to determine whether or not they should be regarded as agricultural holdings within the definition and over a period of time some variation in treatment has occurred.

Area of Crops

Total area of land sown or planted to crops is shown irrespective of whether the whole area was subsequently harvested or whether a portion or the whole of the crops failed and was not harvested. Where two *successive* crops are grown on the same land during the one season the land is included twice in the area of crops.

Value of Production

The statistics in the following sections refer mainly to areas sown to crops and quantities produced. The value of the various crops is shown under 'Value of Production' in chapter 8.

Classification of Agricultural Holdings By Type of Activity

Because many Tasmanian holdings are devoted to more than one specific type of farming activity it is difficult to present, in summary form, the essential characteristics or structure of agricultural industry in the State today. Before considering in detail crop areas, production statistics and livestock numbers, it is logical to examine the main 'line' of each farm and to determine the principal activities; from this study can be derived a classification of holdings by type of activity. In 1959-60 the first attempt was made at classifying agricultural holdings in all states on a uniform basis. Similar classifications were produced for 1965-66, 1968-69 and 1970-71 and an annual series for subsequent years will be produced (although later figures were not available at time of printing).

The next table is a summary of the main farm types for the years 1959-60, 1965-66, 1968-69 and 1970-71:

Holdings (a) Classified According to Type of Activity, Selected Years

Year	Type of holding						
	Sheep	Cattle		Fruit	Multi-purpose	Other	Total classified
		Meat	Milk				
1959-60 ..	1,984	153	3,038	1,527	743	684	8,129
1965-66 ..	1,547	276	3,026	1,234	924	857	7,864
1968-69 ..	1,423	468	2,678	906	652	820	6,947
1970-71 ..	1,714	444	(b)2,448	869	211	777	6,463

(a) Excludes 'sub-commercial' and unused holdings.

(b) Not strictly comparable with previous years due to a change in classification criteria.

A geographical distribution of holdings classified according to type of activity in 1968-69 will be found in the 1973 Year Book; in the same text appears a description of the principles applied in making the classification.

Size of Agricultural Holdings

A classification of agricultural holdings by size is carried out at irregular intervals (the most recent being for the year 1971). In the next table the size classifications, originally compiled in acres, have been converted directly to hectares; hence the unusual class limits.

Classification of Rural Holdings by Size

Size of holdings (hectares)	Number of holdings			Area of holdings ('000 hectares)		
	1928	1969	1971	1928	1969	1971
Under 20	3,164	2,241	2,063	23	19	18
20 and under 40	2,108	1,457	1,339	59	42	39
40 and under 202	4,779	4,624	4,463	443	427	417
202 and under 405	726	950	954	240	267	269
405 and under 2,023	775	888	886	647	754	747
2,023 and under 4,047	146	124	128	412	339	348
4,047 and under 8,094	67	68	59	374	372	321
8,094 and under 20,234	29	27	28	329	300	309
20,234 and over	5	5	6	155	146	163
Total	11,799	10,384	9,926	2,684	2,667	2,631

Number of Holdings with Crops or Livestock

At 31 March 1973, there were 9,733 agricultural holdings (compared with 10,974 in 1963). The following table shows the number of holdings growing selected principal crops or carrying livestock; this gives some indication of farming activities on a broad basis only, since the same holding may be included more than once in the figures (in an extreme case, the one holding could be included 11 times):

Number of Holdings Growing Principal Crops or Carrying Livestock

Particulars	1962-63	1969-70	1970-71	1971-72	1972-73
Number of agricultural holdings ..	10,974	10,159	9,926	9,807	9,733
Holdings—					
Growing—					
Grain (a)—					
Barley ..	340	475	517	475	472
Oats	474	307	305	238	236
Wheat	243	203	160	160	147
Hops	106	102	81	74	73
Vegetables (b)—					
Potatoes ..	2,188	1,174	985	840	651
Onions	<i>n.a.</i>	34	39	61	54
Fruit—					
Orchard tree (c)	1,383	920	1,007	874	781
Small fruit (b)	526	353	359	335	268
Carrying—					
Cattle	8,671	8,405	8,384	8,363	8,314
Sheep	5,415	4,815	4,611	4,257	3,973
Pigs	3,350	2,302	2,134	1,888	1,533

(a) Eight hectares and over.

(b) 0.4 hectares and over up to 1971-72; 0.5 hectares and over for 1972-73.

(c) 0.4 hectares and over.

It should be noted that a fall in the number of holdings engaged in a particular activity does not necessarily involve decreased total activity. Holdings carrying cattle have decreased over the last 10 years while cattle numbers have doubled in the same period. However, the decline in holdings growing small fruit has been matched by an actual fall in crop area and in total production.

Land Utilisation on Agricultural Holdings

Agricultural holdings at present occupy 37.9 per cent of Tasmania's area of 6,833,100 hectares; details of land utilisation follow:

Land Utilisation on Agricultural Holdings
(Hectares)

Particulars of usage	1962-63	1970-71	1971-72	1972-73
Crops (excluding sown pastures harvested) (a)	94,273	80,658	66,617	79,859
Fallow (b)	29,875	22,887	11,091	11,309
Sown pastures (c)	586,369	838,094	852,279	855,649
Balance (used mainly for grazing)	1,888,665	1,689,423	1,676,947	1,644,732
Total area of all holdings	2,599,182	2,631,060	2,606,934	2,591,549

(a) Excludes area of sown pasture harvested; includes also orchards and small fruits.

(b) Excludes short period or summer fallow.

(c) Includes area harvested. Lucerne is classified to sown pastures.

Definition of 'Crops'

'Crops,' as specified in the previous table, refers only to cultivated fields and orcharding land. However, it is reasonable to regard as also a crop the yield obtained from harvesting sown pastures. The next table shows the total area of crops, using this wider definition and taking account of double-cropping:

Total Area of Crops
(Hectares)

Area	1962-63	1970-71	1971-72	1972-73
Area used for crops (a)	94,273	80,658	66,617	79,859
Area double cropped	1,980	3,395	2,794	3,052
Sown pastures harvested (b)	70,890	90,890	80,762	54,777
Total area of crops	167,144	174,941	150,173	137,688

(a) As shown in previous table.

(b) See text below.

Prior to 1971-72, harvested areas included those cut for hay, seed, silage or green feed. In 1971-72 and 1972-73, no details of the area cut for silage and green feed were collected. In this and the previous table, figures have been revised to reflect the change in classification of lucerne from a crop to a sown pasture.

Definition of 'Sown Pasture'

The next table shows the total area of sown pasture and distinguishes between areas *cut* for various purposes and areas simply grazed:

Sown Pasture: Classification of Total Area
(Hectares)

Particulars	1962-63	1970-71	1971-72	1972-73
Pastures harvested—				
Hay	61,009	81,466	78,701	53,937
Seed	2,144	2,060	2,061	840
Green feed or silage	7,738	7,364	<i>n.a.</i>	<i>n.a.</i>
Total pastures harvested	70,890	90,890	80,762	54,777
Pastures not harvested	515,479	747,204	771,518	800,872
Total sown pasture	586,369	838,094	852,279	855,649

Trend in Land Utilisation

The total area of agricultural holdings is still approximately the same as it was at the end of World War I. The most striking change is the rapid development of sown pasture, the previous table showing a 46 per cent increase in the decade ending 1972-73. In 1944-45 the area of sown pasture was under 180,000 hectares; it passed 500,000 hectares in 1958-59 and exceeded 800,000 hectares in 1969-70. A substantial increase has also occurred in the area of sown pasture harvested.

Grain crops are no longer the dominant item and many primary producers, through their development of sown pasture, have become grassland farmers with the mower and pick-up baler as their main 'harvesting' machines (as opposed to the reaper and binder on ploughed fields). The trend to grassland farming has meant greatly increased capacity to carry stock, the numbers of sheep having doubled and cattle trebled since World War II. In the decade ending 1972-73, sheep increased seven per cent from 3.6 to 3.8 million, cattle by 103 per cent from 444,000 to 900,000. (Sheep numbers, reached their highest level, 4.6 million, in 1969-70.)

Temporary and Permanent Pasture

It should be noted that some of the areas included as sown pasture are 'temporary' in the sense that they may be put under crop after some years of use for grazing. In the same sense, specific areas used for crops in any year are also 'temporary' since they may later be converted to sown pasture. This rotational pattern, characteristic of much of Tasmania's mixed farming, obviously is designed to maintain soil fertility at a high level and to guard against the soil exhaustion associated with the earlier era of intense cultivation of cash crops. 'Ley' farming is the technical term for this rotational method.

Farm statistics for 1972-73 show the area of sown pasture as 855,649 hectares. The main seed varieties produced on Tasmanian farms during the past five years are listed in the following table:

Pasture Seed Production (a)
(kg)

Type of grass	1968-69	1969-70	1970-71	1971-72	1972-73
Clover—White	10,872	26,011	52,834	45,324	6,643
Red	559	17,882	31,294	2,880	..
Subterranean	12,040	102	..	..	..
Other	660	965	2,489	14,461	..
Ryegrass—Perennial	468,753	319,851	305,322	212,917	75,338
H.1.	148,241	45,671	53,952	56,309	19,146
Italian	45,824	22,302	33,631	57,022	35,929
Cocksfoot	2,032	2,743	23,064	1,905	336
Lucerne .. .. .	..	2,083	610	4,790	1,830
Other	52,936	13,463	35,968	36,008	26,331
Total	741,917	451,074	539,165	431,616	165,553

(a) Includes all pasture seed harvested, whether as a separate crop or from an area sown to grain crops.

Crops

Sufficient has been said on land utilisation to emphasise the trend to grassland farming. In the summary table below, showing the area devoted to the principal crop types, the area of sown pasture *cut* for hay, seed, silage or green feed is attributed to the appropriate crop, e.g. as a component of hay and green feed.

Area of Principal Crops: Summary
(Hectares)

Crop	1962-63	1970-71	1971-72	1972-73
Section 1 (a)—				
Cereals for grain	26,848	26,834	23,589	23,558
Legumes mainly for grain	3,929	2,719	1,684	1,334
Crops for hay (b)	5,943	4,187	2,475	4,450
Crops for green feed or silage (c)	37,431	31,736	22,116	33,849
Fruit—Orchard tree	7,996	7,820	7,188	6,608
Berry and small	884	612	634	615
Vegetables for sale for human consumption	11,755	8,519	9,968	10,237
Hops	615	530	539	616
Oil poppies	(d)	567	810	1,220
Other crops	852	526	409	430
Total section 1 (e)	96,253	84,052	69,411	82,917

Area of Principal Crops: Summary—continued
(Hectares)

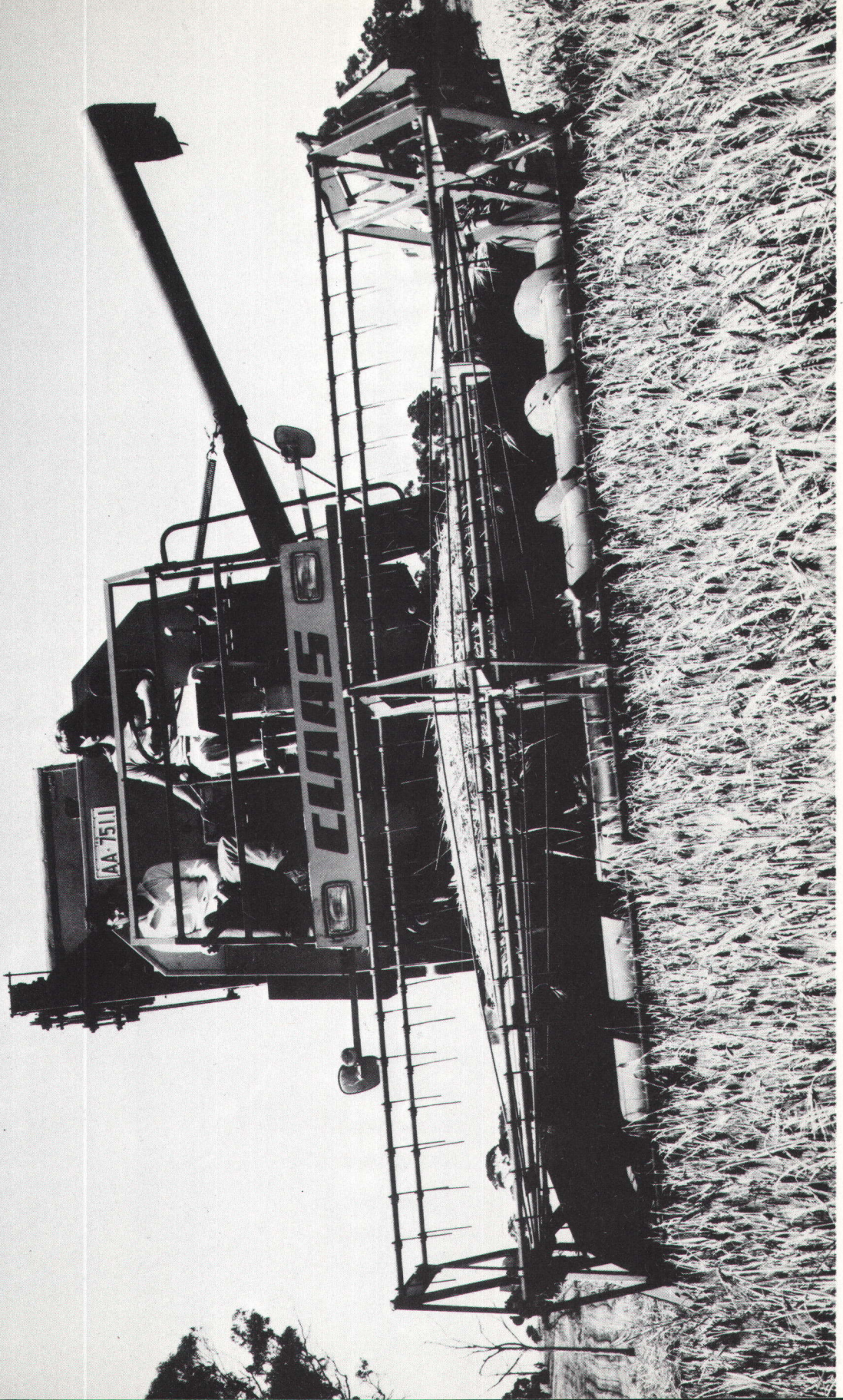
Crop	1962-63	1970-71	1971-72	1972-73
Section 2—				
Pasture harvested for hay, seed, green feed or silage (f)—				
Pasture hay	61,009	81,466	78,701	53,937
Pasture seed	2,144	2,060	2,060	840
Pasture harvested for green feed or silage	7,738	7,364	n.a.	n.a.
Total section 2	70,890	90,890	(g)80,762	(g)54,777
Total area of crops	167,144	174,941	(g)150,173	(g)137,688

- (a) Section 1 excludes pastures harvested for hay, seed, green feed or silage; details for these are given in section 2.
 (b) Excludes pasture hay; see section 2.
 (c) Includes vegetables for stock feed but excludes pastures harvested for green feed or silage; see section 2.
 (d) Prior to 1970-71 oil poppies were included in 'Other crops'.
 (e) Includes land double cropped; in 1972-73 area involved was 3,052 hectares.
 (f) Includes lucerne harvested.
 (g) Excludes pasture harvested for green feed or silage.

Details of individual crops, their area, production and yield per hectare, are shown in the next table:

Crops: Area, Production and Yield Per Hectare

Crop	Average, ten years ended 1971-72			Year 1972-73		
	Area	Production		Area	Production	
		Total	Yield per hectare		Total	Yield per hectare
CEREALS FOR GRAIN						
	hectares	tonnes	tonnes	hectares	tonnes	tonnes
Barley	9,423	19,113	2.03	12,802	18,711	1.46
Oats	11,409	12,234	1.07	6,477	7,144	1.10
Rye	29	30	1.04	28	12	0.42
Wheat	5,790	10,038	1.73	4,251	7,701	1.81
LEGUMES MAINLY FOR GRAIN						
	hectares	tonnes	tonnes	hectares	tonnes	tonnes
Beans—Navy (haricot) ..	..	..	..	157	299	1.90
Horse	156	233	1.49	31	15	0.48
Field peas—Blue	1,769	2,885	1.63	504	387	0.77
Grey, etc.	1,001	1,420	1.42	642	660	1.03
HAY						
	hectares	tonnes	tonnes	hectares	tonnes	tonnes
Pasture (incl. lucerne) ..	67,842	344,473	5.08	53,937	215,580	3.99
Oaten	5,474	26,892	4.91	3,030	12,075	3.98
Other	329	1,428	4.34	1,420	5,382	3.79



Barley harvesting near Sorell, Eastern Tasmania

[Dept of Film Production]



Mobile pea viner in operation, North-West Coast

[Dept of Film Production]

Crops: Area, Production and Yield Per Hectare—continued

Crop	Average, ten years ended 1971-72			Year 1972-73		
	Area	Production		Area	Production	
		Total	Yield per hectare		Total	Yield per hectare
ORCHARD TREE FRUIT						
	hectares	'000 bush	bushels	hectares	'000 bush	bushels
Bearing—						
Apples	5,991	7,141	1,192	4,980	7,024	1,410
Apricots	142	31	215	90	15	165
Pears	522	474	908	345	302	875
Plums and prunes	20	10	486	8	3	386
Other	31	..	..	25	..	..
Non-bearing	1,336	..	..	1,159	..	..
BERRY AND SMALL FRUIT						
	hectares	tonnes	kg	hectares	tonnes	kg
Bearing—						
Currants (black and red)	289	1,161	4,012	232	905	3,910
Gooseberries	11	86	7,575	8	53	6,484
Loganberries	50	308	6,205	38	271	7,048
Raspberries	241	1,416	5,869	198	1,466	7,393
Strawberries	27	106	3,858	24	112	4,621
Non-bearing	173	..	..	114	..	..
VEGETABLES FOR SALE FOR HUMAN CONSUMPTION						
	hectares	tonnes	tonnes	hectares	tonnes	tonnes
Beans, french and runner	424	3,792	8.96	738	6,237	8.45
Peas, green (a)—						
For processing	5,351	21,355	3.97	4,779	18,976	3.96
Sold in pod	46	56		21	27	
Potatoes	4,288	72,600	16.93	3,330	78,286	23.51
Turnips, swede and white	242	4,170	17.22	253	4,048	16.01
Other	720	..	..	1,116	..	..
PASTURE SEED (INCLUDING LUCERNE)						
	hectares	tonnes	kg	hectares	tonnes	kg
Pasture seed (including lucerne) (b)	1,938	522	269	840	166	197
OTHER CROPS						
	hectares	tonnes	kg	hectares	tonnes	kg
Hops (c)	610	1,175	1,925	616	1,450	2,353
Mustard	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Oil poppies	n.p.	n.p.	n.p.	n.p.	1,220	n.p.

(a) Ex-shell weight.

(b) Production includes seed harvested from areas sown to grain crops; this seed is excluded from the average yield figures.

(c) Production is expressed as dry weight.

Summary of Principal Crops

The following tables, which summarise the area of selected principal crops and give details of production for recent years, illustrate: (i) the increasing importance of barley for grain, and french and runner beans for processing; and (ii) the declining importance of potatoes and small fruit.

Selected Principal Crops: Area and Production

Particulars	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
AREA (HECTARES)						
Barley for grain	7,993	10,608	12,016	12,884	12,576	12,802
Oats for grain	12,587	12,721	8,971	9,444	6,432	6,477
Wheat for grain	6,208	7,039	5,962	4,479	4,570	4,251
Total hay	66,952	85,212	69,526	85,653	81,176	58,387
Field peas	3,828	2,269	2,309	2,497	1,445	1,146
Pasture seed	2,144	1,819	1,833	2,060	2,061	840
Hops (a)	615	645	596	530	539	616
Beans, french and runner	181	674	638	569	723	738
Peas, green—						
For processing	5,133	5,671	5,904	3,013	4,290	4,779
Sold in pod	58	39	47	23	12	21
Potatoes	5,600	4,638	3,791	3,640	3,593	3,330
Orchard (tree) bearing—						
Apples	6,268	5,863	5,804	5,715	5,218	4,980
Pears	588	476	493	448	385	345
Berry and small fruit, bearing—						
Currants (black and red)	383	239	234	238	238	232
Loganberries	70	51	41	38	42	38
Raspberries	305	196	209	227	206	198
Strawberries	37	27	26	19	21	24
PRODUCTION						
Barley for grain tonnes	14,310	20,051	24,844	29,763	27,696	18,711
Oats for grain tonnes	15,014	10,576	8,254	8,820	7,050	7,144
Wheat for grain tonnes	11,401	11,166	9,598	7,691	8,357	7,701
Total hay tonnes	318,028	502,159	367,340	447,746	449,937	233,037
Field peas tonnes	5,266	3,507	4,762	5,519	2,320	1,047
Pasture seed tonnes	536	742	451	539	432	166
Hops (b) tonnes	1,298	1,582	1,268	1,077	1,159	1,450
Beans, french and runner tonnes	1,768	6,246	5,095	5,294	5,988	6,237
Peas, green (c)—						
For processing tonnes	14,962	24,615	29,956	14,875	17,617	18,976
Sold in pod tonnes	63	61	44	24	14	27
Potatoes tonnes	83,870	73,278	67,995	72,591	70,370	78,286
Apples '000 bush	6,262	7,138	7,400	7,373	5,873	7,024
Pears '000 bush	415	451	496	397	296	302
Currants (black and red) tonnes	1,398	1,197	936	1,015	1,140	905
Loganberries tonnes	539	285	202	230	255	271
Raspberries tonnes	1,573	1,192	1,276	1,340	1,311	1,466
Strawberries tonnes	168	92	103	59	85	112

(a) Includes areas not in full bearing.

(b) Dry weight.

(c) Ex-shell weight.

Principal Crops

The data on area and production of crops are compiled, in general, to give totals for each municipality. In subsequent parts of this chapter dealing with geographical distribution, the information is presented only in statistical divisions; however, the Hobart and Southern Division

totals have been combined since the Hobart Division is basically a concept related to a population which is predominantly urban in character. A description of the Tasmanian statistical divisions and sub-divisions appears in chapter 2.

Cereals for Grain

The next table shows the geographical distribution of cereal grain growing:

Area of Cereals for Grain in Statistical Divisions, 1972-73
(Hectares)

Cereals for grain	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Barley	4,172	5,193	1,681	6,874	1,756	..	1,756	12,802
Oats	1,514	2,857	1,866	4,723	240	..	240	6,477
Rye	25	..	3	3	..	..	..	28
Wheat	1,673	1,373	1,065	2,438	140	..	140	4,251
Total	7,384	9,423	4,615	14,038	2,136	..	2,136	23,558

(a) Statistical sub-division.

The area under barley as a grain crop has tended to increase in recent years, the 1962-63 area being only 7,993 hectares. Larger than usual wheat areas were recorded in 1963-64 (7,107 hectares) and 1968-69 (7,039 hectares) but the 1972-73 area (4,251 hectares) was the lowest for 12 years.

Legumes Mainly for Grain

The geographical distribution of these crops follows:

Area of Legumes Mainly for Grain in Statistical Divisions, 1972-73
(Hectares)

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Beans—								
Navy .. ..	..	8	..	8	149	..	149	157
Horse	5	26	..	26	..	..	..	31
Field peas—								
Blue	36	447	7	454	14	..	14	504
Grey, etc. ..	45	400	7	407	190	..	190	642

(a) Statistical sub-division.

Hay and Green Feed

The following table shows the geographical distribution of hay and green feed crops:

**Area of all Hay and Crops for Green Feed or Silage in Statistical Divisions, 1972-73
(Hectares)**

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Hay								
Pasture ..	6,137	15,995	7,649	23,644	24,132	24	24,156	53,937
Oaten ..	584	1,375	495	1,870	576	..	576	3,030
Other ..	382	384	156	540	498	..	498	1,420
Total ..	7,103	17,754	8,300	26,054	25,206	24	25,230	58,387
Crops for green feed or silage(b)	10,561	8,471	6,827	15,298	7,984	6	7,990	33,849

(a) Statistical sub-division.

(b) Includes vegetables for stock feed; excludes pasture harvested for green feed or silage.

The North Western Sub-division, with the largest area devoted to sown pastures, produces approximately 40 per cent of the State's hay. Its predominance in area under hay and green feed crops can be related to the fact that it carries about 40 per cent of the State's cattle and is the principal dairying area.

The principal green feed crop is oats (nearly half of total green feed area); other green feed crops include soft turnips, rape, chou moellier, barley, millet, ryecorn and wheat.

Orchard Tree Fruit and Berry and Small Fruit

The geographical distribution of orchards and berry and small fruit areas is shown below:

**Area of Orchard Tree and Berry and Small Fruit in Statistical Divisions, 1972-73
(Hectares)**

Kind	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Orchard tree fruit ..	5,055	1,191	14	1,204	349	..	349	6,608
Berry and small fruit ..	606	3	3	6	3	..	3	615

(a) Statistical sub-division.

Orcharding is heavily concentrated in and around the Huon Valley (Southern Statistical Division); the other main area is in the Tamar Valley (Northern Division). Berry and small fruit growing is almost entirely confined to the Derwent and Huon Valleys.

In the period from 1948-49 State production of berry and small fruit has dropped by about two-thirds. In spite of this Tasmania is still the principal producer of raspberries and black and red currants. The State also makes an important contribution to other small fruit production.

Principal Small Fruits: Area and Production

Year	Currants (black and red)		Loganberries		Raspberries		Strawberries	
	Bearing area	Pro-duction	Bearing area	Pro-duction	Bearing area	Pro-duction	Bearing area	Pro-duction
	hectares	'000 kg	hectares	'000 kg	hectares	'000 kg	hectares	'000 kg
1948-49 (a) ..	812	2,735	86	380	844	3,449	101	395
1968-69 ..	239	1,197	51	285	196	1,192	27	92
1969-70 ..	234	936	41	202	209	1,276	26	103
1970-71 ..	238	1,015	38	230	227	1,340	19	59
1971-72 ..	238	1,140	42	255	206	1,311	21	85
1972-73 ..	232	905	38	271	198	1,466	24	112

(a) Representative year from period when small fruit areas were at record level.

The gross value of the apple crop continues to represent about one-third of the total gross value of crops; however, the actual value of the apple crop has declined considerably in recent years. The next table gives recent details of area, production and average yield and illustrates the effect of economic problems confronting the industry.

Apples: Area and Production

Season	Area		Number of trees		Production		
	Bearing	Non-bearing	Bearing	Non-bearing	Total	Yield	
						Per hectare	Per bearing tree
	hectares	hectares	'000	'000	'000 bush	bush	bush
1968-69 ..	5,863	1,486	2,191	555	7,138	1,217	3.26
1969-70 ..	5,804	1,418	2,150	525	7,400	1,275	3.44
1970-71 ..	5,715	1,425	2,124	530	7,373	1,290	3.47
1971-72 ..	5,218	1,358	2,015	524	5,873	1,125	2.91
1972-73 ..	4,980	1,097	1,977	435	7,024	1,410	3.55

After World War I, the apple area was 10,500 hectares but the decline in area since then has been more than offset by greatly increased average yield per hectare. Although the area planted with apples in New South Wales and Victoria is greater than in Tasmania the much higher average yields in Tasmania (1,410 bushels per hectare in 1972-73) have caused production of apples to exceed that of any other state. The higher yields which are more than twice those in some states can be attributed to several factors including a much greater density of trees per hectare and the greater use of irrigation.

In the 1967-68 season, devaluation of sterling threatened to reduce the return to overseas exporters and the Australian Government outlined a scheme in May 1968, the main provision being 50 cents devaluation compensation for each bushel of apples exported and 53 cents for each bushel of pears exported. The compensation was continued for the 1968-69 season, but at the reduced rate of 40 cents per bushel for apples and 50 cents for pears. In 1969-70 compensation was paid at the same rate as in the 1967-68 season. As a result of the December 1972 revaluation of the Australian dollar, compensation of 30 cents per bushel (up to a maximum of 5,000 bushels per grower) was offered to overseas exporters of apples and pears.

Commencing with the 1970-71 export season the Australian Government's *Apple and Pear Stabilization Act* came into effect. The Act's provisions are designed to reduce the financial risks involved in the overseas export of fruit. Amounts paid under the scheme were: 1970-71, \$1,664,000; 1971-72, \$1,955,000; 1972-73, \$1,798,000 for apples (amount paid for pears not available at time publication).

A wide variety of apples is produced in Tasmania but many only in small quantities. Of the total production of 7,024 bushels in 1972-73, four varieties accounted for 64 per cent (democrat, 19 per cent; granny smith, 17 per cent; jonathan, 15 per cent; and sturmer pippin, 14 per cent).

Concurrent with increasing economic problems facing the apple industry the number of apple trees planted has decreased markedly. In 1966 total tree plantings were 108,000 comprising: (i) replacement plantings in existing orchards for trees removed, 38,000; (ii) trees planted in new orchard areas, 70,000. In 1973 plantings were only 32,000 trees (25,000 replacement plantings and 7,000 trees in new orchard areas). The next table shows tree plantings during 1972 and 1973 in new orchard areas and replacement plantings in existing orchard areas.

Apple and Pear Trees Planted According to Variety
(Number)

Variety	1972			1973		
	In existing orchards (a)	In new orchards	Total	In existing orchards (a)	In new orchards	Total
APPLES						
Jonathan	180	..	180	1,122	..	1,122
Sturmer pippin	40	..	40	1,184	..	1,184
Democrat	2,399	167	2,566	4,427	200	4,627
Granny smith	3,869	700	4,569	4,034	1,240	5,274
Cleopatra	603	..	603	331	57	388
Delicious—Golden	2,146	680	2,826	1,794	300	2,094
Other	15,967	7,714	23,681	10,499	4,222	14,721
Other	2,560	2,128	4,688	1,254	1,128	2,382
Total	27,764	11,389	39,153	24,645	7,147	31,792
PEARS						
Packhams triumph	549	150	699	1,201	19	1,220
Winter cole	26	..	26	1,259	..	1,259
Beurre bosc	160	..	160	971	..	971
Other	82	..	82	945	..	945
Total	817	150	967	4,376	19	4,395

(a) Trees planted as replacements for trees removed.

Vegetables for Sale for Human Consumption

As previous area and production tables indicated, there has been a decline in potato growing; the next table traces the history of this crop since 1860:

Potatoes: Area Under Crop and Total Production, Selected Years

Year	Area	Production		Year	Area	Production	
		Total	Yield per hectare			Total	Yield per hectare
1860-61 ..	hectares 3,084	tonnes 34,128	tonnes 11.07	1930-31 ..	hectares 15,066	tonnes 96,818	tonnes 6.43
1870-71 ..	3,975	36,606	9.21	1940-41 ..	15,121	115,844	7.66
1880-81 ..	4,217	33,070	7.84	1944-45 (a)	32,817	350,773	10.69
1890-91 ..	8,148	74,332	9.12	1950-51 ..	12,780	125,990	9.86
1900-01 ..	9,335	95,368	10.22	1960-61 ..	4,401	39,677	9.02
1910-11 ..	10,615	71,215	6.71	1970-71 ..	3,640	72,591	19.94
1920-21 ..	12,950	90,102	6.96	1972-73 ..	3,330	78,286	23.51

(a) Peak area and production year.

Potato growing was for many years a major activity in the North Western Sub-division and even in 1972-73, 84 per cent of the area and 88 per cent of the production of the State's potato crop was located in that area. The size of the Tasmanian potato crop has always been influenced by the demand from other states, in particular, New South Wales. In 1945-46, over 166,000 tonnes were exported; annual exports from 1960-61 to 1968-69 ranged between 28,000 and 39,000 tonnes but in 1972-73 they were only 5,015 tonnes. The considerably increased yield per hectare in recent years has been due mainly to the greater use of irrigation and artificial fertilisers. In 1972-73 69 per cent of the State potato crop was irrigated compared with only 18 per cent 10 years earlier. (See 'Technical Aspects of the Agricultural Industry' later in this chapter.)

The decline in the export crop has been largely offset by increased opportunities for disposing of potatoes and other vegetable crops to dehydrating, canning and deep freezing plants developed on the north-west coast and in the Scottsdale area since World War II. The principal vegetable crop currently grown for processing is green peas; in 1972-73 the area of peas planted for processing was 4,779 hectares. A demand by processing establishments also exists for other vegetables. In 1972-73 738 hectares of french and runner beans were grown compared with only 200 hectares 10 years earlier. The production from all but 7 hectares of the 1972-73 bean crop was for processing factories; planned industrial development during the next few years should result in an increased demand for potatoes for processing.

The concentration of vegetable growing in certain areas of the State is illustrated in the following table:

Vegetables for Sale for Human Consumption (a)
Area Under Selected Crops in Statistical Divisions, 1972-73
(Hectares)

Crop	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (b)	North Eastern (b)	Total	North Western (b)	Western (b)	Total	
Beans, french and runner ..	2	..	26	26	710	..	710	738
Peas, green ..	10	1,895	213	2,108	2,681	..	2,681	4,800
Potatoes ..	257	61	204	265	2,806	2	2,808	3,330
Turnips, swede and white ..	57	18	35	53	141	1	142	253
Other vegetables	213	63	153	216	688	..	688	1,116
Total ..	540	2,036	631	2,668	7,026	3	7,029	10,237

(a) Includes vegetables for processing.

(b) Statistical sub-division.

Pasture Seed

The geographical distribution (in hectares) of areas yielding pasture seed in 1972-73 was as follows: Northern, 664; Southern, 92; Mersey-Lyell, 83; Hobart, 1; total, 840. The area of pasture seed fluctuates widely depending on farming conditions; in 1964-65, 3,647 hectares yielded seed compared with only 840 hectares in 1972-73.

Hops

One of Tasmania's principal industrial crops is hops, grown mainly in the Derwent Valley in the municipalities of New Norfolk and Hamilton. In 1972-73 the State's hop area was 616 hectares.

Hop production reached a record level of 1,582,000 kg in 1968-69 and, for the first time, some growers experienced difficulty in disposing of their crops. As a result of these difficulties, some farmers in 1970 and 1971 reduced their areas, a number 'grubbed out' their entire area of hops, while many others failed to completely harvest their crops. This led to a fall in production to 1,077,000 kg for the 1971 season. However, there has been some recovery since 1971 and production for the 1973 season was 1,450,000 kg.

The most popular variety of hops is the 'pride of ringwood' which accounted for 94 per cent of the area of hops in 1973, compared with 82 per cent in the previous year.

Tasmania has for many years been the principal Australian grower of hops, producing about 70 per cent of the crop. However, increased production in Victoria in recent years has further aggravated marketing problems for Tasmanian growers and in 1972 Tasmania's contribution had fallen to 63 per cent.

The next table shows details of area, production and value over a five-year period:

Hops: Area, Production and Value

Season	Number of growers	Total area	Production		
			Total (a)	Yield per hectare (a)	Value
		hectares	'000 kg	kg	\$'000
1968-69	108	645	1,582	2,451	2,673
1969-70	102	596	1,268	2,128	2,143
1970-71	81	530	1,077	2,032	1,820
1971-72	r 76	539	1,159	2,149	r 2,186
1972-73	74	616	1,450	2,353	2,844

(a) Dry weight.

Oil Poppies

Oil poppies are a relatively new cash crop in Tasmania. Initially they were grown on the mid north-west coast, but more recently oil poppies have also been grown in the south and other parts of the State. In 1972-73, 1,220 hectares were grown compared to 810 hectares in 1971-72.

Oil poppy 'straw' (the heads of the flower) is processed at Latrobe; oil extracted is used in the manufacture of pharmaceuticals.

'All Other Crops'

In the table 'Area of Principal Crops' the item 'Other crops' (430 hectares in 1972-73) includes lavender, flower seeds, cut flowers, rape seed and a variety of other crops grown for seed.

LIVESTOCK

Introduction

This subject is dealt with in two parts: (i) Number of Livestock on Agricultural Holdings; and (ii) Livestock Products.

The first part needs no comment but the second part (Livestock Products) requires explanation. In relation to the various types of livestock, the following products are included:

Cattle—meat, milk, butter, cheese. *Sheep*—meat, wool.
Pigs—meat. *Poultry*—meat, eggs.

Butter, meat and cheese, although regarded as manufacturing industry products, are included in the section 'Livestock Products', which follows later in the chapter, because the pattern and scale of livestock farming is closely linked to the processing of these products.

Number of Livestock on Agricultural Holdings

The following summary table shows the number of livestock on agricultural holdings since 1860:

Livestock on Agricultural Holdings: Selected Years

Year	Horses	Cattle	Sheep	Pigs
	no.	no.	'000	no.
1860 (a)	21,034	83,366	1,701	31,290
1870	22,679	101,459	1,350	49,432
1880	25,267	127,187	1,794	48,029
1890	31,165	162,440	1,619	81,716
1900	31,607	165,516	1,684	68,291
1910	41,388	201,854	1,788	63,715
1919-20	39,452	214,442	1,781	35,530
1929-30 (b)	34,336	214,643	2,091	52,899
1939-40 (b)	29,605	252,484	2,677	44,941
1949-50 (c)	21,197	274,740	2,170	35,841
1959-60	10,512	375,342	3,494	67,118
1969-70	6,478	646,439	4,560	111,275
1972-73	n.a.	900,489	3,824	85,114
Tasmanian numbers as proportion of Australian total (1972-73)	% n.a.	% 3.1	% 2.7	% 2.6

(a) At varying dates to 1919-20.

(b) At 31 December.

(c) At 31 March from 1949-50.

Cattle

Classification

The traditional way of classifying cattle has been to call them either 'dairy' or 'beef' cattle but this has possibly been confusing since the terms may refer to either *purpose* or *breed*. In the period 1942-43 to 1962-63, the annual farm census required this dissection but the terms were not defined. As from 1963-64 the cattle questions have been as follows: (i) bulls classified by *breed*; (ii) 'house cows' specified separately; and (iii) all other cattle classified according to *purpose* i.e. milk production or meat production. The results of the 1972-73 farm census are given in the following table which closely follows the lay-out of the collection form and provides an analysis in which it is possible to isolate the number of cows and heifers directly associated with dairying.

Classification of Cattle on Agricultural Holdings at 31 March

Description		1972	1973
Bulls used or intended for service	Dairy breed bulls (1 year and over)	2,724	2,860
	Beef breed bulls (1 year and over)	11,045	11,778
	Bull calves (under 1 year) intended for service—		
	Dairy breed bull calves	1,229	1,506
	Beef breed bull calves	4,539	5,551
Cows and heifers used or intended for production (for sale) of milk and cream	Cows—In milk at 31 March	128,997	123,984
	Dry at 31 March	25,828	30,839
	Heifers (1 year and over)	36,967	36,380
	Heifer calves (under 1 year)	36,093	40,957
House cows (in milk and dry) and heifers (1 year and over) being kept primarily for own milk supply		3,861	3,889
Cattle and calves (not included above) mainly for meat production	Cows and heifers (1 year and over)	263,132	286,109
	Calves (under 1 year) including vealers	219,842	240,475
	Other (1 year and over) i.e. steers, bullocks, etc.	95,062	116,161
Total cattle and calves for all purposes		829,319	900,489

The total of 'Cows and heifers used or intended for production (for sale) of milk and cream' in the previous table (232,160) can be associated directly with the dairying industry. Similarly the total of 'Cattle and calves, mainly for meat production' (642,745) can be associated directly with the beef cattle industry. The previous change in classification makes it impossible to compare, in full detail, the description of cattle in 1964-65 and subsequent years with descriptions reported in previous years but the following table is compiled to show broad groups regarded as generally comparable:

Description of Cattle on Agricultural Holdings at 31 March

Year	Number of holdings with cattle	Bulls (1 year and over)	Cows and heifers (1 year and over)	Calves (under 1 year)	Other	Total
1950	9,759	6,186	158,424	60,601	49,529	274,740
1955	9,668	7,002	194,016	78,252	40,147	319,417
1960	9,031	7,237	229,162	100,849	38,094	375,342
1965	8,384	(a)8,311	283,955	119,455	39,750	451,471
1970	8,405	10,812	378,836	200,588	56,203	646,439
1971	8,384	12,188	420,738	229,500	70,984	733,410
1972	8,363	13,769	458,785	261,703	95,062	829,319
1973	8,314	14,638	481,201	288,489	116,161	900,489

(a) The specification of 'Bull calves (under 1 year)' from 1963-64 may have affected the comparability of the series.

The distribution of holdings with cattle is shown below:

Distribution of Cattle in Statistical Divisions, 31 March 1973

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with cattle ..	2,469	1,922	825	2,747	3,085	13	3,098	8,314
Total cattle (all descriptions)	167,139	222,618	174,455	397,073	334,880	1,397	336,277	900,489
Cows in milk and dry (b) ..	10,172	35,446	19,070	54,516	90,129	6	90,135	154,823
Heifers (1 year and over) (b)	3,259	8,570	4,510	13,080	20,041	..	20,041	36,380
Heifer calves (under 1 year) (b)	3,124	9,522	5,357	14,879	22,954	..	22,954	40,957
Total (b) ..	16,555	53,538	28,937	82,475	133,124	6	133,130	232,160
Bulls (1 year & over)—								
Dairy breeds	296	707	347	1,054	1,509	1	1,510	2,860
Beef breeds ..	3,024	2,991	2,662	5,653	3,082	19	3,101	11,778

(a) Statistical sub-division.

(b) 'Cows and heifers used or intended for production (for sale) of milk and cream'. The total (232,160) can be associated directly with the dairying industry.

Breeds of Cattle

The main breeds of cattle in Tasmania for milk production are jersey, friesland and ayrshire with small numbers of milking shorthorn and guernsey, while breeds used for the production of beef are hereford, aberdeen angus, shorthorn and devon. In recent years, new cattle lines such as the brahmans, murray greys and charolais have been introduced by farmers wishing to utilise the advantages of cross-breeding.

Sheep

The table below shows the trend in sheep numbers on agricultural holdings since 1950.

Sheep on Agricultural Holdings at 31 March
(000)

Year	Sheep	Year	Sheep	Year	Sheep	Year	Sheep
1950	2,170	1956 ..	2,673	1962 ..	3,532	1968 ..	4,428
1951	2,182	1957 ..	2,943	1963 ..	3,570	1969 ..	4,395
1952	2,338	1958 ..	3,298	1964 ..	3,600	1970 ..	4,560
1953	2,422	1959 ..	3,536	1965 ..	3,793	1971 ..	4,517
1954	2,465	1960 ..	3,494	1966 ..	4,127	1972 ..	4,237
1955	2,595	1961 ..	3,439	1967 ..	4,321	1973 ..	3,824

The next table shows the geographical distribution and various descriptions of sheep, and also details of the lambing season:

Description of Sheep at 31 March 1973 and Lambing, 1972 Season, in Statistical Divisions

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with sheep ..	1,443	1,189	499	1,688	842	..	842	3,973
Sheep—								
Rams (1 year and over)	18,445	13,141	12,178	25,319	3,742	..	3,742	47,506
Breeding ewes	712,552	457,550	416,362	873,912	124,084	..	124,084	1,710,548
Other ewes (1 year and over) ..	95,774	46,671	60,563	107,234	8,815	..	8,815	211,823
Wethers (1 year and over) ..	492,488	160,223	220,812	381,035	21,443	..	21,443	894,966
Lambs and hoggets (under 1 year) ..	412,490	233,088	235,402	468,490	78,612	..	78,612	959,592
Total ..	1,731,749	910,673	945,317	1,855,990	236,696	..	236,696	3,824,435
Lambing, 1972 season—								
Ewes mated	671,547	426,940	389,809	816,749	116,151	..	116,151	1,604,447
Lambs marked								
Number ..	568,062	369,278	319,783	689,061	111,456	..	111,456	1,368,579
Marking ratio (b)	84.6	86.5	82.0	84.4	96.0	..	96.0	85.3

(a) Statistical sub-division.

(b) Lambs marked as percentage of ewes mated; lamb mortality is one of the factors affecting marking ratios.

The following table summarises the descriptions of sheep on a State basis and also gives details of lambing:

Description of Sheep at 31 March and Details of Lambing: Summary

Particulars	1963	1968	1969	1970	1971	1972	1973
Holdings with sheep ..	5,415	5,294	5,096	4,815	4,611	4,257	3,973
Sheep ('000)—							
Rams (1 year and over) ..	42	49	50	50	51	50	48
Breeding ewes	1,608	1,954	2,023	2,026	1,994	1,841	1,711
Other ewes (1 year and over)	195	203	174	195	226	265	212
Wethers (1 year and over)	886	1,072	1,041	1,064	1,075	952	895
Lambs and hoggets (under 1 year)	839	1,150	1,105	1,225	1,171	1,128	960
Total	3,570	4,428	4,395	4,560	4,517	4,237	3,824
Lambing (a)—							
Ewes mated .. '000	1,419	1,779	1,736	1,831	1,889	1,805	1,604
Lambs marked—							
Number .. '000	1,310	1,522	1,561	1,715	1,705	1,617	1,369
Marking ratio (b) %	92.3	85.6	89.9	93.6	90.3	89.6	85.3

(a) In the season preceding the year named.

(b) Lambs marked as percentage of ewes mated.

Breeds of Sheep

The merino is the mainstay of the Australian wool industry and accounts for over 75 per cent of the Australian sheep population. However, in Tasmania the predominant sheep breeds are polwarth and corriedale; both were originally developed from merino cross-breds. A new sheep breed, the 'cormo', has been developed in Tasmania to suit local conditions and to provide a highly fertile breed having a high yield of fine wool and good body conformation.

Over the past 10 years, the breeds of sheep reported by growers have shown a trend in favour of polwarths. Corriedale numbers, after showing a small but consistent increase for some years, are now exhibiting an opposite trend. The following table shows the percentage of the main breeds of sheep (including rams):

Proportion of Breeds of Sheep at 31 March (a)

(Per Cent)

Breed	1961	1966	1967	1968	1969	1970	1971
Polwarth	31.2	39.3	39.9	40.5	41.7	42.5	43.6
Corriedale	14.0	18.6	19.5	18.0	17.3	15.4	14.4
Merino	10.2	8.7	8.0	7.1	7.7	7.9	8.9
Romney marsh	2.6	2.1	2.2	2.0	1.9	1.2	1.3
Other breeds (b)	4.9	3.4	3.0	3.0	3.3	3.9	4.9
Comebacks	11.4	10.0	10.5	10.7	11.1	12.6	11.8
Cross-breeds	25.7	17.9	17.0	18.7	17.0	16.4	15.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Similar data are not available for 1972 and 1973.

(b) Recognised breeds of sheep which individually, in 1971, accounted for about one per cent or less of all sheep; includes cheviot, dorset horn, border leicester, English leicester, ryeland, southdown, suffolk, lincoln, poll dorset, shropshire and cormo.

The majority of all breeds of sheep are run on improved pastures. However, particularly in the midlands, use is made of considerable areas of unimproved 'run' country for polwarths, comebacks and merinos. The Central Plateau also provides summer grazing, particularly for wethers.

Pigs

The geographical distribution of pigs, by statistical division, is shown in the next table:

Distribution of Pigs in Statistical Divisions at 31 March 1973

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (a)	North Eastern (a)	Total	North Western (a)	Western (a)	Total	
Holdings with pigs ..	329	461	208	669	532	3	535	1,533
Pig numbers—								
Boars ..	199	396	191	587	549	2	551	1,337
Breeding sows	1,747	3,485	1,670	5,155	5,072	16	5,088	11,990
Other (b) ..	8,304	21,670	11,032	32,702	30,713	68	30,781	71,787
Total pigs	10,250	25,551	12,893	38,444	36,334	86	36,420	85,114

(a) Statistical sub-division.

(b) Includes baconers and porkers, backfatters, stores, weaners, suckers and slips.

Pig Population

The pig population at 31 March each year is not, in itself, a very significant figure. It is possible for a sow to produce two litters within the one year and the offspring to number more than 10 in each litter. It follows, therefore, that the real measure of activity in pig-raising is not so much the size of the pig herd at a particular point in time but rather the number of pigs slaughtered and the dressed carcass weight of the meat so produced; such information is given in the 'Livestock Products' section of this chapter.

In the previous table, the most significant item is the number of breeding sows. A sow can be mated at nine or ten months and the gestation period is a mere four months. Piglets are weaned at four to six weeks—this early weaning calls for more skilled management but has the advantages of avoiding heavy weight loss by the sow and reducing the period between litters.

The following table shows, in summary form, details of pig raising:

Pigs on Agricultural Holdings at 31 March: Summary

Year	Holdings with pigs	Boars	Breeding sows	Other (a)	Total pigs
1955	4,235	1,608	9,065	47,709	58,382
1960	3,681	2,075	10,730	54,313	67,118
1965	3,315	2,327	14,578	75,116	92,021
1970	2,302	1,978	16,629	92,668	111,275
1972	1,888	1,670	14,462	87,802	103,934
1973	1,533	1,337	11,990	71,787	85,114

(a) Includes baconers and porkers, backfatters, stores weaners, suckers and slips.

LIVESTOCK PRODUCTS

Quantity and Value of Livestock Products

The statistics in the following section refer, in the main, to quantities of livestock products. The associated values will be found under 'Value of Production' in chapter 8.

Wool

In a report in 1836, the Colonial Secretary, John Montagu, described the early export trade in wool: 'It appears that the quantity of Wool imported into England from N.S.W. and Van Diemen's Land in 1810 was 167 lbs; in 1820, it amounted to 99,415 lbs; in 1825, to 323,995 lbs. From 1827, the returns for the two Colonies are separated.'

Prices in 1824 varied from five cents to 10 cents per kilogram but, by 1836, they had increased to range from 30 to 50 cents. The progress of wool production in the remainder of the 19th century can be appreciated from the following table (compiled from export figures, since production details were not collected for the whole period):

Exports of Wool (a) (Overseas and Interstate): Historical Summary
(*000 kg)

Year	Quantity	Year	Quantity	Year	Quantity
1835	1,102	1860	2,058	1885	2,619
1840	1,650	1865	2,233	1890	4,075
1845	1,661	1870	1,881	1895	3,276
1850	2,669	1875	2,812	1900	3,064
1855	2,657	1880	4,094	1905	4,339

(a) The figures relate basically to greasy wool but a small proportion of washed wool is included in the later years.

Unfortunately the above series cannot be carried through the period 1910-1922 due to the lack of interstate trade figures, or through the period 1922-1951 because 'pure' greasy wool export figures (i.e. separated from scoured wools and tops and noils) are not available. Export details for recent years are as follows:

Exports of Wool, Greasy (Overseas and Interstate)
(*000 kg)

Year	Quantity	Year	Quantity	Year	Quantity
1958-59	11,416	1963-64	11,379	1968-69	15,799
1959-60	12,690	1964-65	13,757	1969-70	16,513
1960-61	11,069	1965-66	15,443	1970-71	17,146
1961-62	12,342	1966-67	16,240	1971-72	20,413
1962-63	11,919	1967-68	13,995	1972-73	17,735

It should be noted, however, that not all Tasmanian wool is exported, some being used, after scouring, etc., for manufacturing purposes within the State; any locally processed wool exported would not be classified under greasy wool.

Wool Production

For statistical purposes, the total amount of wool produced in the State in any year consists of not only the 'clip' (shorn wool) but also of the wool on skins, irrespective of whether it is actually removed by local fellmongers or exported on skins. Production figures for the latest 10-year period are:

Wool Production (a) Summary
(*000 kg)

Year	Shorn wool (including crutchings)	Fell- mongered and dead wool, and wool exported on skins	Total	Year	Shorn wool (including crutchings)	Fell- mongered and dead wool, and wool exported on skins	Total
1963-64 ..	13,425	2,000	15,425	1968-69 ..	18,955	2,344	21,299
1964-65 ..	16,156	1,838	17,994	1969-70 ..	19,409	2,452	21,861
1965-66 ..	16,759	2,227	18,986	1970-71 ..	19,165	2,506	21,670
1966-67 ..	17,548	2,026	19,574	1971-72 ..	18,573	2,490	21,063
1967-68 ..	15,286	2,090	17,376	1972-73 ..	15,973	2,180	18,154

(a) Fellmongered wool has been converted to greasy wool equivalent weight.

As illustrated in the previous table the shorn wool component accounts for almost 90 per cent of total wool production.

In previous tables, dealing with exports, a gap exists between 1905 and 1950-51 but production statistics are available as follows:

Total Wool Production (a): Historical Summary
(*000 kg)

Year	Production	Year	Production	Year	Production
1905	5,331	1929-30	6,804	1954-55	10,794
1910	6,050	1934-35	6,366	1959-60	15,241
1914-15	5,465	1939-40	8,316	1964-65	17,994
1919-20	5,928	1944-45	7,404	1969-70	21,861
1924-25	5,662	1949-50	7,692	1972-73	18,154

(a) Total wool production, including shorn, dead and fellmongered wool and wool exported on skins; fellmongered converted to greasy wool equivalent weight.

Total wool production of 21,861,000 kilograms in 1969-70 was the highest recorded wool output for Tasmania. However, uncertain economic conditions in the wool industry for subsequent years has resulted in a substantial decline in wool production.

Greasy Wool Equivalent

Fellmongered wool included in previous total production figures has been attributed a weight as though it were *greasy* wool, although the original information is received in terms of the weight of *soured* wool recovered by fellmongering. The method of conversion is as follows: as 100 kg of *greasy* yields 60 kg of *clean*, and 100 kg of *soured* (fellmongered) yields 80 kg of *clean*, it follows that 100 kg of *soured* (fellmongered) is equivalent to 133 kg of *greasy*. The factors in the example are only approximations of those which are obtained from woollscourers (*greasy/clean* relativity) and fellmongers (*soured/clean* relativity). Conversion of such wool to a greasy wool equivalent is necessary to put all the components of total production on a common basis.

Shorn Wool

The principal months for shearing in Tasmania are October, November and December, but during the more recent years an increasing number of farmers have been shearing outside the traditional spring period. Such practices not only facilitate flock and property management but also provide more continuous employment for shearers and shed hands. The following table gives shearing details for recent years:

Primary Industry—Rural
Shearing and Shorn Wool Obtained

Year	Numbers shorn			Shorn wool obtained			Average yield		
	Sheep	Lambs	Total	From sheep (a)	From lambs	Total	From sheep (a)	From lambs	Total
1962-63	'000 3,021	'000 762	'000 3,783	'000 kg 12,938	'000 kg 814	'000 kg 13,752	kg 4.28	kg 1.07	kg 3.64
1968-69	3,703	928	4,632	17,834	1,121	18,955	4.82	1.21	4.09
1969-70	3,753	1,039	4,792	18,210	1,200	19,409	4.85	1.15	4.05
1970-71	3,864	942	4,806	18,045	1,120	19,165	4.67	1.19	3.99
1971-72	3,711	895	4,607	17,441	1,132	18,573	4.69	1.26	4.03
1972-73	3,413	838	4,251	15,038	935	15,973	4.41	1.12	3.76

(a) Includes crutchings from sheep.

The next table shows the geographical distribution of shorn wool production:

Shearing and Shorn Wool Obtained (a) in Statistical Divisions, 1972-73

Particulars	Hobart and Southern	Northern			Mersey-Lyell			Total Tasmania
		Tamar (b)	North Eastern (b)	Total	North Western (b)	Western (b)	Total	

NUMBER SHORN ('000)

Sheep	1,600	789	857	1,646	167	..	167	3,413
Lambs	340	221	219	441	58	..	58	838

SHORN WOOL OBTAINED ('000 kg)

From—Sheep	6,965	3,394	3,958	7,352	721	..	721	15,038
Lambs	345	250	256	506	83	..	83	935
Total	7,311	3,644	4,214	7,858	805	..	805	15,973

AVERAGE YIELD (c) (kg)

Sheep	4.35	4.30	4.61	4.46	4.30	..	4.30	4.41
Lambs	1.02	1.12	1.16	1.14	1.45	..	1.45	1.12

(a) Includes crutchings from sheep.

(b) Statistical sub-division.

(c) Per sheep or lamb shorn.

Wool Auctions

The bulk of Tasmanian shorn wool is marketed in Hobart and Launceston at auctions organised by the wool-selling brokers. Prior to 1969-70 three auction sales were held per year i.e. November, February and May. Approximately one-third of the season's clip was auctioned at the first sale, in excess of 50 per cent at the February sale and the remainder in May.

As from 1969-70 a four-sales season was introduced with sales in October, December, February and June. This move had the effect of creating a more equitable distribution of sales over the selling season although the February sale still remains the most important.

In addition to wool sold at auctions, some wool is bought direct from growers by dealers and by local manufacturers of woollen goods. A small proportion of the State's wool is marketed at Victorian auctions; growers on King Island and Flinders Island tend to use this outlet because of sea transport factors.

The following table shows the average price of shorn greasy wool sold at Tasmanian auctions in selected years since World War II and also the value of all wool produced. The record price (330.80 cents per kg) can be associated with the Korean War and strategic stockpiling but it is significant that the 1970-71 price (74.01 cents) is the lowest recorded since 1946-47. At the 1971-72 wool sales prices rose to 85.96 cents per kg but this was partly due to 'support-buying' by the Wool Commission; however, the 1972-73 sales witnessed an upsurge in demand from overseas buyers and wool prices reached their highest levels (228.90 cents) since the 1950-51 peak. During the 1973-74 wool selling season prices were considerably less than the high prices of 1972-73.

Tasmanian Average Auction Price and Total Value of Wool Produced

Year			Average auction price per kg of shorn greasy wool	Total value of wool produced (a)	Year			Average auction price per kg of shorn greasy wool	Total value of wool produced (a)
			cents	\$'000				cents	\$'000
1950-51	..	..	330.80	24,226	1964-65	..	..	108.80	19,050
1952-53	..	..	148.64	12,758	1965-66	..	..	123.90	22,405
1954-55	..	..	140.54	14,464	1966-67	..	..	112.10	20,983
1956-57	..	..	158.34	19,948	1967-68	..	..	96.39	15,609
1958-59	..	..	96.98	13,688	1968-69	..	..	105.60	21,180
1960-61	..	..	106.22	14,458	1969-70	..	..	r 87.92	18,081
1961-62	..	..	107.28	15,752	1970-71	..	..	74.01	14,983
1962-63	..	..	121.52	17,772	1971-72	..	..	85.96	(b)18,001
1963-64	..	..	148.59	21,352	1972-73	..	..	228.90	(b)37,481

(a) Includes value of shorn wool, fellmongered and dead wool and estimated value of wool exported on skins. Excludes profits of \$3,201,510 arising from the War-time Wool Disposals Plan and distributed to growers in the period 1949-50 to 1954-55.

(b) Includes Government wool deficiency payments of \$1,258,000 in 1971-72 and \$112,000 in 1972-73.

The preceding price series refers only to shorn greasy wool sold at auction. In arriving at the value series for all wool produced, account is taken not only of wool sold at auction but also of direct growers' sales to dealers, manufacturers and fellmongers plus estimated value of wool exported on skins.

Classification of Greasy Wool Sold at Auction

The following information is compiled by the Wool Statistical Service of the Australian Wool Corporation on the basis of catalogues of auction sales. Wool sold at auction is classified according to quality which is expressed in terms of average fibre diameter. This is measured in millionths of a metre (microns).

The next table shows the proportions of each quality of wool sold at auction for the 1971-72 and 1972-73 seasons.

Mean Micron Analysis (a) of Greasy Wool Sold at Auction
(Source: Australian Wool Corporation)

Mean micron	Greasy wool sold at auction—percentage of total			
	In Tasmania		In Australia	
	1971-72	1972-73	1971-72	1972-73
Finer than 18	0.5	0.2	..	..
18	1.5	1.9	0.6	0.7
19	2.7	2.9	2.1	2.6
20	1.7	2.0	5.1	6.7
21	3.2	5.6	11.8	15.7
22	7.4	13.5	22.9	23.9
23	11.0	13.2	17.3	16.5
24	13.1	14.1	11.6	9.5
25	17.4	12.5	7.0	5.3
26	9.4	7.1	5.1	3.9
27	8.8	8.1	4.5	3.8
28	6.0	4.8	2.9	3.0
29	0.7	0.4	0.3	0.3
30	7.8	6.9	3.9	3.7
33	4.3	2.7	1.8	1.5
35	1.3	1.1	0.5	0.4
38	0.9	1.0	0.5	0.5
Coarser than 38	0.2	0.1	0.1	..
Oddments	1.8	2.1	2.1	1.9
Total	100.0	100.0	100.0	100.0

(a) A micron equals one millionth of a metre; the measurement relates to fibre diameter.

Clean Wool Yield

In 1972-73 the Tasmanian proportion of auctioned greasy wool classified as 'finer than 25 mean microns' was 66 per cent, whereas the corresponding Australian proportion was 81 per cent. There is usually a difference of this order, but the Tasmanian average price is nevertheless usually a few cents above the Australian auction average. Tasmanian averages, with Australian equivalents in brackets, have been (in cents): 1969-70, 87.92 (82.78); 1970-71, 74.01 (64.68); 1971-72, 85.96 (75.25); 1972-73, 228.90 (183.77). This apparent contradiction is explained by taking into account a second factor, not included in the foregoing quality analysis, namely the yield of clean wool that can be obtained from greasy wool. In respect of this factor, Tasmanian wools tend to yield higher than Australian; both natural and artificial environmental factors operate to the advantage of the Tasmanian clip. Evidence of this peculiarity of Tasmanian wool is provided in the next table:

Average Clean Yield of Wool Clip, Tasmania and Other Australian States
(Source: Australian Wool Corporation)

State of sale (a)	Percentage of clean yield from greasy wool					
	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
New South Wales ..	56.92	56.52	56.27	57.49	57.61	57.64
Victoria	58.99	59.58	59.83	59.19	59.10	59.29
Queensland	56.16	54.65	53.15	53.30	54.03	54.89
South Australia ..	53.12	55.14	53.98	53.49	55.02	54.01
Western Australia ..	54.04	56.39	54.17	53.53	54.16	52.29
Tasmania	62.93	63.66	63.50	63.38	63.83	63.14
Australia	56.81	57.10	56.61	56.75	56.93	56.43

(a) Wool from other Australian states is not sold at Tasmanian auctions so, for Tasmania, 'State of sale' and 'State of origin' are virtually the same except that some wool from Tasmania (mainly King and Flinders Islands) is sold at Victorian auctions.

As the previous figures suggest, Tasmanian wool is freer from dust and vegetable matter than wool produced in the other states.

While the proportion of fine wool is comparatively low in the Tasmanian clip (since the State is historically and climatically a producer of crossbred wool), growers offering fine wool sell a high proportion of superfine merino wool at premium prices; this factor also operates to raise Tasmanian average auction prices above the Australian average.

Meat

Slaughtering

To fully record the level of meat production for human consumption, statistics should be obtained in respect of operations in abattoirs, other slaughtering establishments and factories; slaughtering on farms also needs to be taken into account. Information on this complete basis did not become available before 1912, previous statistics relating only to slaughtering in Hobart and Launceston. The following table has been compiled to give an indication of slaughtering activity since 1912:

Stock Slaughtered (a) for Human Consumption: Historical Summary ('000)

Year			Cattle and calves	Sheep and lambs	Pigs	Year			Cattle and calves	Sheep and lambs	Pigs
1912	29	216	16	1954-55 ..	75	643	79				
1915	32	309	32	1959-60 ..	145	1,166	115				
1924-25 ..	36	276	55	1964-65 ..	174	987	135				
1929-30 ..	35	342	64	1968-69 ..	178	1,241	139				
1934-35 ..	38	349	51	1969-70 ..	178	1,297	160				
1939-40 ..	48	461	73	1970-71 ..	162	1,394	171				
1944-45 ..	47	509	58	1971-72 ..	185	1,475	165				
1949-50 ..	58	508	51	1972-73 ..	261	1,278	152				

(a) In all registered slaughtering establishments and on farms.

The next table, compiled on the same basis, analyses the items 'Cattle and calves' and 'Sheep and lambs':

Stock Slaughtered (a) for Human Consumption ('000)

Year	Cattle and calves				Sheep and lambs			Pigs
	Bulls, bullocks & steers	Cows and heifers	Calves	Total	Sheep	Lambs	Total	
1965-66 ..	47	61	47	154	567	597	1,164	146
1966-67 ..	52	67	51	170	552	607	1,159	149
1967-68 ..	58	66	48	172	600	525	1,125	143
1968-69 ..	68	64	45	178	568	673	1,241	139
1969-70 ..	79	66	33	178	608	689	1,297	160
1970-71 ..	79	61	22	162	713	681	1,394	171
1971-72 ..	96	69	19	185	813	662	1,475	165
1972-73 (b) ..	125	110	26	261	637	642	1,278	152

(a) In all registered slaughtering establishments and on farms.

(b) In 1972-73 the on-farm components of total livestock slaughtered were: cattle and calves, 3,696; sheep and lambs 85,623; pigs, 2,434.

Meat Production

Statistics of actual carcass weight rather than numbers of stock slaughtered provide a more precise measure of actual meat production and annual trends. The necessary weight data are collected from abattoirs, factories and licensed slaughterhouses (including 'country butchers'); in the case of livestock killed on farms, only the numbers are available and the resulting carcass weight has to be estimated. Statistics in terms of carcass weight cover the same field as the previous tables on slaughtering. The following table shows details since 1924-25:

Production of Meat: Historical Summary
(^{'000} tonnes—Carcass Weight)

Year	Beef and veal	Mutton and lamb	Pigmeat (a)	Total meat	Year	Beef and veal	Mutton and lamb	Pigmeat (a)	Total meat
1924-25	8.2	5.1	2.5	15.9	1959-60 ..	23.5	21.1	5.4	50.1
1929-30	8.1	6.1	2.8	17.1	1964-65 ..	26.7	18.4	6.7	51.8
1934-35	8.2	6.1	2.4	16.6	1968-69 ..	28.4	22.8	7.1	58.3
1939-40	10.8	7.8	3.6	22.2	1969-70 ..	31.5	24.0	8.0	63.6
1944-45	9.3	9.3	3.1	21.8	1970-71 ..	29.9	26.1	8.5	64.5
1949-50	12.5	9.1	2.6	24.1	1971-72 ..	34.8	27.2	8.3	70.3
1954-55	13.9	12.1	3.5	29.5	1972-73 ..	47.5	22.5	7.4	77.4

(a) Includes pork for manufacture into bacon and ham.

The next table, compiled on the same basis, analyses the items 'Beef and veal' and 'Mutton and lamb'.

Production of Meat
(^{'000} tonnes—Carcass Weight)

Year	Beef and veal			Mutton and lamb			Pigmeat (a)	Total meat
	Beef	Veal	Total	Mutton	Lamb	Total		
1967-68 ..	24.5	1.0	25.5	11.7	8.5	20.2	7.0	52.7
1968-69 ..	27.6	0.8	28.4	11.7	11.1	22.8	7.1	58.3
1969-70 ..	30.9	0.6	31.5	12.8	11.3	24.0	8.0	63.6
1970-71 ..	29.5	0.4	29.9	14.8	11.3	26.1	8.5	64.5
1971-72 ..	34.4	0.4	34.8	16.3	10.9	27.2	8.3	70.3
1972-73 ..	46.9	0.5	47.5	12.2	10.3	22.5	7.4	77.4

(a) Includes pork for manufacture into bacon and ham.

Export of Meat

As early as 1890, other Australian states were exporting frozen (and later, chilled) lamb, mutton, beef and veal to overseas destinations but the development of a similar meat export trade from Tasmania has been of comparatively recent origin. The first major step was in the field of fat lamb production when the 1931-32 season resulted in approximately 19,000 carcasses being exported overseas; unfortunately the establishment of this activity coincided with the economic depression of the 1930s and the attempt to introduce a new line in 'mixed' farming was at first discouraged by low prices. World War II saw a revival of demand with over 100,000 carcasses exported overseas in 1943-44, and after something of a decline in the early post-war period, exports climbed to 161,815 carcasses in 1959-60. In recent years lamb exports have included greater proportions of processed cuts and therefore statistics of the number of lamb carcasses exported are no longer collected.

The other major development has been the growth of an export trade in beef and veal, the first shipments overseas commencing in 1954-55; also exports of mutton, mainly to Japan and U.S.A., increased substantially in 1965-66 and have been maintained at a high level since then. The following are meat export figures expressed in tonnes. Export weights cannot be directly compared with production weights since the former include boneless meat and meat which has had its fat content reduced, while the latter are in terms of carcass weight.

Total Exports of Meat, 1972-73
(Tonnes)

Destination	Beef and veal	Lamb	Mutton	Pork	Offal (edible)	Bacon and ham
Interstate	2,006	69	183	2,129	87	185
Overseas	12,466	779	3,862	73	1,235	..
Total	14,472	848	4,045	2,202	1,322	185

The importance of Tasmania's overseas meat trade can be judged from Australian Meat Board estimates of the percentage of Tasmanian production actually exported. The trend in recent years is shown in the following table:

Proportion of Tasmanian Meat Production Exported Overseas (a)
(Source: Australian Meat Board)
(Per Cent)

Type of meat	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Beef and veal	29.8	30.9	34.6	32.2	r 44.0	44.7
Mutton	44.7	49.4	47.5	43.1	r 59.6	52.5
Lamb	3.3	8.8	10.1	6.6	r 6.0	8.5

(a) The estimated percentages are derived by converting actual export weights to a carcass weight equivalent, thus giving a basis for comparison with production figures.

Meat Export Works

In 1972-73 there were seven licensed exporters in Tasmania. These were in Launceston (two), Camdale, Devonport, Hobart, Longford and King Island.

In broad terms, it is true to say that Tasmania has changed from a meat importing to a meat exporting State and this development can be related to the changed pattern of farming, the most significant indicators being the increase in the area of sown pasture and in the number of livestock carried.

Bacon and Ham

In the tables on meat production, the product from pig slaughtering has been referred to as 'pigmear'. Approximately 26 per cent of Tasmania's pigmeat was converted in Tasmania to bacon and ham in 1972-73. Considerable quantities of pigmeat are also exported and used, in part, for making bacon and ham in other states. The next table summarises the production of bacon and ham since 1939-40:

**Production of Bacon and Ham
(Tonnes)**

Year	Bacon and ham			Year	Bacon and ham		
	Factory (a)	Farm	Total		Factory (a)	Farm	Total (b)
1939-40 ..	1,160	152	1,313	1964-65 ..	1,177	13	1,190
1944-45 ..	1,140	69	1,209	1969-70 ..	<u>1,403</u>	<i>n.a.</i>	<u>1,403</u>
1949-50 ..	963	44	1,007	1970-71 ..	(c) 1,803	<i>n.a.</i>	(c) 1,803
1954-55 ..	1,008	36	1,044	1971-72 ..	1,984	<i>n.a.</i>	1,984
1959-60 ..	1,138	24	1,162	1972-73 ..	1,902	<i>n.a.</i>	1,902

(a) From 1959-60 includes small quantities made in establishments not classified as factories.

(b) Excludes farm production from 1967-68.

(c) From 1970-71 all weights are on a bone-in basis; earlier figures include an element of unconverted bone-out weights.

Dairy Products

In 1972-73 Tasmania's production of milk was 423,841,000 litres which was approximately 10 per cent below the record level of 1969-70. Milk used for cheese manufacture increased from one per cent of total milk production in 1960-61 to 17 per cent during 1972-73.

The following table summarises milk production and utilisation since 1964-65.

Milk Production and Milk Utilisation: Summary

Year	Quantity of milk used for—			Total milk production	Dairy cows at 31 March	Average annual production of milk per dairy cow (b)
	Factory butter	Factory cheese	Other purposes (a)			
	'000 litres	'000 litres	'000 litres	'000 litres	no.	litres
1964-65	293,773	23,935	79,361	397,069	143,257	2,678
1965-66	295,914	29,968	73,674	399,556	148,452	2,628
1966-67	302,406	38,237	74,951	415,594	149,148	2,687
1967-68	291,159	47,316	74,279	412,753	152,179	2,641
1968-69	329,801	58,358	76,288	464,447	152,894	2,941
1969-70	336,715	54,194	78,306	469,216	155,040	2,955
1970-71	314,121	55,681	79,988	449,790	153,402	2,837
1971-72	314,503	59,172	77,452	451,127	154,825	2,853
1972-73	264,392	72,342	87,108	423,841	154,823	2,671

(a) Milk used for 'Other purposes' goes into the making of cream, ice cream, milk powder, concentrated milk, and other preserved milk products. It includes milk consumed as such and the milk equivalent of farm-made butter and cheese.

(b) Average annual yield is based on the estimated number of dairy cows, including house cows, which were in milk during any part of the year. (The mean of the number of dairy cows and house cows at 31 March in the year of production and in the preceding year is used for this purpose.) The figures should therefore be treated as an index rather than as an actual average quantity of milk produced per dairy cow.

Production of Butter and Cheese

The Australian dairy industry is capable of producing butter and cheese in quantities considerably greater than are required for domestic consumption but competition from other countries in overseas markets has resulted in low prices which tend to discourage exports. The solution to this problem has been, in general terms, to pool the returns from both domestic sales and overseas sales and to distribute from the pool to each individual factory, irrespective of whether its products are sold at home or abroad; in effect, a process of price equalisation operates, the higher domestic price being used to offset the lower overseas price. The administrative body implementing this scheme is the Commonwealth Dairy Produce Equalisation Committee Ltd.

The industry also receives subsidies from the Australian Government under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942. Under the sixth five-year plan, which commenced in 1 July 1972, subsidies are distributed each year by the Commonwealth Dairy Produce Equalisation Committee Ltd through factories to milk producers by payment on butter and cheese manufactured. However, in the 1973-74 Budget the Australian Government announced its intention to phase out bounties paid on the production of butter and cheese. In 1972-73 the Australian Government provided subsidy was \$27m; for 1973-74 the subsidy was \$18m and reduces to \$9m in 1974-75 (the final year of payment). The 1972-73 subsidy per tonne of butter fat produced for butter and cheese was \$148.66.

Farmers in the past traditionally 'separated' their milk, producing a cream concentrate for delivery to the butter factory; the residue, skim milk, was used to feed pigs. Most factories now buy whole milk because they have diversified their output to include casein (a raw material for synthetic fibres, etc.) and dried skim milk.

Although Tasmanian butter factories had been in operation before the turn of the century it was not till 1911 that annual factory production exceeded 1,000 tonnes and even by 1938-39 factory butter output was only approximately 4,000 tonnes; current production approximates 13,000 tonnes.

Cheese production, which did not exceed 1,000 tonnes per annum until 1963-64, has accelerated rapidly and exceeded 7,200 tonnes in 1972-73.

The following table shows details of factory production of butter and cheese for recent years:

**Factory Production of Butter and Cheese
(Tonnes)**

Year	Butter (a)	Cheese	Year	Butter (a)	Cheese
1963-64	13,886	1,358	1968-69	16,017	5,820
1964-65	14,126	2,388	1969-70	16,343	5,407
1965-66	14,229	2,989	1970-71	15,273	5,556
1966-67	14,541	3,822	1971-72	15,318	5,923
1967-68	13,999	4,724	1972-73	12,947	7,218

(a) Includes butter equivalent of butter oil.

Disposal of Butter

Tasmania is a butter exporting state as shown in the following table:

**Butter (a): Production, Exports and Local Consumption
(Tonnes)**

Year	Production (farm and factory)	Net exports (b)	Local consumption (c)	Year	Production (farm and factory)	Net exports (b)	Local consumption (c)
1963-64 ..	13,984	8,359	4,963	1968-69 ..	16,017	r 9,350	4,519
1964-65 ..	14,224	10,395	4,600	1969-70 ..	16,343	r 12,763	4,725
1965-66 ..	(d)14,229	9,444	4,460	1970-71 ..	15,273	r 10,955	4,665
1966-67 ..	14,541	10,241	4,479	1971-72 ..	15,318	r 10,138	4,712
1967-68 ..	13,999	9,547	4,773	1972-73 ..	12,947	7,514	4,452

(a) Includes butter equivalent of butter oil.

(b) Net and gross are identical as there were no imports during the years shown. Includes overseas and inter-state exports.

(c) Quantity of butter released for the Tasmanian market (as supplied by the Commonwealth Dairy Produce Equalisation Committee Ltd) less the butter content of major commodities exported.

(d) Excludes farm production from 1965-66.

Consumption of Butter

Over the past decade there has been a substantial decline in the annual Tasmanian per capita consumption of butter. The decline may be partly attributed to the greater use of margarine. However, in 1972-73 the State's average butter consumption of 11.3 kg per head of population was well above the Australian figure of about 8.7 kg per person for 1971-72.

Bee-farming

Bee-farming is a relatively small industry in Tasmania, the main Australian producing state being New South Wales. The next table, which summarises bee-keeping statistics over a period of 10 years, is restricted to details from apiarists with five or more hives.

Bee-farming

Year	Apiarists	Hives	Honey produced		Beeswax produced	
			Quantity	Average per productive hive	Quantity	Average per productive hive
	no.	no.	'000 kg	kg	'000 kg	kg
1962-63	153	7,156	248	46.9	2.8	0.53
1966-67	223	9,668	175	26.8	3.0	0.45
1967-68	232	9,799	381	51.8	5.8	0.78
1968-69	213	9,210	304	41.6	4.8	0.66
1969-70	220	10,209	372	46.9	5.7	0.72
1970-71	277	11,680	455	48.9	6.4	0.69
1971-72	270	12,484	396	40.6	6.2	0.63
1972-73	243	11,926	418	44.8	5.6	0.60

Of the 243 apiarists with five or more hives in 1972-73, 22 with 100 or more hives contributed 82.8 per cent of the total honey produced.

A proportion of the larger commercial apiarists can be described as 'migratory' in the sense that they seasonally move their hives for access to leatherwood growing in the Western Sub-division and near the new Lake Gordon. Leatherwood, *Encryphia lucida*, from which a distinctively flavoured honey is produced, has a large white flower and the species is unique to Tasmania. The quantity of leatherwood honey produced varies considerably from year to year depending upon the amount of blossom and weather conditions. In 1972-73 it accounted for 73 per cent of total honey production compared with only 21 per cent in 1966-67. Some hives are also moved into orchard and small fruit areas at blossom time. The sources of honey for the Tasmanian market and estimated honey consumption per head of population are shown in the following table:

Production and Consumption of Honey

Average for three years ended—	Production	Imports	Exports	Balance available for local consumption (a)	Estimated average consumption per person
	'000 kg	'000 kg	'000 kg	'000 kg	kg
1962-63	192	52	47	197	0.55
1972-73	423	92	278	237	0.60

(a) Production plus imports less exports.

Poultry Farming

Household Production: Many householders have small flocks of up to 20 birds (i.e. below the legal minimum requiring registration and payment of fees) and surveys suggest that these 'back-yard' flocks may produce up to 50 per cent of all eggs. However, no accurate statistics are available for this component and it is excluded from the tables that follow.

Commercial Producers: Producers with small flocks over the legal minimum size (more than 20 birds) may nevertheless keep them mainly for their own use rather than for sale of the eggs and accordingly it was also decided to exclude from the statistics, producers with less than 100 birds (of all types); the Bureau's 1966-67 census of the poultry industry established that producers in this excluded category numbered 213 but owned only three per cent of the total number of hens and laying pullets in commercial flocks in Tasmania.

In the poultry industry, as in many other primary industries, there has been a trend to fewer but larger establishments in recent years. In 1967 there were 196 poultry farms with a total of 189,600 hens and laying pullets; by 1973 the number of farms had decreased to 110 with 202,500 hens and laying pullets and 475,300 other poultry. A size classification of the 110 farms in 1973 shows that 25 farms (only 23 per cent of farm numbers) possessed 75 per cent of the laying stock. Some 50 per cent of the poultry farms had less than 500 laying birds each.

Poultry Numbers and Egg Production, 1972-73
Commercial Producers Only (a)

Statistical division	Poultry farms	Poultry numbers at end of year			Eggs produced during year (b)
		Hens and laying pullets	Other fowls	Ducks and drakes, turkeys and geese	
	no.	'000	'000	'000	'000 doz.
Hobart	24	63.6	28.2	..	876.6
Southern	31	62.4	380.8	4.7	882.3
Northern	35	51.1	40.9	..	904.8
Mersey-Lyell	20	25.3	19.4	1.2	441.9
Total Tasmania ..	110	202.5	469.2	6.1	3,105.6

(a) Includes only producers with a total of 100 or more birds of all kinds.

(b) Hen and pullet eggs only. Includes 90,677 dozen eggs produced by commercial poultry farms which ceased production before 30 June 1973.

Size Structure of Slaughtering Industry

The following table classifies poultry slaughtering establishments according to the number of birds slaughtered:

Number of Poultry Slaughtered According to Size of Establishment, 1972-73

Size of establishment (number of birds slaughtered) (a)	Number of establishments	Number of birds slaughtered			Total birds slaughtered	
		Chickens (b)	Other fowls (c)	Ducks and drakes, turkeys and geese	Number	Proportions of total
		'000	'000	'000	'000	per cent
100- 500	18	1	2	..	3	0.2
501- 1,000	1	..	1	..	1	0.1
1,001- 1,500	2	1	..	1	2	0.1
1,501- 2,000	2	2	2	..	3	0.2
2,001-20,000	3	2	8	12	22	1.3
Over 20,000	8	1,553	70	17	1,640	98.1
Total	34	1,558	83	30	1,672	100.0

(a) Classified according to number of birds of all kinds slaughtered.

(b) Includes broilers, fryers and roasters.

(c) Hens, roosters, etc.

Poultry Slaughtering

Poultry slaughtering statistics were first collected in 1960-61 from all known establishments slaughtering 100 or more birds (of all types) annually; up to 1964-65, only numbers slaughtered were sought but from 1965-66 data were expanded to include both live and dressed weight.

Number and Weight of Poultry Slaughtered (a)

Year	Number	Live weight		Dressed weight (b)	
		Total	Average per bird	Total	Average per bird
	'000	'000 kg	kg	'000 kg	kg
CHICKENS (c)					
1970-71	1,103	1,852	1.7	1,332	1.2
1971-72	1,402	2,236	1.6	1,570	1.1
1972-73	1,558	2,521	1.6	1,850	1.2
OTHER FOWLS (d)					
1970-71	119	265	2.2	177	1.5
1971-72	138	311	2.3	206	1.5
1972-73	83	186	2.2	124	1.5
DUCKS AND DRAKES, TURKEYS AND GEESE					
1970-71	28	111	4.0	86	3.1
1971-72	20	66	3.3	49	2.5
1972-73	30	94	3.1	71	2.4

(a) Includes only establishments slaughtering 100 or more birds of all kinds.

(b) Includes weight of whole birds, pieces and giblets.

(c) Includes broilers, fryers and roasters.

(d) Hens, roosters, etc.

The trend in poultry slaughtering in recent years has been towards larger establishments. In 1965-66 there were 95 establishments slaughtering 100 or more birds (of all types). Nine establishments killing more than 5,000 birds each a year, slaughtered a total of 606,000 birds. By 1972-73, however, there were only 34 establishments killing 100 or more birds, eight of which slaughtered over 20,000 birds each, or a total of 1,640,000 birds. The dressed carcass weight of birds slaughtered in those establishments slaughtering over 20,000 birds was 2,000,000 kg; for all establishments in the table, the total was 2,045,000 kg. In 1965-66 the over 20,000 birds size-group accounted for 83.3 per cent of the number of birds slaughtered and in 1972-73, 98.1 per cent.

A principal factor in creating a larger poultry slaughtering industry has been the marketing of quick-frozen birds through supermarkets, delicatessens, grocers, etc. Before freezing cabinets were in general use, poultry was mainly sold by butchers; refrigeration techniques have had the effect of multiplying the sales outlets. Large scale production has also cut unit costs.

RURAL POPULATION AND EMPLOYMENT

Employment on Agricultural Holdings

The following table gives details of males working on agricultural holdings as reported in the annual farm census at 31 March:

Male Farm Workers at 31 March

Particulars	1963	1969	1970	1971	1972	1973
Number of agricultural holdings (0.4 hectares and over)	10,974	10,384	10,159	9,926	9,807	9,733
Permanent full-time workers—						
Owners, lessees or share farmers ..	7,457	6,915	6,760	6,652	6,515	6,349
Relatives of owners, etc. (over fourteen years) not receiving wages ..	111	..	..	..	..	..
Employees (a)	4,053	3,842	3,485	3,082	3,166	2,975
Total	11,621	10,757	10,245	9,734	9,681	9,324
Temporary workers on wages or contract	5,139	4,831	4,609	4,703	4,179	4,169

(a) Includes managers and relatives receiving wages or salaries.

Female Workers on Agricultural Holdings

Similar details of female employment are not available due to a definitional difficulty in establishing in what degree a woman performing ordinary domestic duties on an agricultural holding performs other agricultural tasks that justify her classification as a permanent full-time rural worker, in the same sense that the term is applied to a male.

TECHNICAL ASPECTS OF AGRICULTURAL INDUSTRY

Artificial Breeding

Introduction

Artificial breeding is a technique applicable to animals, birds and bees, whereby a female is inseminated artificially with semen collected from a male. In Tasmania, its main application has been in cattle and is used to a lesser extent for pigs.

Use of artificial breeding allows more effective use of superior bulls; in addition, infertility diseases such as *vibriosis*, *brucellosis* and *trichomoniasis*, all of which are transmitted by bulls, can be more effectively controlled.

In Tasmania most artificial breeding activities are undertaken by the Artificial Breeding Board which operates a Semen Production Centre at Hadspen Park and eight artificial insemination centres, although some activities are carried out from private centres.

Semen Imports

Semen can be imported into Tasmania from all Australian states, New Zealand, United Kingdom, Canada and Ireland. Since the lifting of export restrictions in the United Kingdom in 1968 the bulk of importations has been made from this country. The main interest has been in charolais, simental and limousin, all European breeds, but smaller quantities of semen from other beef and dairy breeds have also been imported.

Semen Exports

Semen produced at Hadspen Park is exported to all mainland states and several other countries. Early in 1971 substantial shipments were despatched to Sri Lanka, Malaysia and New Zealand, and in July of 1971 the first shipment of Tasmanian semen was despatched to Canada.

Artificial Breeding Statistics

The following table gives details of Artificial Breeding Board activities in recent years:

Artificial Breeding: Services and Inseminations
(Source: Artificial Breeding Board)

Year	Cows served			Total inseminations	Non-return rate for commercial service (b) (per cent)
	Commercial service	Infertility service (a)	Total cows		
1966-67	29,034	2,298	31,332	47,148	66.1
1967-68	41,892	197	42,089	60,587	68.3
1968-69	(c)43,658		43,658	62,551	69.3
1969-70	49,818		49,818	70,350	70.2
1970-71	48,588		48,588	68,917	69.7
1971-72	55,505		55,505	81,581	66.1
1972-73	59,215		59,215	81,760	70.7

(a) Includes cows inseminated in Department of Agriculture's research programme.

(b) Percentage of cows not returning for further service within 90-120 days following first service.

(c) Separate figures not available after 1967-68; infertility service numbers are negligible.

The next table gives an analysis of Tasmanian sires used during 1972-73:

Tasmanian Sires Used During 1972-73 (a)

Particulars	Breed of bull						Total
	Friesian	Jersey	Hereford (b)	Murray and Tasmanian grey	Angus	Australian illawarra shorthorn	
Number of bulls ..	37	19	7	4	1	1	69
Number of services	49,895	7,434	4,632	3,566	456	76	66,059

(a) Excludes bulls from private centres.

(b) Includes poll hereford.

Freeze Branding

In 1969 the Board introduced a freeze branding service. Freeze branding involves immersing a copper brand in dry ice and alcohol or liquid nitrogen, reducing its temperature to -79°C . The brand is then applied to the beast's hide and results in the hair follicle being killed; consequently the hair turns white. In the case of light coloured cows the brand is held on the hide longer, resulting in complete removal of the hair. This is a painless procedure and results in a clear brand which can be read without difficulty at a considerable distance and is of great assistance to breeders in identifying cows for mating programmes.

Performance Recording

In March 1972 the Board began a beef cattle performance recording service taking over the weighing of cattle and processing of data from the Department of Agriculture. This service now forms part of the National Beef Recording Scheme.

Farm Machinery on Agricultural Holdings

A previous table showing male farm workers over a 10 year period indicated a steady fall in the agricultural labour force. This decline must be associated, in some degree, with the increasing use of machinery on farms. The following table gives details of machinery on agricultural holdings at 31 March:

Machinery on Agricultural Holdings at 31 March

Type of machinery	1963	1969	1970	1971	1972	1973
Cultivating equipment—						
Rotary hoes and rotary tillers—						
Self contained power unit type ..	1,127	1,292	1,240	1,196	1,204	1,241
Tractor mounted or trailing type ..	610	962	878	906	1,105	1,175
Harvesting equipment—						
Headers, strippers and other harvesters	687	711	628	700	674	661
Mowers, agricultural—						
Reciprocating (cutter bar) type—						
Power drive	4,592	5,139	5,029	4,942	<i>n.a.</i>	<i>n.a.</i>
Ground drive	1,324	617	564	512	<i>n.a.</i>	<i>n.a.</i>
Rotary types (incl. slashers, etc.) ..	<i>n.a.</i>	1,392	1,588	1,607	<i>n.a.</i>	<i>n.a.</i>
Hay rakes—						
Side delivery	2,121	2,609	2,604	2,614	<i>n.a.</i>	<i>n.a.</i>
Buck	1,005	954	926	1,640	<i>n.a.</i>	<i>n.a.</i>
Dump	1,161	796	763			
Forage harvesters	216	329	348	349	357	352
Pick-up balers	1,405	1,957	2,003	2,019	2,044	2,082
Potato diggers	995	923	893	849	<i>n.a.</i>	<i>n.a.</i>
Potato harvesters	<i>n.a.</i>	70	77	95	<i>n.a.</i>	<i>n.a.</i>
Seeding and planting equipment—						
Grain drills (all types)	3,884	3,925	3,861	3,736	3,600	3,489
Fertiliser distributors & broadcasters—						
Rotary	3,338	4,177	4,217	4,229	4,287	4,341
Direct drop	1,917	1,799	1,763	1,654	1,545	1,425
Potato planters	214	281	295	289	<i>n.a.</i>	<i>n.a.</i>
Other equipment—						
Shearing machines (number of stands)	4,249	4,862	4,839	<i>n.a.</i>	4,505	<i>n.a.</i>
Milking machines (number of stands)	12,701	17,057	16,941	<i>n.a.</i>	16,187	15,715
Hammer mills	343	644	680	691	<i>n.a.</i>	<i>n.a.</i>
Spray plants, power driven	2,462	2,958	2,918	2,913	2,525	2,518
Irrigation plants, power driven ..	1,330	2,479	2,495	2,413	2,316	2,387

The next table shows tractor numbers during the last 10 year period:

Number of Tractors on Agricultural Holdings at 31 March

Type of tractor	1963	1969	1970	1971	1972	1973
Wheeled	9,605	11,640	11,764	11,701	11,716	11,742
Crawler	1,022	1,110	1,192	1,238	1,147	1,163
Total	10,627	12,750	12,956	12,939	12,863	12,905

Artificial Fertilisers

Until 1967-68 there was a trend to greater use of artificial fertilisers, not only in total, but also in the average application per hectare. The need to reduce costs because of falling prices for some farm products, coupled with research results indicating that high quantities were not needed to maintain pasture growth, resulted in reduced quantities of artificial fertilisers being used. Although the total area of improved pastures has been increasing each year the area fertilised has declined; in 1972-73 less than 78 per cent of improved pastures were fertilised compared with 89 per cent four years earlier.

The following table shows the amount of artificial fertiliser used, by the type of crop, for recent years.

Artificial Fertilisers Used

Particulars	Unit	1962-63	1969-70	1970-71	1971-72	1972-73
Vegetables (a)—						
Area fertilised	hectares	10,370	11,026	8,309	8,865	9,087
Fertiliser used—Total	tonnes	7,189	8,861	7,279	7,791	7,856
Per hectare	tonnes	0.69	0.80	0.88	0.88	0.86
Fruit—						
Area fertilised	hectares	8,122	7,814	7,211	5,545	5,306
Fertiliser used—Total	tonnes	6,765	7,430	6,930	5,075	4,919
Per hectare	tonnes	0.83	0.95	0.96	0.92	0.93
Other crops (b)—						
Area fertilised	hectares	64,623	70,289	65,026	44,087	47,916
Fertiliser used—Total	tonnes	15,784	17,715	16,590	11,044	12,460
Per hectare	tonnes	0.24	0.25	0.26	0.25	0.26
Pastures (b)—						
Area fertilised	hectares	471,599	595,967	536,081	499,928	602,991
Fertiliser used—Total	tonnes	96,772	122,108	111,473	110,532	131,323
Per hectare	tonnes	0.21	0.20	0.21	0.22	0.22
Total usage—						
Area fertilised	hectares	554,715	685,095	616,626	558,424	665,299
Fertiliser used	tonnes	126,520	156,115	142,272	134,442	156,558

(a) Vegetables for human consumption only.

(b) 'Pastures' includes lucerne from 1971-72 but lucerne is included in 'Other crops' for earlier years.

Types of Artificial Fertiliser

The basic types of artificial fertiliser employed are phosphatic (e.g. superphosphate), nitrogenous (e.g. sulphate of ammonia) and potassic (e.g. muriate of potash), their essential chemical contribution to plant nutrition being phosphoric oxide (P_2O_5), nitrogen (N) and potassium oxide (K_2O). Superphosphate, either 'straight' or with additives, is most widely used in Tasmania, the additives consisting of trace elements such as cobalt, molybdenum, copper, boron, zinc, etc. In addition to the basic fertiliser types, various combinations are also used. Due to the numerous fertiliser combinations on the market it has not been possible to obtain any detailed analysis of the types applied to various purposes.

Area of Land Irrigated

Comparison

In 1971-72, 0.6 million hectares of land were irrigated in Victoria and 0.75 million hectares in N.S.W. By way of contrast, the Tasmanian total was only 19,857 hectares. Owing to the generally more reliable rainfall in Tasmania, scarcity of water is not such a problem as it is in the other Australian states, although quite a number of streams are not permanently flowing and drought conditions in some areas of Tasmania are not unknown.

Cressy-Longford Irrigation Scheme

The first stage of the Cressy-Longford Irrigation Scheme, which involves diversion of water from the Poatina tailrace became operational in 1972. Apart from the privately operated Lawrenny estate scheme the Cressy-Longford scheme is the only large scale irrigation works in Tasmania utilising a common water supply. The scheme has over 95 kilometres of earthen channels and provides irrigation for approximately 8,000 hectares—there are 64 farmers who are direct participants in the scheme. The flow of two downstream rivers is augmented increasing available irrigation water to downstream farmers.

The cost of the scheme was \$1.15m of which the Australian Government's share was \$750,000.

Area Irrigated

A total of 1,949 farms reported the use of irrigation in 1972-73 compared with 1,713 in the previous year. Details of the area of crops and pastures irrigated in Tasmania are shown in the following table:

Area of Crops and Pasture Irrigated (Hectares)

Year	Crop (a)						Pasture	Total
	Hops	Green feed	Fruit	Potatoes	Other vegetables	Other crops		
1963-64 ..	592	1,094	2,401	803	1,754	591	6,351	13,585
1964-65 ..	628	1,045	2,410	909	2,451	704	5,744	13,890
1965-66 ..	617	1,598	2,930	1,706	3,552	744	7,143	18,290
1966-67 ..	605	2,199	3,354	1,659	3,593	373	7,329	19,111
1967-68 ..	642	2,539	3,659	2,382	4,620	1,157	11,810	26,808
1968-69 ..	627	1,531	3,301	2,556	4,329	1,046	9,375	22,764
1969-70 ..	583	2,065	3,101	2,193	4,771	1,250	10,291	24,252
1970-71 ..	504	1,434	2,014	1,908	2,547	956	9,142	18,505
1971-72 ..	(b)	(b)	2,993	2,253	2,792	1,868	9,951	19,857
1972-73 ..	(b)	(b)	3,301	2,313	4,841	2,641	14,551	27,647

(a) Excludes pasture crops which are included with pasture.

(b) Not available separately. Included with 'Other crops'.

Irrigation Methods and Sources of Water

In 1967-68, for the first time, statistics of irrigation methods and source of water used for irrigation were collected. The main method of irrigation is by 'spray' which accounted for 78 per cent of the total area irrigated in 1972-73. The following table gives details of the areas of crops, etc., irrigated and the methods of irrigation used:

Methods of Irrigation, 1972-73 (Hectares)

Crop or pasture irrigated	Method				Total
	Sprays	Furrows	Flood	Other and multiple methods (a)	
Crop—					
Potatoes	2,290	8	..	15	2,313
Other vegetables	4,815	11	..	14	4,841
Fruit	2,904	37	137	223	3,301
Other (b)	2,230	213	143	54	2,640
Pasture (incl. lucerne)	9,365	369	4,730	87	14,551
Total	21,604	639	5,010	393	27,647

(a) Includes 80 hectares of fruit watered by the 'trickle' method of irrigation.

(b) Excludes pastures harvested.

Potatoes respond particularly well to irrigation—yields from irrigated crops frequently exceed 25 tonnes per hectare. For the 1972-73 season the State average potato yield from irrigated areas was 27.5 tonnes per hectare while for non-irrigated potato crops the yield was only 14.5 tonnes per hectare. The next table highlights the importance of irrigation in the potato growing industry:

Potatoes Irrigated

Particulars	1962-63	1969-70	1970-71	1971-72	1972-73
Total area of potatoes planted hectares	5,600	3,791	3,640	3,593	3,330
Area irrigated—					
Total	683	2,193	1,908	2,253	2,313
As proportion of area planted per cent	12.2	57.8	52.4	62.7	69.5

The next table shows areas irrigated from each source of water:

Source of Water for Irrigation (a)

Source of water	Area irrigated (hectares)		Number of holdings reporting each source of water	
	1970-71	1971-72	1970-71	1971-72
Surface water from—				
Communal irrigation schemes	631	<i>n.a.</i>	12	<i>n.a.</i>
State irrigation schemes	<i>n.a.</i>	5	<i>n.a.</i>	1
Rivers, creeks, etc.	8,521	9,660	r 552	643
Farm dams, etc.	9,048	9,830	r 941	1,077
Underground water supply (bore, well, etc.)	138	223	27	41
Town or country reticulated supply	167	139	81	70
Total	18,505	19,857	(b)r1,509	(b) 1,713

(a) Similar details were not collected for 1972-73.

(b) This is the total number of holdings reporting the use of irrigation and not the total number of holdings reporting each source of water since one holding may report a number of different sources.

TASMANIAN DEPARTMENT OF AGRICULTURE

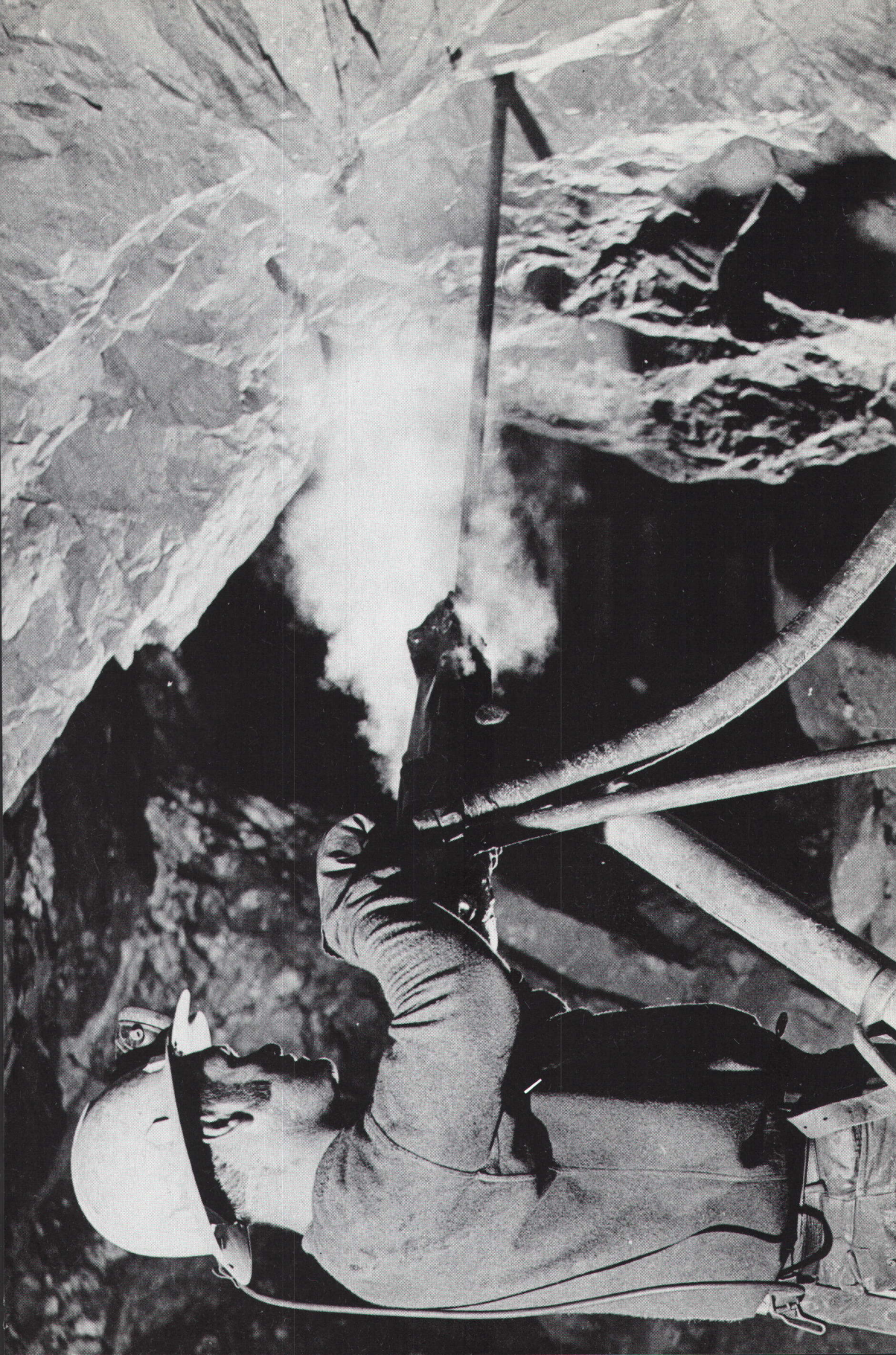
Aims and Structure

The Department of Agriculture (originally the Agricultural Bureau of Tasmania) was created in the late 1880s with very narrow aims, principally to administer plant and animal regulations and advise the Government on all phases of agriculture. In 1927, however, the State Government decided to reorganise the Department, a new aim having been suggested by the Commonwealth Development and Migration Commission which most strongly urged the spread of scientific knowledge among primary producers.

The functions of the modern Department are: (i) active research and investigation into agricultural problems; (ii) wide dissemination of technical information and other advice to farmers; and (iii) regulatory and administrative action as required under various State Acts.

To carry out the functions associated with agriculture, the Department, headed by the Director, is divided into five *divisions* (agronomy, horticultural, animal production, plant pathology and entomology), three *services* (extension, animal health and administrative) and one *section* (agricultural economics). The Department has its own laboratories, research stations and experimental farms. In addition, the Director administers the Sea Fisheries Division.

At present, there are three research centres and one laboratory associated with agronomical research, two research centres and a laboratory involved in horticultural research, one bacteriological laboratory devoted to dairy research and bacterial investigations, and laboratories which deal with entomological and plant pathological investigations. Livestock studies are conducted at two of the centres associated with agronomical research and laboratory facilities are provided at Mt Pleasant (Launceston).



Drilling an ore face, Rosebery zinc-lead mine

[Dept of Film Production]



The open-cut iron mine at Savage River

[Dept of Film Production]

Chapter 8

PRIMARY INDUSTRY—NON-RURAL

FORESTRY

Introduction

When the first explorers ventured beyond the main coastal areas of mainland Australia, they encountered arid zones and desert nearly devoid of timber. By contrast, in Tasmania dense and continuous forest was the main barrier to early penetration, although the early settlements were sited in open savanna-like country which originated from firing by the Tasmanian natives. No other Australian state has similar widespread conditions favourable for forest growth: a cool temperate climate; an assured annual rainfall varying from 500 to 3,800 millimetres according to locality, and showing relatively small seasonal variation.

In the 170 years since the first settlement, land clearing, timber exploitation and fires have left their mark; the Forestry Commission estimated the total forest area at 30 June 1973 as 2,792,000 hectares (i.e. about 41 per cent of the State's total area). By Australian standards, however, a State with 41 per cent of its area under forest is uniquely endowed.

Trees of the Tasmanian Forests

Forest Types

There are two basic types of forest in Tasmania; temperate rain forest and eucalypt forest. The rain forest is principally located in the western half and to a lesser extent in the north-east highlands; the eucalypt forest predominates elsewhere. The rain forest is characterised by the dominance of *Nothofagus cunninghamii* (myrtle) *Atherosperma moschatum* (sassafras) *Eucryphia lucida* (leatherwood) and other trees which appear on poorer soils. *Acacia melanoxylon* (blackwood) grows where rain forest has been disturbed in the past; principally where fires have occurred.

The distribution of rain forest and eucalypt forest is influenced mainly by rainfall, soil type and the frequency of past fires. Eucalypt forests of good quality are not common on soils of reasonable depth and fertility where the annual rainfall is below 760mm. Where the rainfall is above 1,130mm, rain forest species appear in the understorey but are excluded should fires occur say every 40 to 50 years. With rainfall above 1,520mm rain forest can exclude eucalypts. However, even with rainfall well above 1,520mm a combination of poor soils and frequent burning produces areas of button grass and heathy plains.

Hardwoods and Softwoods

The most valuable eucalypts are those which belong to the so-called ash group—*E. obliqua* (stringy-bark) *E. delegatensis* (gum-top stringy-bark or alpine ash) and *E. regnans* (swamp gum or mountain ash). In the south and south-east *E. globulus* (Tasmanian blue gum) occurs in high quality forests. In areas where the annual rainfall is below 760mm, the more important eucalypts are *E. amygdalina* (black peppermint) *E. ovata* (swamp or black gum) *E. viminalis* (white gum) *E. obliqua* (stringy-bark) and *E. linearis* (white peppermint).

Tasmanian forests are cut almost exclusively for hardwood (eucalypts), the slow growing native softwoods never having been very plentiful. The principal softwood species which have been utilised are *Athrotaxis selaginoides* (king billy pine) *Dacrydium franklinii* (huon pine) and *Phyllocladus aspleniifolius* (celery-top pine).

Tasmania offers 11 tree types suitable for chipping, of which 10 are eucalypts. The eleventh is the myrtle (*Nothofagus cunninghamii*), a rainforest hardwood available in the north-west of the island. The eucalypts can be graded into:

- (i) First quality (four species)—
E. obliqua (stringy-bark) (a) (b)
E. delegatensis (gum-top stringy-bark) (a) (b)
E. regnans (swamp gum) (b)
E. sieberi (ironbark)
- (ii) Second quality (three 'gums')—
E. viminalis (white gum) (a) (b)
E. globulus (blue gum) (a)
E. ovata (swamp or black gum) (b)
- (iii) Third quality (three 'peppermints')—
E. amygdalina (black peppermint) (a) (b)
E. linearis (white peppermint)
E. tasmanica (silver peppermint)

Two species of eucalypt—*E. delegatensis* and *E. obliqua* account for over 60 per cent of all eucalypt logs cut for woodchipping. The east coast offers all 10 varieties of which the five marked (a) are the common ones. The north coast offers in useful quantity only the six varieties marked (b).

The scarcity of native softwoods is being met, in part, by the creation of exotic plantations, the principal tree grown being *Pinus radiata*, but at 30 June 1973 the softwood plantations (32,400 hectares) accounted for only 1.1 per cent of the State's total forested area. The following table shows the area of softwood and hardwood plantations established by the Forestry Commission (but excludes privately-owned areas):

Area of Forestry Commission Plantations at 30 June
(Hectares)

District	1972			1973		
	Softwoods	Hardwoods	Total	Softwoods	Hardwoods	Total
Smithton .. .. .	..	9	9	..	9	9
Burnie	2,256	3	2,259	2,388	3	2,391
Devonport	3,146	332	3,479	3,511	322	3,833
Launceston	561	1	562	601	1	602
Scottsdale	5,824	2	5,826	6,162	2	6,164
Fingal	6,942	..	6,942	7,723	..	7,723
Dover	86	..	86	86	..	86
Western	575	..	575	820	..	820
Total	19,391	347	19,738	21,291	337	21,628

In March 1974 tenders were called by the Forestry Commission for cutting rights in *Pinus radiata* plantations in the northeast of Tasmania. The annual volume of timber to be harvested is 50,000 m³ which will be obtained by clear felling at a rotation age of 35 years. Harvesting will extend over 15 years at the end of which exclusive thinning rights will be granted for approximately 12,000 m³ per annum.

Demand for Forestry Products

Timber was always in demand as a fuel and as a building and construction material from the days of the original settlement. The possibility of using eucalypts for paper manufacture was investigated in the nineteenth century by Sir Ferdinand von Mueller, the celebrated botanist, and he concluded that eucalypts provided a bark which was suitable for the manufacture of paper. In actual fact, when paper-making began at Burnie in 1939, the process involved discarding the bark and converting de-barked billets to pulp. In 1941 the only newsprint mill in Australia was established at Boyer on the Derwent; more recently, in 1962, a pulp mill began operations at Port Huon in the south. A further pulp and paper mill commenced production during 1970 at Wesley Vale near Devonport.

Further utilisation of forestry products has been introduced by factories producing plywood, hardboard, particle board, woodchips (for export), etc.

Forest Area

The next table gives details of that part of the total area which is under reservation ('reservation' in this context means land either used or to be used exclusively for forestry purposes; it includes also the forested areas of scenic reserves):

Forest Area (Gross) Under Reservation at 30 June 1973
(*000 Hectares)

Particulars	Pulpwood concessions	Exclusive forest permits	Scenic reserves (a)	Other	Total
State forests (b)	897	27	..	275	1,199
Timber reserves (c)	56	..	..	25	81
Other forested reserves	786	39	121	2	948
Total	1,739	66	121	302	2,228

(a) Estimated forested component of State reserves (national parks, etc.).

(b) Gazetted State forest only. Area is permanently dedicated to timber production.

(c) Land reserved for timber supply, including fuel.

The State Forests are located, in the main, in five distinct regions: (i) far north-west about the axis of the Arthur River; (ii) north-eastern highlands; (iii) north and north-west of the Great Lake; (iv) from the south coast, north to Lake King William; and (v) the east coast area.

Classification of State Forests

During 1972-73 an overall review of the forest areas of the State was completed. The next table gives a summary of forest areas on Crown lands but includes areas on State reserves (e.g. national parks), army leases and land vested in the Hydro-Electric Commission.

Classification of State Forests at 30 June 1973
(*000 Hectares)

Forest type	State forest (a)	Vacant Crown land	Total
Eucalypt forest with a mature or potential mature height over 41.15m.	327	59	386
Eucalypt forest with a mature or potential mature height of 15.24m to 41.15m.	481	365	846
Temperate rainforest (<i>N. cunninghamii</i>) and associated species	154	254	408
Plantations (mainly <i>P. radiata</i>)	20	..	20
Total forest area	983	678	1,661
Non-productive forests and other land included for protection purposes	465	306	771
Total	1,448	984	2,432

(a) Comprises gazetted State forest, timber reserves and areas of State forest not gazetted at 30 June 1973.

Forest Utilisation

Introduction

Numerous timber-using industries have been established in Tasmania including sawmills and industrial plants producing newsprint, paper, paper pulp, particle board and woodchips. Establishment of the woodchip industry and the expansion of other timber-using industries has resulted in greatly increased annual timber requirements necessitating careful utilisation of existing forest resources and the development of viable reforestation schemes.

The problem of possible overtaxing of existing resources has been met partly by multiple use which, in effect, means the same logs supply the raw material for a number of purposes. Pulpwood is often obtained as a by-product from mill-logging operations while waste from sawmilling is used for the manufacture of woodchips, pulp and hardboard. During 1969-70, the year preceding export of woodchips, approximately 25 per cent only of sawmill waste was chipped for use in woodpulp and wallboard manufacture. As a direct consequence of the woodchip export trade the proportion was almost 55 per cent for 1972-73. Thinnings from Forestry Commission *Pinus radiata* plantations, which in the past were often discarded, are used in particle board manufacture.

Regeneration is carried out by the Forestry Commission and by the companies themselves. On Crown land reforestation is mandatory, the work in some areas being done by the companies and in other areas by the Forestry Commission. Industries utilising privately owned forest resources have established incentive schemes to encourage reforestation.

Total Log Usage

The next table shows total log usage by the sawmilling, paper making, chipping and allied industries:

Hardwood and Softwood Log Usage
(^{'000m³})

Particulars	Sawmilling	Chipping, grinding and flaking	Total
By Statistical Division and Sub-Division, 1972-73			
Hobart	121.84	} 1,129.21	1,441.70
Southern	190.65		
Northern—			
Tamar	317.61	719.36	1,036.97
North Eastern	132.91	..	132.91
Total	450.53	719.36	1,169.89
Mersey-Lyell—			
North Western	316.72	285.08	601.80
Western	17.26	..	17.26
Total	333.98	285.08	619.06
Tasmania	1,096.99	2,133.65	3,230.64
SUMMARY: TASMANIA			
1969-70	1,079.33	(a) 732.00	1,811.33
1970-71	1,054.80	771.50	1,826.30
1971-72	1,081.09	1,171.37	2,252.46
1972-73	1,096.99	2,133.65	3,230.64

(a) Estimated from final product data.

The Forestry Commission expects the total annual log usage from private and Crown land to reach about 4.5 million cubic metres during 1973-74 and to remain at this level for the next five years. The component from Crown land (60 to 65 per cent of the total) is within the known sustained production capacity of Crown land forests.

In the sections that follow some of the more significant details are given for the State's major timber using industries, excluding sawmills.

Paper, Hardboard and Particle Board

Associated Pulp and Paper Mills Ltd and subsidiaries manufacture paper and hardboard at Burnie and particle board and paper at Wesley Vale. The company owns 101,172 hectares of forested land and holds cutting rights over Crown land for 24 kilometres on each side of the Emu Bay railway line from the north coast to the Pieman River.

In 1970 the company completed the first stage of its pulp and paper mill at Wesley Vale at a cost of \$25m. The first paper machine installed has an annual capacity of about 40,640 tonnes of magazine paper and provision has been made for the installation of three additional machines. Two small pulping units manufacture eucalypt cold soda semi-chemical pulp and *Pinus radiata* refiner-groundwood. A.P.P.M. Ltd plans to establish a large chemical pulp mill at Wesley Vale by 1978 which will duplicate present production from the Burnie complex.

Newsprint

Australian Newsprint Mills Ltd, situated at Boyer on the Derwent River, is Australia's sole manufacturer of newsprint. Its timber concession follows the general line of the Derwent as far north as Lake King William.

The *Florentine Valley Paper Act* 1966 increased A.N.M.'s concession area from 110,479 hectares to 150,948 hectares to provide the basis for an expansion programme. The company is required by the Act to supply 23,600 cubic metres of logs to other timber-using industries each year. A third paper machine came into production in January 1969 increasing annual capacity to 168,000 tonnes of newsprint. Output on this machine was progressively speeded-up and further ancillary equipment introduced to raise annual capacity to approximately 208,000 tonnes.

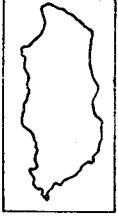
Wood Pulp

Australian Paper Manufacturers Ltd manufacture wood pulp at Port Huon on the Huon River. The pulp is shipped in pellet form to the company's paper mills in other states, principally to Botany, N.S.W.

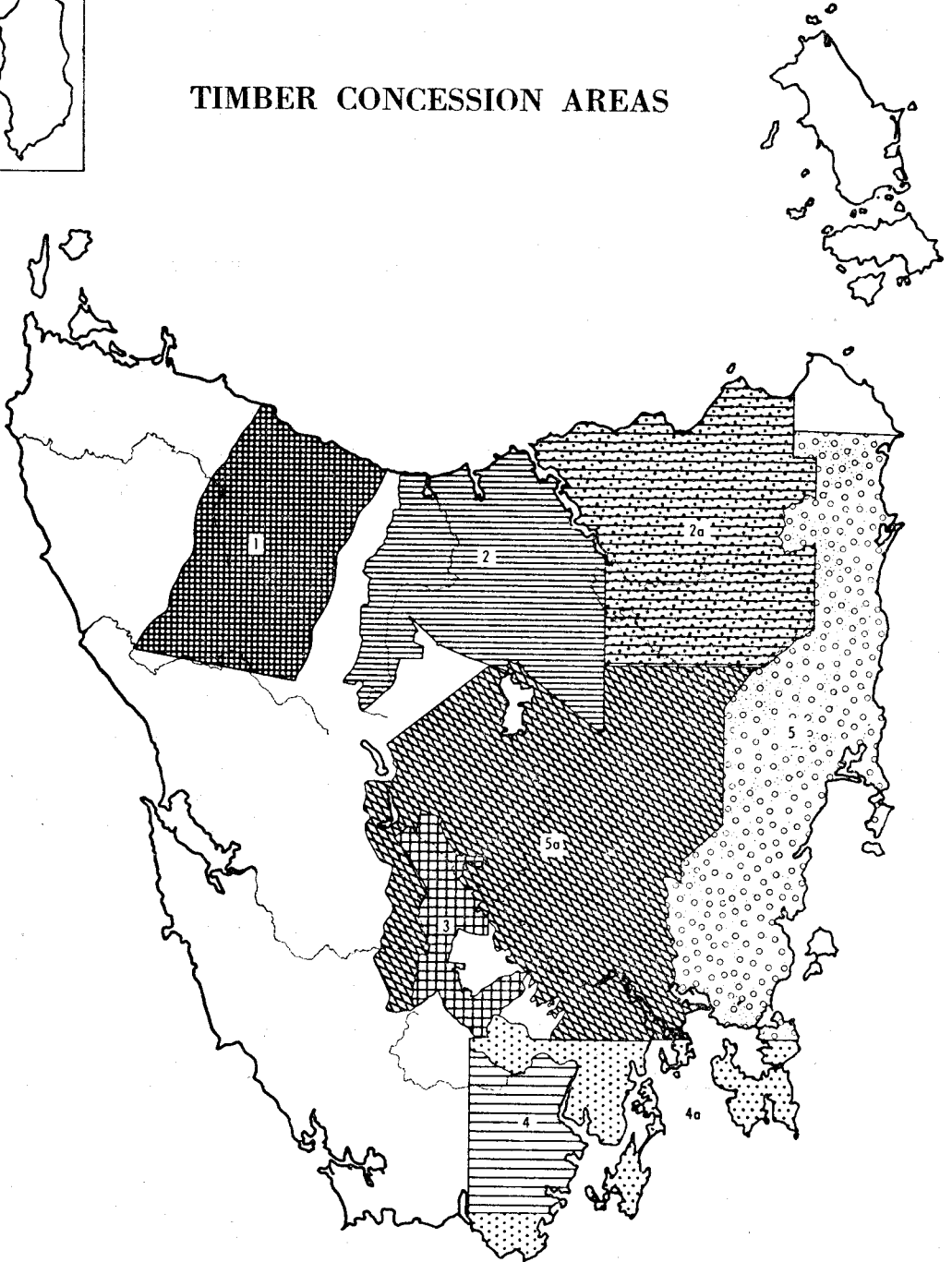
The company's pulpwood concession includes virtually the whole of the D'Entrecasteaux Channel coastline and the south coast as far west as Prion Bay; inland it extends west to the Mt Picton area. Also included in the concession are Bruny Island and the Tasman Peninsula.

Woodchips

Woodchips, manufactured from sawmill waste and other timber previously of limited commercial value, are primarily used for wood pulp production. Three Tasmanian companies, Northern Woodchips Pty Ltd, Tasmanian Pulp and Forest Holdings Ltd and Associated Pulp and Paper Mills Ltd have negotiated woodchip export contracts with Japanese interests. Before granting woodchip export licences, the Australian Government stipulated that the companies, if they did not already have the capacity, should develop wood pulp manufacturing facilities within 15 years.



TIMBER CONCESSION AREAS



A.P.P.M.: (1) Burnie Concession Area; (2) Wesley Vale Concession Area; (2a) Wesley Vale Reserve.
 A.N.M.: (3) Concession Area.
 A.P.M.: (4) Concession Area; (4a) Reserve.
 T.P.F.H.: (5) Concession Area; (5a) Reserve.

Tasmanian Pulp and Forest Holdings Ltd's plant at Spring Bay, near Triabunna on the east coast, has an annual capacity of more than 610,000 tonnes of woodchips. Timber for the project comes from pulpwood concession areas extending along the Eastern Tiers from St Helens (177 kilometres north of Triabunna) to Buckland (24 kilometres to the south-west). The Company has also been granted concessions over reserve areas covering much of central Tasmania. These areas will ultimately be used provided Tasmanian Pulp and Forest Holdings Ltd meets various stipulations contained in the *Pulpwood Products Industry (Eastern and Central Tasmania) Act 1968*. In addition the company is permitted to obtain pulpwood from areas in the reserve set aside by the Forestry Commission for silvicultural purposes or by utilising trees removed to open the forest for economic extraction of milling-quality timber.

The company's first woodchips were exported from the Spring Bay complex in April 1971; by December 1971 the plant was operating at full capacity (610,000 tonnes of woodchips per annum).

Associated Pulp and Paper Mills Ltd and Northern Woodchips Pty Ltd constructed their woodchip plants at Long Reach, near Bell Bay, on the Tamar River. Northern Woodchips Pty Ltd has also installed portable and satellite chipping plants in the northern half of Tasmania. A.P.P.M. Ltd draws its timber supplies from Crown forest concessions, private land and sawmill waste while Northern Woodchips Pty Ltd relies on timber from private lands and sawmill waste. Annual capacity of the A.P.P.M. Ltd plant is 914,500 tonnes of woodchips; Northern Woodchips Pty Ltd's 15-year export contract is for an annual 711,000 tonnes of woodchips.

Both companies commenced production of woodchips in 1972; A.P.P.M. at its Long Reach plant in May 1972 and Northern Woodchips from its portable and satellite chipping plants in mid-1972. First exports by the two companies were made in late 1972. In February 1973 the first log trains commenced using the rail extension to Long Reach giving the two companies economic access to more distant timber supplies.

By July 1974 there were 29 operative chipping sites in Tasmania and a mobile chipper which is used wherever the volume of sawmill off-cuts or transport costs warrant its operation.

Timber Concession and Reserve Areas

The establishment in Tasmania of various industries using forest resources has given rise to the need for some guarantee of assured timber supplies to those industries. Therefore certain concessions and cutting rights on Crown lands have been awarded to companies relying on forest products as their raw materials. The preceding map shows the location of concession and reserve areas in Tasmania. Concession areas are those areas where a company is at present allowed to operate while reserve areas are set aside for future use. Providing that the company meets certain stipulated conditions, permission to remove timber from the reserve area will be granted by the Forestry Commission.

Definition of Forest Production

The cutting of logs in a forest and the production of sawn timber in a mill seem closely related activities and may both, in fact, be conducted by a single operator with the same team of employees; similarly, the cutting of pulpwood and its later conversion to newsprint or fine paper may be viewed, in a broad sense, as a single activity. For statistical purposes, however, sawmills, paper mills, newsprint mills, woodchip plants, etc. are classified as factories while logging operations, which provide the raw materials for the factories, are classified as forestry activity. It necessarily follows that the definition of forest production must be restricted to include only the output of logs, hewn timber, firewood, tanning bark, etc. before such products have passed into the sector covered by factory statistics. Some forestry products, as just defined, (e.g. fence posts and rails, hewn sleepers, firewood, etc.) may go direct to the final consumer without passing as a raw material to the factory sector.

Value of Forest Production

Gross Value of Production is the value placed on the recorded production at the wholesale price realised in the principal markets. In cases where forestry 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 (e.g. the value of logs cut for saw-milling is the value on the mill skids).

Local Value (i.e. value of recorded production at the place of production) is ascertained by deducting marketing costs from gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.

In other production sectors, local value of production is further reduced by subtracting the value of materials used in the process of production; the final figure is *net value of production*. In the forestry sector, however, these data on the cost of materials are not available and therefore the only two measures available are: (i) gross value of production; and (ii) local value of production.

Duplication: Until 1968-69, the value of logging operations was included *only* in the forestry sector and excluded entirely from the manufacturing sector. The changed concept of the establishment, introduced in the 1968-69 manufacturing census, involves some logging activity being recorded in the operations of sawmills; in 1969-70, the value of such activity, double-counted (i.e. included in both manufacturing and forestry sectors), was \$1.6m.

Source of Production Data

The principal sources of data are the returns of the various establishments classified as factories (e.g. sawmills, newsprint mills, paper mills, plywood mills, etc.) which report details of logs, pulpwood, sawmill edgings, off-cuts, etc. used as raw materials; other data are available from the State Forestry Commission and the Bureau's export statistics.

Statistics of Forest Production

The next table shows the production of the various forest products and from where they are obtained, i.e. either Crown or private land. In this table, the 'Logs for processing' figures include the log usage of the woodchip export industry. Woodchips have been an input material for locally based paper and wood pulp plants for many years but demand increased greatly with the establishment of woodchip export markets.

The following table shows details of forest production:

Forest Production, 1972-73

Product	Obtained from—		Total
	Crown land	Private land	
Logs for processing (a)—			
Forest hardwoods '000 m ³	1,787.58	1,372.06	3,159.64
Indigenous softwoods '000 m ³	8.38	..	8.38
Plantation grown pines '000 m ³	32.85	23.50	56.35
Total logs—Quantity '000 m ³	1,828.81	1,395.57	3,224.38
Gross value \$'000	<i>n.a.</i>	<i>n.a.</i>	27,897
Hewn and other timber—Quantity (b) '000 m ³	39.40	<i>n.a.</i>	39.40
Value (c) \$'000	<i>n.a.</i>	<i>n.a.</i>	3,025
Total gross value of forest products \$'000	<i>n.a.</i>	<i>n.a.</i>	30,922

(a) Logs for sawing, peeling, slicing, chipping and pulping.

(b) From Crown land only; includes firewood, sleepers, transoms, girders, bridge timber, mining timber, poles, piles and other forest products.

(c) Includes an estimate of the value of hewn and other timber and firewood taken from private land and other forest products.

The next table shows details of forest production for a five-year period on a basis comparable with the previous analysis:

Forest Production

Product		1968-69	1969-70	1970-71	1971-72	1972-73
Logs for processing (a)—						
Forest hardwood ..	'000 m ³	1,653.7	1,752.4	1,763.0	2,184.7	3,159.6
Indigenous softwood ..	'000 m ³	10.4	14.8	8.5	4.3	8.4
Plantation grown pines	'000 m ³	55.3	65.1	56.9	57.0	56.4
Total logs—Quantity	'000 m ³	1,719.5	1,832.4	1,828.4	2,246.0	3,224.4
Gross value	\$'000	13,456	15,859	14,037	18,858	27,897
Hewn and other timber—						
Quantity (b)	'000 m ³	35.9	45.8	35.2	40.4	39.4
Value (c)	\$'000	2,558	3,039	3,046	3,069	3,025
Total gross value of forest products	\$'000	16,015	18,898	17,083	21,927	30,922

(a) Logs for sawing, peeling, slicing, chipping and pulping.

(b) From Crown land only; includes firewood, sleepers, transoms, girders, bridge timber, mining timber, poles, piles and other forest products.

(c) Includes an estimate of the value of hewn and other timber and firewood taken from private land and other forest products.

Tasmanian and Australian Log Production

For the purposes of the last two tables, log production is defined as relating to 'logs' for sawing, peeling, slicing, chipping and pulping (i.e. it includes logs used in sawmills as well as those used for production of wood pulp in newsprint and paper mills, woodchips, particle board, etc.). In terms of this definition Tasmania is a major producer, the State's log production being over 18 per cent of the Australian total in 1970-71; the ranking of the major producers was Victoria with 25.9 per cent and N.S.W. with 22.2 per cent. Considering Tasmania's small relative size and population, it is apparent that forest production is one of its more important contributions to the Australian economy.

Gross and Local Value of Production

The following table gives details of gross and local values of forestry production for a five-year period:

Gross and Local Value of Forestry Production
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Gross value (production valued at principal markets)	16,015	18,898	17,083	21,927	30,922
Less marketing costs	2,469	2,765	2,882	3,734	5,562
Local value (production valued at place of production)	13,546	16,132	14,201	18,193	25,360

Timber and Timber Products

Mill Production of Timber

In 1972-73 logs treated in sawmills and plywood mills for the production of sawn, peeled, and sliced timber totalled 1,097,000 cubic metres; the resulting timber totalled 416,000 cubic metres.

The difference between the volume of logs treated and of timber produced is not all waste from the miller's points of view. Admittedly, there is very limited use for sawdust but some offcuts are sold to the wood pulp and, more recently, the woodchip industries and other waste is docked and sold as firewood.

Output and Exports

The following table shows timber production by mills for a five-year period, together with exports of sawn timber:

Production and Exports of Sawn Timber

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
LOGS TREATED ('000 m ³)					
Hardwood	1,073.60	1,049.84	1,027.74	1,054.60	1,068.65
Softwood	27.74	29.50	27.06	26.48	28.34
Total	1,101.34	1,079.33	1,054.80	1,081.09	1,096.99
SAWN, PEELED OR SLICED TIMBER PRODUCED FROM LOGS TREATED (a) ('000 m ³)					
Hardwood	404.01	400.70	394.34	401.23	403.85
Softwood	10.38	12.96	11.76	11.62	12.45
Total	414.39	413.65	406.10	412.85	416.29
EXPORTS OF SAWN TIMBER (b) ('000 m ³)					
Total	194.94	207.24	200.58	202.33	224.83
VALUE OF EXPORTS OF SAWN TIMBER (b) (\$'000)					
Total	15,329	16,238	17,201	17,385	20,822

(a) Rough sawn timber including that subsequently seasoned and dressed to produce flooring, weatherboards, etc.

(b) Includes dressed and undressed timber.

Geographical Distribution of Sawmills

The next table records the absolute decline in the number of mills over recent years. The area with the heaviest incidence of closures has been the southern orcharding region.

Fruit case manufacturers, often part-time farmers or cartage contractors, could not compete with the cheaper and lighter fibre board packaging. Generally depressed prices for export fruit combined with the 1967 bush fires reinforced the speed of the collapse of case-making.

Distribution of Operative Sawmill and Plywood Mill Locations by Statistical Divisions and Sub-divisions

Statistical divisions and sub-divisions	1963-64	1965-66	1967-68	1969-70 (a)	1971-72	1972-73
Hobart	} 143	123	107	96	{ 12	12
Southern .. .. .							73	70
Northern—						
Tamar	62	66	64	53	61	61
North Eastern	41	42	43	36	29	29
Total	103	108	107	89	90	90
Mersey-Lyell—						
North Western	53	53	53	45	39	37
Western	8	7	8	8	8	8
Total	61	60	61	53	47	45
Tasmania	307	291	275	238	222	217

(a) In 1968-69 a change in definition excluded 12 planing mills which were exclusively engaged in re-sawing.

Average Size of Mills

In the year 1963-64 no Tasmanian sawmill exceeded an annual log input of 25,000 cubic metres. The size distribution of mills, classified by volume of log inputs, is given in the next table:

**Number of Operative Sawmills (including Plywood Mills)
by Volume of Annual Log Input**

Size classification (cubic metres)	Number of sawmills and plywood mills		
	1969-70	1971-72	1972-73
Up to 500	44	49	42
501- 1,000	30	14	24
1,001- 1,500	13	17	14
1,501- 3,000	35	36	38
3,001- 5,000	44	35	29
5,001-10,000	46	42	40
10,001-15,000	13	13	14
15,001-30,000	12	15	14
30,001-45,000 .. .. .	..	1	1
45,001-60,000	1	..	..
Over 60,000 .. .. .	..	..	1
Total	238	222	217

Chipping, Grinding and Flaking of Wood

Apart from sawmills and plywood mills, the main users of logs from Tasmanian forests were, until early 1971, the mills producing as their final products wood pulp, paper, hardboard and particle board. As an intermediate stage in the various processing systems, the timber used was chipped, ground or flaked at eight locations.

Since the commencement of woodchipping for export from the port of Triabunna in February 1971, details have been regularly obtained of *log usage*, and of *production of chipped, ground and flaked wood*, from all mills engaged in producing woodchips as such, wood pulp, paper, hardboard and particle board.

With the opening, in late 1972, of two additional woodchip export sites at Long Reach on the Tamar estuary, it has become possible to classify output into, woodchips, etc. for further local processing and those for export. In the month of March 1974, three quarters of total production was destined for Japanese mills.

The rapid development of woodchipping for export is shown in the following table:

Chipping, Grinding and Flaking of Wood

Particulars	1969-70	1970-71	1971-72	1972-73 ^r
Producing locations number	8	12	18	28
Materials used—				
Logs (a) '000 m ³	r 732.00	771.50	1,171.37	2,133.65
Sawmill offcuts '000 m ³	r 99.00	125.47	139.09	224.10
Total '000 m ³	r 831.00	896.97	1,310.46	2,357.75
Chipped, ground and flaked wood produced (green weight)—				
For local processing '000 tonnes	r 761.00	<i>n.p.</i>	<i>n.p.</i>	793.74
For export '000 tonnes	..	<i>n.p.</i>	<i>n.p.</i>	1,397.18
Total '000 tonnes	r 761.00	828.61	1,213.17	2,190.93

(a) Includes log equivalent of limbwood and billets.

The State Forestry Commission

The principal officers of the State Forestry Commission are the chief commissioner and two assistant commissioners. At 30 June 1973 the Commission employed a work force of 626, including administrative staff.

Total expenditure by the Commission during 1972-73 was \$5.3m. This expenditure was funded from Loan Funds and Consolidated Revenue. Money collected each year (mainly from timber royalties) is paid into Consolidated Revenue and, by law, becomes a grant to the Commission the following year.

The Forestry Commission is primarily concerned with the conservation of Tasmania's forests; this requires that it should exercise control over the rate at which logs and pulpwood are taken, and also that it should introduce effective measures to ensure regeneration. Other important functions include: (i) fire prevention and suppression; (ii) road construction to give access to forests; and (iii) development of plantations. Some concept of the scope of Forestry Commission activities can be obtained from the following table:

Activities of Forestry Commission: Summary
(Source: Forestry Commission)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Seedlings produced '000	3,038	2,767	3,275	3,295	3,266
Plantations—					
Established hectares	1,761	1,878	2,027	1,905	1,902
Pruned hectares	804	726	839	754	495
Thinned hectares	413	414	353	302	273
Firebreaks—					
Constructed kilometres	138	127	53	85	49
Roads—					
Constructed kilometres	171	171	142	132	130
Improved kilometres	32	34	11	5	3

The Commission has a responsibility for preventing and fighting forest fires; losses through bush fires fought by the Commission are reported in the following table:

Bush Fires Fought by the Forestry Commission
(Source: Forestry Commission)

Year	Fires reported	Area burnt				Cost of suppression
		State forest	Other Crown land	Private property (a)	Total (a)	
	no.	hectares	hectares	hectares	hectares	\$
1967-68	230	6,397	23,886	8,447	38,730	61,032
1968-69	87	1,432	2,450	652	4,535	18,722
1969-70	118	1,954	3,327	940	6,221	21,963
1970-71	114	5,987	1,575	1,101	8,663	22,493
1971-72	95	1,016	292	518	1,826	13,841
1972-73	305	50,170	64,870	25,860	140,900	262,531

(a) Includes only those fires on private property fought to protect adjoining State forest or timbered Crown Land.

The main revenue of the Forestry Commission is derived from royalties, i.e. charges paid by those taking timber from Crown lands. By law, such revenue is specifically reserved for expenditure on forestry. The next table has been compiled to show the revenue and expenditure of the Commission for the last five years; expenditure exceeds revenue since money from State loan funds devoted to forestry purposes is included in expenditure.

Forestry Commission: Revenue and Expenditure
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
REVENUE					
Royalties	1,496	1,537	1,690	1,969	2,369
Sale of forest products	75	89	93	123	109
Other	27	27	32	35	39
Total	1,598	1,653	1,815	2,127	2,517
EXPENDITURE (a)					
Administration—					
Revenue collection	180	196	239	290	295
Forest management	449	496	555	641	700
General	375	381	457	504	605
Forest works—					
Road construction	763	752	853	902	926
Building and other	75	105	90	98	102
Afforestation and reforestation	1,070	1,140	1,236	1,330	1,657
Forest protection (n.e.i.)	122	134	134	138	274
Mapping and surveys	92	102	118	126	154
Land purchases	6	7	17	8	4
Purchases, plant and equipment	57	36	85	45	43
Interest on advances	314	350	392	451	500
Total	3,503	3,699	4,176	4,533	5,260

(a) Aggregate expenditure from all sources, i.e. Consolidated Revenue, Loan and Trust Funds.

Australian Government-State Agreement

The federal *Softwoods Forestry Agreements Act* 1967 was passed with the specific intention of increasing the rate of softwood plantings in Australia by providing federal financial assistance to the states. Under the Act each state was allocated: (i) a *base year* area of softwood plantings which was financed by the state; and (ii) a *scheduled* area in excess of the base year figure, the excess financed by special Australian Government loans. The base year area was constant for for each year of the five-year programme which commenced in 1966-67.

Main features of the special Australian Government loans were: (i) repayment of advances, in 50 half-yearly instalments, is deferred until July of the eleventh year after the date on which payment was made to the state; (ii) the state may repay any portion of the advances at any time prior to the date that payment falls due; and (iii) the loans are interest free for a period of 10 years after which interest accrues on the outstanding balance.

In late 1972 federal legislation was passed which extended the Australian Government-State softwood forestry agreement for a further five years. The legislation was made retrospective from July 1971. Financial terms were similar to those set out in the 1967 agreement.

Base year areas (financed by the states) under the second Australian Government-State soft-wood forestry agreement are: N.S.W., 3,553 hectares; Vic., 2,635 hectares; Qld., 2,282 hectares; S.A., 1,376 hectares; W.A., 1,315 hectares; and Tas., 850 hectares. Tasmania's scheduled plantings for each of the five years ended 30 June from 1972 to 1976 were set at 1,862 hectares.

The Australian Government's aim is to establish 809,400 hectares of pine plantations in the next 40 years and Tasmania's target, as part of the plan, is 80,940 hectares.

MINING

Introduction

For statistical purposes, mining is taken to cover the operations normally thought of as mining and quarrying (i.e. the removal from underground or surface workings of ores, etc.), the recovery of minerals from ore dumps, tailings, etc. and ore dressing (i.e. concentration and other elementary treatment). It does not include the smelting and/or refining of metallic minerals or the processing of non-metallic minerals (e.g. limestone into cement); these operations are classified as manufacturing.

In the present Tasmanian economy, two important metals will serve to illustrate the distinction between mining and manufacturing: aluminium, produced at Bell Bay on the Tamar; and zinc at Risdon near Hobart. In terms of the previous definition, the two metals are considered to be the output of manufacturing and only a small part of their total value is attributable to the mining industry in Tasmania. In the case of aluminium, no Tasmanian ores or concentrates are used and no value accrues to the Tasmanian mining industry. A substantial part of the value of the aluminium is, in fact, accounted for by imported materials. Zinc is produced from both imported and locally-produced concentrate, but only the value of the local concentrates produced at Rosebery is included in the Tasmanian mining industry. The same principle applies with the State's iron-ore pellet industry, i.e. extraction of the ore is classified as mining but pellet-making is classified as manufacturing.

Historical

Supply and Demand

Tasmanian mining activity has been subject to frequent and severe fluctuations, mainly as a result of changes in supply and demand, which are reflected in the market prices of particular metals. Factors which have contributed to this instability are: (i) *supply*—market prices may fall with the discovery or working of major ore-bodies; (ii) *demand*—large-scale purchases of particular metals either to meet unforeseen contingencies or to stock-pile for future requirements may lead to rises in market prices; and (iii) *technological change*—the development of more economic recovery methods may lead to the working of previously unusable large scale deposits. Developments in industry may also lead to the setting-up of a new market or collapse of an established market in particular metals.

The effects of these and other factors have been offset to some degree by the establishment of controlling bodies such as the International Tin Council. In efforts to stabilise the markets such bodies may exercise control over prices or introduce production quotas.

Definition of Mining

Unfolding the record of the various minerals produced in the State is made difficult by the manner in which previous official mining statistics were compiled. In current statistics, a distinction has been made, in broad terms, between mining a mineral and subsequently refining it to obtain its metallic content—the second process is classified as manufacturing. However, this distinction was not made in earlier statistics and therefore historical comparisons cannot be made with any accuracy. A further difficulty occurs with regard to the value of ores which in older series were valued, in the main, according to the world price for their estimated metallic content, irrespective of whether the extraction was carried out in Tasmania, in other states or

in overseas countries. Thus the earlier historical value series is inflated and does not reflect the true earnings of mineral producers within the State. In the evolution of a proper basis for current mining statistics, the chief requirement was to satisfactorily define a border between mining and factory activities and, for Tasmanian data this was not accomplished until 1952 when the Australian Bureau of Statistics conducted its first mining census. From 1952 to 1968, the Bureau held censuses covering operations in calendar years but a new annual series was introduced to cover 1968-69 operations and those of subsequent fiscal years. The new series is conducted as part of the round of Integrated Economic Censuses (see later section 'Census of Mining Establishments').

Because of the definitional difficulties just listed, the historical account of mining in the State has been deliberately restricted largely to details of physical production; other measures such as employment, value of output, wages and salaries paid, etc. are not comparable with those used in the series commencing 1952.

Coal

Early Fields

The site of Tasmania's first mine was on Tasman Peninsula where the convicts from Port Arthur mined 61 tonnes of coal in 1834; highest production was 10,570 tonnes in 1840 but, within three years, the work ceased due to the poor quality of the coal and discoveries at other sites. The island's principal coalfields were eventually opened up in the Fingal Valley. In 1885 State production was 6,761 tonnes; in 1886, 10,558 tonnes of which the Fingal area contributed 3,881 tonnes. In 1890 Fingal had reached a dominant position and in that year accounted for 45,667 tonnes of the 54,676 tonnes mined in Tasmania.

Decline in Production

By 1920 annual State production had reached 76,200 tonnes; by 1950 it exceeded 223,500 tonnes. The peak production year was 1959-60 with an output of over 304,000 tonnes but since then there has been a decline due to competition from oil. (The introduction of diesel locomotives contributed, in a minor degree, to the fall in demand but the major factor has been a change from coal to oil fuel in manufacturing industries.) Throughout the period, from 1886 till today the mines of the Fingal Valley have been the State's principal source of coal. Coal output for 1972-73 was 128,475 tonnes; the chief consumer being Australian Newsprint Mills at Boyer.

By Australian standards, the State's black coal production has never been on a large scale and even in the year of peak Tasmanian production (1959-60) it represented only 1.5 per cent of the Australian total. N.S.W. contributed nearly 80 per cent of the total production of black coal. (This total excludes brown coal mined in very large quantities almost exclusively in Victoria.)

Gold

The first appearance of gold mining in *Statistics of Tasmania* dated from 1866 when crushing at Fingal in the north-east produced 9,837 grams from 2,918 tonnes of quartz. In actual fact, gold had been discovered much earlier in slate rocks near Lefroy in 1849 and then at Mangana near Fingal in 1852, the second find setting off a minor gold rush to the alluvial diggings.

During 1859 the first quartz mine started operations at Fingal. In the same year James Smith (better known as 'Philosopher' Smith) and Peter Lette found gold at the River Forth and at the Calder. Reef gold was discovered in 1869 at Lefroy. The first recorded returns from the Mangana fields date from 1870; Waterhouse, 1871; Hellyer, Denison and Beaconsfield, 1872; Lisle, 1878; Gladstone and Cam, 1881; Minnow and River Forth, 1882; Branxholm, 1883; and Mt Lyell, 1886.

The largest single source of gold was the 'Tasmania Mine' at Beaconsfield which began operating in 1878. The effect of Beaconsfield operations can be judged from the following State gold production figures (in kilograms): 1877, 163.78; 1878, 715.80; 1879, 1,705.36. Employment in gold mining in 1879 was stated to exceed 2,000 men. Peak gold production for the State was reached in 1899 with 2,381.13 kilograms but this was still only a minor contribution—just over two per cent of the Australian total.

Ranked in order of accumulated yield, the State's three principal gold mining centres were Beaconsfield, Mathinna and Lefroy. The 20th century witnessed a decline in Tasmanian gold mining, as such; when the 'New Golden Gate' at Mathinna closed in 1912, State annual gold production had fallen to 1,076.52 kilograms. In 1919, with the closure of the 'Tasmania Mine' at Beaconsfield, annual gold production fell to 217.89 kilograms.

Today there are no gold mines operating as such, but gold is still produced as a by-product from other minerals, principally concentrates of lead-copper, copper, lead and zinc. The assayed gold content of Tasmanian minerals mined in 1972-73 was 1,769 kilograms, compared with an Australian total of 20,002 kilograms (i.e. the Tasmanian proportion had increased to 8.8 per cent).

Tin

In 1871 James ('Philosopher') Smith discovered 'tin oxide' (cassiterite) at Tinstone Creek near Mt Bischoff which was destined to become the greatest tin deposit known in the world. The Bischoff discovery was followed by numerous others, first in the north-east and then at Mt Heemskirk on the west coast. The Mt Bischoff Tin Mining Company, formed to work the deposit, had paid dividends totalling \$354 per \$10 share by 31 December 1907. Before production ceased, shortly after World War II, Mt Bischoff had yielded more than 81,000 tonnes of tin ore.

Some concept of the earlier scale of Tasmanian tin mining can be obtained from these export figures: average annual Tasmanian exports of tin, decade ending 1890, 3,861 tonnes; decade ending 1900, 2,693 tonnes. A mixture of export and production figures in the decade ending 1910 suggests that tin production had lifted to an annual average of 3,404 tonnes. In 1920 annual production fell to 1,331 tonnes and subsequently has often been below 1,100 tonnes.

There has been an upsurge in tin production in recent years, the result of vigorous exploration programmes undertaken in the 1960s during which potential tin bearing areas were examined. Two significant operations emerged—Cleveland Tin at Luina and Renison Ltd at Renison Bell. Both resulted from the development of known ore-bodies and the discovery of new ore-bearing lodes. The mines have introduced modern methods of underground mining and new treatment plants have been installed. Tin previously lost in plant tailings is now recovered following introduction of cassiterite flotation methods.

Main production today is centred on Renison Bell and Luina on the west coast and Ross-arden, Gladstone and South Mt Cameron in the north-east. In 1972-73 the assayed tin content of tin concentrates produced throughout Australia was 11,754 tonnes, the Tasmanian component being 6,289 tonnes.

Silver

The rush to the Zeehan-Dundas area, where silver-lead ore was discovered in 1882, commenced in 1888 and by 1891, 159 companies and syndicates were operating in the area. Initial rich returns led to the installation of a smelting plant at Zeehan. However, the rich surface ores were soon depleted and the field gradually declined after the closing of the Zeehan smelters in 1909.

The State still produces silver but mainly as a by-product of copper mining at Mt Lyell and zinc-lead mining at Rosebery. Operations at the Farrell Mine at Tullah were in the past regarded as 'pure' silver-lead mining because the zinc content was not recovered. The mine is now owned by the Electrolytic Zinc Company (A/asia) Ltd and the ore is treated at Rosebery together with zinc-lead ore from the company's Rosebery and Williamsford mines. In 1972-73 the assayed silver content of Tasmanian mine production was 86,749 kilograms, approximately 14.3 per cent of the corresponding Australian total. N.S.W. and Queensland are the leading producers.

Copper

The history of the Mt Lyell field dates from 1883 when the McDonough brothers and Johannes Karlson discovered the 'Iron Blow' outcrop. Isolation impeded development of the field and the transport problem was not solved until 1899 when the Mt Lyell Company's railway reached Strahan. The following year the North Mt Lyell Company completed a railway between Linda and Kellys Basin. The absurdity of two railways in the same area ended in 1903 with an amalgamation of the two companies.

Low-cost pyritic smelting was perfected at Mt Lyell in 1902 and as a result a smelting industry was established at Queenstown. In 1969 the smelter was closed down and subsequently concentrate has been shipped to Port Kembla and Japan for processing.

Mt Lyell, for many years Australia's leading copper mine, still ranks high among Australian producers. The final shot was fired at the 244 metre deep West Lyell open-cut mine on 31 August 1972 bringing to an end its 37-year working life. Mt Lyell Mining and Railway Co. has resumed underground mining in the Prince Lyell field, although a small open-cut at Crown-Three will continue for several years.

In 1972-73 the assayed copper content of Tasmanian mineral production was 26,751 tonnes, or about 13.5 per cent of the corresponding Australian total, Queensland being the principal producing State. About 90 per cent of the Tasmanian total is derived from Mt Lyell ores but there is also a copper content in the ores mined at Rosebery and Williamsford.

Zinc

The complex Rosebery ores were discovered near Mt Read in 1893 by Cecil Thomas (Tom) McDonald but it was not until 1925, when the Electrolytic Zinc Company of Australasia commenced smelting the Rosebery ores at Risdon, that full-scale development of the field commenced. The Rosebery mines have been in continuous production since 1925, apart from a temporary shut-down in the period 1930-1936 when depressed world zinc prices curbed production.

Mine output comes from three mines: the Rosebery mine at the foot of Mt Read (90 per cent of total output); the Hercules mine at Williamsford, some four kilometres south of Rosebery; and the Farrell mine at Tullah, on the Murchison Highway 10 kilometres north-west of Rosebery. Total annual capacity of the mining complex was almost doubled following the completion in 1971 of a new shaft at the Rosebery mine.

In 1972-73 the assayed zinc content of Tasmanian mine production was 72,653 tonnes, approximately 14.8 per cent of the corresponding Australian total; N.S.W. was the major producer of zinc bearing ores. Tasmania is still the leading producer of refined zinc, the recovery process using both local and interstate concentrates. Production constitutes about 65 per cent of the Australian total.

Lead

The mining fields at Zeehan and Dundas were established to obtain silver from silver-lead ores; lead was produced as a by-product. Silver-lead mining has long ceased on the Zeehan fields. The Farrell mine at Tullah produces silver-lead ore which is treated at Rosebery with zinc-lead ores from Rosebery and Williamsford. These ores are now the principal source of lead in Tasmania.

In 1972-73 the assayed lead content of Tasmanian mine production was 23,064 tonnes, about six per cent of the corresponding Australian total; N.S.W. and Queensland are the principal producers.

Tungsten

Tungstic oxide (WO_3) occurs in two forms: in scheelite (calcium tungstate) and wolfram (iron manganese tungstate). There is a marked distinction between the mining of scheelite and of wolfram. Whereas scheelite in Tasmania is mined for its WO_3 content, wolfram is usually found in association with tin. Production of wolfram began in 1906 at Moina in the north-west but now comes from mixed tin-wolfram mines in the Avoca area.

Australia's principal domestic producer of tungstic oxide is King Island Scheelite Ltd from its mine at Grassy.

In 1972-73 the assayed tungstic oxide content of Tasmanian mine production was 1,794 tonnes; this was 95.6 per cent of the Australian total.

Sulphur

There are no known deposits of elemental sulphur in Australia, but its use is of vital importance in the heavy chemical and fertiliser industry, the principal form being as sulphuric acid. The sulphur content of the Mt Lyell and Rosebery ores is used to manufacture this acid.

In May 1970 a \$14m sulphuric acid plant was opened at Burnie as a joint venture by Mt Lyell Mining and Railway Company Ltd and Electrolytic Zinc Company (A/asia) Ltd using pyrites railed from the Mt Lyell and Rosebery mines. Sulphuric acid is also produced as a by-product by the Electrolytic Zinc Company (A/asia) Ltd at its Risdon plant. In 1972-73 the assayed sulphur content of Tasmanian mine production was 143,765 tonnes or 30 per cent of the corresponding Australian total. N.S.W. is the principal producing state.

Iron Oxide and Iron Ores

Tasmania has large deposits of iron ore which until recently were used mainly for iron oxide in the local manufacture of cement. The principal Tasmanian deposit at Savage River is held on licence by an Australian company, Industrial and Mining Investigations Pty Ltd. Part of the deposit is leased to American interests who have developed the Savage River mining complex described in detail in the 1968 *Year Book*. During 1972-73, the Savage River mine produced 2,450,932 tonnes of dry concentrate with an assayed iron content of 1,695,961 tonnes.

STATISTICS OF MINERAL PRODUCTION

Source of Data

Statistics relating to quantities of minerals produced (including assayed metallic content) are, in the main, obtained from the State Mines Department and are supplemented, where necessary, with data obtained from the annual census of mines and quarries conducted by the Australian Bureau of Statistics, and from the Commonwealth Bureau of Mineral Resources.

Other details of the mining industry, such as employment, value of output, and costs of production, etc. are obtained from the annual census of mines and quarries conducted by the Bureau. This census was first conducted in 1952 and the information obtained from each census was basically the same until 1968. As from 1968-69 the mining sector census was standardised in accordance with the concepts employed in the integrated economic censuses (see the Appendix to chapter 10 for comparison between mining and other industries included in the integrated censuses).

Metallic Minerals

The table that follows shows the quantity of metallic minerals produced in Tasmania for a five-year period:

Metallic Minerals: Production

Mineral	1969	1970	1971	1972	1973
TONNES					
Copper—Concentrate	60,902	83,318	87,843	93,461	90,102
Ore	5,846	(a)..	(a)..	(a)..	(a)..
Precipitate	62	(a)..	(a)..	(a)..	(a)..
Copper-tin concentrate	3,356	3,823	4,692	5,655	3,574
Iron—Concentrate	1,994,353	1,948,759	2,193,287	2,351,969	2,415,470
Oxide	11,295	9,710	10,724	9,783	12,293
Lead concentrate	13,814	12,659	16,581	25,949	19,020
Lead-copper concentrate	13,108	11,910	13,214	19,934	15,372
Pyrite concentrate	28,993	108,771	152,545	211,884	244,798
Rutile concentrate	5,323	7,528	6,930	431	2,278
Tin concentrate	8,202	9,221	11,598	14,633	11,706
Tungsten concentrates—					
Scheelite concentrate	1,555	1,087	1,610	1,837	1,682
Wolfram concentrate	616	913	817	771	3,755
Zinc concentrate	85,607	78,589	89,644	147,180	110,507
Zircon concentrate	6,194	6,173	3,831	..	741

KILOGRAMS

Gold (not in concentrates)	3.71	3.06	0.40	..	2.00
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(a) Smelting of these items at Mt Lyell has ceased; present operations involve production of copper concentrates (mainly for export).

Assayed Content

In the following table, the various concentrates have been grouped to show their content in terms of individual metals. The contents stated are as determined by assay and include all pay metals and metals which are a refiner's prize; totals compiled on this basis contain no allowances for losses in smelting and refining and therefore, in general, exceed the quantities actually recoverable. The table refers exclusively to minerals mined in Tasmania.

Assayed Contents of Metallic Minerals Produced

Mineral	1969	1970	1971	1972	1973
COPPER (TONNES)					
Copper—Concentrate	16,512	21,481	22,603	24,291	22,836
Ore	87	(a)..	(a)..	(a)..	(a)..
Precipitate	16	(a)..	(a)..	(a)..	(a)..
Copper-tin concentrate	578	775	925	1,038	749
Lead concentrate	110	93	91	101	68
Lead-copper concentrate	1,400	1,311	1,608	2,268	1,763
Zinc concentrate	280	273	298	600	408
Total	18,984	23,934	25,525	28,298	25,824

Primary Industry—Non-Rural

Assayed Contents of Metallic Minerals Produced—continued

Mineral	1969	1970	1971	1972	1973
GOLD (KILOGRAMS)					
Copper—Concentrate	326.18	399.96	422.67	481.45	440.41
Ore	1.62	(a)..	(a)..	(a)..	(a)..
Lead concentrate	118.85	85.69	114.34	130.10	80.15
Lead-copper concentrate	712.52	754.57	1,154.62	1,227.64	854.19
Zinc concentrate	88.52	91.35	100.62	181.58	134.74
Other sources	4.07	3.36	0.44	..	1.88
Total	1,251.76	1,334.93	1,792.68	2,020.77	1,511.37
IRON (TONNES)					
Iron concentrate	1,388,327	1,346,065	1,497,846	1,623,451	1,678,146
LEAD (TONNES)					
Lead concentrate	8,038	7,372	9,625	15,111	11,517
Lead-copper concentrate	4,654	4,025	3,363	6,258	4,120
Zinc concentrate	2,454	2,515	3,606	5,438	4,599
Zinc-lead ore .. .. .	..	22	23	..	..
Total	15,145	13,934	16,617	26,806	20,236
SILVER (KILOGRAMS)					
Copper—Concentrate	2,463.61	3,510.78	3,671.27	4,080.06	3,942.73
Ore	58.29	(a)..	(a)..	(a)..	(a)..
Lead concentrate	10,983.39	10,301.88	11,915.38	18,410.38	14,018.28
Lead-copper concentrate	32,793.91	31,051.62	37,889.66	57,969.40	44,315.02
Zinc concentrate	7,925.45	8,431.47	9,907.58	18,802.35	14,627.28
Zinc-lead ore .. .. .	..	52.78	20.22	..	..
Total	54,224.66	53,348.54	63,404.11	99,262.19	76,903.31
SULPHUR (TONNES)					
Lead concentrate	2,736	2,474	3,342	15,418	3,686
Lead-copper concentrate	3,427	3,147	3,828	5,283	4,266
Pyrite concentrate	13,742	(b)51,690	72,321	100,901	116,698
Zinc concentrate	27,544	27,192	29,555	48,213	36,321
Total	47,450	84,502	109,047	169,815	160,971
ZINC (TONNES)					
Lead concentrate	2,481	2,351	3,045	4,476	2,968
Lead-copper concentrate	1,468	1,464	1,863	2,507	2,230
Zinc concentrate	46,949	43,080	47,829	78,598	58,594
Zinc-lead ore .. .. .	..	27	12	..	..
Total	50,898	46,922	52,749	85,580	63,792

Assayed Contents of Metallic Minerals Produced—*continued*

Mineral	1969	1970	1971	1972	1973
TIN (TONNES)					
Copper-tin concentrate	163	183	157	157	98
Tin concentrate	4,690	4,835	6,009	6,667	5,576
Total	4,853	5,018	6,166	6,825	5,674
TUNGSTIC OXIDE (WO ₃) (TONNES)					
Scheelite concentrate	1,111	774	1,151	1,355	1,224
Wolfram concentrate	414	659	591	563	278
Total	1,524	1,434	1,743	1,918	1,502
CADMIUM (TONNES)					
Zinc concentrate	77	70	84	138	178
MANGANESE (TONNES)					
Zinc concentrate	258	209	509	2,205	2,399
TITANIUM OXIDE (TONNES)					
Rutile concentrate	5,012	7,139	6,586	409	2,187
Zircon concentrate	30	20	15	..	2
Total	5,043	7,159	6,601	409	2,189
ZIRCON (TONNES)					
Rutile concentrate	35	78	51	..	18
Zircon concentrate	6,060	6,068	3,770	..	482
Total	6,094	6,146	3,820	..	500

(a) Smelting at Mt Lyell has ceased; present operations involve production of copper concentrate (mainly for export).

(b) Increased concentrate produced in association with sulphuric acid manufacture at Burnie.

Fuel Minerals (Coal)

The only fuel mineral mined in Tasmania is coal; details of production are shown for a six-year period.

Production of Coal in Tasmania

('000 Tonnes)

Description	1968	1969	1970	1971	1972	1973
Coal, black—						
Semi-anthracite	2	2	1	..	..	..
Bituminous	90	116	112	124	132	115
Total	92	118	114	124	132	115

Non-Metallic (Excluding Fuel) Minerals

The quarrying of limestone is the earliest recorded activity in the field of non-metallic mineral mining in the State; burnt lime being sought as a base for building mortar. Production of this non-metallic mineral has gradually increased to meet a rising demand in various industrial processes. Large exports of limestone were made in the period 1918-1947, when The B.H.P. Co. Ltd operated quarries at Melrose on the north-west coast.

The next table shows the Tasmanian production of non-metallic minerals for a six-year period:

Non-Metallic (Excluding Fuel) Minerals Production
(Tonnes)

Mineral	1968	1969	1970	1971	1972	1973
Clays and shales—						
Brick	162,674	165,284	124,444	121,896	133,916	136,149
Other	64,112	55,093	58,702	74,075	96,892	76,753
Dolomite	2,575	1,539	3,395	2,558	4,630	5,165
Limestone (a)	503,769	572,944	523,720	485,596	586,631	633,926
Peat moss	133	153	141	228	365	184
Ochre	11	80	42	71	48	62
Pebbles	1,233	1,039	1,668	1,510	1,716	824
Silica (b)	13,450	29,684	51,836	36,676	18,114	28,122

(a) Excludes quantities used directly as building or road construction materials.

(b) For glass, chemical, etc. manufacturing.

Construction Materials

In addition to the types of mining and quarrying previously described there is the quarrying of construction materials (for buildings, roads, etc.) such as crushed and broken stone, gravel and sand. This type of activity also is taken into account when placing a value on the output from mines and quarries, measuring their level of employment, etc.

CENSUS OF MINING ESTABLISHMENTS

As related in the previous section of this chapter, annual censuses of mines were conducted by the Bureau from 1952; the last 'old-style' mining census covered the calendar year 1968. For 1968-69 simultaneous integrated economic censuses were undertaken in respect of mining and four other sectors (manufacturing; wholesale trade; retail trade; and electricity and gas production and distribution). In the Appendix to chapter 10, the results of these censuses are presented so that the economic significance of mining can be compared with that of other sectors included in the censuses.

The reasons for changing to new concepts, new definitions, etc. are set out in Appendix A in the 1972 *Year Book*. Statistics derived from the 'old-style' mining census for 1968 and earlier years may be found in chapter 8 of the 1973 *Year Book*. Definitions of concepts and terms used are given in Appendix B of this *Year Book*.

Mining Establishments—Summary of Operations

The tables that follow give results for the mining censuses from 1968-69 to 1972-73.

Non-comparability

Direct comparisons with figures for years prior to 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

It should be noted, however, that statistics of the value of output at the mine of mineral products will continue to be compiled for all establishments, including those excluded from the mining census.

Census of Mining Establishments
Summary of Operations by Industry Sub-division

Particulars	Unit	1968-69	1969-70	1970-71	1971-72	1972-73
METALLIC MINERALS						
Establishments	no.	39	41	29	(a)17	16
Persons employed (b)—						
Males	no.	3,642	3,851	4,194	4,165	3,913
Females	no.	136	164	189	186	174
Total	no.	3,778	4,015	4,383	4,351	4,087
Wages and salaries	\$'000	16,281	17,526	21,661	24,432	26,955
Turnover	\$'000	58,888	80,303	74,280	84,567	90,605
Stocks—						
Opening	\$'000	7,846	8,734	10,805	13,515	13,941
Closing	\$'000	9,121	11,160	12,241	14,046	12,511
Purchases, etc (c)	\$'000	18,638	19,126	19,853	28,035	29,622
Value added	\$'000	41,524	63,604	55,863	57,063	59,553
Rent, leasing expenses	\$'000	44	84	66	53	86
Fixed capital expenditure (d)	\$'000	12,342	20,090	25,746	15,899	12,107
COAL (e)						
Establishments	no.	3	3	2	2	1
CRUDE PETROLEUM AND NATURAL GAS						
Establishments	no.	..	..	..	..	..
CONSTRUCTION MATERIALS						
Establishments	no.	25	26	19	24	21
Persons employed (b)—						
Males	no.	174	165	146	167	142
Females	no.	3	3	2	3	2
Total	no.	177	168	148	170	144
Wages and salaries	\$'000	548	547	490	634	647
Turnover	\$'000	3,212	2,776	2,510	2,856	3,407
Stocks—						
Opening	\$'000	248	261	214	223	342
Closing	\$'000	306	258	195	293	355
Purchases, etc (c)	\$'000	1,194	1,289	1,111	1,449	1,681
Value added	\$'000	2,076	1,483	1,379	1,478	1,740
Rent, leasing expenses	\$'000	6	2	4	52	39
Fixed capital expenditure (d)	\$,000	271	362	144	378	170
OTHER NON-METALLIC MINERALS (e)						
Establishments	no.	8	8	9	10	10

Census of Mining Establishments
Summary of Operations by Industry Sub-division—continued

Particulars	Unit	1968-69	1969-70	1970-71	1971-72	1972-73
TOTAL MINING						
Establishments	no.	75	78	59	53	48
Persons employed (b)—						
Males	no.	3,932	4,139	4,463	4,449	4,150
Females	no.	145	173	197	191	176
Total	no.	4,077	4,312	4,660	4,640	4,326
Wages and salaries	\$'000	17,217	18,544	22,641	25,521	28,091
Turnover	\$'000	63,073	84,141	78,057	88,675	95,350
Stocks—						
Opening	\$'000	8,110	9,018	11,058	13,801	14,332
Closing	\$'000	9,450	11,464	12,505	14,391	12,933
Purchases, etc. (c)	\$'000	20,128	20,796	21,408	29,948	31,765
Value added	\$'000	44,286	65,791	58,096	59,317	62,186
Rent, leasing expenses	\$'000	54	92	110	116	151
Fixed capital expenditure (d)	\$'000	12,910	20,597	25,967	16,532	12,482

(a) From 1971-72 small tin producing establishments with value of sales less than \$20,000 have been excluded from the Census.

(b) At last pay-period in June; includes working proprietors.

(c) Purchases, transfers in and selected expenses.

(d) Outlay on fixed tangible assets less disposals.

(e) Other data not available for separate publication but included in 'Total Mining'.

Smelting and Refining of Metals

The turnover for a mining establishment includes the selling value of products produced at the establishment (e.g. in a metal mining establishment usually the selling value of specific concentrates at the mine). Earlier, reference was made to the fact that Tasmanian manufacturing industry statistics include the extraction and refining of metals, not only from locally produced ores and concentrates, but also from those that have been imported.

The next table shows details of establishments engaged in making iron ore pellets; extracting and refining copper, zinc and aluminium; and making ferro-manganese alloys. In terms of numbers employed and of 'value added', it will be seen that this manufacturing activity is almost as important as mining activity.

Non-Mining Activity: Extracting and Refining Metals

Particulars	Unit	1968-69	1969-70	1970-71 (a)	1971-72	1972-73
Establishments	no.	5	4	<i>n.a.</i>	4	4
Persons employed (b)	no.	3,764	3,730	<i>n.a.</i>	3,519	3,503
Turnover	\$'000	116,765	132,656	<i>n.a.</i>	130,836	143,726
Value added	\$'000	41,075	54,688	<i>n.a.</i>	46,323	48,966

(a) There was no manufacturing census in 1970-71.

(b) Average over whole year, includes working proprietors.

In the previous table, the principal metals and concentrates included are iron ore pellets (from local ore), copper (from local ores), zinc and cadmium (from local and imported ores), aluminium (from imported bauxite) and ferro-manganese alloy (from imported ores). The codes for the Australian Standard Industrial Classification (ASIC) classes of establishments included in the table are; 2,911; 2,921; 2,922; 2,924; and 2,926.

The value added in the manufacturing table does not duplicate values already recorded in the mining sector since the cost of basic raw materials (ores or concentrates) is one of the recorded costs (purchases and selected expenses) of manufacture deducted from the value of turnover.

The next table gives details of the production of zinc and copper by refinery processes:

Non-Mining Activity: Production of Zinc and Copper
(Tonnes)

Year		Refined zinc	Copper (a)	Year		Refined zinc	Copper (a)
1965-66	.. ..	146,221	14,135	1969-70	.. ..	170,931	6,026
1966-67	.. ..	146,227	14,862	1970-71	.. ..	162,271	..
1967-68	.. ..	131,872	14,288	1971-72	.. ..	175,798	..
1968-69	.. ..	151,094	14,623	1972-73	.. ..	193,782	..

(a) Refined copper to 1964-65; blister copper from 1965-66. In October 1965, the Mt Lyell refinery was closed down and the blister copper was thereafter shipped to Port Kembla (N.S.W.) for refining. In December 1969, the Mt Lyell copper smelters closed down.

Aluminium Production

The refinery for the production of alumina and refined aluminium is situated at Bell Bay on the River Tamar. Production of alumina commenced in February 1955, and of refined aluminium in September 1955. Published statements indicate that the capacity of the plant, in terms of primary aluminium, has been lifted steadily in recent years. The commissioning in 1971 of a third potline brought annual capacity to 95,500 tonnes, nearly eight times the plant's productive capacity in 1961.

FISHERIES

General

The Tasmanian fishery involves about 1,268 licensed fishermen who operate from 594 vessels. The species which comprise the annual catch are not only scale fish but also include elasmobranchs (sharks), molluscs (scallops, oysters, abalone) and crustaceans (southern rock lobster).

In 1972-73 approximately 6,836 tonnes of fish, molluscs and crustaceans were harvested. The catch is composed of about 40 types of which five (southern rock lobster (crayfish), shark, snoek (barracouta), abalone and salmon) are of major importance (about 82 per cent of the catch).

The Sea Fisheries Division controls saltwater fisheries and the Inland Fisheries Commission controls the freshwater fisheries. Most freshwater fish are caught for sport but two species (eels and whitebait) are caught for sale.

Commercial fishing for whitebait began in 1941 and reached a peak in 1947 when over 450 tonnes were caught. The canning of whitebait ceased in the early 1950s and the annual catch has declined to 1,000 kilograms caught in 1972-73.

Rainbow trout are raised commercially on a trout farm at Bridport. There are rainbow and brown trout in Tasmanian lakes and rivers (introduced as exotic species) but these may only be fished for by licensed sportsmen and may not be sold.

The commercial freshwater fishery for the short-finned eel was established in 1965 and the catch in 1972-73 was 40,000 kilograms.

Fish Varieties and Species

The following table lists the main Tasmanian commercial fish varieties and species with their code numbers. The code numbers are prepared on behalf of the Australian/State Fisheries Conference by the Fisheries Division of the Department of Primary Industry.

Main Commercial Fish Varieties, Species and Code Numbers

Variety	Species	Code number	Variety	Species	Code number
Eels	<i>Anguilla australis</i>		Flathead	<i>Neoplalycephalus</i>	
	<i>occidentalis</i>	035		<i>fuscus</i>	615
Whitebait	<i>Lovettia sealii</i>	076		<i>N. richardsoni</i>	616
Rainbow trout	<i>Salmo gairdnerii</i>	101		<i>N. speculator</i>	617
Flounder	<i>Rhombosolea spp</i>	151		<i>Trudis bassensis</i>	621
	<i>Pseudorbombus spp</i>	176		<i>Leviprora</i>	
Cod	<i>Physiculus</i>			<i>laevigata</i>	625
	<i>barbatus</i>	201	Shark	<i>Mustelus</i>	
Tuna	<i>Thunnus</i>			<i>antarcticus</i>	651
	<i>maccoyii</i>	301		<i>Galeorhinus</i>	
	<i>T. alalunga</i>	303		<i>australis</i>	655
	<i>Katsuwonus</i>		Garfish	<i>Hemirhamphus</i>	
	<i>pelamis</i>	315		<i>melanochir</i>	712
Mackerel	<i>Auxis thazard</i>	334	Southern rock lobster	<i>Jasus novaehollandiae</i>	780
Snock (barracouta)	<i>Leionura atun</i>	335		<i>Ostrea angasi</i>	831
				<i>Crassostrea gigas</i>	832
Mullet	<i>Mugil cephalus</i>	351	Oyster	<i>Pecten</i>	
	<i>Aldrichetta</i>			<i>meridionalis</i>	835
	<i>forsteri</i>	370	Scallop	<i>Equichlamys</i>	
	<i>Usacaranx</i>			<i>bifrons</i>	836
	<i>nobilis</i>	401		<i>Mimachlamys</i>	
Salmon	<i>Arripis trutta</i>	490		<i>asperimus</i>	837
Trumpeter	<i>Latris lineatus</i>	535	Abalone	<i>Notohaliotis ruber</i>	845
	<i>Latridopsis</i>			<i>Schismotis</i>	
	<i>forsteri</i>	536		<i>laevigata</i>	846

Fisheries Statistics

Source of Data and Method of Presentation

Statistics presented in this section have been supplied principally by the Sea Fisheries Division of the State Department of Agriculture. In the preparation of fisheries production statistics, the quantities are generally in terms of the form in which the catch is taken from the water. For example, the statistics of fish production are in terms of 'estimated live weight' which is calculated from landed weights by using conversion factors for the various species. 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 actual edible yield varies depending on types of fish and methods of preparation. Barracouta yield about 51 per cent of liveweight when filleted, and shark about 60 per cent when headed and gutted. The edible flesh in molluscs represents only a small portion of the in-shell weight. Approximately 1 kg of scallop flesh equals 4.5 kg in-shell weight and 1 kg of abalone flesh equals 2.25 kg in-shell weight.

The catch is generally defined as that landed in Tasmanian ports, regardless of whether it is caught in Tasmanian waters or not, or whether it is caught by Tasmanian fishermen or not. A quantity of shark and southern rock lobster taken by Victorian based fishermen in Tasmanian waters, but landed in Victoria, is included in the Victorian catch and excluded from Tasmanian figures, on the basis that the catch influences the Victorian rather than the Tasmanian economy.

Details of production refer only to recorded commercial production. In view of the importance of amateur fishermen in certain types of fishing, details shown cannot be taken as representing the whole catch. In addition, it is likely that the figures shown understate, to some extent, the full commercial catch since no information is available on fish taken for sale by persons not licensed as professional fishermen.

Persons Engaged in Fisheries

In the following table, which gives details collected in the population Censuses of 1966 and 1971 (at 30 June), the numbers of persons whose industry was classified to 'fishing and whaling' are shown and compared with the numbers engaged in all primary industries and in the total labour force. The comparison shows that fishing is a relatively more important industry in Tasmania than for Australia.

Australia and Tasmania: Persons Engaged in Fisheries
Population Censuses, 1966 and 1971

Particulars	Australia		Tasmania	
	1966	1971	1966	1971
Persons engaged in—				
Fishing and whaling '000	8.0	8.0	0.6	0.6
All primary industries '000	456.7	465.6	17.2	18.4
Total labour force '000	4,856.4	5,221.5	147.3	150.2
Persons engaged in fishing and whaling as a proportion of—				
All primary industries per cent	1.8	1.7	3.4	3.0
Total labour force per cent	0.2	0.2	0.4	0.4

Employment and Boats

Persons Engaged and Boats

The following table shows details of persons and boats employed in the taking of fish, crustaceans and edible molluscs. The data are derived from boat registration records of the State Sea Fisheries Division. The term 'number of crew' refers to the usual number of crew on registered fishing vessels and lacks the precision of the concept 'average number employed' used in statistics of other production sectors. Many of the fishermen operate part-time only, and may normally follow other occupations:

Fisheries: Number and Value of Boats, Number of Crew, etc. (a)

Particulars	1970	1971	1972	1973
Number of boats engaged (b)	529	588	589	594
Value of boats engaged (b) \$'000	6,195	6,980	7,478	8,611
Average value per boat \$	11,712	11,870	12,696	14,497
Number of tender boats	320	337	341	345
Total value of fishing gear \$'000	540	598	628	728
Value of fishing gear per boat \$	1,022	1,018	1,067	1,226
Number of crew	1,090	1,207	1,235	1,268
Number of boats according to size (c)—				
Under 6 metres	78	108	120	127
6 and under 9 metres	96	109	92	82
9 and under 12 metres	136	138	132	129
12 and under 15 metres	140	152	152	151
15 and under 18 metres	61	60	69	77
18 and under 21 metres	12	13	15	15
21 and under 26 metres	2	3	5	9
26 and under 30 metres	3	3	2	1
30 metres and over	1	2	2	3

(a) Complete details collected for 1969; other years' figures are 1969 data adjusted for new registrations and for de-registrations.

(b) Excludes tender boats.

(c) Size groupings, originally in feet, have been directly converted to the nearest metre.

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol motors of low power. The offshore vessels range in length from 9 metres to over 30 metres and almost invariably are powered by diesel engines. Refrigeration of the catch at sea is becoming more common, the four main types being ice box, ice cooling, brine tanks and dry refrigeration; almost all boats have wells or deck tanks which serve to keep the catch alive, e.g. southern rock lobster or abalone.

The next table indicates the high proportion of relatively new boats operating in the fishing industry and analyses the 553 boats registered in 1969 according to age:

Number of Boats Classified According to Length and Age, 1969 (a)

Length of boat (metres) (b)	When constructed						
	Before 1930	1930 to 1939	1940 to 1949	1950 to 1954	1955 to 1959	1960 to 1964	1965 to 1969
Under 6 .. .. .	..	1	7	5	11	11	52
6 and under 9	4	4	29	25	15	21	15
9 and under 12	16	15	21	18	20	27	22
12 and under 15	16	6	28	8	12	19	49
15 and under 18	4	4	12	3	6	13	20
18 and under 21 .. .. .	..	1	1	..	1	1	3
21 and under 26	2	..	..	..	1	1	..
26 and over	2	..	1	..	..	..	..
Total	44	31	99	59	66	93	161

(a) Available at five year intervals from 1969.

(b) Size groupings, originally in feet, have been directly converted to the nearest metre.

Production

Fish Catch

The following table shows the production of the main types of fish caught in Tasmania for a five-year period. The fish types appear in the table without any further description to identify the particular species but a specification of the more common types appears as an introduction to this section.

Fish: Production by Type
(*000 kg Estimated Live Weight) (a)

Type	1968-69	1969-70	1970-71	1971-72	1972-73
Mullet	22	14	10	11	7
Tuna	19	5	8	44	40
Shark	947	802	793	859	497
Australian salmon	174	67	201	508	461
Flathead	29	11	69	63	39
Barracouta (snoek)	1,401	1,579	610	581	915
Whitebait	37	45	15	5	1
Cod	5	10	6	4	4
Flounder	19	18	19	30	14
Trevally	7	10	14	38	63
Trumpeter	18	19	21	15	7
Garfish	13	23	27	34	36
Other	81	64	146	189	181
Total	2,771	2,666	1,940	2,380	2,265

(a) Estimated live weights are calculated from landed weights by conversion factors since quantities of fish are reported frequently in a gutted, headed and gutted, or otherwise reduced condition (e.g. barracouta and shark).

Crustaceans and Molluscs

In terms of value, the most important item in the Tasmanian catch is southern rock lobster (crayfish) and the next table shows details of production of this crustacean and also of molluscs:

Crustaceans and Molluscs: Production by Type

Type	1968-69	1969-70	1970-71	1971-72	1972-73
CRUSTACEANS ('000 kg WHOLE WEIGHT)					
Southern rock lobster	1,700	1,390	1,607	1,469	1,583
MOLLUSCS ('000 kg IN-SHELL WEIGHT)					
Squid .. ..	..	..	3	8	154
Oysters	18	31	32	53	147
Scallops	125	50	..	52	515
Abalone	2,108	2,608	3,488	2,971	2,172
Total ..	2,251	2,690	3,523	3,084	2,988

Development of the Tasmanian abalone fishery dates from 1964 when divers commenced taking abalone for export. The 1963-64 catch was only 33,000 kg; in 1972-73 the catch had increased to 2,172,000 kg which was more than 1.3m kg below the record 1970-71 abalone harvest. Currently, in terms of value, abalone is the second most important species in the Tasmanian catch.

Comparison with Other States

Southern Rock Lobster: In 1972-73 Tasmania ranked third as a producer of southern rock lobster, the two leading states being W.A. with 56 per cent of the Australian total and S.A. with 23 per cent; the Tasmanian catch was 12 per cent of the total.

Abalone: The Tasmanian abalone fishery in 1972-73 accounted for 34 per cent of Australian production of 6,418,000 kg (in the shell) of abalone. Victoria and New South Wales ranked second and third with 31 per cent and 16 per cent respectively.

Scallops: For many years Tasmania was the only state in Australia with a commercial scallop fishery; in 1955-56 Tasmania was joined by Queensland, but continued to retain its dominant position in the industry. In 1963, however, Tasmanian fishermen started a Victorian fishery in beds known to exist in Port Phillip Bay and the new site in its first year (1963-64) produced more than twice the quantity of the Tasmanian fishery. No scallops were dredged from Tasmanian waters in 1970-71, and only 52,000 kg in 1971-72, but following the discovery of new beds in Bass Strait the Tasmanian catch increased to 515,000 kg in 1972-73. Victoria produced 11,807,000 kg of scallops in 1972-73 which was 70 per cent of the Australian total of 16,825,000 kg, while Queensland contributed 24 per cent.

Catch Landed at Fishing Ports*Distribution of Fish Landed*

The table that follows shows the proportion of fish and southern rock lobster landed at Tasmanian fishing ports. The information relates to port of landing only, and not to the area in which the catch was made.

**Proportion of Total Fish and Southern Rock Lobster Landed at Each Port, 1972-73
(Per Cent)**

Port	Fish	Southern rock lobster	Port	Fish	Southern rock lobster
Derwent and channel—			Bass Strait and islands—		
Dover	5.0	5.7	Bridport	3.8	5.6
Gordon .. .. .	..	0.1	Currie	0.1	2.5
Hobart	4.1	8.1	Lady Barron	0.1	10.3
Kettering	7.3	4.5	Port Sorell	34.2	1.0
Margate	6.2	7.8	Smithton	0.8	4.3
Southport	0.3	2.2	Stanley	13.1	6.2
Woodbridge	0.5	..	'Tamar' (a)	1.0	0.2
			Wynyard	3.6	0.3
Total	23.4	28.4	Total	56.7	30.4
East coast & peninsula—			West coast—		
Bicheno	2.7	5.2	Strahan	1.9	9.6
Coles Bay .. .. .	..	..	
St Helens	1.2	12.5			
Triabunna	4.1	6.7			
Dunalley	4.1	3.7			
Port Arthur	5.9	3.5			
Total	18.0	31.6	Total Tasmania	100.0	100.0

(a) Launceston, Beauty Point and other Tamar ports.

The next table shows the proportion of the total southern rock lobster catch landed each month:

**Proportion of Southern Rock Lobster Landed in Each Month
(Per Cent)**

Month	1971	1972	Month	1971	1972
January	19.4	20.7	July	4.4	4.4
February	11.7	12.8	August	2.5	4.7
March	10.7	7.0	September (a)	1.6	0.4
April	4.2	2.1	October (a)	0.3	0.7
May	1.4	0.8	November	19.4	28.4
June	3.2	3.0	December	21.2	15.0

(a) Closed season in most waters during these months.

Value of Production—Fishing

The table that follows gives details of gross and local values of edible fishery products. (For definitions see later section 'Value of Production'.)

**Fisheries: Gross and Local Value of Production
(\$'000)**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Gross value of production—					
Fish (a)	676	648	641	767	658
Crustaceans (b)	3,474	2,437	3,507	3,794	3,651
Molluscs	714	958	1,836	2,248	2,268
Total	4,864	4,043	5,984	6,808	6,577
Less Marketing costs	764	700	868	879	838
Local value of production	4,100	3,343	5,116	5,929	5,739

(a) Includes value of seaweed harvested for production of alginate.

(b) Southern rock lobster prior to 1970-71; includes crabs from 1970-71.

Fish and Seafood Processing

In an island state where employment opportunities are fewer than in the industrialised mainland states, interest has always been shown in the extent of secondary processing carried out on the local catch. The summary below has been made possible by combining data collected annually from fish preserving factories, with information derived from a special return sent to those marketing establishments which clean, fillet, freeze, or package fish and other seafoods. Establishments predominantly engaged in retailing have not been included.

Summary of Operations for Fish and Seafood Processing Establishments

Year ended June	Employment at 30 June			Wages and salaries	Turn-over	Opening stock	Closing stock	Purchases and selected expenses	Value added	Fixed capital expenditure
	Males	Females	Persons							
	no.	no.	no.	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1969	124	134	258	451	5,590	587	625	4,733	894	129
1973	126	160	286	748	8,043	727	815	7,205	926	113

Marketing

In general terms, it can be said that production of fish, crustaceans and molluscs from the Tasmanian fisheries far exceeds the demand generated by the relatively small State population; it follows, therefore, that the industry is largely dependent on its ability to find export markets, both interstate and overseas, and this raises the problem of preserving a perishable product. In the past, shark and snoek (barracouta) when caught in large quantities, were sold to orchardists as manure simply because there was no other way of disposing of the surplus. Cold storage facilities are now generally available and in addition, canneries offer an alternative method of preservation, the principal cannery being located at Margate in the south. From 1970-71, the catch of snoek has fallen dramatically compared to earlier years and has been well below demand. The problem of preservation has three aspects: (i) at sea; (ii) on shore; and (iii) in transit to market. Of the 553 registered fishing boats in 1969, 138 boats (i.e. 25 per cent) had refrigeration plants of various kinds. In addition, some catches, e.g. southern rock lobster, can be kept alive in boat wells. Cold storage facilities ashore serve to hold the catch before its despatch to interstate and overseas markets while actual exports are carried by air, by refrigerated trailer on the roll-on roll-off ferries and in the refrigeration chambers of conventional ships.

The following table shows the value of exports and imports of fishery products. The fact that Tasmania has an exportable surplus, yet nevertheless imports some fishery products, is chiefly due to differences in type; the imported varieties include canned sardines, anchovies, oysters, crabs, etc. together with frozen, salted or smoked varieties of European, New Zealand or South African origin.

Fishery Products: Value of Exports and Imports (\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
EXPORTS					
Fish (a)—Overseas	4	13	7	11	27
Interstate	559	481	437	452	482
Southern rock lobster—					
Overseas	974	1,071	1,108	1,146	439
Interstate	1,191	1,048	966	1,298	1,923
Molluscs—Overseas	594	751	1,061	1,680	1,117
Interstate	190	197	314	193	349
All types—Overseas	1,572	1,835	2,176	2,837	1,583
Interstate	1,940	1,726	1,716	1,943	2,753
Total	3,512	3,561	3,892	4,780	4,336

Fishery Products: Value of Exports and Imports—continued
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
IMPORTS					
Fish—					
Fresh and frozen—					
Overseas	174	140	187	58	60
Interstate	114	78	67	155	172
Preserved in tins—					
Overseas	115	125	133	86	99
Interstate	50	36	67	105	142
Other (b)—Overseas	11	10	34	2	..
Interstate	8	2	4	29	28
All types—Overseas	301	276	354	146	160
Interstate	172	116	137	289	342
Total	473	392	491	435	502

(a) Includes fresh and frozen fish and fish preserved in tins.

(b) Includes smoked, salted and potted fish, extracts and caviare.

Fisheries Division

(Department of Agriculture)

Administration

The Division of Fisheries comes under the responsibility of the Minister for Agriculture and Fisheries. For purposes of administration the Division is under the control of the Director of Agriculture.

Under the *Fisheries Act 1959*, provision is made for a Sea Fisheries Advisory Board to advise the Minister on fisheries except in respect of salmon-trout, eels and whitebait which come under the control of the Inland Fisheries Commission. The Board consists of nine members appointed by the Governor as follows: the Director of Agriculture (or his representative); the Commissioner of Police (or his representative); a representative of societies interested in the science of zoology; two representatives of processors; and four representatives of professional fishermen.

Fisheries Control

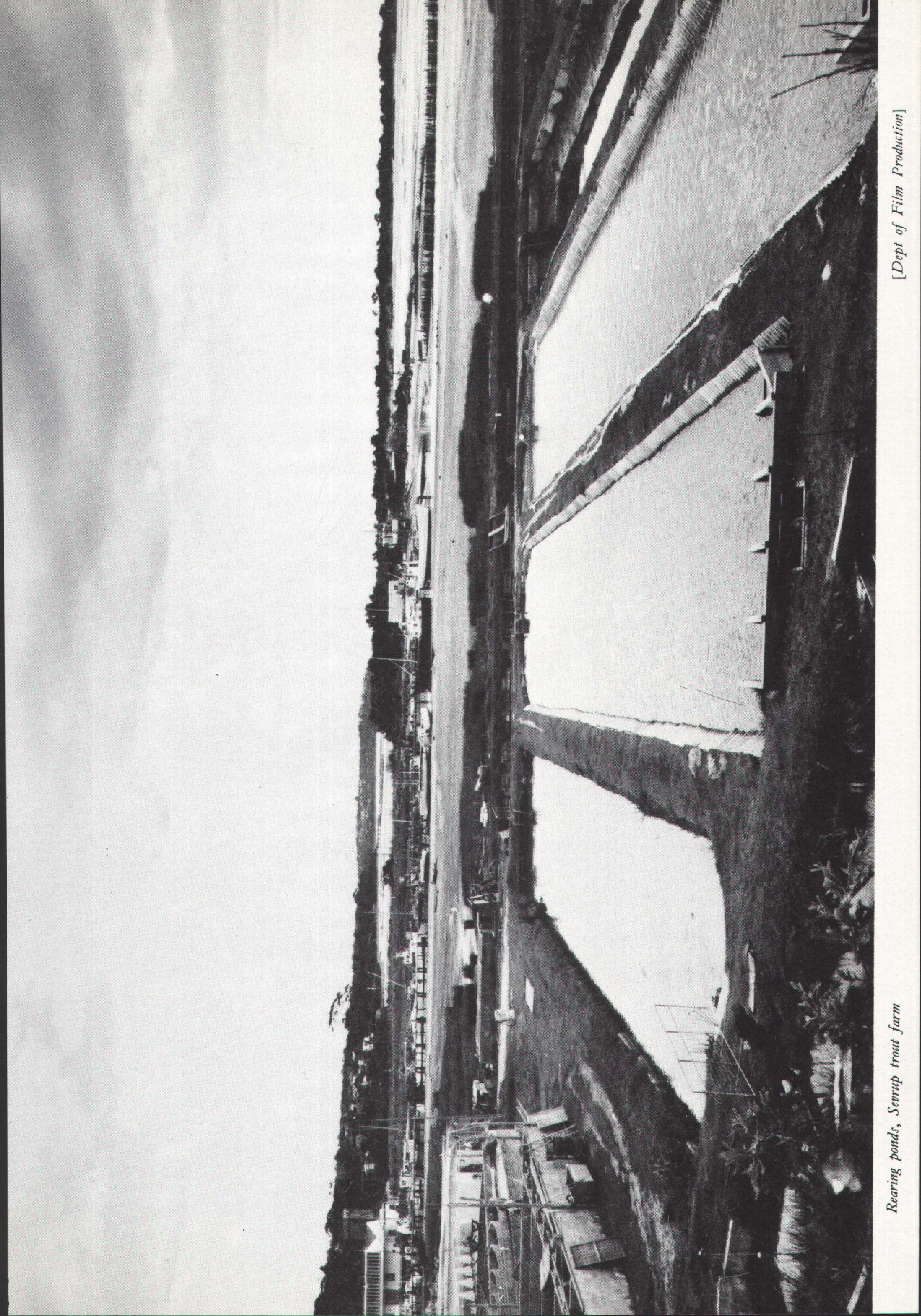
Patrol and inspection duties are carried out by Division officers throughout the State. As well as Tasmanian fisheries, certain Australian waters and the Tasmanian section of the continental shelf are patrolled in addition to the enforcement of the provisions of the Australia-Japan Fishing Agreement; regular inspections are made of Japanese fishing vessels when they enter the port of Hobart. For fisheries control and patrol purposes the Division has five high powered patrol vessels plus the *Challenger* (21.18 metres), a long-range patrol-research vessel. The Division also owns conventional vehicles and three four-wheeled drive vehicles. The latter are used for checking remote areas and towing the larger patrol vessels. During 1972-73 extensive use of light aircraft was made to assist in patrol duties and resulted in the detection of several serious breaches of fishery regulations.

During 1972-73 inspectors submitted 97 offence reports; 58 cases went before the courts and resulted in total fines of \$5,117.



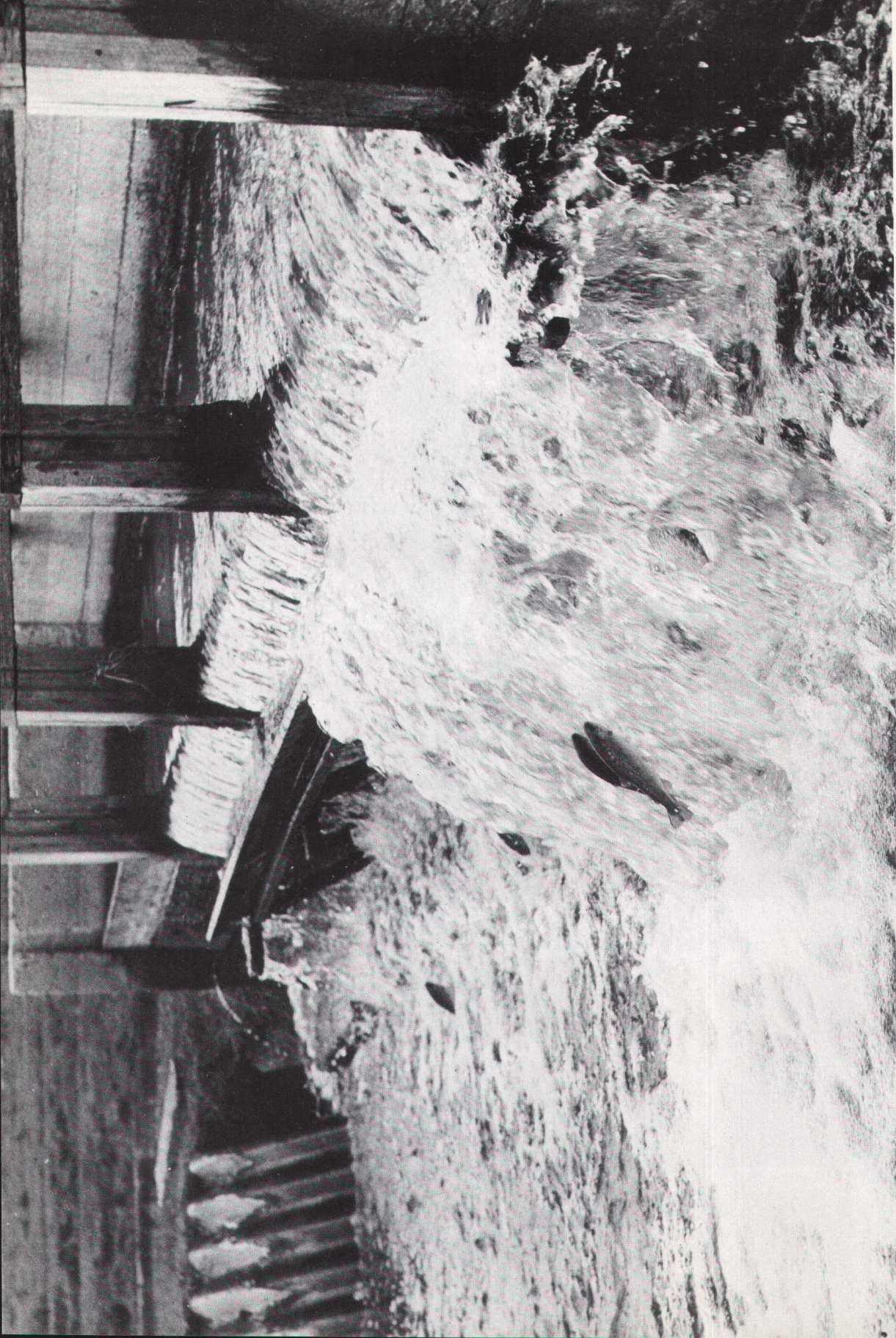
Salmon Ponds hatchery at Plenty





Rearing ponds, Serrup trout farm

[Dept of Film Production]



Trout jumping at water inlet to rearing pond, Bridport

[Dept. of Film Production]

Research

The Division is concerned with three main fields of research: (i) resource management and surveys; (ii) aquaculture; and (iii) pollution investigations. As a part of resource management and surveys—abalone, scallop, squid, southern rock lobster and various pelagic fish are under investigation. The division is also actively engaged in research into oyster, mussel and scallop culture. An important aspect of the Division's work is pollution studies—fish and shellfish are collected and analysed in this work.

SEVRUP FISHERIES PTY LTD

The following article is based on information supplied by Mr A. H. Purves of Sevrup Fisheries Pty Ltd.

Rearing fish in ponds is a long established practice in Asian countries but trout farming is a more recent development. Trout were first farmed in Germany and are now cultured extensively in Japan, the United States of America and Denmark. In relatively recent years interest in trout farming has been shown in Australia and New Zealand—Australia's first commercial trout farm came into operation in 1960 in Victoria where, at Buxton, rainbow trout were hatched from ova imported from New Zealand. Tasmania was the next Australian state to have a trout farm when Mr A. H. Purves established Sevrup Fisheries Pty Ltd to farm rainbow trout at Bridport.

Mr Purves' interest in trout farming was initially aroused when he observed trout farming operations in Europe. In 1960 the Victorian Government passed legislation to permit trout farming and Mr Purves decided to investigate the possibility of establishing a similar venture in Tasmania. Main objections came from anglers who saw trout farms as a threat to trout angling—it could lead to poaching of wild stocks for sale and/or the introduction of disease. However, Mr Purves was able to convince anglers and the Inland Fisheries Commission that the likelihood of either was remote. In 1963 the Tasmanian Government amended the *Fisheries Act* to permit the establishment and licensing of commercial trout farms. After consultation with the Inland Fisheries Commission the Minister for Fisheries may grant a fish farm licence. In 1964 Sevrup Fisheries Pty Ltd received the first trout farming licence to be issued in Tasmania.

Preliminary pond construction and farm development work had commenced during 1963 and the first trout were hatched in late 1963 prior to issue of the licence. However, the number of fish involved was small and the hatching was carried out in a small water race. Further construction and trout breeding progressed together and the first small harvest of trout took place in 1965. Construction and development of the farm cost approximately \$100,000.

The Site

The first problem faced in establishing a trout farm in Australia is to locate a site with an adequate supply of clean water at suitable temperatures. The Brid River met this criteria and was also chosen as the trout farm site because saltwater and freshwater techniques could be combined. The Brid River provided an adequate and suitable supply of fresh water, its temperature ranges from 4.4°C to 21.1°C; saltwater temperatures are from 10°C to 21.1°C. Principal benefits accruing from the use of saltwater include an unlimited water supply, better growth and feed conversion factors, greater stability of water temperatures and the appearance of the trout is enhanced. However, saltwater rearing does have associated disadvantages. A principal problem is that as most commercial trout farms are wholly freshwater there has been relatively little research into developing balanced diets for trout rearing in saltwater. At Bridport considerable experiment has been undertaken to develop optimum diets for the trout. Other disadvantages include susceptibility to bacterial diseases, the risk of storm damage to the ponds and of late the increasing problems caused by pollution (e.g. reduction in growth rates, greater disease rates). This has, in fact, led to the search for alternative sites. Vandalism and pollution led to the cessation of experiments in the Tamar River.

Breeding

Good breeding stocks were non-existent in Australia, since prior to establishment of the Bridport farm there had been practically no commercial breeding of trout within the country. Rainbow trout take about three generations of three years each to become domesticated. Until that time the trout tend to be easily scared, slow growing and give poor feeding conversion factors. The lack of breeding stock was initially overcome by importing stock from the Victorian Government hatchery at Snobs Creek and the Turangi hatchery in New Zealand. The two rainbow trout strains have been kept separate at the Bridport trout farm and have been improved upon by selective breeding. As a result of this careful selective breeding a well domesticated strain has been developed and eggs from the Bridport farm are well received by overseas commercial trout hatcheries.

Eggs are produced on the site—the eggs are stripped from adult fish, fertilised and then set out for incubation. Two incubation systems are utilised: (i) bottle batteries, based on the system used by the Victorian Government hatcheries; (ii) an upward vertical flow system in 44 gallon drums. The latter method, developed by Sevrup Fisheries, is the main method of incubation. Most of the eggs produced are sold at the eyed stage to overseas markets, those retained for use are transferred to troughs where they are hatched on fibreglass mesh trays. On average 50,000 eggs are hatched per trough and held until they begin to feed when they are divided between two troughs. After hatching the young fish live on their yolk sacks for the first two or three weeks and remain mostly on the bottom of the troughs. Following absorption of the sack the fish swim to the surface to search for food. The trout remain in the hatching troughs until about 3cm long when they are graded for size and moved to outdoor concrete rearing units. When the trout are about 20cm long they are again moved—this time to either earthen or concrete ponds where they remain until they are market size.

The number of fish per pond varies widely—factors such as type of pond (earth or concrete), size and condition of fish help determine numbers per pond. In general terms a greater density of fish can be maintained in the concrete ponds.

Under good conditions, growth from hatching to market size (approximately 230 grams cleaned weight) takes about one year. Better rates have been achieved, however, varying growth rates are an advantage as a better supply distribution results.

Marketing

The demand is for trout from 140 grams to 280 grams cleaned weight; trout of 230 grams cleaned weight predominate. Larger fish, although of better quality, are not yet easy to sell. Current annual output from the farm is approximately 200,000 fish; this is expected to treble in the near future as the Sevrup brand gains wider acceptance. In addition to fish sold for the table a considerable number of live fish for liberation are produced each year. Trout ova are also sold to overseas markets.

The principal markets for the table trout from Sevrup Fisheries Pty Ltd are Melbourne, Sydney, Adelaide and Tasmania. Most sales are made to the catering trade; only a small number are sold to retail outlets. The trout are presented gilled and gutted, each fish in a separate, sealed polythene bag. The fish are packed into 4.5 kilogram boxes; five of the boxes make a master carton for shipment. Mostly the trout are sold in a frozen condition—trout being one of the few fish which does not lose quality through freezing providing the operation is properly performed. Observation has shown that there is a tendency for fresh trout, if not sold, to be replaced in the freezer each day. This is sometimes repeated day after day reducing the trout to a barely edible state. For this reason Sevrup Fisheries Pty Ltd discourages fresh fish sales unless certain that the buyer will serve the fish in first class condition.

Trout Farming Problems

Food: In Australia sources of high quality trout food are limited and little research into the question has been undertaken. Overseas producers compete and research new formulae, however, in Australia companies have not in the past been interested in trout food manufacture due to the small market and lack of knowledge of the subject. Of recent several manufacturers have begun to show an interest in providing trout food, but to date the best diet has been one developed by Sevrup Fisheries itself and produced on the fish farm's behalf. The diet gives an average conversion of 4:1. In relation to food a further difficulty has recently occurred with the failure of the Peruvian fish meal industry making several of the basic trout feed ingredients unobtainable. Establishment of a new fish meal industry in Australia may alleviate this situation.

Disease: Fortunately Australia is believed to be free of serious virus diseases which affect trout, but numerous bacterial, parasitic and fungal diseases are present. As yet little research on these diseases has been undertaken—there are very few fish pathologists available to give assistance to trout farmers.

Competition: In the past competition from overseas countries has been a major problem. Low priced imports from Japan have created considerable difficulty for the industry, particularly as the imports were often of low quality and consequently damaged the reputation of trout as a table fish. An active sales promotion campaign by Sevrup Fisheries has helped overcome such adverse effects.

Employment

The Sevrup Fisheries trout farm provides employment for five men—two on construction work and the other three are primarily involved in fish culture and administration. Six women work on a part-time basis preparing the trout for market. This is still carried out at Bridport.

Expansion Projects

Deterioration of the water supply from pollution and reduced summer flow, caused by clearing and greater up-stream use of the river, led to a search for alternative locations for new expansion projects. Currently new ponds are under construction at a site close to the present farm, but drawing its water from a different catchment. The Brid River is no longer suitable for breeding so a third site, catering for breeding stock and small fish, is being built. When completed the additional two sites will treble output and also greatly reduce the risk of serious loss of trout stocks from diseases or other factors.

VALUE OF PRODUCTION

PRIMARY INDUSTRIES

Introduction

The value of production for Tasmania and the other Australian states was computed in accordance with the decisions reached at the Conferences of Australian Statisticians, and principally at the Conference held in 1935. The values shown in the tables that follow refer only to the production of primary industries and exclude certain agricultural and farmyard operations on areas of less than 0.4 hectares.

New Value Concepts

The value series allowing direct comparison of primary and secondary industries ends at 1967-68. From 1968-69 new value concepts were introduced in the mining and manufacturing sectors. The new value concepts, while analogous to those described in the following section, are nevertheless sufficiently different to prevent direct comparisons being made for years later than 1967-68. However, in the special appendix (Integrated Economic Censuses) to chapter 10, series will be found which combine and compare value data for mining, manufacturing, wholesale and retail establishments.

Primary Industries

The following primary industries are those for which data are separately compiled in the value of production tables:

Primary, Agriculture

Crops
Pastoral
Dairying
Poultry
Bee-farming

Primary, Other

Hunting
Forestry
Fishing

In respect of these primary industries, the following uniform definitions are employed:

- (i) *Gross Value of Production* is the value placed on recorded production at the wholesale prices realised 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. Subsidies and bounties paid by the State and Australian Governments to primary industries are, in general, included in gross value of production.
- (ii) *Local Value* (i.e. recorded 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.
- (iii) *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, petrol and oils, feed consumed by farm stock, manures, dips, sprays and other costs of a similar nature. No deductions from local values have been made for depreciation, certain maintenance charges, wages, interest, or some other costs normally incurred.

Comparing or Combining Industries

In comparing or combining production values for any of the previous industries, it is logically necessary to use only *net value of production* (primary); both *gross* and *local* values will be found unsatisfactory because some degree of duplication will be involved. An example of duplication involving *gross* values is when hay from the *crops* sector becomes a 'raw material' for the *pastoral* and *dairying* sectors.

In the following sections, *gross* and *local* values are shown for the various primary industries; the basic reason for publication is not to facilitate comparison and combination of these values for individual industries, or groups of industries, but rather to show how *net value of production* is computed.

In accordance with the previous definitions, net value of production for primary industries is computed by deducting the cost of materials used in the process of production from the local value. Details of such costs are not available for: (i) bee-farming; (ii) hunting; (iii) forestry; and (iv) fishing. In the case of these industries, only local value can be computed.

Sources of Information—Value of Production

Primary Production, Agriculture

The data used are those concerning quantity of primary production (supplied principally by farmers, etc.) together with information collected from various sources on prices realised in the principal markets for different products, the costs of marketing these products and the costs of certain materials used in their production. Price and cost data are obtained from statutory authorities (e.g. Dairy Produce Equalisation Committee), market reports, special returns collected from wholesalers, brokers, auctioneers, etc., and from overseas and interstate trade statistics.

Primary Production, Other

(i) *Hunting*: Principal data are derived from export of skins and information on the annual mutton bird catch.

(ii) *Forestry*: Principal value data are available from the annual factory census, since forestry products are the basic raw material for sawmills, newsprint and paper mills, etc.

(iii) *Fishing*: Quantity data are supplied by fishermen and prices are collected from fish wholesalers and agents.

Period Covered

Primary, Agriculture: Generally the year ended 30 June but includes current season's production harvested after 30 June, e.g. potatoes.

Primary, Other: Year ended 30 June.

GROSS VALUE OF PRODUCTION**Agricultural Industries**

Agricultural industries, for value of production purposes, comprise the following sectors: (i) crops; (ii) pastoral; (iii) dairying; (iv) poultry; and (v) bee-farming. These sectors have no relation, however, to any classification of individual agricultural holdings on an industry basis; a single holding would usually produce several products, some attributable to one and some to another such sector (e.g. wheat and oats which would be counted in crops, wool in pastoral and milk in dairying). The sectors represent merely a convenient grouping of the aggregate production of individual products.

Crops

The following table shows gross values for the crop sector:

Gross Value of Production: Crops
(**\$'000**)

Crop	1968-69	1969-70	1970-71	1971-72	1972-73
Cereals for grain	2,115	2,178	2,296	2,066	1,896
Legumes mainly for grain	366	470	576	258	147
Crops for hay (a)	492	237	275	167	426
Crops for green feed or silage (b)	5,741	3,894	2,958	1,905	3,448
Orchard tree fruit	15,751	17,071	15,689	12,430	17,312
Berry and small fruit	912	881	991	1,037	1,064
Vegetables for sale for human consumption	8,128	9,723	8,538	8,648	10,863
Other crops (a)	3,243	3,073	2,770	3,352	3,953
Pasture harvested for hay	7,358	3,980	5,590	5,612	4,405
Pasture harvested for seed	246	178	285	179	79
Pasture harvested for green feed or silage	247	172	202	218	100
Total	44,599	41,860	40,169	35,870	43,693

(a) Excludes, pasture harvested.

(b) Includes vegetables for stock feed.

The next table shows quantity and value details for the main items comprising the crops sector, also included in the table is the average value per unit.

Gross Value of Production: Crops, 1972-73

Crop	Unit of quantity	Production	Gross value	
			Per unit	Total
			\$	\$'000
Crops (excluding pasture harvested)—				
Cereals for grain—				
Barley	tonnes	18,711	52.53	983
Oats	tonnes	7,144	71.52	511
Wheat	tonnes	7,701	52.20	402
Total cereals for grain .. .. .	..	..	..	1,896
Legumes mainly for grain—				
Beans—Navy	tonnes	299	120.40	36
Peas, field—Blue	tonnes	387	90.44	35
Grey and other.. .. .	tonnes	660	112.13	74
Total legumes mainly for grain .. .. .	..	..	..	(a)147
Crops for hay (b)	tonnes	17,457	24.38	426
Crops for green feed or silage (c) .. .. .	..	..	..	3,448
Fruit—				
Orchard tree fruit—				
Apples	bushels	7,024,000	2.30	(d)16,130
Pears	bushels	301,812	3.48	(d)1,050
Total orchard tree fruit .. .. .	..	..	..	(a)17,312
Berry and small fruit—				
Currants	kg	905,188	0.35	321
Loganberries	kg	270,658	0.34	93
Raspberries	kg	1,466,100	0.35	517
Strawberries	kg	112,105	0.95	106
Total berry and small fruit .. .. .	..	..	..	(a)1,064
Vegetables for sale for human consumption—				
Beans, french and runner.. .. .	tonnes	6,237	111.03	692
Peas, green (ex-shell)	tonnes	19,003	106.14	2,017
Potatoes	tonnes	78,286	57.23	4,480
Total vegetables for sale for human consumption .. .. .	..	..	..	(a)10,863
Other crops—				
Hops (dry weight)	tonnes	1,450	1,961.40	2,844
Total other crops .. .. .	..	..	..	(a)3,953
Total (excluding crops from pasture)	..	..	..	39,109
Pasture (e) harvested—				
Pasture harvested for—Hay	tonnes	215,580	20.43	4,405
Seed	kg	165,553	0.48	79
Green feed or silage.. .. .	..	..	..	100
Total crops from pasture .. .. .	..	..	..	4,584
Total all crops .. .. .	..	..	..	43,693

(a) Includes other crops not specified in the table.

(b) Excludes pasture for hay.

(c) Includes vegetables for stock feed.

(d) Includes Government Stabilisation Subsidy of \$1,787,000 distributed between apples and pears.

(e) Includes lucerne.

Average Unit Gross Values

In the next table, average unit gross values for the principal crops are shown for a five-year period. The unit values have been calculated for the principal agricultural products by dividing the total quantity produced into the total gross value of production for each crop. They therefore represent weighted average 'prices' of the product in all markets (including the farm itself where quantities are retained for farm use) and indicate trends rather than prices actually paid to farmers.

Average Unit Gross Value of Principal Crops
(\$)

Crop	Unit of quantity	1968-69	1969-70	1970-71	1971-72	1972-73
Cereals for grain—						
Barley	tonne	56.93	52.52	51.34	47.29	52.53
Oats	tonne	47.77	44.22	44.84	43.18	71.52
Wheat	tonne	41.87	52.93	48.27	54.04	52.20
Legumes mainly for grain—						
Beans—						
Navy	tonne	..	..	..	117.37	120.40
Horse	tonne	137.94	160.40	96.40	92.26	109.33
Peas, field—						
Blue	tonne	95.89	92.24	100.01	99.98	90.44
Grey and other	tonne	105.32	102.72	84.92	77.81	112.13
Crops for hay	tonne	15.63	11.48	13.10	12.84	24.38
Orchard tree fruit—						
Apples	bushel	2.03	2.10	1.97	1.97	2.30
Apricots	bushel	3.44	3.83	3.05	3.51	4.91
Cherries	bushel	6.92	6.95	5.85	10.43	16.55
Nectarines	bushel	5.22	6.00	5.64	6.10	4.43
Peaches	bushel	5.25	6.10	5.46	5.40	5.08
Pears	bushel	2.54	2.78	2.74	2.39	3.48
Plums and prunes	bushel	1.79	1.66	2.15	2.04	2.54
Quinces	bushel	1.06	1.18	1.20	1.33	0.94
Berry and small fruit—						
Blackberries	kg	0.26	0.28	0.27	0.23	0.24
Currants	kg	0.30	0.31	0.33	0.34	0.35
Gooseberries	kg	0.14	0.16	0.19	0.20	0.22
Loganberries	kg	0.29	0.32	0.33	0.35	0.34
Raspberries	kg	0.33	0.33	0.36	0.35	0.35
Strawberries	kg	0.51	0.64	0.70	0.83	0.95
Vegetables for sale for human consumption—						
Beans, french and runner	tonne	118.39	132.94	119.97	109.83	111.03
Peas, green (ex-shell)	tonne	111.14	99.47	119.08	115.31	106.14
Potatoes	tonne	28.92	45.56	41.51	37.32	57.23
Turnips	tonne	91.67	98.32	109.22	106.02	105.22
Hops	kg	1.69	1.69	1.69	1.88	1.96
Pasture (a) for hay	tonne	15.63	11.48	13.10	12.84	20.43
Pasture (a) for seed—						
Clover	kg	0.86	0.94	0.92	1.02	1.23
Other	kg	0.31	0.33	0.45	0.31	0.45

(a) Includes lucerne.

Pastoral, Dairying, Poultry and Bee-farming

The products allocated to the pastoral, dairying, poultry and bee-farming sectors for value of production purposes are:

- (i) *Pastoral Sector*: Comprises wool (including wool on skins), cattle slaughtered (other than culled dairy cows and bobby calves, i.e. calves slaughtered as soon as practicable after birth) and sheep and lambs slaughtered.
- (ii) *Dairying Sector*: Comprises milk, dairy cattle slaughtered (culled dairy cows and bobby calves) and pigs slaughtered.
- (iii) *Poultry Sector*: Comprises poultry slaughtered and eggs produced.
- (iv) *Bee-farming Sector*: Comprises honey and beeswax produced.

The prime source of data on livestock slaughtered is information supplied by slaughtering establishments, supplemented by farmers' annual census returns giving details of slaughtering on farms. As sufficiently detailed information is not available on the types of cattle slaughtered to enable a precise dissection of total slaughterings to be made between the pastoral and dairying Sectors, data on the known culling rate in dairy herds are also used for this purpose.

The table that follows gives details of the gross value of production for each of the products of these sectors:

Gross Value of Production: Pastoral, Dairying, Poultry and Bee-farming
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Pastoral—					
Shorn wool (including crutchings) ..	19,713	16,827	13,986	17,044	35,291
Other wool (a)	1,467	1,253	998	957	2,191
Sheep and lambs slaughtered (b) (c) ..	5,852	6,464	5,734	5,634	8,622
Cattle slaughtered (b) (d)	12,086	13,987	13,741	16,920	26,254
Total	39,117	38,532	34,459	40,554	72,357
Dairying—					
Milk	21,473	21,307	22,244	24,440	22,549
Cattle slaughtered (d)	1,917	2,524	2,463	2,409	2,545
Pigs slaughtered (b)	4,324	4,943	5,150	5,254	4,821
Total	27,713	28,774	29,858	32,103	29,914
Poultry—					
Eggs	4,854	4,652	4,495	4,373	4,502
Poultry slaughtered	1,040	913	1,053	1,251	1,320
Total	5,894	5,566	5,548	5,624	5,822
Bee-farming—					
Honey	97	120	173	159	213
Beeswax	5	7	7	7	7
Total	102	127	180	166	220

(a) Dead, fellmongered and wool exported on skins.

(b) Includes adjustment for net exports of livestock.

(c) Excludes value of wool on skins.

(d) Culled dairy cows and bobby calves slaughtered are allocated to dairying; all other cattle slaughtered to pastoral.

Primary Industries

The following table brings together gross values of production for all primary industries (excluding mining) for a five year period.

Gross Value of Production: Primary Industries (Excluding Mining) (a)
(\$ million)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73
Crops	44.6	41.9	40.2	35.9	43.7
Pastoral	39.1	38.5	34.5	40.6	72.4
Dairying	27.7	28.8	29.9	32.1	29.9
Poultry	5.9	5.6	5.5	5.6	5.8
Bee-farming	0.1	0.1	0.2	0.2	0.2
Total agriculture	117.4	114.9	110.2	114.3	152.0
Hunting	0.4	0.3	0.3	0.3	0.4
Forestry	16.0	18.9	17.1	21.9	30.9
Fishing	4.9	4.0	6.0	6.8	6.6
Total other (excluding mining)	21.2	23.2	23.4	29.0	37.9
Total primary (excluding mining)	138.7	138.1	133.6	143.3	189.9

(a) See earlier section 'New Value Concepts' for an explanation of why mining has been deleted from this series

NET VALUE OF PRODUCTION—ALL RECORDED INDUSTRIES

Net Value, 1972-73

The next table shows, in detail, the method whereby gross values (primary industries) are reduced to local values and then further reduced to net values:

Value of Production: Primary Industries, (Excluding Mining) (a) 1972-73
(\$ million)

Industry	Gross value of production (value at principal market)	Less marketing costs	Local value (i.e. production valued at place of production)	Less cost of materials, fuel, etc. used	Net value of production
Agriculture—					
Crops	43.7	11.8	31.9	6.7	25.3
Pastoral	72.4	5.3	67.1	13.9	53.2
Dairying	29.9	0.9	29.0	5.0	24.0
Poultry	5.8	0.1	5.8	2.9	2.8
Bee-farming (b)	0.2	..	0.2	n.a.	0.2
Total agriculture	152.0	18.1	133.9	28.5	105.5
Primary, other (b)—					
Hunting	0.4	..	0.4	n.a.	0.4
Forestry	30.9	5.6	25.4	n.a.	25.4
Fishing	6.6	0.8	5.7	n.a.	5.7
Total other (excluding mining)	37.9	6.4	31.5	n.a.	31.5
Total primary (excluding mining)	189.9	24.5	165.4	28.5	136.9

(a) See earlier section 'New Value Concepts' for an explanation of why mining has been deleted from this series.

(b) Gross and local values available but production costs not available.

In the preceding table costs of materials, fuels, etc. used are only calculated for the crops, pastoral, dairying and poultry sectors. The selected production costs exclude such items as depreciation charges, the cost of repair and maintenance to plant, equipment and buildings used in the sectors, veterinary expenses, etc. However, estimates for certain major production cost items, such as stock feed, fertilisers, electric power, fuel, seed, sprays, etc. are prepared. Data for calculation of these selected costs are obtained from a variety of sources e.g. quantity information is based on data obtained from the annual farm census, merchants dealing with rural producers, manufacturers, etc., while unit costs are obtained from surveys, dealers' and manufacturers' price lists, etc.

For bee-farming, hunting, forestry and fishing it is not possible to prepare similar production cost estimates since insufficient information is available on the type and quantity of materials and fuels used.

Net Value—Summary

The next table summarises, for a five-year period, the net value of production for all recorded industries:

Net Value of Production: Primary Industries, (Excluding Mining) (a) (\$ million)

Industry	1968-69	1969-70	1970-71	1971-72	1972-73
Primary, agriculture—					
Crops	28.0	24.8	23.1	20.3	25.3
Pastoral	22.4	24.2	21.0	26.6	53.2
Dairying	20.3	23.0	24.2	26.8	24.0
Poultry	3.4	2.7	2.7	2.7	2.8
Bee-farming (b)	0.1	0.1	0.2	0.1	0.2
Total agriculture	74.1	74.8	71.2	76.6	105.5
Primary, other (b)—					
Hunting	0.3	0.3	0.3	0.2	0.4
Forestry	13.5	16.1	14.2	18.2	25.4
Fishing	4.1	3.3	5.1	5.9	5.7
Total other (excluding mining)	18.0	19.8	19.6	24.4	31.5
Total primary (excluding mining)	92.1	94.6	90.8	100.9	136.9

(a) See earlier section 'New Value Concepts' for an explanation of why mining has been deleted from this series.

(b) Local value of production.

Tasmania and Australia Compared

Some indicator other than comparison with previous years is needed. Probably the most significant measure is the comparison between the net values of production for all recorded Tasmanian industries and those for Australia as a whole.

Net Value of Production Primary Industries (Excluding Mining): Tasmania and Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
NET VALUE OF PRODUCTION: ALL RECORDED INDUSTRIES (a) (\$ million)					
Tasmania	92.1	94.6	90.8	100.9	136.9
Australia	3,035.6	2,913.0	2,803.4	3,151.1	p4,034.2

Net Value of Production Primary Industries (Excluding Mining): Tasmania and Australia—continued

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
TASMANIAN PROPORTION OF AUSTRALIAN TOTAL (per cent)					
Primary, agriculture—					
Crops	2.3	2.4	2.2	1.8	2.2
Pastoral	1.9	2.0	2.1	2.2	2.6
Dairying	5.4	5.5	5.5	5.7	5.2
Poultry	4.7	3.3	3.3	3.4	3.9
Bee-farming (b)	3.4	2.5	3.6	2.3	2.7
Total agriculture	2.6	2.7	2.7	2.6	2.8
Primary, other (b)—					
Hunting	3.2	2.5	3.2	2.6	3.0
Forestry	12.0	14.0	11.1	13.1	16.9
Fishing	7.0	5.8	7.0	7.1	6.5
Total other	3.0	3.3	3.2	3.2	3.4

(a) See earlier section 'New Value Concepts' for an explanation of why mining has been deleted from this series.
 (b) Local value of production.

Chapter 9

MANUFACTURING, ELECTRICITY AND GAS

MANUFACTURING

Historical

The evolution of Tasmanian farming is described in continuous annual statistics from 1818 but the early records relating to factories are extremely meagre. While the early colonial statisticians had immediately put on record such fundamental measures as acreages, crop yields and livestock numbers, they were content, in the matter of factories, to merely classify and count the number of establishments. Some concept of early manufacturing activity can be derived from the following table which has been adapted from the *Statistical Returns of Van Diemen's Land, 1824 to 1839*:

Comparative Account of Manufactories and Trades in Van Diemen's Land

Description of establishment	Number of establishments		Description of establishment	Number of establishments	
	1824	1838		1824	1838
Agricultural implement makers	..	9	Mills—Steam .. ..	..	3
Breweries	3	19	Water and wind ..	5	51
Candle makers .. ..	..	4	Potteries .. .. .	..	1
Cooperages .. .. .	..	9	Printing offices ..	1	8
Coachmakers .. .. .	..	2	Ropemakers	1	1
Distilleries	1	4	Sailmakers	1	5
Dyers .. .. .	..	2	Sawmills	1	2
Engineers .. .. .	..	7	Shipwrights .. ..	..	5
Fellmongers	2	4	Snuff makers .. ..	..	1
Foundries .. .. .	..	3	Soap makers	1	1
Furriers .. .. .	..	2	Tanners	6	15
Mast and block makers	..	1	Wool staplers .. ..	..	3

The grinding of wheat for flour gave rise to the first demand for power, the original solution being water mills and windmills followed by use of the steam engine (the first steam mill commenced in 1831). Later records refer to 'mills, horse-driven', the beast being driven around a circular track. The relation between early factory activity and the farming and whaling economy in which it grew is indicated by the fact that, in the table, five of the descriptions (e.g. fellmongers, etc.) refer to processing of animal products, four (e.g. shipwrights, etc.) to the construction and maintenance of ships and two (breweries, distilleries) to the making of alcoholic beverages for which there were nearly as many licensed outlets as exist today.

The *Account of Manufactories and Trades*, on a simple establishment basis similar to the last table, was published annually throughout the 19th century and is a guide to the introduction of new industries and new skills to the State.

The presentation of factory statistics, in the private sector, on a simple establishment basis failed to answer a number of questions such as the number of employees, the quantities and values of items produced, the total value of output, the capital invested, etc., and this lack of information persisted until 1882 when the Government Statistician began publishing quantity, value and employment data for jam factories and breweries; the coverage of industries was then gradually expanded until, by 1911, publication had commenced of annual factory statistics showing most of the basic information sought in current collections.

Some indication of the transformation of Tasmania from an essentially rural economy is given in the following table in which the proportion of the work force engaged in manufacturing activities is compared in the period 1911 to 1961. The comparison cannot be taken beyond 1961 due to new definitions affecting labour force (1966 Census) and a new industrial classification (1971 Census). A dissection of the 1971 labour force appears in chapter 6, 'Demography'.

Employment in Tasmanian Factories Compared with Total Labour Force

Particulars	1911	1921	1933	1947	1954	1961
Factory employment (a)—						
Males	8,737	8,525	7,147	16,186	20,249	24,811
Females	1,561	1,602	2,086	3,751	4,340	5,347
Persons	10,298	10,127	9,233	19,937	24,589	30,158
Labour force (b)—						
Males	61,182	65,998	69,226	80,201	93,976	101,289
Females	13,343	14,001	16,861	20,117	24,232	29,628
Persons	74,525	79,999	86,087	100,318	118,208	130,917
Factory employment as percentage of labour force—						
Males	14.3	12.9	10.3	20.2	21.5	24.5
Females	11.7	11.4	12.4	18.6	17.9	18.0
Persons	13.8	12.7	10.7	19.9	20.8	23.0

(a) Average number of persons engaged, including working proprietors, as reported in the annual factory census for 1911 and 1921 and those for financial years ending in 1933, 1947, 1954 and 1961. Establishments producing electricity and gas were classified as 'factories'.

(b) Source: censuses of population in years shown; includes employers and self-employed.

Electric Power and Industrialisation

The key to the large scale industrial development of Tasmania was its abundant water at high level in the Central Plateau and the State's industrial revolution may be thought of as beginning in 1916 when the Waddamana turbines below the Great Lake began operating; from the initial 7,500 kW then developed, the hydro-electric system has expanded to today's capacity of over 1.3m kW. The availability of cheap electric power resulted in the establishment of new types of industry, some on a very large scale; examples are: electrolytic zinc production, 1917; carbide manufacture, 1918; fine paper production, 1938; aluminium production, 1955; ferro-manganese production, 1962. The introduction of pulp and paper manufacture is a special case to the extent that changes in technology made possible the use of native hardwoods for the first time; the production of suitable pulp from eucalypts was pioneered in Tasmania before plants were established in other Australian states.

MANUFACTURING STATISTICS

Principal Articles Manufactured

The articles listed later do not include the following important Tasmanian products: aluminium, automotive engine bearings, carbide, cement, confectionery, ferro-manganese alloys, hand tools, hardboard, iron ore pellets, particle board, printing, writing and wrapping papers, starch, titanium di-oxide, canned, dehydrated and quick frozen vegetables, wood pulp, woollen manufactures, and other textile products. Some articles, although principal manufactures, such as cakes, pastry and pies, wooden furniture and joinery (excluding doors) are not included, as value details only are collected for such items.

The following table lists the principal articles manufactured in Tasmania. In several cases, however, where there are only one or two producers or where one producer dominates, it is not possible to publish details for articles that are important and would otherwise appear in the table. To give some indication of changes in production, quantity details are given for 1938-39, and for recent years:

Principal Articles Manufactured: Quantities

Article	Unit	1938-39	1969-70	1970-71	1971-72	1972-73
Acid, sulphuric	tonnes	14,385	266,449	387,193	558,658	652,513
Aerated waters	'000 litres	1,537	13,354	r14,049	14,402	15,236
Bacon and ham	tonnes	878	1,403	1,803	1,984	1,902
Bran and pollard	tonnes	8,109	8,947	8,994	9,198	12,120
Bread (2lb loaf equivalents)	'000	11,337	28,349	<i>n.a.</i>	27,931	26,751
Bricks, blocks, etc.	'000	14,541	38,436	39,562	44,945	50,422
Butter (a)	tonnes	4,118	16,343	15,273	15,318	12,947
Cheese	tonnes	1,443	5,407	5,556	5,923	7,218
Concrete, ready mixed	'000m ³	..	<i>n.a.</i>	196,848	212,287	199,792
Electricity, total generated	mkWh	567	5,140	5,451	5,778	5,902
Fertilisers—						
Sulphate of ammonia	tonnes	..	40,563	40,252	41,358	48,654
Superphosphate	tonnes	30,569	133,245	105,323	104,763	177,192
Flour	tonnes	17,764	21,947	22,264	22,488	31,698
Fruit—						
Canned or bottled—						
Apples, solid pack	tonnes	1,049	5,879	4,990	3,626	5,955
Berry fruits	tonnes	416	193	200	<i>n.p.</i>	<i>n.p.</i>
Dehydrated and evaporated apples	tonnes	346	328	261	283	457
Bed bases, woven wire .. .. .	..	3,386	8,966	7,090	6,792	10,333
Paper, newsprint	tonnes	..	173,314	r178,683	181,477	199,053
Timber—						
Sawn, peeled or sliced (b)—						
Hardwood	'000 m ³	197.0	400.7	394.3	401.2	403.8
Softwood	'000 m ³	3.6	13.0	11.8	11.6	12.4
Dressed—						
Floorboards	'000 m ³	12.1	81.5	<i>n.a.</i>	60.7	<i>n.a.</i>
Weatherboards	'000 m ³	4.5	4.5	<i>n.a.</i>	1.8	<i>n.a.</i>
Other	'000 m ³	2.7	69.9	<i>n.a.</i>	59.8	<i>n.a.</i>
Woodchips, etc. (green weight) (c)	'000 tonnes	..	(d) 761	829	1,213	2,191
Zinc, refined	tonnes	70,946	170,931	162,271	175,798	193,782

(a) Includes butter equivalent of butter oil.

(b) Includes timber to be further processed.

(c) Defined in forestry section of chapter 8.

(d) Estimated from final product data.

Manufacturing Statistics

Annual censuses of factories were conducted by the Bureau from almost the start of the present century; the last 'old style' factory census covered the year 1967-68. For 1968-69 simultaneous integrated economic censuses were undertaken in respect of manufacturing and four other sectors (mining; wholesale trade; retail trade; and electricity and gas production and distribution).

The integrated economic censuses 1968-69 were fully described in Appendix A of the 1972 Year Book in which there also appears an explanation of the factors which made necessary the termination of 'old style' factory censuses and the start of a new series, based on new reporting units and data concepts. In this section, it is intended to give the results of manufacturing censuses covering 1968-69, 1969-70, 1971-72 and preliminary results for 1972-73. (There was no census for 1970-71.)

Definitions and data concepts introduced by the integrated economic censuses will be found in Appendix B. A summary of factory statistics relating to the years preceding the integrated censuses is set out in chapter 9 of the 1973 Year Book.

Census Results

The following tables summarise the information from the annual manufacturing censuses, as a time series wherever 1972-73 preliminary results are available. In more detailed later tables, only the final results of the single year 1971-72 are given.

Manufacturing Establishments Classified According to Industry

The tables that follow contain a summary of the principal manufacturing statistics by industry sub-division:

Manufacturing Establishments: Operations by Industry Sub-division (a)

Industry sub-division		Year ended June	Establishments operating at 30 June	Employment (including working proprietors)—average over whole year			Wages and salaries	Turnover
Asic code (b)	Description			Males	Females	Persons		
21,22	Food, beverages and tobacco ..	1969	no. 202	no. 4,522	no. 1,876	no. 6,398	\$'000 18,777	\$'000 119,744
		1970	189	4,659	1,907	6,566	20,299	130,307
		1972 _r	168	4,228	1,753	5,981	21,556	149,617
		1973 _p	159	4,236	1,713	5,949	24,109	174,313
23	Textiles	1969	17	1,752	2,027	3,779	8,990	35,457
		1970	19	1,759	2,115	3,874	9,063	35,021
		1972 _r	21	1,630	2,027	3,657	10,785	39,634
		1973 _p	19	1,733	2,058	3,791	12,332	43,892
24	Clothing and footwear	1969	13	110	244	354	671	1,576
		1970	13	108	248	356	702	1,692
		1972	13	93	214	307	756	1,584
		1973 _p	12	102	232	334	894	2,052
25	Wood, wood products and furniture	1969	397	4,257	282	4,539	11,731	50,524
		1970	391	4,400	292	4,692	12,845	57,381
		1972 _r	364	4,256	364	4,620	14,698	65,837
		1973 _p	351	4,403	346	4,749	17,173	87,608
26	Paper and paper products, printing	1969	52	4,671	960	5,631	19,734	78,404
		1970	58	4,808	1,004	5,812	21,191	89,766
		1972 _r	62	5,126	941	6,067	27,170	99,846
		1973 _p	67	4,877	862	5,739	27,392	109,564
27	Chemical, petroleum and coal products ..	1969	16	1,303	77	1,380	5,058	27,341
		1970	18	1,324	77	1,401	5,581	30,319
		1972	21	1,396	80	1,476	7,122	36,242
		1973 _p	21	1,360	82	1,442	7,659	39,884
28	Non-metallic mineral products ..	1969	53	1,024	74	1,098	3,744	16,375
		1970	48	980	72	1,052	3,976	17,654
		1972	54	948	79	1,027	4,275	20,720
		1973 _p	55	995	75	1,070	5,196	23,060
29	Basic metal products	1969	14	3,975	141	4,116	15,856	121,418
		1970	14	3,967	139	4,106	16,575	138,513
		1972 _r	14	3,681	130	3,811	19,292	136,120
		1973 _p	14	3,657	144	3,801	21,172	150,458
31	Fabricated metal products ..	1969	88	1,295	198	1,493	3,924	17,094
		1970	88	1,384	210	1,594	4,908	21,585
		1972	86	1,179	196	1,375	4,780	19,755
		1973 _p	84	1,186	202	1,388	5,267	21,465
32	Transport equipment	1969	27	1,075	152	1,227	3,555	9,315
		1970	23	1,063	168	1,231	3,649	10,027
		1972	34	1,047	200	1,247	4,328	12,421
		1973 _p	31	1,055	190	1,245	5,332	14,372

Manufacturing Establishments: Operations by Industry Sub-division (a)—continued

Industry sub-division		Year ended June	Establishments operating at 30 June	Employment (including working proprietors)—average over whole year			Wages and salaries	Turnover
Asic code (b)	Description			Males	Females	Persons		
33	Other industrial machinery and equipment and household appliances	1969	no. 57	no. 787	no. 129	no. 916	\$'000 2,648	\$'000 8,808
		1970	60	761	138	899	2,876	8,055
		1972 _r	60	1,053	127	1,180	3,905	11,329
		1973 _p	63	950	85	1,035	3,981	11,695
34	Miscellaneous manufacturing ..	1969	15	121	22	143	375	1,051
		1970	24	158	19	177	439	1,315
		1972 _r	36	219	40	259	746	2,506
		1973 _p	36	228	37	265	937	3,656
Total manufacturing .. ..	.. ..	1969	951	24,892	6,182	31,074	95,065	487,109
		1970	945	25,371	6,389	31,760	102,104	541,636
		1972 _r	933	24,856	6,151	31,007	119,411	595,612
		1973 _p	912	24,782	6,026	30,808	131,445	682,018

(a) No census held covering 1970-71.

(b) Australian Standard Industrial Classification number.

Manufacturing Establishments: Operations by Industry Sub-division (a)
(\$'000)

Industry sub-division		Year ended June	Stocks		Purchases, transfers in and selected expenses	Value added	Fixed capital expenditure
Asic code (b)	Description		Opening	Closing			
21,22	Food, beverages and tobacco	1969	20,266	21,574	84,595	36,458	4,831
		1970	20,742	22,891	89,235	43,221	5,829
		1972 _r	21,608	21,663	99,472	50,200	5,127
		1973 _p	21,743	22,086	109,776	64,880	7,054
23	Textiles	1969	15,649	15,743	18,740	16,811	636
		1970	11,093	10,892	18,993	15,827	697
		1972	10,195	9,760	20,519	18,679	844
		1973 _p	10,063	14,118	26,922	21,026	626
24	Clothing and footwear ..	1969	362	356	727	844	5
		1970	355	325	737	925	-1
		1972	275	259	651	917	17
		1973 _p	273	305	1,000	1,084	18
25	Wood, wood products and furniture	1969	11,541	12,260	28,554	22,689	1,426
		1970	12,502	12,915	32,414	25,381	1,170
		1972 _r	13,857	14,394	37,538	28,835	10,720
		1973 _p	14,556	15,640	48,519	40,172	10,107
26	Paper and paper products, printing	1969	12,869	12,972	37,301	41,206	17,901
		1970	12,925	14,245	49,996	41,090	15,192
		1972 _r	16,273	16,805	53,015	47,364	166
		1973 _p	16,842	14,245	59,010	47,957	1,011
27	Chemical, petroleum and coal products	1969	5,844	5,972	16,909	10,561	2,119
		1970	5,976	6,065	17,293	13,115	12,737
		1972	5,901	6,277	20,792	15,826	2,106
		1973 _p	6,152	6,212	22,621	17,323	1,352

Manufacturing Establishments: Operations by Industry Sub-division (a)—continued
(**\$'000**)

Asic code (b)	Industry sub-division Description	Year ended June	Stocks		Purchases, transfers in and selected expenses	Value added	Fixed capital expen- diture
			Opening	Closing			
28	Non-metallic mineral products	1969	1,859	2,127	8,110	8,534	1,721
		1970	2,132	2,275	8,037	9,760	1,603
		1972	2,360	2,629	9,347	11,642	1,170
		1973 _p	2,645	2,557	9,780	13,192	637
29	Basic metal products	1969	18,535	25,620	85,650	42,853	4,654
		1970	25,276	22,729	79,076	56,890	10,854
		1972 _r	28,133	35,039	94,715	48,310	4,063
		1973 _p	35,087	31,486	95,296	51,560	2,158
31	Fabricated metal products . .	1969	3,831	3,989	10,045	7,207	654
		1970	3,922	4,238	12,590	9,311	430
		1972	4,404	4,262	11,497	8,116	313
		1973 _p	4,248	4,085	12,211	9,091	342
32	Transport equipment	1969	2,097	2,356	4,074	5,499	496
		1970	2,372	2,563	4,257	5,960	611
		1972	2,752	2,940	5,079	7,531	550
		1973 _p	2,967	3,515	4,943	9,977	535
33	Other industrial machinery and equipment and house- hold appliances	1969	1,550	1,515	4,451	4,322	353
		1970	1,420	1,492	4,174	3,953	210
		1972 _r	1,471	1,641	5,330	6,170	638
		1973 _p	1,775	1,602	4,678	6,843	1,048
34	Total miscellaneous manu- facturing	1969	237	250	584	480	285
		1970	195	274	743	650	110
		1972 _r	559	875	1,345	1,477	231
		1973 _p	770	565	1,835	1,616	197
	Total manufacturing	1969	94,640	104,735	299,739	197,464	35,080
		1970	98,911	100,904	317,546	226,083	49,443
		1972 _r	107,787	116,543	359,300	245,068	25,944
		1973 _p	117,121	116,415	396,591	284,720	25,086

(a) No census held covering 1970-71.

(b) Australian Standard Industrial Classification number.

Tasmanian-Australian Comparison

Using 1968-69 as the base: Australian employment in manufacturing in 1972-73 was 3.6 per cent greater whereas the corresponding Tasmanian employment had decreased marginally. Again with 1968-69 as base: 'value added' for Australian manufacturing in 1972-73 was 43.9 per cent higher; the corresponding Tasmanian increase was 44.2 per cent.

The Tasmanian share in 1972-73 of Australian employment in manufacturing was 2.35 per cent; and of Australian 'value added' in manufacturing, 2.65 per cent.

Manufacturing by Statistical Division and Major Urban Areas

The next table shows, as a time series, the chief measures of manufacturing operations distributed according to broad region:

Manufacturing Establishments: Main Items by Statistical Division (a)

Main items	Unit	Year ended June	Statistical divisions			Tasmania	
			Hobart and Southern	Northern	Mersey-Lyell		
Number of establishments	no.	1969	416	327	208	951	
		1970	409	326	210	945	
		1972 _r	397	327	209	933	
		1973 _p	393	322	197	912	
Employment (b)—Males	no.	1969	10,741	7,242	6,909	24,892	
		1970	11,182	7,333	6,856	25,371	
		1972 _r	10,591	7,452	6,813	24,856	
		1973 _p	10,428	7,599	6,755	24,782	
	Females	no.	1969	2,343	2,447	1,392	6,182
			1970	2,402	2,583	1,404	6,389
			1972 _r	2,179	2,546	1,426	6,151
			1973 _p	2,133	2,506	1,387	6,026
	Persons	no.	1969	13,084	9,689	8,301	31,074
			1970	13,584	9,916	8,260	31,760
			1972 _r	12,770	9,998	8,239	31,007
			1973 _p	12,561	10,105	8,142	30,808
Wages and salaries ..	\$'000	1969	40,115	27,586	27,364	95,065	
		1970	44,328	29,218	28,561	102,104	
		1972 _r	48,379	35,992	35,040	119,411	
		1973 _p	52,448	41,107	37,890	131,445	
Value added ..	\$'000	1969	79,018	62,404	56,043	197,464	
		1970	93,534	66,232	66,316	226,083	
		1972 _r	96,425	73,543	75,100	245,068	
		1973 _p	115,089	83,662	85,969	284,720	
Fixed capital expenditure	\$'000	1969	18,549	4,957	11,578	35,080	
		1970	15,580	4,897	28,967	49,443	
		1972 _r	8,295	15,081	2,569	25,944	
		1973 _p	6,962	12,107	6,013	25,086	

(a) No census held covering 1970-71.

(b) Includes working proprietors; figures are average over whole year.

The next table gives principal manufacturing details for Urban Hobart and Urban Launceston.

Manufacturing Statistics: Urban Hobart and Urban Launceston

Year ended June	Number of establishments at 30 June	Employment (including working proprietors)—average over whole year			Wages and salaries (\$'000)	Value added (\$'000)
		Males	Females	Persons		
URBAN HOBART						
1969	272	8,765	2,090	10,855	33,341	60,305
1970	282	8,997	2,168	11,165	36,798	73,494
1972	280	8,401	1,988	10,389	38,933	72,694
URBAN LAUNCESTON						
1969	202	5,028	2,226	7,254	19,303	34,474
1970	201	5,136	2,361	7,497	20,419	38,039
1972	209	5,055	2,318	7,373	23,963	43,282

For the year 1971-72 manufacturing establishments located in the Urban Hobart area accounted for 33.4 per cent of the average number of persons employed over the year and contributed 29.7 per cent of the total value added by manufacturing establishments in Tasmania. The corresponding percentages for Urban Launceston were: employment (average over the whole year), 23.8 per cent and for value added 17.7 per cent.

Geographical Distribution of Classes of Industry

The next series of tables, containing the principal manufacturing variables, is a regional cross-classification by industry sub-divisions for the year ended 30 June 1972:

Manufacturing by Statistical Division and Type of Industry, 1971-72

Industry sub-division		Establishments operating at 30 June	Employment (including working proprietors)—average over whole year			Wages and salaries	Value added
Asic code	Description		Males	Females	Persons		
		no.	no.	no.	no.	\$'000	\$'000
HOBART STATISTICAL DIVISION							
21,22	Food, beverages and tobacco	51	1,843	945	2,788	9,855	21,109
23	Textiles	6	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
24	Clothing and footwear ..	4	50	110	160	391	462
25	Wood, wood products and furniture	92	944	131	1,075	3,104	5,365
26	Paper and paper products, printing	25	1,953	294	2,247	9,146	17,749
27	Chemical, petroleum and coal products	8	788	30	818	3,590	5,709
28	Non-metallic mineral products	16	314	36	350	1,605	3,388
29	Basic metal products ..	9	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated metal products	37	596	114	710	2,472	3,786
32	Transport equipment ..	16	79	4	83	233	338
33	Other industrial machinery and equipment	34	685	98	783	2,424	4,067
34	Miscellaneous manufacturing	15	107	20	127	315	361
	Hobart Division ..	313	9,979	2,091	12,070	46,118	87,033
SOUTHERN STATISTICAL DIVISION							
21,22	Food, beverages and tobacco	13	73	62	135	283	1,119
25	Wood, wood products and furniture	61	399	11	410	1,248	4,492
26	Paper and paper products, printing	3	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
27	Chemical, petroleum and coal products	1	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
31	Fabricated metal products	1	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
32	Transport equipment ..	3	3	..	3	3	29
33	Other industrial machinery and equipment	2	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>	<i>n. p.</i>
	Southern Division	84	612	88	700	2,261	9,392

Manufacturing by Statistical Division and Type of Industry, 1971-72—*continua*.

Industry sub-division		Establishments operating at 30 June	Employment (including working proprietors)—average over whole year			Wages and salaries	Value added
Asic code	Description		Males	Females	Persons		
			no.	no.	no.		
NORTHERN STATISTICAL DIVISION							
21,22	Food, beverages and tobacco	51	1,183	257	1,440	5,261	13,326
23	Textiles	11	1,038	1,556	2,594	7,096	11,649
24	Clothing and footwear ..	7	42	100	142	361	444
25	Wood, wood products and furniture	135	1,464	127	1,591	5,144	8,745
26	Paper and paper products, printing	17	434	150	584	2,153	3,973
27	Chemical, petroleum and coal products	8	55	10	65	304	765
28	Non-metallic mineral products	21	196	15	211	796	1,760
29	Basic metal products ..	2	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
31	Fabricated metal products	31	452	45	497	1,753	3,021
32	Transport equipment ..	14	960	196	1,156	4,078	7,132
33	Other industrial machinery and equipment	18	299	25	324	1,190	1,703
34	Miscellaneous manufacturing	12	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
	Northern Division	327	7,452	2,546	9,998	35,992	73,543
	Statistical Sub-divisions—						
	Tamar	288	7,058	2,480	9,538	34,528	70,735
	North Eastern	39	394	66	460	1,464	2,808
MERSEY-LYELL STATISTICAL DIVISION							
21,22	Food, beverages and tobacco	53	1,129	489	1,618	6,157	14,646
23	Textiles	4	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
24	Clothing and footwear ..	2	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
25	Wood, wood products and furniture	76	1,449	95	1,544	5,202	10,233
26	Paper and paper products, printing	17	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
27	Chemical, petroleum and coal products	4	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
28	Non-metallic mineral products	17	438	28	466	1,874	6,494
29	Basic metal products ..	3	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
31	Fabricated metal products	17	130	37	167	555	1,302
32	Transport equipment ..	1	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
33	Other industrial machinery and equipment	6	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
34	Miscellaneous manufacturing	9	81	8	89	328	776
	Mersey-Lyell Division	209	6,813	1,426	8,239	35,040	75,100
	Statistical sub-divisions—						
	North Western	196	6,731	1,404	8,135	34,746	74,405
	Western	13	82	22	104	294	695
TASMANIA							
	Total manufacturing	933	24,856	6,151	31,007	119,411	245,068

Non-comparability

Direct comparisons with figures for the years preceding 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

Attention is called to one major change in scope in 1968-69, namely the exclusion of electricity and gas production; in tables for previous years this sector appeared as Class XVI Heat, Light and Power. Details of establishments classified to this sector appear in the next section of this chapter. 'Value added' in the tables of this section is conceptually allied to the old 'value of production' but the difference in definition prevents direct comparison of 1968-69 and later figures with those for previous years.

Tasmania in Comparison with Other Australian States

A comparison of Tasmanian manufacturing activity with that of the other Australian states and territories is shown in the following table. Applying the appropriate population relativity factors to the Tasmanian figures, it will be seen that, on most indicators Tasmania is relatively more industrialised than Queensland, Western Australia, Northern Territory and the Australian Capital Territory and approaches the level of South Australia.

Tasmania-Australia Comparison of Manufacturing Activity, 1971-72

State or territory	Population relativity (a)	Establishments	Wages and salaries	Turnover (b)	Stocks at 30 June		Purchases, etc. (c)	Value added
					1971	1972		
N.S.W. ..	11.8	no.	\$m	\$m	\$m	\$m	\$m	\$m
Vic.	9.0	13,883	2,166	9,293	1,558	1,666	5,454	3,947
Qld.	4.7	11,407	1,801	8,061	1,402	1,490	4,787	3,361
S.A.	3.0	4,001	426	2,433	317	338	1,584	871
W.A.	2.7	2,979	470	1,942	368	399	1,169	803
Tasmania ..	1.0	2,727	255	1,240	160	169	777	472
N.T.	0.2	933	119	596	108	117	359	245
A.C.T. ...	0.4	80	6	29	3	4	18	11
		135	15	50	4	5	25	26
Total Australia	32.9	36,145	5,257	23,643	3,920	4,187	14,173	9,736

(a) Tasmania's total mean population for 1971-72 is expressed as 1.0; other state populations in proportion to 1.0.

(b) Sales, transfers out and other operating revenue.

(c) Purchases, transfers in and selected expenses.

CENSUS OF ELECTRICITY AND GAS ESTABLISHMENTS, NEW SERIES**Introduction**

Until 1968-69 factory production statistics contained details for Class XVI (Heat, Light and Power); in the 'old style' annual factory censuses, of which the last covered 1967-68, this class was confined to the *production* of electricity and gas and such operations were treated as a particular type of factory activity. For 1968-69 simultaneous economic censuses were undertaken in respect of electricity and gas production and distribution and four other sectors (manufacturing; retail trade; wholesale trade; and mining). In this section results of the 1971-72 census of electricity and gas establishments for Tasmania are given. (For a detailed description of the 1968-69 integrated economic censuses; see Appendix A of the 1972 Year Book.)

Definitions of Electricity and Gas Establishments

Basic Census Unit

The basic census unit, in general, now covers all the operations carried on under the one ownership at a single physical location. However, for electricity and gas, the basic census unit is an *exception* to the above general concept of the standardised unit. The nature of the activities of electricity and gas undertakings makes the single operating location basis unsuitable. In the Tasmanian situation, for example, the householder paying a bill for power may draw his electricity from any combination of 20 or so stations in an integrated grid; in brief, 'sales' are not recorded against individual stations but are necessarily credited to the grid as a whole.

The special establishment unit in this census consists of *all locations*, including administrative offices and ancillary units, mainly concerned with the production and/or distribution of electricity or gas, operated by the one undertaking in the one state.

Effects of New Classification

The use of the above new definition is one of the reasons for the number of electricity and gas establishments in 1971-72 being considerably less than those of earlier years. A second cause is the exclusion from 1968-69 of some generating stations operated by enterprises for their own use (only if their value of sales and transfers of electricity exceeded \$100,000 were such stations included in the electricity census).

Data Concepts

It should be stressed that pre-1968-69 figures for the 'Heat, Light and Power' class of industry referred only to production; from 1968-69, the electricity and gas census covers not just production but also distribution.

The new data concepts, definitions, etc. introduced in the 1968-69 census are set out in Appendix B.

Results, 1971-72

Direct comparisons with figures for years prior to 1968-69 are not possible because of changes in the census units, the scope of the census and the items of data.

Census of Electricity and Gas Establishments (a), 1971-72: Summary

Establishments operating at 30 June 1972	no.	5
Persons employed (average over whole year)—		
Males	"	2,727
Females	"	244
Persons	"	2,971
Wages and salaries	\$m	14.7
Turnover	"	47.6
Stocks at 30 June—		
1971	"	5.0
1972	"	5.3
Purchases, transfers in and selected expenses	"	2.2
Value added	"	45.7

(a) Establishments producing and/or distributing. See special definition of *establishment* in preceding text.

The following table gives a comparison between Tasmania and the other Australian states. Applying the appropriate population relativity factors to Tasmanian figures it can be seen that Tasmania compares favourably on most indicators.

Tasmania-Australia Comparison of Census of Electricity and Gas Establishments (a), 1971-72

State (b)	Popula- tion rela- tivity	Estab- lish- ments	Persons em- ployed	Wages and salaries	Turn- over (c)	Stocks at 30 June		Pur- chases, etc. (d)	Value added
						1971	1972		
	no.	no.	no.	\$m	\$m	\$m	\$m	\$m	\$m
N.S.W.	11.8	72	28,740	152.7	755.9	52.9	57.5	363.4	397.1
Vic.	9.0	17	18,225	98.6	374.8	26.9	27.9	136.5	239.3
Qld.	4.7	28	9,544	47.2	205.9	13.5	14.8	84.2	123.0
S.A.	3.0	16	6,532	34.0	106.5	8.8	9.2	29.2	77.7
W.A.	2.7	48	4,606	22.9	82.3	7.5	7.8	22.9	59.7
Tasmania	1.0	5	2,971	14.7	47.5	5.0	5.3	2.2	45.7
Total Australia ..	32.9	193	71,187	373.0	1,592.1	114.8	122.8	648.0	952.1

(a) Establishments producing and/or distributing. See special definition of *establishment* in preceding text.

(b) In some states electricity is produced by undertakings other than those which distribute it. In these states sales of electricity are duplicated due to the inclusion of bulk sales to distributors in addition to retail sales. Sales figures for N.T. and the A.C.T. are not available for separate publication; therefore the territories have been included only in the total.

(c) Sales, transfers out and other operating revenue.

(d) Purchases, transfers in and selected expenses.

INDUSTRIAL DEVELOPMENT

Source of Data

In normal circumstances, the Bureau of Statistics does not publish information relating to any single enterprise or establishment, and treats any such information it collects as strictly confidential. It does, however, publish statistical aggregates where they do not directly or indirectly reveal the operations of any single informant.

A description of industrial growth without mentioning individual organisations is not very illuminating; therefore, the *State Directorate of Industrial Development and Trade* has prepared the following section and accepts responsibility for the information given, while in the section describing 'Selected Tasmanian Industries' the firms included have provided the information published.

Primary-Secondary Relativity

Prior to World War II, there were few large manufacturing establishments in Tasmania. The economy of the State was dominated by primary industries which, in 1938-39, accounted for 60 per cent of the net value of production of all recorded industries.

By today's criteria, pre-war operations of manufacturing establishments were on a small scale but some enterprises have since emerged as national leaders in particular fields. Despite the limitations of geographical isolation and a relatively small domestic market, the State went through a period of important industrial development following World War II; the cessation of hostilities released a world-wide demand for goods and services, and a number of new Tasmanian factories were established to take advantage of the situation.

Post-war expansion of factory activity has made the State an important supplier of manufactured goods and processed materials. Major factories which have been established since World War II include producers of chemicals, wood pulp, textiles, processed foods, industrial equipment, refined aluminium, manganese alloys, iron ore pellets and woodchips.

Tasmania as a Site for Industry

The State has certain advantages which have attracted new industrial enterprises. The principal factors are:

Hydro-Electric Power: This is described elsewhere in this chapter and it is therefore sufficient to mention the need of power-intensive industries for cheap bulk electricity (e.g. in metal smelting and refining, heavy chemicals, paper and paper pulp making).

Water Resources: In some parts of the world, water resources are inadequate; shortage of water and the high cost of conservation, re-use and 'purification' have become major problems in the expansion of industry. This is definitely not the situation in Tasmania where water is abundant. The terrain favours the economical construction of high-level storages, while run-of-the-river pumping schemes are feasible at many sites.

Industrial Land, Harbours and Shipping: Cheap land, and its proximity to deep-sea ports are factors influencing the expansion of industry in the four main centres of population: Hobart, Launceston, Burnie and Devonport.

The associated ports are served by overseas ships and by interstate ships using modern roll-on roll-off and containerised cargo techniques.

Legislation and Government Assistance: The policy of the State Government is to promote the establishment and growth of secondary industries in Tasmania, as provided by the *Industrial Development Act 1954*. This Act is administered by the Director of Industrial Development and Trade under the Minister for Industrial Development.

The Directorate gives advice, information and assistance on a wide range of important industrial matters, and is empowered to provide financial assistance, including loan guarantees, with the object of helping establish new industries or expanding those in operation.

Major Industries

The following lists major factories operating in Tasmania:

Aluminates Tasmania Pty Ltd, Heybridge: This company has recently established a chemical plant at Heybridge to produce sodium aluminate, zinc oxide and alum sulphate.

Associated Pulp and Paper Mills: This group of companies is a major Australian integrated forest products complex and Australia's principal producer of fine printing and writing papers, magazine papers and coated papers. In Tasmania the company operates major manufacturing complexes at three centres: (i) *Burnie*—where it commenced paper production in 1938; present annual capacity of the Burnie plant is 121,000 tonnes. Hardboard is also produced at the Burnie complex by the associate company Hardboards Australia Ltd. (ii) *Wesley Vale*—In 1970 the first stage of an integrated pulp and paper complex was completed when the first paper machine commenced production. The machine has an annual capacity of 35,500 to 41,000 tonnes of paper. Production at Wesley Vale is mainly of magazine papers. A particle board factory, run by the subsidiary Burnie Timber Pty Ltd, also operates at Wesley Vale; annual production exceeds 2.5m square metres. (iii) *Long Reach*—A.P.P.M. completed its woodchip plant in mid-1972 and made its first export shipment in late 1972. The company has two contracts for the export of woodchips to Japan: (a) 610,000 tonnes per annum from 1972 to 1983; (b) an additional 305,000 tonnes per annum from 1973 to 1978.

Australian Glass Manufacturing Co. (Hobart): This company is an operating unit of Australian Consolidated Industries Ltd., and has been manufacturing glass containers in Tasmania since 1949. Current capacity is up to 50 tonnes of glass containers a day. A plastic blow moulding plant was established in 1972 to produce containers.

Australian Newsprint Mills Ltd (Boyer): The first paper machine, with a capacity of 27,400 tonnes per annum, began operating in 1941; a second machine, installed after the war, increased capacity to 95,500 tonnes of newsprint per annum; the third machine was commissioned in 1969. Annual production is now about 205,000 tonnes. The company meets approximately 45 per cent of Australia's newsprint requirements.

Australian Paper Manufacturers Ltd (Port Huon): Production began in 1963, with an initial capacity of 25,400 tonnes of pelletised wood pulp per annum; capacity has now been lifted to 80,000 tonnes.

British Carpets (Aust.) Pty Ltd (E. Devonport): The first piece of Tasmanian carpet was woven in 1961. Since then a spinning and dyeing plant has been installed (1965) and additional looms have been progressively introduced. In 1972 a five-year expansion programme was commenced to double production capacity.

Cascade Group of Companies: Operates the Cascade Brewery in Hobart (established in 1824), the Boag's Esk Brewery in Launceston and cordial, fruit juice and apple cider making companies. Installation of new fermenting units at the Cascade and Esk breweries has substantially increased beer production capacity.

Cadbury Schweppes Australia Ltd (Claremont): In 1921 an association of three British confectioners established their Australian plant at Claremont, near Hobart. Today, the plant is the largest cocoa and confectionery factory in Australia. Following a takeover in 1967, MacRobertson (Australia) Ltd became a subsidiary of Cadbury Fry Pascall Australia Ltd. In 1971 Cadbury Fry Pascall Australia Ltd merged with Schweppes (Australia) Ltd. A plant has recently been installed at Claremont for apple juice extraction and concentration for export.

Coats Patons (Aust.) Ltd (Launceston and George Town): This company first produced yarns in Launceston in 1923 with a staff of 130. Steady expansion followed, involving expenditure of more than \$7m in recent years, and the company employed about 1,900 at its Launceston and George Town mills.

Comalco Aluminium (Bell Bay) Ltd: The production of aluminium commenced in 1955 at a plant erected with Australian Government funds (with State Government participation). The present company was formed in 1960 to buy out the Federal Government's interest. Production capacity has grown from 13,000 to 95,600 tonnes of primary aluminium a year. A \$20m expansion programme, scheduled for completion in 1975, will increase production capacity to 114,500 tonnes a year.

Comalco Aluminium Powder Pty Ltd (Bell Bay): This plant was established in 1968 to produce aluminium powder and paste and is capable of supplying the whole of Australia's requirements. Plant capacity is approximately 700 tonnes per annum and work is under way to double this.

Commonwealth Industrial Gases Ltd: Recent expansion enabled this company to produce and supply a wide range of industrial and medical gases from branches in Hobart, Launceston, Burnie and Devonport.

Edgell (Division of Petersville Ltd) (Devonport and Ulverstone): Is Tasmania's leading producer of processed vegetables. Combined factory intake of vegetables for both centres, is about 64,000 tonnes per annum.

Electrolytic Zinc Company of Asia Ltd (Risdon): Established in 1916, the factory at Risdon is now one of the largest electrolytic zinc plants in the world. The company produces zinc and zinc alloys, cadmium, sulphuric acid, superphosphate, sulphate of ammonia and aluminium sulphate. Output from the company's mining complex at Rosebery is 610,000 tonnes of silver-lead-zinc ore per annum. Production of refined zinc has doubled over the last 20 years; output in 1972-73 was 193,782 tonnes. The zinc plant supplies a large proportion of Australia's total requirements.

Goliath Portland Cement Company Ltd (Railton): Formed in 1928 to take over a small plant, the company began production in 1930 with an output of 66,000 tonnes of cement a year. Annual production capacity increased to about 100,000 tonnes by the end of the decade and was more than 200,000 tonnes by 1956. Plant expansion in 1967 lifted annual production capacity to over 500,000 tonnes.

James Nelson (Aust.) Pty Ltd (Launceston): Established in 1951, the company now produces a wide range of fabrics for women's and men's apparel, rainwear, household furnishings, typewriter ribbons, computer tapes, decorative ribbons, banners and blanket bindings, as well as fabrics for industrial uses. It also specialises in parachute fabrics. The company is a member of the Courtauld's Group.

J. C. Hutton Pty Ltd (Launceston): Commenced operations in Tasmania in 1906; produces ham, bacon, smallgoods and is a leading meat exporter.

Kelsall and Kemp (Tas.) Ltd (Launceston): From small beginnings in 1921, the company has become a leading producer of woven fabrics in the Australian textile industry.

Lactos Pty Ltd (Burnie): A \$1.25m cheese manufacturing unit was opened early in 1973 to supply 1,000 tonnes of Gouda cheese annually to Japan. This initial order has been increased and other types of cheese have been added. The company plans to increase production to more than 5,000 tonnes for the 1973-74 season.

Longford Meat Company (R. J. Gilbertson Pty Ltd) (Longford): Produces boned beef and mutton for export. The company employs about 200 persons.

Northern Woodchips Pty Ltd (Long Reach): The Long Reach plant is designed with capacity in excess of firm contractual commitments as a provision against future growth in the woodchip export market. Present contracts are for the export of more than 9.1m tonnes of woodchips over a 15-year period. The first export shipment took place in 1973.

North-West Acid Pty Ltd (Burnie): Established in 1970 to process pyrites from the west coast, the \$14m plant has an annual production capacity of some 427,000 tonnes of sulphuric acid.

Repc Bearing Company Pty Ltd (Launceston): In 1949 this company was established to manufacture engine bearings for the Australian automotive spare parts trade. The factory has since expanded and diversified the range of products. There was significant expansion in 1973 and further growth is planned. The company now employs more than 700 persons.

Savage River Mines (Pickands Mather and Co. International Managing Agent): Established at a cost of \$80m, the Port Latta iron ore pelletising plant commenced operation in 1968. Annual production is about 2.5m tonnes of high-grade iron ore pellets. The entire production is sold to Japanese steel mills.

S. P. Holman and Sons Pty Ltd (Devonport): Is one of Tasmania's principal slaughterers of livestock for export. Employment is about 90 persons.

Tasmanian Electro Metallurgical Co. Pty Ltd (Bell Bay): The Broken Hill Co. Pty Ltd established a plant in 1962 to produce high carbon ferro-manganese for the Australian steel industry, with an initial annual output in excess of 26,000 tonnes. A current \$28.5m expansion programme will increase capacity from 77,000 tonnes to about 154,000 tonnes of ferro-manganese and silico-manganese a year.

Tasmanian Pulp and Forest Holdings Ltd: In early 1971 the company made its first export shipment of woodchips from its Triabunna plant to Japan. The company has a 15-year contract to supply 610,000 tonnes of woodchips per annum to Japan.

Tas. Meats Limited (Somerset): A \$0.8m beef processing establishment was completed in early 1973. The plant has a production capacity of 160 cattle a day.

The Stanley Works Pty Ltd (Moonah): This company was incorporated in 1963 and is jointly owned by the Stanley Works, United States of America, and the Titan Manufacturing Company Pty Ltd (a B.H.P. subsidiary). The Australian member of the new company, Titan Manufacturing Company, in 1945 commenced operations in Hobart making nails and barbed wire, later diversifying to produce wood chisels. The Stanley Works Pty Ltd now produces a wide range of hand tools.

Tioxide Australia Pty Ltd (Burnie): Production of titanium dioxide pigments began in 1948 with a plant capacity of more than 1,500 tonnes per annum. Current production capacity is 25,400 tonnes.

Tootal of Australia (Devonport): First operations in 1952 used piece-goods imported from the U.K. to make textiles. The company now manufactures a wide range of woven and knitted fabrics from man-made fibres.

United Milk Products (Smithton): Is one of the State's principal producers of butter, milk-powder, casein and cheese. Annual butter production is about 3,500 tonnes. Casein is exported to Japan, U.S.A. and Europe. The company also operates an abattoir—it is a leading bacon producer.

Universal Textiles Australia Ltd (Derwent Park): This company is part of the textile division of the Dunlop (Aust.) Group. The Hobart manufacturing division commenced operations in 1948. Additional machinery has since been installed and the company now supplies printed fabrics in silk, polyester, nylon, rayon and cotton fabrics. Production also includes woven fabrics for light furnishings, apparel and sailcloth, as well as printed sheets and shower screens.

Wander (Aust.) Pty Ltd (Quoiba): Established in Tasmania in 1942, the Quoiba unit has become one of the largest 'Ovaltine' factories in the world. The factory is equipped to manufacture all types of malt extract to specification, as well as a range of dietetic products.

Wattie Pict Ltd (Scottsdale): Wattie Pict Ltd acquired Kraft Foods Ltd's Scottsdale vegetable processing operation in 1974. The company intends to increase and diversify production at the plant.

SELECTED TASMANIA INDUSTRIES

The following account of Tasmanian manufacturing activities has been prepared from information made available by the companies concerned.

Tasmanian Pulp and Forest Holdings Ltd

Triabunna Woodchip Project

History

Tasmania's first woodchip export project, Triabunna-based Tasmanian Pulp and Forest Holdings Ltd, was established by a group of Tasmanian sawmilling companies whose directors believed a switchover to integrated forest management and more scientific utilisation of all grades of available timber was essential to the long term survival of the State's timber milling industry. The initial feasibility study for the project, begun in April 1967, was based on the low-grade Crown forests of Tasmania's east coast—which were of too poor a quality for normal commercial usage, apart from a small and steadily declining quantity of millable timber, mostly uneconomically located in difficult access areas. The *Pulpwood Products Industry (Eastern and Central Tasmania) Act* 1968 enabled the company to finalise the details of a preliminary contract, already negotiated at a world record price, for supply of 610,000 tonnes of woodchips annually to Mitsui (Australia) Ltd for shipment to the Jujo Paper Co. in Japan.

Two special bulk carriers of 42,000 tonnes deadweight, the *Nego Triabunna* and the *Silviculture*, were specially built to carry the woodchips to Ishinomaki, in Northern Japan. Each vessel makes about 10 round trips a year, taking two and a half days to load, three to discharge and 14 sailing days on each northbound and southbound voyage. The first shipment was made in April 1971, and to December 31 1973, a total of 48 shipments had been made, involving a total woodchip export of approximately 1.4m tonnes. During the first two years of operation, considerable modifications were made to the Triabunna mill, to enable T.P.F.H. to increase chip production and meet maximum ship loading schedules. Modifications were also made to the Spring Bay loading facility. These have succeeded in cutting loading time for the ships from an initial four days to two and a half days.

Mill Operations

The daylight-only log deliveries service two mill shifts, with about half the intake going directly from trucks to mill and the remainder to the log yard for night-shift use. In a three-minute operation, a massive tow-motor lift truck with jawlike log clamps lifts the whole load from the jinker in one bite of up to 27,000 kg. Night shift logs are moved by rubber-tyred loaders, also fitted with log clamps, from the adjacent stockpile yard.

The mill has two pulpwood decks feeding a 390 cm chipper plus a sawmill residue deck servicing a smaller 152 cm chipper. The main log deck takes logs up to 10.5 m in length and up to two metres diameter while the second deck takes the barkless logs, by-passes the bark-removing and breaking down equipment and feeds direct to the large chipper. Logs fed on to the main log deck pass under a cut-off saw which cross cuts crooked and large-diameter logs (those too large to fit directly into the mouth of the large chipper). The shortened large-diameter logs are then broken down before chipping.

As necessary logs are de-barked by a hydraulic bark removing machine, using seawater from the adjoining Spring Bay. The machine can rip the bark from three seven metre long logs a minute. According to size, the logs are then routed either direct to the large chipper or via the breaking down unit (for reduction to smaller 'flitches'). The flitches are fed back into the main conveyor line to the chipper, with waste heart material kicked off into a holding area for disposal.

The main chipper digests material at the rate of 38 metres a minute and can accommodate logs or flitches of up to 914 mm diameter. The chipper is powered by a shaft-mounted 1,860 kilowatt synchronous motor, compared with the 300 kW motor of the smaller chipper which handles short timber, billets and sawmill residue. The material produced by both chippers is passed over four oscillating screens fed from specially designed overhead surge bins on a metering system which controls the flow of chips to the stockpile. While acceptable chips automatically fall onto the conveyor belts, oversize material is re-routed to a separate re-chipper while rejects are sorted out and disposed of by burying. The stockpile area holds up to 100,000 tonnes of green chips, which can be piled to a height of about 12 metres. A crawler tractor equipped with a specially designed 15 cubic metre capacity chip blade is used to evenly distribute the chips.

During shiploading chips are metered directly onto a 150 cm wide conveyor line to the ship, and from the conveyor drop into two feeders mounted in a loading tower on the wharf. A pneumatic system conveys chips into the ship's hold and provides compaction. The average loading rate is 625 tonnes an hour. As each hold is filled, the ship is winched past the loading tower by adjustment of the lines which are attached to the wharf dolphins.

Quality control is continuously maintained and careful checks are undertaken during loading, using samples from every 101.6 tonnes (100 tons) of chips to assess average moisture content, percentages of fines, dust, knots, extraneous matter and freedom from charcoal.

Forest Operations

T.P.F.H. works through a group of prime contractors, in preference to employing its own forest work-force and now has 20 who are logging in a variety of locations from Nugent and the Army Impact Area at Buckland in the south-east to Lake Leake and Tooms Lake in the north-east. The contractors employ about 250 forest workers and drivers, operate heavy equipment valued in excess of \$5m, and deliver 15,000 tonnes of pulpwood a week to the Triabunna mill.

Another group of contractors is engaged full-time in constructing the company's private road system. Since 1970, these contractors, under the supervision of the company's forest management division, have built 112 kilometres of high-standard all-weather gravel roads to carry the heavy log trucks. The most recent of these road projects is a 45-kilometre stretch between Little Swanport and Lake Leake—now being extended to the Royal George district.

Since the forest programme began in January 1970, T.P.F.H. has harvested over 7,000 hectares of Crown forest. The whole of the area already logged within the actual concession is being progressively regenerated by the State Forestry Commission, the most recent re-seeding programme being undertaken in late 1974.

The average yield per hectare in the various cutting 'coupes' (carefully spaced individual felling areas of up to 400 hectares) has been higher than the Forestry Commission's original estimates of usable timber from the east coast forests. (These forests are technically classified as 'stagnant forest of poor to medium quality with remaining trees over-mature'.)

Rainfall in the concession area varies from 750 mm to 1,250 mm annually and the ratio of sawmilling grade timber to pulpwood obtained each year is about 31,000 m³ to 472,000 m³ (The sawlog specification, designed to prevent chipping of millable timber, is 'good form, reasonable freedom from defects and diameter of not less than 406.4 mm at breast height'.) Regular government and company checks are made to ensure that the specifications are observed. About 75 per cent of the company's annual raw material requirement is drawn from its Crown forest concession areas and the remainder obtained from sawmill waste and private land holders. T.P.F.H. is also purchasing suitable properties as these become available, with a view to establishing its own 'model' tree farms.

An average of 160 log loads passes over the company weighbridge each day, equivalent to a log truck every 4½ minutes. A 50-tonne capacity scale at the weighbridge automatically records in and out weight and identification data and the operator collects from each truck driver a despatch docket showing the type of load (with bark, without bark, sawmill residue, chips, etc.) source and other identifying details. At December 1973, the trip distance travelled by the log trucks varied between 19 km and 145 km. As new sections of road are completed and new areas of the Crown concession (about 300 km by 40 km) opened up, average distances will gradually increase, requiring a corresponding lift in the number of trucks required to continue operations.

It is estimated that T.P.F.H. will need to cut coupes equivalent to approximately one and a half per cent of its total timber concession area annually to meet its contract requirements. As the road network is extended, the cutting areas will be spaced progressively farther apart. This, combined with developing regrowth forest on cut-over areas, should do much to allay fears of 'disappearing' forests and establish a more informed awareness of the volume and regenerative power of eucalypt resources.

Associated Pulp and Paper Mills Ltd, Long Reach

Woodchip Operation

Introduction

Associated Pulp and Paper Mills Ltd was formed in 1936 to establish a wood pulp and paper industry in Tasmania, and elsewhere, using Australian hardwoods. It is now a major Australian integrated forest products group with a total investment in Tasmania of about \$100m and is the leading producer of fine printing and writing papers, magazine papers, coated papers and special wrappings.

Operations

The group's operations include: logging; woodchip export; limestone quarrying; clay mining and processing; production of sawn timber, particle board and hardboard for building materials; paper conversion; and farming.

Tasmania: Although A.P.P.M. has substantial production and marketing activities on the mainland, the bulk of its activities are located in northern Tasmania, concentrated in the north-western and Tamar regions. These include paper production, forestry and building materials operations at Burnie, a pulp and paper mill at Wesley Vale, near Devonport (where there is also a particle board mill), and sawmilling and export woodchip operations at Long Reach, 37 kilometres from Launceston.

Long Reach Woodchip Mill

A.P.P.M.'s Long Reach complex, established at a cost, including working capital, of almost \$13m, is part of an integrated forest usage project. Negotiations with the Tasmanian Government in 1961 gained for A.P.P.M. the right to establish a forest products industry at Wesley Vale utilising pulpwood timber on about 400,000 hectares of Crown forest in northern and north-eastern Tasmania. The first two stages of the Wesley Vale complex, a particle board plant and fine grade paper mill (with associated pulp mills) have been completed. The company is now in the preliminary planning stage of a \$120m expansion of the pulp and paper plant based on the woodchips now exported to Japan from Long Reach under two contracts, one of which terminates in 1978. The Long Reach woodchip export facility was established by the company partly as an interim measure to utilise previously wasted raw material, mainly from the Wesley Vale concession area, until expansion of the pulp and paper plant was economically viable.

Lengthy negotiations with Japanese purchasers, Mitsubishi Shoji Kaisha and Sumitomo Shoji Kaisha culminated in 1970 in a contract for the export of approximately 590,000 green tonnes of woodchips a year. Subsequently A.P.P.M. negotiated another export contract for an additional 295,000 green tonnes a year to the same companies. Total sales value of the contracts is approximately \$150m. Shipping of woodchips from Long Reach commenced in September 1972 and up to May 1974, 1,527,000 tonnes of chips had been exported.

Approximately 65 per cent of timber supplies for the operation come from Crown forest concession areas, the remainder from private supplies and saw mill waste. One benefit of the woodchip projects is that it has made integrated logging operations possible enabling maximum resource utilisation. Before establishment of the Long Reach facility an estimated 94,500 cubic metres of timber was wasted in the Wesley Vale concession area alone. This material is now utilised together with private log supplies, sawmill waste and a certain amount of 'second grade' forest previously burnt during initial pine plantation site preparation.

Mill Operations

Average road haul for log supplies to Long Reach is 120 kilometres while a significant quantity is railed up to 320 kilometres from north-western Tasmania. Each load of logs is given a quality control check at the plant's weighbridge and rejected logs returned.

Depending mainly on size, the logs are segregated and stored for up to three months in a 46,000 tonne capacity storage area. Before being fed into one of two (390 centimetre and 244 centimetre) chippers, logs, as necessary, are de-barked, docked and broken down. The large chipper's maximum production capacity is 1,680 tonnes an hour and that of the smaller chipper 1,190 tonnes. Both chippers feed into a common chip bin which also takes chips delivered by private suppliers. After screening to remove over and undersize material the chips are fed by a 460-tonne per hour capacity belt conveyor either direct to the ship loading tower or via a feeder to the chip stockpiles.

Pneumatic systems are used to feed the two stockpiles and to load ships. The stockpiles hold a total of 112,000 tonnes of chips. When loading, it is possible to route the chip mill's production direct to the vessel. Loading rates in excess of 710 tonnes an hour have been achieved.

Wharf Facility: Minimum depth of water at the wharf is 11.3 metres. The berth is 229 metres long and can handle vessels of up to 54,000 deadweight tonnes with a capacity of 42,800 tonnes of chips. Ships are loaded by a pneumatic boom which is laterally movable and telescopic.

Northern Woodchips Pty Ltd**Long Reach Operation***Introduction*

Northern Woodchips Pty Ltd was established in 1969; currently the company has export contracts for supply of about 9m tonnes of woodchips to Japan over a 15-year period. To service this contract the company is dependent entirely on privately owned land for the supply of logs for chipping. A condition of the company's export licence agreement is a reforestation programme involving at least 2,000 hectares a year for 10 years of the present contract.

Work first commenced on Northern Woodchip's Tamar River site at Long Reach in 1970 and major construction was completed in 1972, involving expenditure in excess of \$7m on plant, machinery and ancillary equipment. During 1973-74 a further \$0.5m was invested in the installation of a waste chip mill at the Long Reach site and purchase of mobile chipping units.

Long Reach Woodchip Plant

The main chipper operated by Northern Woodchips is a Canadian-made vee-drum unit fitted with six sets of revolving blades and is the only one of this type in Australia (other woodchip operations use disc-type chippers). Two 1,100 kw motors capable of synchronous or individual operation, drive the chipper which, at full production, can process about 3,000 tonnes of logs a day (in three shifts). Logs to a maximum diameter of 70 centimetres can be processed but larger logs have to be broken down before chipping.

Logs are fed into the chipper from the stockpile by a live log deck (chain driven) and a log haul line which features: (i) a cut-off saw to break down irregular shaped logs; (ii) an automatic metal detector which activates a reject system, as necessary; and (iii) a recycling 2,960 kilopascal log wash to remove mud and other foreign matter.

From the chipper the chips are fed through a system of conveyors and screens to the stockpile. Chips are stockpiled mechanically by a 25-metre high stacker which has an 18-metre long boom capable of slewing through 270°. The boom is equipped with a 'jetslinger' to spread the chips. However, if the 'jetslinger' breaks down, chips can be stockpiled from the boom by gravity. During loading operations chips can be conveyed directly to the ship bypassing the stockpile procedure.

The vessels are loaded by a high-speed blower which discharges chips through a rotating distribution head designed to spread and compact them evenly, completely filling the holds. Average loading time is about 60 hours.

Supply of Raw Material

Northern Woodchips obtains logs entirely from privately owned land. Supply contracts have been made with landholders with properties from 14 to 200 kilometres from the Long Reach facility. Since the opening of the Bell Bay rail link supply from outlying areas has become economical.

In dealing with landholders the company evolved methods of computing the amount of logs to be harvested. Contract prices are based on these appraised quantities according to location, terrain and the contractual period which may vary from one to 15 years. Rates of payment also vary according to performance by the owners, i.e. landowners who do their own logging and transport, those who fell and haul logs to a dump for pick-up by contractors and those whose logs are entirely processed by the company.

Felling operations are also carried out on land leased to the company for reforestation and trial plotting.

Some raw material also comes from saw mill waste either delivered to the plant for processing in the waste chip mill (which was installed in 1974) or chipped by mobile units in the field.

Bark disposal problems at Long Reach are avoided by having all logs debarked in the forest. The bark is burnt as part of the site clearance programme before logged areas are replanted.

Reafforestation

Under the terms of its export licence agreement Northern Woodchips is committed to a programme of replanting about 2,000 hectares a year over a 10-year period starting in 1976. However, the company has already commenced a large reafforestation programme both on its own land and in co-operation with private landholders. The system used involves propagation, replanting and selective fertilisation at various stages of growth and aims at bringing trees to millable maturity in 15 to 20 years. Tests have shown that with carefully controlled fertilisation schedules, saplings have achieved almost two metres of growth in 18-20 months.

Seeds are first sown in small cardboard tubes filled with a specially prepared mixture. When propagated the seedlings are planted at the company's Bridport nursery and later replanted in the regeneration area, rapid growth being achieved during seedling and sapling stages with the selective fertilisation method. A major benefit of this regeneration system is that forest composition can be controlled. The company has found that about 230 trees can be grown per hectare and the rapid maturity rate makes tree farming a more viable proposition.

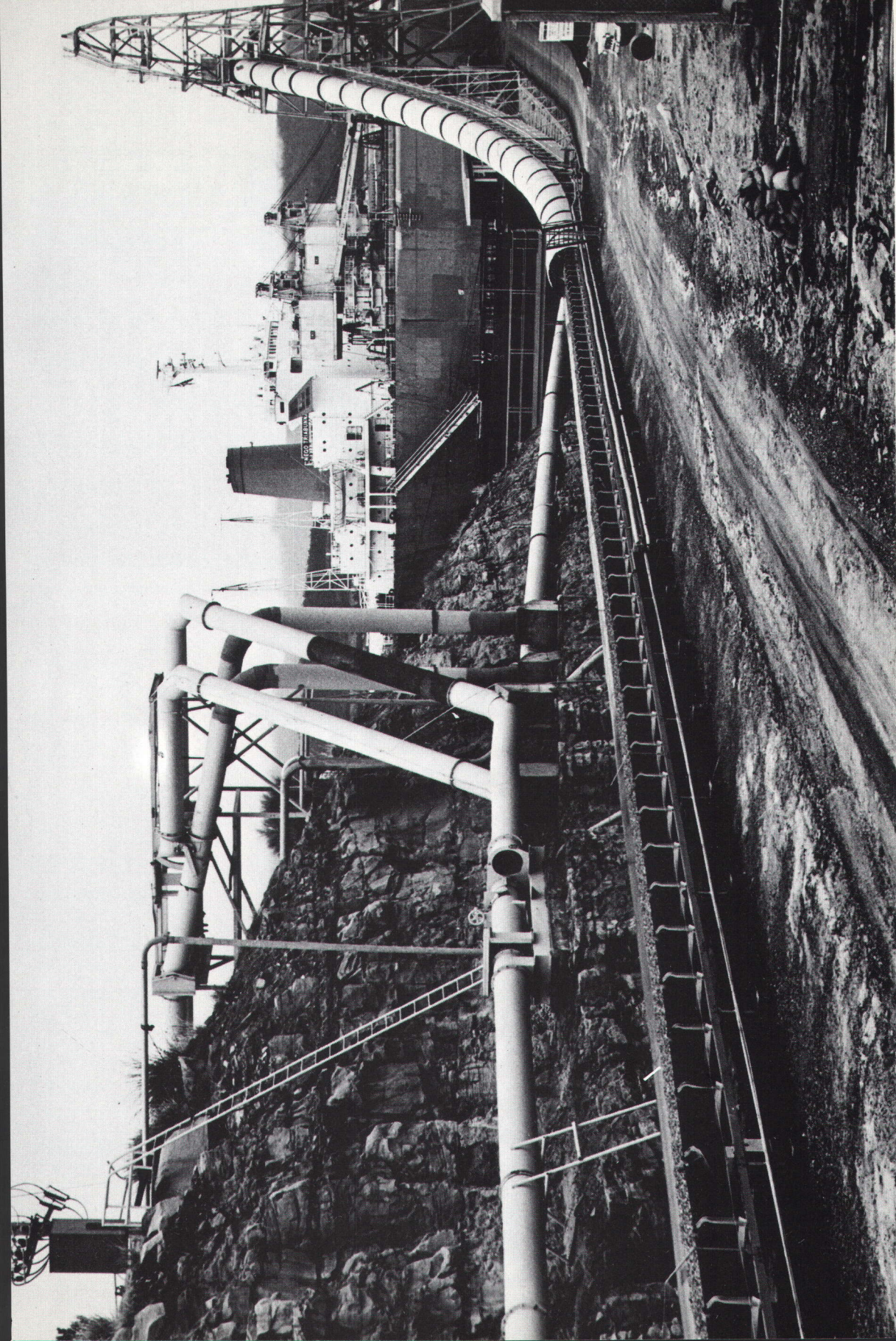
GOVERNMENT HYDRO-ELECTRIC POWER

Output and Capacity of Hydro-Electric System

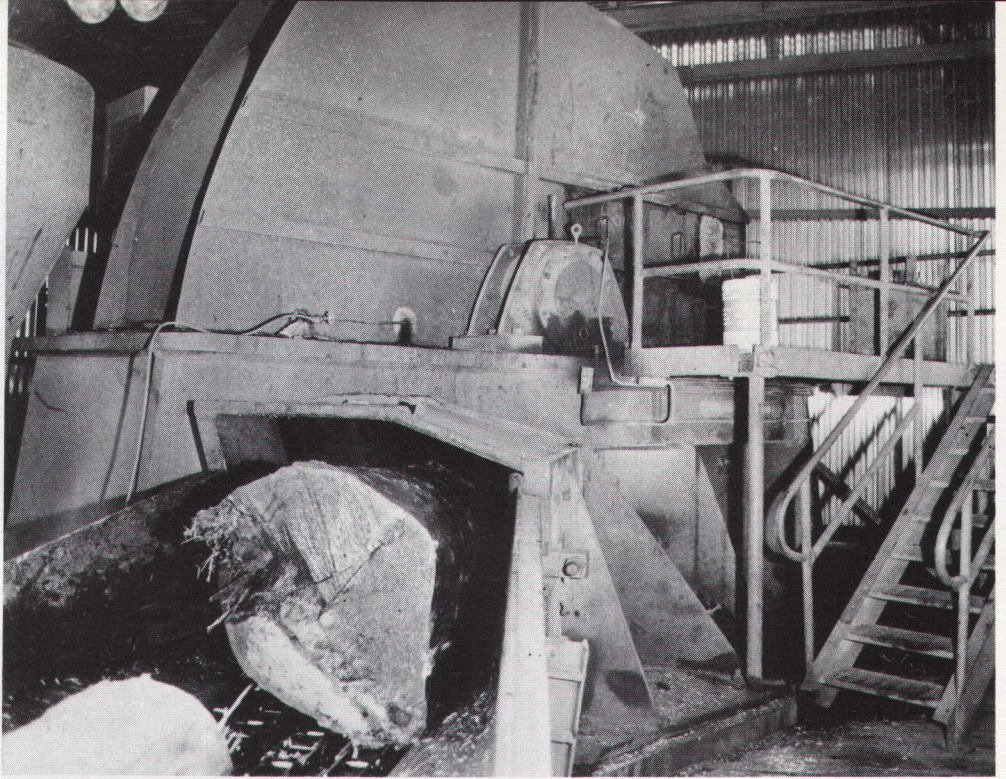
The following table outlines the development of the Tasmanian generating system:

Tasmanian Power Generating System

Station	Year of commission	Head (in metres)	Generator capacity (kW) (a)	Assessed annual capacity (million kWh) (b)
COMPLETED STATIONS				
Waddamana 'B'	1949	344	48,000	(c)
Tarraleah	1951	299	90,000	606
Butlers Gorge	1951	56	12,200	71
Trevallyn	1955	126	80,000	542
Tungatinah	1956	306	125,000	557
Lake Echo	1956	173	32,400	76
Wayatinah	1957	62	38,250	278
Liapootah	1960	110	83,700	459
Catagunya	1962	43	48,000	263
Poatina	1965	829	250,000	1,329
Tods Corner	1966	41	1,600	13
Meadowbank	1967	29	40,000	210
Cluny	1967	16	17,000	93
Repulse	1968	27	28,000	161
Rowallan	1968	49	10,450	37
Lemonthyme	1969	159	51,000	284
Devils Gate	1969	69	60,000	298
Wilmot	1971	251	30,600	127
Bell Bay (stage 1)	1971	(d)	120,000	788
Cethana	1971	99	85,000	407
Paloona	1972	31	28,000	131
Fisher	1973	649	43,200	247
Total	..	..	1,322,400	6,977



Tasmanian Pulp and Forest Holdings Ltd's chip loading facility, Spring Bay



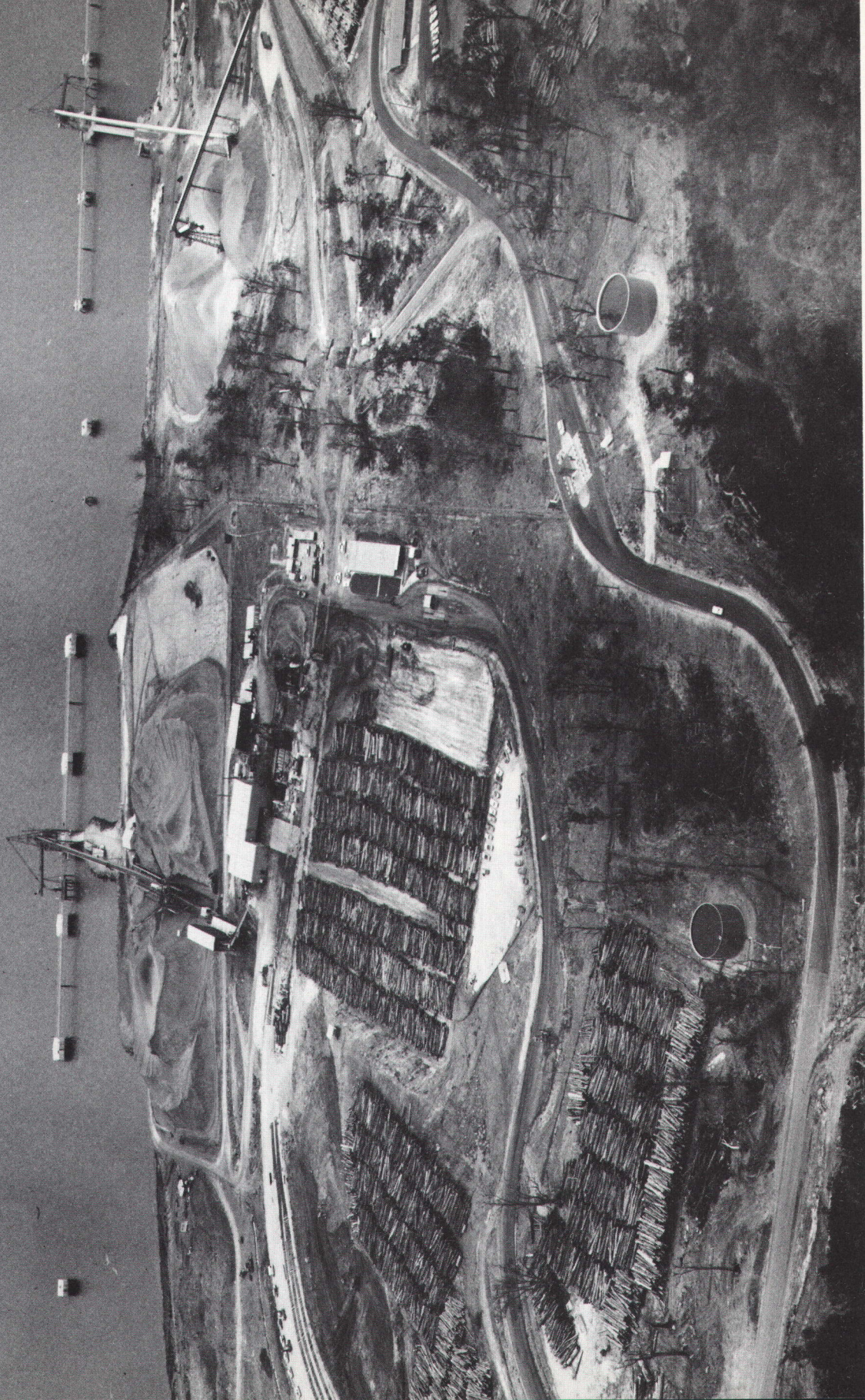
Log entering 3.9m chipper, Spring Bay

[Penny Cresswell and Associates]

Woodchips being loaded into ship's hold, Longreach

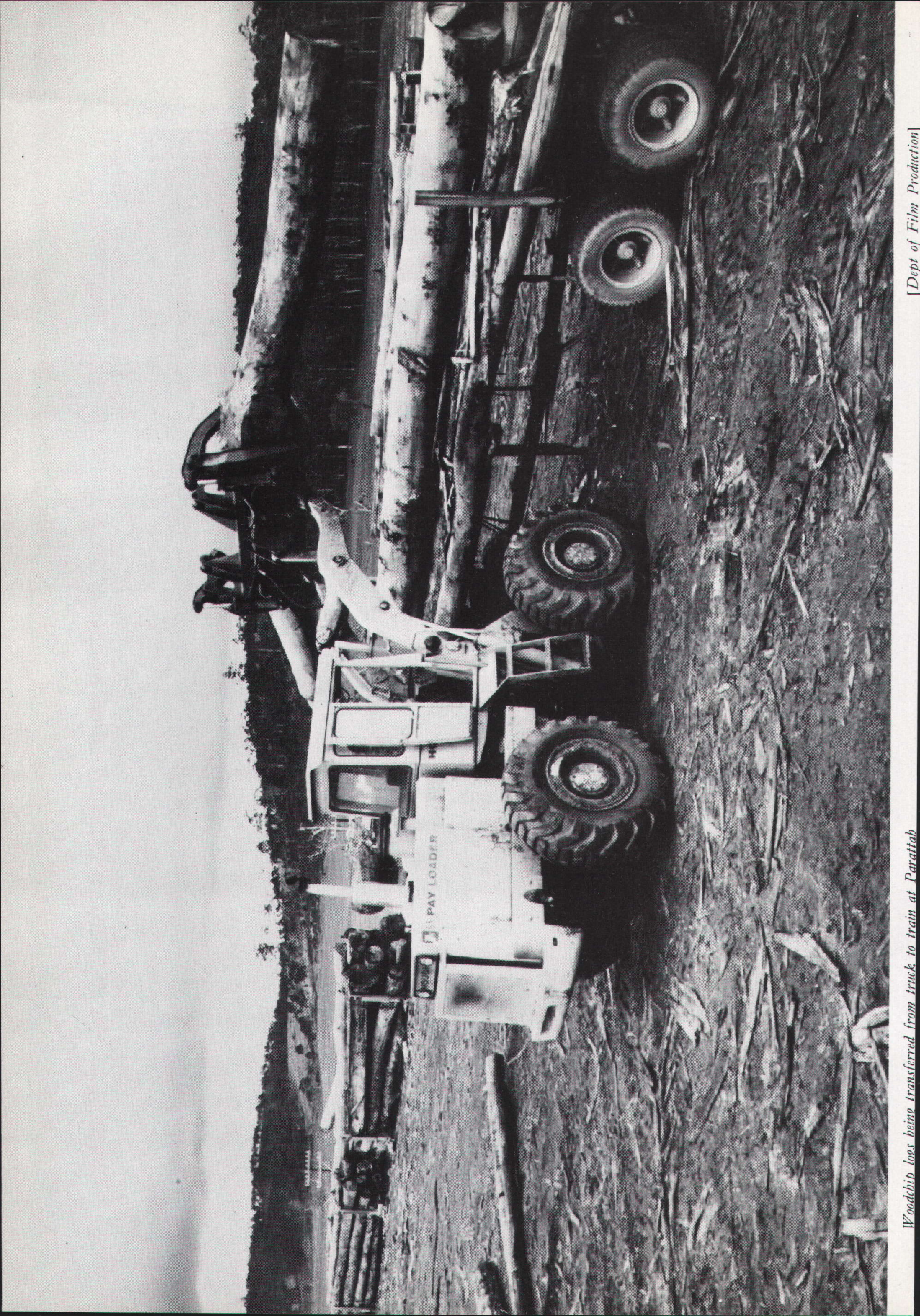
[L. Jensen]





The Longreach operations: Associated Pulp and Paper Mills' plant on the left, Northern Woodchips' plant on the right

[Dept of Film Production]



Woodchip logs being transferred from truck to train at Parattah

[Dept of Film Production]

Tasmanian Power Generating System—continued

Station	Year of commission	Head (in metres)	Generator capacity (kW) (a)	Assessed annual capacity (million kWh) (b)
STATIONS UNDER CONSTRUCTION				
Bell Bay (stage 2)	1974	(d)	120,000	r788
Gordon (stage 1)	1976	186	288,000	1,466
Total .. .. .	..	..	408,000	r2,254
ALL STATIONS				
Grand total .. .. .	..	..	1,730,400	r9,231

(a) Emergency gas turbine generating capacity: 20,000 kW at Bell Bay not included.

(b) Assessed annual capacity is based on simulated operation of the whole system for hydro-electric plant. The figures for thermal plant correspond to a capacity factor of 75 per cent.

(c) Reserve plant only.

(d) Thermal station.

Until 1971 Tasmania was unique among Australian states in that its electric power system was based exclusively on hydro-electric installations but in 1971 a thermal oil-fired station commenced operations at Bell Bay opening a new phase in the development of the generating system. Other Australian states rely principally on thermal plants while hydro-electric power, if available, is used only to supplement the basic supply. The Snowy River Hydro-Electric Scheme, which feeds power to the Victorian and N.S.W. grids, is not designed to cope with the base load demand in these states, and its essential function is to provide the extra power necessary to meet peak loads, and also to supply irrigation water to the inland. The Tasmanian system, despite its lower installed capacity, produces more power than the Snowy Scheme.

The concentration on water as a source of power in Tasmania has resulted in the need to follow a policy of water conservation, even though the rainfall is usually adequate. Emphasis in the power developments has been on the creation of large storages and multiple use of the impounded waters e.g. water from Lake St Clair may pass through eight power stations before reaching the tidal waters of the Derwent River at New Norfolk.

Hydro-Electric Development

Early Development

Hydro-electric power for public use was first introduced in 1895 with construction of the 450 kW *Duck Reach* station on the South Esk River near Launceston. This was a purely municipal supply and work on Tasmania's state-wide system did not begin until 1911 with the exploitation of the Great Lake catchment waters and diversion of the Ouse and Shannon Rivers.

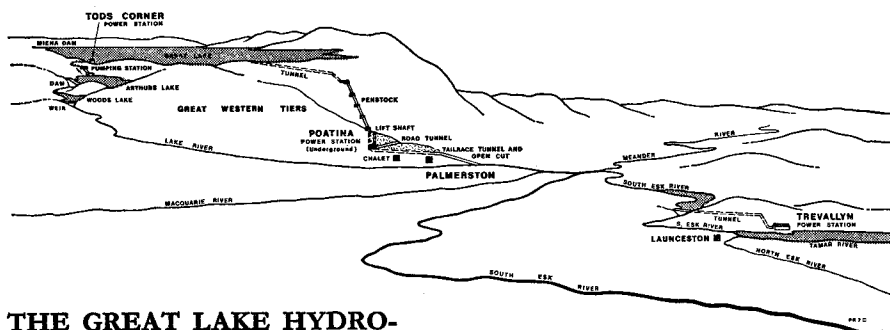
By May 1916 *Waddamana 'A'* station (7,000 kW), the first element of the Great Lake scheme, was commissioned. *Shannon* station was opened in 1934 and in 1944 the third element of the scheme, *Waddamana 'B'* station (48,000 kW) commenced generation. When *Poatina* station was commissioned in 1965, the *Waddamana 'A'* and *Shannon* stations were closed down, *Waddamana 'B'* being retained only for emergency and peak-load generation.

Subsequent Developments

(i) The *Tarraleah* scheme, drawing water from the artificial Lake King William, was commenced in 1934; the early elements of *Tarraleah* station first generated power in 1938. The capacity of *Tarraleah* was progressively expanded to 90,000 kW and the station was completed in 1951 with the installation of a sixth generator. *Butlers Gorge* station (12,200 kW), the second element of this scheme, commenced generation on the completion of the Clark Dam in 1951.

(ii) Built to regulate run-off from the extensive area between Great Lake and Lake St Clair, the 32,400 kW *Lake Echo* and 125,000 kW *Tungatinah* stations were commissioned in 1956.

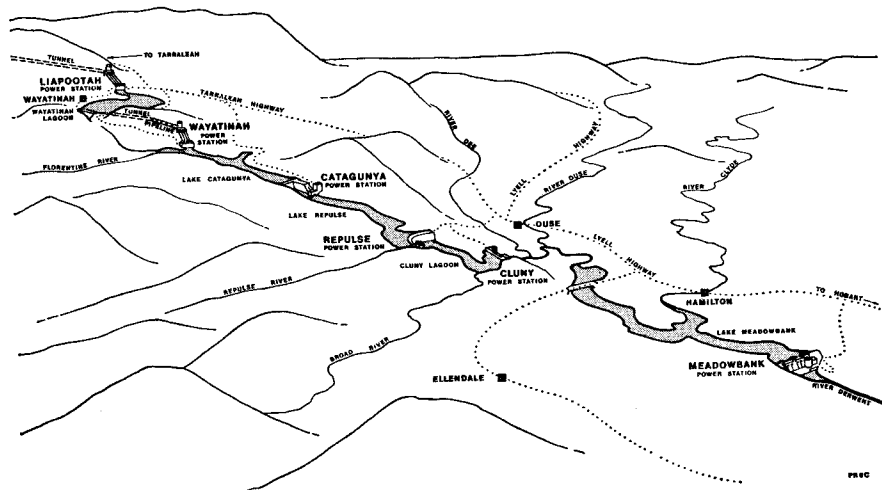
(iii) The *Poatina* station (250,000 kW), the largest of all the stations in the Tasmanian hydro-electric development, was completed in 1965. The station utilises the waters of Great Lake which have been diverted into the South Esk River system. The *Poatina* tailrace discharges into the South Esk River which feeds the run-of-the-river *Trevallyn* station (80,000 kW) located near Launceston. The following diagram shows the Great Lake scheme in detail:



THE GREAT LAKE HYDRO-ELECTRIC POWER DEVELOPMENTS

(iv) Two systems, the Upper and Lower Derwent Schemes, utilise the combined waters of the Derwent and its major tributaries, the Nive and Florentine. In the Upper Derwent system the *Wayatinah* station (38,250 kW) was completed in 1957, followed by the 83,700 kW *Liapootah* station (1960) and the 48,000 kW *Catagunya* station (1962). The lower Derwent stations *Meadowbank* (40,000 kW), *Cluny* (17,000 kW) and *Repulse* (28,000 kW) were completed during 1967 and 1968.

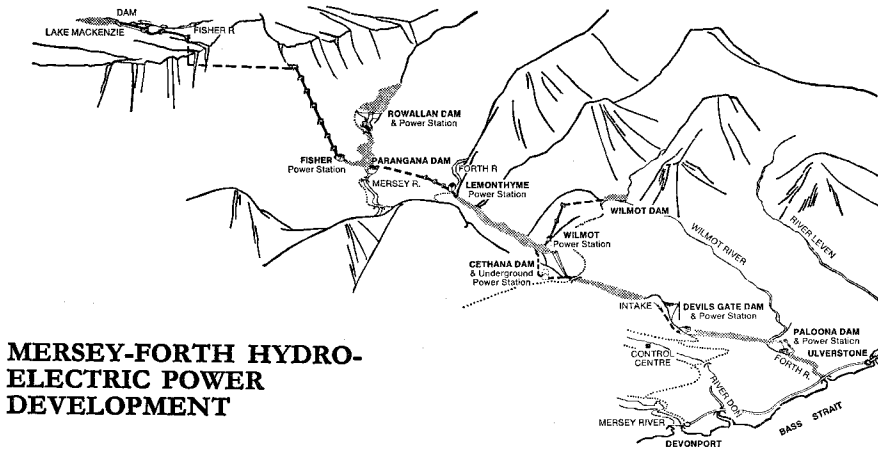
The following diagram shows the development of the power potential of the Derwent River catchment:



DERWENT RIVER POWER DEVELOPMENTS

(v) Construction of the Mersey-Forth power scheme in north-western Tasmania was completed in 1973. As shown in the next diagram the Fisher, Mersey, Wilmot and Forth Rivers have been exploited by a combination of seven power stations, seven large dams and three major tunnels together with associated penstocks, canals and flumes.

On the Mersey River, Lake Rowallan is of major importance as it provides the main storage of the development as a whole and regulates the water flow to the down-stream stations. Water flows through the *Rowallan* (10,450 kW) station and downstream to the Parangana Dam.



The second high-level storage in the scheme is derived from the development of Lake Mackenzie on the Fisher River. Water is taken by flume, canal, tunnel and pipeline to the *Fisher* (43,200 kW) station. Tailrace waters discharge into the Fisher River which joins the Mersey River just above the Parangana Dam. The Parangana Dam diverts waters of the Mersey and Fisher Rivers westwards by a tunnel and penstock to the *Lemonthyme* (51,000 kW) station on the Forth River.

Downstream, the waters of the Wilmot River are diverted to the east by tunnel to the *Wilmot* station (30,600 kW) located on the Forth River above the Cethana Dam.

The combined flows of all four rivers (Fisher, Mersey, Wilmot and Forth) are then used for power generation at three more power stations, all situated in the Forth Valley at the foot of dams at *Cethana* (85,000 kW), *Devils Gate* (60,000 kW) and *Palooona* (28,000 kW).

All seven power stations are designed for fully automatic operation and are remotely controlled from a centre near Sheffield.

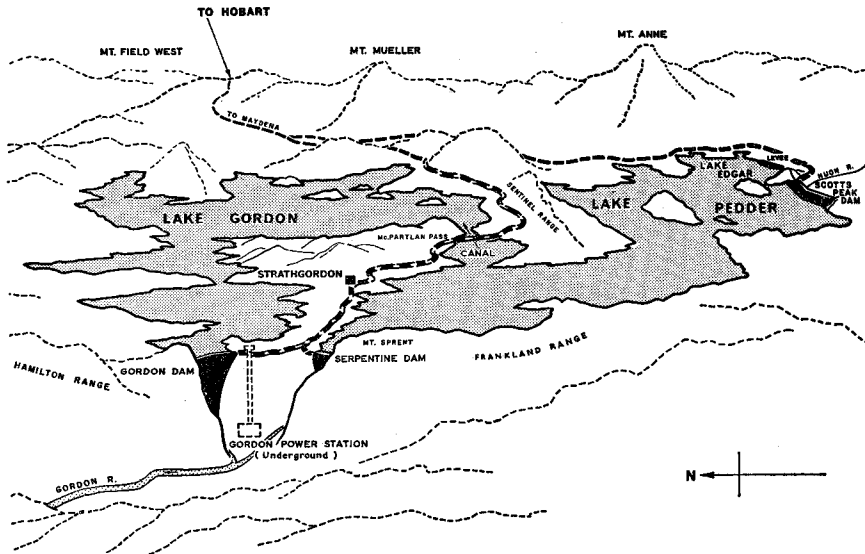
Present Developments

Gordon River Power Development—Stage 1: This development, to be completed by 1976, will create the largest water storage in Australia, seven to eight times the size of the Great Lake, and three times the size of Lake Eucumbene, the largest lake in the Snowy Mountains Scheme.

The Gordon River Power Development comprises two lakes, each with a surface area of about 520 square kilometres, joined by a canal. Lake Gordon will be created by a 137-metre high dam on the Gordon River. Two more dams, one on the Serpentine River and one on the Huon River, create an enlarged Lake Pedder.

From Lake Gordon water will be carried by a near vertical shaft to a power station 186 metres underground. The station will be reached from the top by lift and from the Gordon River Road by tunnel. It is designed to be operated by remote control from Hobart, 161 kilometres away.

The following diagram shows the essential features of the Gordon River power development:



GORDON RIVER POWER DEVELOPMENT

Bell Bay Thermal Station: Installation of the second stage of the Bell Bay oil-fired thermal station was completed in 1974. Power generation from the first stage commenced in February 1971.

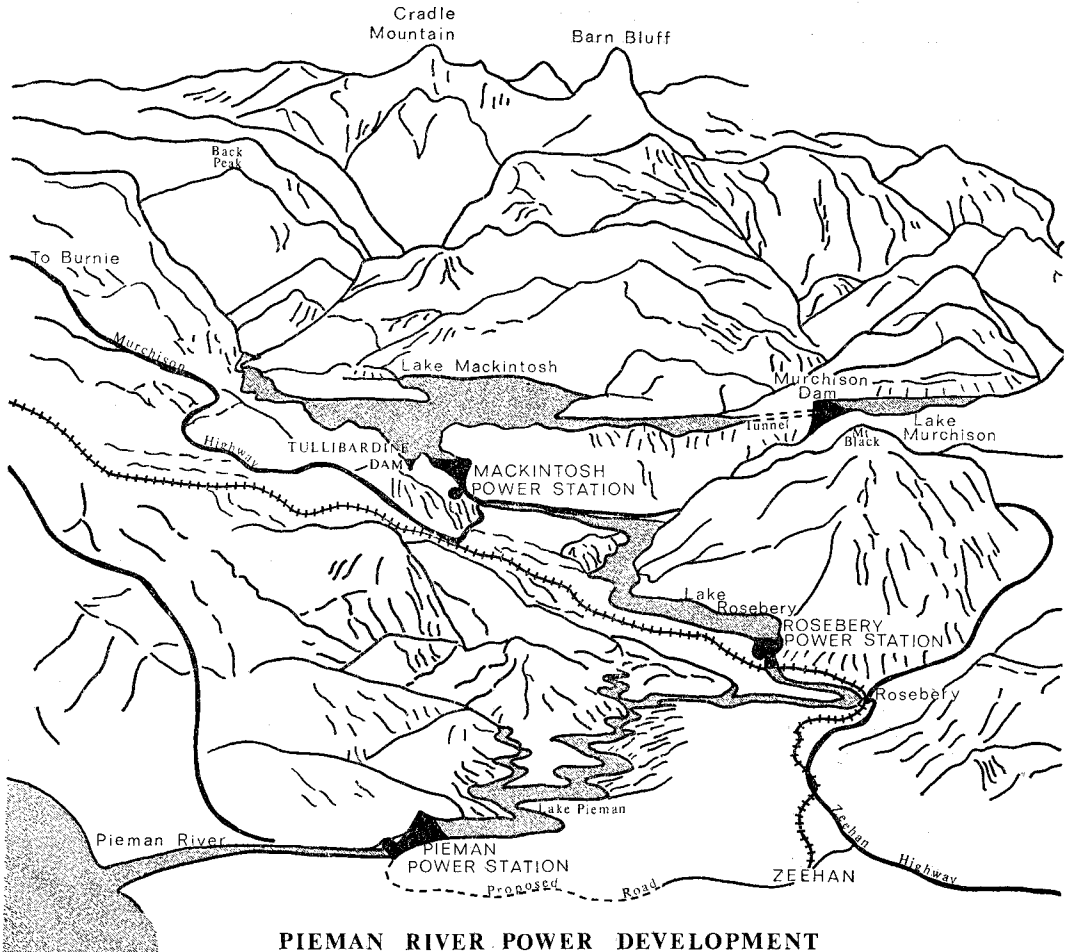
The station was originally designed to accommodate two steam driven 120,000 kW generators and many of the facilities installed as part of the first stage have sufficient capacity to satisfy the demands of the additional generator.

Future Developments—Pieman River

In a report presented to Parliament on 21 October 1970, the Hydro-Electric Commission announced a power development in the Pieman River catchment of the west coast. The total capital cost is estimated at \$134m; the total installed capacity at 420,000 kW; and the eventual average output at 1,770 million kilowatt hours per annum. Completion of the scheme is expected by 1985.

Location: The Pieman River flows from the confluence of the Murchison and Mackintosh Rivers, entering the sea below Corinna (see next diagram). The catchment area of 2,678 square kilometres is mostly rugged, mountainous Crown land, experiencing annual rainfall between 2,300 mm and 3,560 mm. Only two per cent (62 square kilometres) of the catchment area will be inundated. No developed farmland, no known mineral deposits of commercial value and only very limited quantities of exploitable timber occur in the area.

Power Stations: (i) *Mackintosh.* The scheme includes: a dam over 91 metres high on the Murchison River; a 2,072 metres long tunnel from Lake Murchison to Lake Mackintosh; a dam 76 metres high on the Mackintosh River about three kilometres downstream from the Sophia River junction and the subsidiary Tullibardine Dam (24 metres high) together creating the main storage of the entire development; and a 72,000 kW power station below the Mackintosh Dam through which the combined flows of the Mackintosh and Murchison Rivers will pass.



PIEMAN RIVER POWER DEVELOPMENT

(ii) *Rosebery*. Includes: a dam about 73 metres high, located on the Pieman River upstream from the Rosebery township, creating a lake extending up the Mackintosh River to the Mackintosh Power Station and up to the Murchison River to just downstream of the Murchison Dam; a power station immediately below the Rosebery Dam, installed capacity, 76,500 kW; the relocation of two kilometres of the Murchison Highway including new bridges over the Murchison and Mackintosh Rivers; and the relocation of about three kilometres of the Emu Bay railway, including a new bridge over the Pieman River.

(iii) *Pieman*. Comprises: a dam about 119 metres high located on the Pieman River immediately upstream from its junction with Stringer Creek; a subsidiary dam 15 metres high; a 270,000 kW power station, located at the junction with Stringer Creek; and a main access road, 36.2 kilometres long, from Zeehan to the dam site, about 10 kilometres upstream from Corinna.

Growth of Hydro-Electric System

The following table shows the growth of the system in recent years:

Hydro-Electric Commission: Operating Statistics

Year	Total rating of alternators	Peak loading	Average loading	Annual load factor (a)
	kW	kW	kW	per cent
1963	617,050	550,300	378,000	68.7
1964	806,550	582,000	405,620	69.7
1965	807,550	593,700	427,580	72.0
1966	809,150	624,100	451,047	72.3
1967	866,150	636,900	445,490	69.9
1968	904,600	628,000	449,028	71.5
1969	1,015,600	735,500	556,249	75.6
1970	1,015,600	778,700	589,718	75.7
1971	1,251,200	832,300	633,838	74.9
1972	1,279,200	842,900	646,000	75.4
1973	1,322,400	891,100	667,822	74.9

(a) Average annual loading as a percentage of annual peak loading.

Load Factor

The alternator rating (i.e. generator capacity) is necessarily much higher than the peak loading since some generating plant must be held in reserve against the possibility of break-down.

A power system must be designed to meet both the peak loading (the demand component) and the average loading (the energy component). Peak loading tends to represent high demand for relatively short periods, i.e. it has relatively little energy associated with it. The obvious design and operational problem is to create sufficient capacity to meet peak loading and, at the same time, to encourage the use of power so that the highest possible average loading is obtained.

All things being equal, the cheapest system, from the consumer's point of view, will be the one with the highest load factor. By world standards, the load factors in the previous table indicate a high standard of design and operational efficiency.

The Hydro-Electric Commission

The Hydro-Electric Commission is an autonomous statutory authority, responsible almost entirely for the conduct of its own affairs. The 'Minister Administering the Hydro-Electric Commission Act' is answerable to Parliament for the activities of the Commission, but the Commission is not directed by or responsible to the Minister as is a government department. In other words, the Commission is envisaged as a trading or business organisation, and the purpose of the legislation that created it was to remove it from day-to-day political control. The power exerted by Parliament is mainly financial, not over the ordinary revenue and expenditure of the authority, but over the supply of loan moneys for new capital works.

Two other restrictions on the Commission can be listed: (i) it cannot change its tariff charges for the supply of electricity to consumers except with the approval of the Governor-in-Council; and (ii) in certain of its dealings, such as in real estate, the Commission must obtain the approval of the Minister.

The status of the Commission was described thus by the High Court of Australia in a judgment delivered in 1950: 'In the eye of the law the corporation is its own master and is answerable as fully as any other person or corporation. It is not the Crown and has none of the immunities or privileges of the Crown. Its servants are not civil servants and its property is not Crown property.'

Organisation

Under the Commission, with its full-time Commissioner and three part-time Commissioners, there are five branches:

(i) *Civil Engineering Branch*. Responsible for: survey of water resources; design and construction of all civil works involved in power development and allied projects.

(ii) *Electrical Engineering Branch*. Responsible for: studies of load growth and system development; design and construction of all electrical engineering works in conjunction with the Civil Engineering Branch.

(iii) *Power Branch*. Responsible for: operation and maintenance of completed power developments; generation and transmission of power in bulk.

(iv) *Retail Supply Branch*. Responsible for: distribution of electricity to consumers; operation and maintenance of the distribution system; inspection of installations and equipment; consumer advisory activities; sale of electrical appliances; licensing of wiremen and contractors.

(v) *Secretarial*. Responsible for general administrative business of the Commission with subsections dealing with accounts, law, personnel, transport, stores and purchasing, medical services, central records, public relations and other services.

Technical Details

Generation

The total installed generator capacity of the Commission's 22 power stations is 1,322,400 kW. All stations generate alternating current at a frequency of 50 cycles per second. The power is stepped up at each station to the voltage required for transmission.

Transmission

Power is conveyed from the power stations by 220,000, 110,000 or 88,000 volts transmission lines to major sub-stations at various load centres. All power stations and major sub-stations are linked into a grid system thereby ensuring a reliable supply to all parts of the State.

Distribution

Power is distributed from the major sub-stations by a network of 44,000, 33,000, 22,000, 11,000 and 6,000 volt feeder lines from which power is stepped down at zone sub-stations to a lower feeder voltage and/or finally at distribution sub-stations to 415/240 volts for supply to individual consumers. Some consumers take supply at feeder voltage.

Bruny Island is connected to the main power supply by a submarine cable; King and Flinders Islands are partly supplied by diesel-generation stations operated by the Commission at Currie and Whitemark respectively.

Retail Distribution

In the early days of the Commission's operation, consumers of electrical power received it from three sources: from municipalities with their own generating capacity; from municipalities retailing power bought from the Commission; and from the Commission direct. Gradually uniformity was achieved, municipalities stopped generating and retailing and the one authority became the sole supplier, both of bulk power to industry and retail power to homes, shops, businesses, etc. One effect has been uniformity in tariff charges for retail power so that the farmer on the most remote holding is charged no more than dwellers in the principal cities. Tasmania has achieved an Australian record figure for distribution of electrical power—it is estimated that nearly 99 per cent of homes and farms are now connected. Tariff charges are also the lowest in Australia.

The following table shows comparative average prices for power in Australia:

Manufacturing, Electricity and Gas

Price of Electric Power: Tasmania and Other States, 1972-73 (a)
(Cents per Kilowatt Hour)

State or territory	Residential sales	Commercial sales	Industrial sales	Average all sales (b)
New South Wales	2.16	(c)	(c)	2.12
Victoria	2.00	3.06	1.67	2.06
Queensland	2.23	3.53	1.76	2.30
South Australia	1.71	2.81	1.51	1.89
Western Australia	2.61	(c)	(c)	2.50
Tasmania	1.68	2.92	0.69	0.93
Territories	2.05	(c)	(c)	2.44
Australian (average)	2.09	<i>n.a.</i>	<i>n.a.</i>	2.01

(a) Source: 'Statistics of the Electricity Supply Industry in Australia' (published by Electricity Supply Association of Australia).

(b) Includes power for traction, public lighting, etc. not specified in first three columns.

(c) Not recorded separately.

It will be observed that the Tasmanian average is the *lowest* and the householder pays less per unit on the average than his counterpart on the Australian mainland. The economy of hydro-electric generation can be best obtained by comparing the prices charged to industrial users.

The following table shows the amount of power sold in Australia:

Sales of Electric Power: Tasmania and Other States, 1972-73 (a)
(Million Kilowatt Hours)

State or territory	Residential sales	Commercial sales	Industrial sales	Total sales (b)
New South Wales	7,378	(c) 11,348		19,292
Victoria	4,799	2,155	5,026	12,338
Queensland	2,404	1,063	2,328	5,837
South Australia	1,690	679	1,668	4,067
Western Australia	1,045	(c) 1,527		2,607
Tasmania	966	119	4,164	5,265
Territories	453	(c) 619		1,101
Australian total	18,735	(c) 30,697		50,506

(a) Source: 'Statistics of the Electricity Supply Industry in Australia' (published by the Electricity Supply Association of Australia).

(b) Includes power for traction, public lighting, etc. not specified in first three columns.

(c) Not recorded separately.

Finances of Hydro-Electric Commission

The table that follows shows the Commission's income and expenditure:

Hydro-Electric Commission: Income and Expenditure
((\$'000))

Particulars	1969-70	1970-71	1971-72	1972-73
INCOME				
Sales—Bulk power	15,233	17,168	18,549	20,053
Retail current	21,472	22,540	26,376	28,683
Other income	591	443	1,361	775
Total	37,296	40,151	46,286	49,511

Hydro-Electric Commission: Income and Expenditure—continued
(\$'000)

Particulars	1969-70	1970-71	1971-72	1972-73
EXPENDITURE				
Operation, distribution, administration	12,736	15,236	16,700	16,589
Interest on loans and reserves	19,736	22,350	25,213	27,369
Less interest capitalised	-3,617	-4,044	-4,106	-3,657
Depreciation provision	4,285	4,544	5,255	5,505
Superannuation contribution and retirement benefits	1,091	1,398	1,644	1,662
Contribution to consolidated revenue .. .. .	..	..	804	1,251
Other expenditure	864	586	768	578
Net profit	2,201	81	8	214
Total	37,296	40,151	46,286	49,511

All annual charges (interest, depreciation, operation, etc.) are borne by the Commission out of its revenues from the sale of electricity. There are no subsidies or other contributions from general state revenues.

Chapter 10

TRADE AND DISTRIBUTION

OVERSEAS AND INTERSTATE TRADE

Historical

The *Statistical Returns of Van Diemen's Land* and the *Statistics of Tasmania* provide a continuous series of total trade statistics dating from 1824 to 1909. Until the foundation of the Commonwealth in 1901, trade with other parts of Australia was recorded as originating from or being destined for 'British Colonies'; in other words, all Tasmanian sea trade was regarded as overseas. From Federation to 1909, statistics were collected and compiled by the newly formed federal Customs Department for *all* sea trade, but since 1910 only direct *overseas* trade has been recorded by the Customs Department. In an island state, it became apparent that statistics of overseas trade alone were inadequate to record economic activity and, from 1922-23, the Government Statistician collected and published details of interstate trade; the collection of these data, now undertaken by the State Office of the Australian Bureau of Statistics, is carried out independently of the Customs Department and depends primarily on documents made available by Tasmanian port authorities. In brief, there is a *total* trade series (1824-1909), an *overseas* trade series (1910 to 1921-22) and a *total* trade series (1922-23 to today).

In the immediate post-war period, there was a marked expansion of commercial aviation; the freight being carried was a component of interstate trade and steps were taken to record it, the first published figures appearing for 1949-50. Thus, the total trade of Tasmania is now recorded in three categories: by sea, overseas; by sea, interstate; by air, interstate.

Value of Trade from 1824

Note on Currency

The pre-Federation details were recorded in sterling; subsequent details were recorded in £A which had parity with sterling until 1930 when devaluation made £A1.25 equal to the £ sterling. In 1949 the £ sterling was devalued by 30.5 per cent and the £A was correspondingly devalued to preserve the 1930-1949 relativity. In 1966 Australia changed to decimal currency, with \$A equal to £A0.5. In late 1967, the £ sterling was devalued from an equivalency of \$A2.51 to \$A2.151. The \$A was devalued by approximately 2.25 per cent against the £ sterling in 1971. The exchange rate between the \$A and the £ sterling is no longer fixed and from December 1971 the \$A has been quoted in terms of \$U.S. In December 1972 the \$A was valued upwards against the \$U.S. to give an effective change of + 7.05 per cent. This was followed in February 1973 by a 10 per cent devaluation of the \$U.S. which had the effect of adding further to the upward valuation of the \$A. In the tables in this section, pre-1966 recorded figures have been converted to \$A by simply doubling the originals, *irrespective of their year of occurrence* and no account has been taken of changes in exchange rates.

Due to considerable and persistent changes in the purchasing power of money, it is extremely difficult to satisfactorily interpret any long-term statistical series expressed in money terms. The following table is therefore of interest historically but subject to all the disabilities (including devaluations of Australian currency) associated with long-term money series:

Total Value of Trade by Sea and Air: Historical Summary
(\\$'000)

Year	Value of imports				Value of exports			
	By sea		By air	Total	By sea		By air	Total
	Overseas	Interstate	Interstate		Overseas	Interstate	Interstate	
1824	<i>n.a.</i>	<i>n.a.</i>	..	124	<i>n.a.</i>	<i>n.a.</i>	..	30
1860	1,686	450	..	2,136	1,544	380	..	1,924
1880	738	2,000	..	2,738	1,568	1,456	..	3,024
1900	1,402	2,746	..	4,148	3,078	2,144	..	5,222
1910	1,662	(a)	..	<i>n.a.</i>	1,040	(a)	..	<i>n.a.</i>
1919-20 ..	1,626	(a)	..	<i>n.a.</i>	4,022	(a)	..	<i>n.a.</i>
1929-30 ..	3,668	16,028	..	19,696	4,978	13,198	..	18,176
1939-40 ..	3,188	21,780	..	24,968	4,852	20,954	..	25,806
1949-50 ..	18,704	51,218	(b) 10,670	80,592	29,936	42,672	(b) 3,996	76,604
1959-60 ..	27,606	130,014	19,210	176,830	47,730	137,530	20,818	206,078
1969-70 ..	(c) 46,998	257,441	20,551	(c) 324,989	143,470	286,083	26,287	455,840
1972-73 ..	45,045	289,862	21,238	356,145	218,712	320,910	30,626	570,247

(a) Collection discontinued for period 1910 to 1921-22.

(b) First collected in 1949-50.

(c) From 1965-66 the value of outside packages (approximately \$400,000 annually) is included in the value of overseas imports.

Definition of 'Overseas' and 'Interstate'

Statistics of overseas trade of Tasmania include details of goods landed directly from overseas or shipped directly to overseas ports; and, in addition, details of goods transhipped through other Australian states, *provided that the overseas import or export document has been lodged with Customs in Tasmania*. Statistics of interstate trade include details of goods landed in or shipped from other Australian states; and, in addition, details of goods transhipped through other Australian states, *provided that the overseas import and export document has been lodged with Customs in another Australian state*.

By way of example, a new Japanese car transhipped in Melbourne and discharged in Tasmania is classified as an item of interstate trade. Victoria, not Japan, is classified as the place of origin, provided that the overseas import document has been lodged with Customs in Victoria.

Effect of Motor Vehicles on Total Value of Imports and Exports

Import and export details of motor cars and commercial vehicles include tourist vehicles entering and leaving the State. The inauguration of a vehicular ferry service in October 1959 resulted in a sharp increase in the transport of vehicles as suggested in the following table:

Motor Cars and Commercial Vehicles (a): Value of Imports and Exports
(\\$'000)

Particulars	1959-60	1968-69	1969-70	1970-71	1971-72	1972-73
Imports	29,148	46,982	54,191	59,062	63,016	64,943
Exports	13,100	21,084	25,998	27,087	28,229	28,537

(a) As well as new and used vehicles, includes business and tourist vehicles moving to and from the State.

Since Tasmanians do not carry out motor vehicle assembly on any extensive scale (and certainly not for export), it follows that total import and export values for 1972-73 are both inflated by approximately \$29m worth of vehicles, principally tourist, which entered and left the State. If vehicle exports are offset against imports, the net import figure will still include some used as well as new vehicles.

Source of Trade Statistics

Overseas trade statistics are compiled from documents obtained under the Federal *Customs Act 1901* and supplied to the Australian Bureau of Statistics by the Department of Customs and Excise. *Interstate sea* trade statistics are compiled from documents required under the authority of the *Marine Act 1921* and made available to the Tasmanian Office of the Bureau by the various port authorities. Statistics of *interstate air* trade are compiled from returns furnished direct to the Tasmanian Office of the Bureau by all those who use this medium for the transportation of goods in commercial or industrial operations.

Values

The cost of importing goods into any country will theoretically contain four elements: (i) the 'original' price at door of factory, warehouse, etc.; (ii) the cost of delivering goods to the ship 'free on board'; (iii) sea freight and associated charges between ports; and (iv) cost of delivery from port to buyer.

Trade statistics base values on the first two elements but exclude the third and fourth, as set out in the following definitions:

The basis of value for overseas imports is 'transaction value, actual (*f.o.b.*)' or 'domestic value (*f.o.b.*)' if higher. Overseas exports are valued *f.o.b.* at the Australian port of shipment as follows: (i) for goods sold before export—the price at which the goods were sold; or (ii) for goods shipped on consignment—the current price offering for similar goods of Australian origin in the principal markets of the country to which the goods were despatched. Interstate imports and exports are valued *f.o.b.* at the port of shipment.

Tasmanian Ports

Although there are seven port authorities (usually called marine boards) in Tasmania, overseas trade is restricted to the ports of Hobart, Launceston, Burnie, Devonport and Stanley. (Exports of iron ore from Port Latta are credited to Stanley and exports of woodchips from Spring Bay are credited to Hobart.) The names of ports in subsequent tables refer to the towns in which the controlling port authorities are located. Thus 'Hobart' includes Port Huon, Spring Bay, Howden and Strahan; 'Launceston' includes Bell Bay, Beauty Point, Inspection Head and Long Reach; 'Stanley' includes Port Latta; 'Currie' includes Naracoopa and Grassy; and 'Lady Barron' includes Whitemark.

This chapter deals only with the imports and exports passing through these ports. For a description of the major ports and for the financial operations of the port authorities, see chapter 11.

Total Trade of Tasmania

The following table shows Tasmanian total trade and its components in recent years:

Total Trade
(\$'000)

Year	Imports				Exports			
	By sea		By air	Total imports	By sea		By air	Total exports
	Overseas	Interstate	Interstate		Overseas	Interstate	Interstate	
1967-68 ..	45,024	220,065	20,590	285,679	76,888	233,694	26,941	337,524
1968-69 ..	37,509	241,398	21,051	299,958	102,061	265,476	25,825	393,362
1969-70 ..	46,998	257,441	20,551	324,989	143,470	286,083	26,287	455,840
1970-71 ..	45,719	269,022	19,777	334,519	143,198	277,669	27,103	447,970
1971-72 ..	39,749	281,576	20,622	341,947	178,950	302,608	29,374	510,932
1972-73 ..	45,045	289,862	21,238	356,145	218,712	320,910	30,626	570,247

It will be observed that interstate trade is the major element both in imports and exports. The next table shows the balance of trade (excess of exports over imports):

Balance of Trade (Sea and Air)

Year	Balance of trade (excess of exports)		Year	Balance of trade (excess of exports)	
	Total (\$'000)	Per head of mean population (\$)		Total (\$'000)	Per head of mean population (\$)
1961-62	34,724	98.32	1967-68	51,845	137.37
1962-63	30,324	84.66	1968-69	93,404	244.23
1963-64	52,496	144.71	1969-70	130,851	338.74
1964-65	78,957	215.51	1970-71	113,451	291.46
1965-66	72,926	197.31	1971-72	168,985	430.64
1966-67	58,347	156.31	1972-73	214,102	542.13

Overseas Trade by Sea

From the earliest days, the United Kingdom was Tasmania's main source of overseas imports. Up to 1967-68 it was also Tasmania's major overseas market. However, in recent years, trade with other countries has begun to assume greater importance. Since 1968-69 the value of exports to Japan has exceeded the value of exports to the United Kingdom and in 1972-73 imports from New Zealand exceeded, for the first time, the total value of imports from any other country. Details of Tasmania's trade with overseas countries for the past six years follow:

Total Value of Trade by Sea With Overseas Countries (\$'000)

Year	Value of imports from—				Value of exports to—			
	United Kingdom	United States of America	Japan	Other overseas countries	United Kingdom	United States of America	Japan	Other overseas countries
1967-68 ..	13,357	6,835	5,374	19,458	20,219	9,566	9,005	38,098
1968-69 ..	8,705	5,629	5,708	17,467	17,267	16,216	24,362	44,216
1969-70 ..	10,563	6,636	5,309	24,490	24,363	19,945	43,465	55,697
1970-71 ..	6,098	7,269	5,419	26,933	20,574	18,427	54,999	49,198
1971-72 ..	6,878	4,655	5,049	23,167	29,580	27,062	55,997	66,312
1972-73 ..	6,000	5,986	7,003	26,056	23,918	35,434	75,231	84,129

Trade with Selected Countries

The principal countries of origin together with values (in \$m) for overseas imports shipped direct to Tasmania in 1972-73 were: New Zealand, 7.7; Japan, 7.0; U.K., 6.0; U.S.A., 6.0; Canada, 4.3; Singapore, 1.7; Sweden, 1.5. The principal countries of destination for overseas exports shipped direct from Tasmania (value in \$m) were: Japan, 75.2; U.S.A., 35.4; U.K., 23.9; Thailand, 7.0; Federal Republic of Germany, 6.6; India, 6.1; U.S.S.R., 5.5; Malaysia, 5.4; France, 4.8; Hong Kong, 4.3.

The next table shows the trade of Tasmania with selected overseas countries; countries selected are those for which imports or exports approached or exceeded \$1m in any one of the three years under review, with the exception of countries for which figures are confidential. It should be noted that some goods are received from, or sent to, overseas countries by transshipment through other Australian states; no data are available on such transactions.

Trade and Distribution
Trade With Overseas Countries
 (\$'000)

Country of origin or destination	Imports (a)			Exports		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Belgium-Luxembourg ..	124	227	180	941	1,952	2,900
Canada	4,801	3,778	4,341	145	497	505
China, People's Republic of	27	65	83	517	6,099	1,789
France	504	606	177	2,626	3,251	4,848
Germany, Dem. Rep. of	16	20	2	2,109	28	1,518
Germany, Federal Republic	1,523	1,174	873	2,815	3,280	6,579
Hong Kong	480	400	616	3,888	5,356	4,313
India	81	88	39	5,681	5,744	6,128
Indonesia .. .. .	..	1	..	1,873	2,945	3,858
Iran	183	304	874	358	1,511	1,701
Italy	665	972	431	1,631	2,375	2,854
Japan	5,419	5,049	7,003	54,999	55,997	75,231
Malaysia	324	18	18	1,609	4,278	5,403
Netherlands	603	328	546	2,721	2,167	2,683
New Zealand	5,108	5,801	7,732	1,941	2,033	2,033
Philippines .. .. .	..	1	2	1,487	1,662	1,965
Poland	4	10	11	710	745	2,647
Singapore	291	961	1,714	2,660	2,660	2,899
Sweden	2,184	1,538	1,502	1,112	1,133	1,482
Taiwan	30	229	507	1,421	2,745	4,248
Tanzania .. .. .	..	..	21	1,480	1,999	1,491
Thailand	78	3	5	4,142	6,833	7,040
United Kingdom	6,098	6,878	6,000	20,574	29,580	23,918
U.S.A.	7,269	4,655	5,986	18,427	27,062	35,434
U.S.S.R.	3	..	12	71	351	5,472
Yugoslavia	1	9	1	1,567	1,724	3,549
Other countries	8,244	6,519	6,301	5,693	4,927	6,215
'For orders' (b) .. .. .	..	..	..	..	16	9
Origin unknown	46	56	51	..	..	..
Australia (re-imported)	1,613	59	17	..	..	..
Total	45,719	39,749	45,045	143,198	178,950	218,712

(a) Value of outside packages included: 1970-71, \$423,000; 1971-72, \$460,000; 1972-73, \$407,000.

(b) Country of consignment not determined at the time of export.

Tasmanian and Australian Overseas Trade

The following table compares Australia's total overseas imports and exports with the corresponding values for Tasmania; by using a per capita comparison, certain conclusions can be drawn about the relative importance of Tasmania's overseas exports bearing in mind that Tasmania's figures are understated and Australia's correspondingly inflated in respect of transshipments not recorded as *overseas* trade for Tasmania.

Value of Overseas Trade: Tasmania and Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
IMPORTS					
Australia—Total \$'000	3,468,505	3,881,227	r4,150,028	r4,008,365	4,120,731
Per head \$	285.9	313.4	327.9	r 310.8	315.0
Tasmania—Total \$'000	37,509	46,998	45,719	39,749	45,045
Per head \$	98.1	121.7	117.3	101.3	114.1

Value of Overseas Trade: Tasmania and Australia—continued

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
EXPORTS					
Australia—Total \$'000	3,374,263	r4,137,222	r4,375,757	r4,896,381	6,214,822
Per head \$	278.2	r 333.5	r 345.7	r 379.7	475.0
Tasmania—Total \$'000	102,061	143,470	143,198	178,950	218,712
Per head \$	266.9	371.4	367.4	456.0	553.8

The relatively low value of overseas imports per head of Tasmanian population is due largely to the transshipment of goods in other Australian ports. Since some goods go overseas from Tasmania by transshipment and are therefore *not* recorded as Tasmanian overseas exports, the export comparisons *per head* of Australian and Tasmanian populations suggest that the State plays an important role as an earner of export income.

Interstate Trade by Air

No data are compiled to show state of origin or state of destination for trade by air; most planes carrying commercial freight, to and from Tasmania, take off from or land in Victoria. The following is a summary of Tasmania's air trade for recent years:

Value of Interstate Air Trade
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Imports	21,051	20,551	19,777	20,622	21,238
Exports	25,825	26,287	27,103	29,374	30,626
Total	46,876	46,838	46,880	49,996	51,864

Interstate Trade by Sea

As might be expected with Melbourne being the closest major port to Tasmania, the bulk of the island's interstate trade is transacted with Victoria. The next table shows the value of interstate sea trade with other Australian states. Imports include the value of some goods imported into other states from overseas and transhipped to Tasmania; exports include the value of some goods exported to other states for transshipment overseas.

Value of Interstate Sea Trade
(\$'000)

Australian state or territory of origin or destination	Imports			Exports		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
New South Wales ..	46,586	39,873	44,133	102,829	111,925	116,849
Victoria	189,033	206,844	207,347	152,534	166,729	176,241
Queensland	(a) 10,332	(a) 14,433	(a) 14,802	9,240	9,822	11,236
South Australia ..	19,087	16,860	22,179	9,215	10,818	13,757
Western Australia ..	3,985	3,567	1,401	3,850	3,297	2,804
Northern Territory ..	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	2	18	23
Total	269,022	281,576	289,862	277,669	302,608	320,910

(a) Includes the value of manganese ore imported from the Northern Territory. Details are not available for separate publication.

Sea Trade of Tasmanian Ports

In the following table, the value of total imports and exports by sea is shown for each port:

Total Value of Sea Trade Classified According to Port
(\\$'000)

Port	Imports		Exports		Total sea trade	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Burnie	50,941	56,250	123,198	125,351	174,139	181,601
Devonport	66,913	81,559	65,300	82,237	132,213	163,796
Hobart	105,185	98,730	164,878	189,155	270,063	287,885
Currie	4,024	1,052	6,726	1,607	10,750	2,659
Launceston	92,862	97,048	94,720	111,750	187,582	208,798
Stanley	1,379	193	25,863	27,950	27,242	28,143
Lady Barron	21	74	874	1,572	895	1,646
Total	321,325	334,907	481,558	539,622	802,883	874,529

The next table compares the proportion of total sea trade values attributed to each port (using 1958-59 for comparison):

Total Value of Sea Trade: Port Proportions
(Per Cent)

Port	1958-59	1968-69	1969-70	1970-71	1971-72	1972-73
Burnie	15.3	19.7	20.2	21.9	21.7	20.8
Devonport	6.8	18.9	17.5	16.2	16.5	18.7
Hobart	50.8	33.5	32.9	32.0	33.6	32.9
Currie	0.5	1.7	1.3	1.7	1.3	0.3
Launceston	23.5	21.4	22.6	24.4	23.4	23.9
Stanley	0.6	3.1	3.9	3.8	3.4	3.2
Strahan	2.4	1.5	1.5	..	..	..
Lady Barron .. .. .	..	0.2	0.1	0.1	0.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

The decline in the proportion of sea trade attributed to Hobart since 1958-59 is related to the increasing use of 'sea-road' facilities available through the ports of Devonport, Launceston and Burnie. The vessels involved in the 'sea-road' service to northern and north-western ports are the *Bass Trader* and *Empress of Australia*. The *Princess of Tasmania*, which inaugurated this type of service between Melbourne and Devonport in October 1959, was replaced by the *Empress of Australia* in June 1972. In June 1964 similar facilities became available at Hobart when the *Seaway Queen* began a sea-road service to Melbourne, followed in September 1964 by the *Seaway King* operating a direct service to Sydney. These two vessels now alternate in providing regular Melbourne-Hobart and Sydney-Melbourne-Hobart services. The *Empress of Australia* which had provided a regular service since January 1965 with Sydney-Hobart-Sydney as one route and Sydney-Bell Bay-Burnie-Sydney as the other, was withdrawn in April 1972 for re-fitting prior to replacing the *Princess of Tasmania* on the Bass Strait run. The *Empress of Australia* was replaced immediately by the *Australian Trader* which had served northern ports regularly since mid-1969. Both these vessels also provide overnight accommodation for passengers. In October 1971 another roll-off type vessel, the *Mary Holyman*, commenced a regular service between South Australia and Tasmania with Port Adelaide-Hobart as one route and Port Adelaide-Burnie as the other. In January 1973 the *Darwin Trader*, a bulk carrier-container vessel, inaugurated a regular service with Darwin-Launceston as one route, carrying bulk manganese ore, and Hobart-Darwin, via Melbourne, Sydney and Brisbane, with containers and general cargo, as the other. Several other vessels (e.g. *Sydney Trader*, *Brisbane Trader*) provide, as required, irregular sea-road services between the four main Tasmanian ports and other Australian states.

In May 1972 the *Straitsman* commenced a regular Melbourne-Grassy-Stanley service. This service ceased in June 1972 when the *Straitsman* was tied up and later arrested. The Tasmanian Transport Commission purchased the vessel in July 1973 and recommenced the service in October 1973. On 23 March 1974 the *Straitsman* rolled over and sank in the River Yarra. As temporary replacement for this vessel the Commission has chartered the *Ida Clausen* from Denmark and the *Alban* from the Netherlands for approximately two weeks and two months respectively. Recently the Commission purchased the Finnish vessel *Ra* which is being modified in Europe and is expected to operate a regular Melbourne-Grassy-Stanley service from September 1974.

Air Trade of Tasmanian Airports

Although Tasmania has a number of airports, only six are used on a regular basis for interstate trade; four are located near Hobart, Launceston, Burnie and Devonport respectively and the remaining two on King and Flinders Islands.

The following table shows the value of interstate air trade passing through Tasmanian airports:

Total Value of Interstate Air Trade Classified According to Airport
($\$'000$)

Airport	Imports		Exports		Total air trade	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Hobart	9,757	10,306	4,399	4,258	14,156	14,564
Launceston	7,664	6,351	23,943	24,589	31,607	30,940
Devonport	1,029	1,646	198	269	1,227	1,915
Wynyard (a)	1,481	2,039	210	242	1,691	2,282
King Island	401	561	478	1,048	879	1,609
Flinders Island	290	336	146	219	436	556
Total	20,622	21,238	29,374	30,626	49,996	51,864

(a) Includes Smithton.

Commodities Carried by Air

It will be observed that the value of trade by air is about six per cent of the value of total overseas and interstate trade by sea and air combined. With regard to exports by air (valued at $\$30,626,000$ in 1972-73), the major group was 'textile and yarns' valued at $\$28,248,000$; exports of all foodstuffs (meat, rock lobster, fruit, etc.) accounted for a further $\$1,450,000$. For imports there is a much greater range of commodities involved, the chief group being 'clothing and footwear' valued at $\$12,666,000$.

The annual values of both imports and exports by air have not increased greatly over the past 10 years, which means that the quantities of goods involved have almost certainly declined because of the general increase in prices over the period. A possible explanation is the improvement in sea carriage techniques (roll-on roll-off vessels, container vessels, etc.) and improved shipping schedules.

The following table shows the value of imports to and exports from Tasmania by air for the past 10 years:

Air Trade: Value of Interstate Imports and Exports
($\$'000$)

Year	Imports	Exports	Year	Imports	Exports
1963-64	19,840	23,424	1968-69	21,051	25,825
1964-65	20,819	25,770	1969-70	20,551	26,287
1965-66	21,123	25,575	1970-71	19,777	27,103
1966-67	20,311	25,680	1971-72	20,622	29,374
1967-68	20,590	26,941	1972-73	21,238	30,626

Imports of Principal Commodities

The next table shows the value of the principal commodities imported into Tasmania by sea and air for a four-year period:

Imports of Principal Commodities by Sea and Air: Values
(\$'000)

Commodity	1969-70	1970-71	1971-72	1972-73
Beer, wine and spirits	4,085	4,313	3,908	4,052
Aluminium oxide and hydroxide	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Clothing and accessories	13,855	13,478	15,119	16,515
Cocoa beans and cocoa butter	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Footwear	3,627	3,767	3,779	3,983
Machinery—Electrical	15,439	14,663	12,668	12,091
Other	24,589	19,580	21,807	24,309
Metal manufactures	8,770	8,355	7,920	7,893
Metals	14,767	14,864	15,683	15,274
Motor vehicles—New	28,513	32,567	35,078	37,041
Other (a)	25,678	26,495	27,938	27,902
Ores and concentrates—Zinc	6,995	7,594	9,341	12,856
Other	5,047	3,686	5,995	3,930
Paper and paper manufactures	8,314	8,000	7,300	7,474
Petroleum products—Motor spirit	8,314	8,335	8,495	9,527
Fuel oils	11,267	12,059	11,605	12,210
Other	5,543	7,221	7,106	7,521
Pulp for paper-making	8,332	10,619	9,190	10,354
Rubber manufactures	4,959	5,114	5,273	5,448
Sugar, refined	4,376	4,344	4,368	4,142
Textile yarn and fabrics	12,823	12,391	14,198	15,799
Tobacco and cigarettes	13,428	13,392	13,246	11,158
Wheat	2,852	2,907	2,780	2,783
Wool, greasy	2,862	2,113	2,353	4,215
Other (b)	90,555	98,662	96,796	99,668
Total imports	324,989	334,519	341,947	356,145

(a) Mainly tourist and other motor vehicles imported as personal effects.

(b) Includes value details marked '*n.p.*'.

The table that follows shows the quantities of the principal commodities imported and has been compiled, as far as this is practicable, to match the preceding table of values.

Imports of Principal Commodities by Sea and Air: Quantities

Commodity	Unit of quantity	1969-70	1970-71	1971-72	1972-73
Alcoholic beverages—					
Ale, beer, stout and cider	'000 ℓ	2,820	3,145	2,130	2,065
Wine	'000 ℓ	2,495	2,362	2,422	2,670
Spirits and liqueurs—Overseas	'000 ℓ	40	49	34	36
Interstate	'000 ℓ	808	823	819	836
Aluminium oxide and hydroxide	kg	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Cocoa beans and cocoa butter	kg	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Iron and steel	t	101,514	101,085	106,889	100,570
Motor vehicles—New	no.	13,692	14,111	15,070	15,350
Other (a)	no.	16,473	16,956	17,886	16,754
Ores and concentrates—Zinc	t	265,519	277,560	330,428	303,803
Other	t	326,652	296,725	472,851	403,324
Petroleum products—					
Motor spirit	'000 ℓ	320,583	318,208	321,741	365,569
Fuel oils	'000 ℓ	538,446	605,914	595,087	639,537
Pulp for paper-making	t	73,308	84,174	71,883	84,582
Sugar, refined	'000 kg	24,838	24,386	24,518	23,245
Tobacco and cigarettes	'000 kg	1,022	1,026	1,018	823
Wheat	t	49,602	53,321	49,978	49,359
Wool, greasy	'000 kg	2,157	1,852	2,085	2,944

(a) Mainly tourist and other motor vehicles imported as personal effects.

Imports from Principal Overseas Countries

The next table shows the value of imports, by commodities, from principal overseas countries:

Value of Imports from Principal Overseas Countries
(\$'000)

Commodity	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
UNITED KINGDOM						
Chemicals	662	454	307	456	633	687
Electrical machinery ..	1,557	2,294	694	651	2,061	211
Food, beverages and tobacco	278	254	288	207	178	178
Iron and steel	190	250	145	135	108	104
Machinery, other than electric	6,408	1,881	5,404	1,400	339	1,195
Metal manufactures	209	241	283	285	451	360
Printed matter	419	462	287	251	r 284	288
Textile fibres	353	283	339	320	195	364
Textiles	1,290	1,128	1,041	828	729	828
Tyres and tubes	168	178	151	247	212	187
Scientific equipment	88	105	162	141	219	159
White clays	122	226	271	321	316	580
Other	1,613	949	1,191	856	1,153	860
Total	13,357	8,705	10,563	6,098	6,878	6,000
UNITED STATES OF AMERICA						
Bentonite	107	146	341	210	395	422
Copper and copper alloys .. ..	..	..	..	..	16	166
Electrical machinery	114	184	115	213	69	157
Fertiliser, manufactured	154	126	157	..	..	249
Machinery, other than electric	2,736	1,658	2,677	1,673	826	2,205
Petroleum coke	628	850	748	1,680	1,666	1,073
Woodpulp for paper-making	1,134	895	971	1,839	957	1,070
Other	1,962	1,770	1,627	1,654	726	645
Total	6,835	5,629	6,636	7,269	4,655	5,986
JAPAN						
Chemicals	806	284	403	1,420	856	558
Commercial road transport vehicles	230	450	263	204	381	809
Electrical machinery	242	203	711	782	586	432
Machinery, other than electric	1,022	1,376	667	226	322	740
Motor cycles	97	68	91	166	160	242
Passenger motor cars	999	770	483	653	719	1,081
Textiles	1,376	1,965	1,746	1,091	1,566	2,520
Other (a)	602	592	945	877	459	621
Total	5,374	5,708	5,309	5,419	5,049	7,003

Value of Imports from Principal Overseas Countries—continued
(**\$'000**)

Commodity	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
NEW ZEALAND						
Chemicals	31	35	38	155	144	200
Machinery and transport equipment	56	62	96	142	195	102
Paper and paperboard ..	690	683	330	403	395	273
Textiles	83	88	189	691	980	538
Textile fibres	222	217	183	100	190	2,010
Vegetables, fresh and preserved	126	227	75	44	281	148
Woodpulp for papermaking	1,615	2,275	2,306	3,260	3,324	4,055
Other	431	412	284	313	292	407
Total	3,254	3,999	3,501	5,108	5,801	7,732

(a) Includes value details for items not available for separate publication.

Exports of Principal Commodities

The following table shows the value of principal commodities exported from Tasmania by sea and air:

Exports of Principal Commodities by Sea and Air: Values
(**\$'000**)

Commodity	1970-71	1971-72	1972-73
Butter (including butter oil)	5,954	8,067	6,104
Cheese	2,589	3,875	4,085
Fertilisers, manufactured	2,232	2,605	2,697
Fish, crustaceans and molluscs	3,892	4,780	4,336
Fruit—Apples (fresh)	12,687	10,420	10,846
Juices and syrups	936	821	1,504
Other	3,013	2,800	3,209
Hides and skins (cattle, calf, horse and sheep) ..	2,546	2,867	5,364
Hops	2,218	2,114	2,802
Live animals	2,148	2,735	4,336
Meat—Beef and veal	6,583	9,158	15,237
Lamb and mutton	2,212	2,752	2,548
Other	1,911	2,252	2,583
Metals, refined—Cadmium	1,871	1,866	2,180
Zinc	38,163	55,149	63,707
Motor cars and commercial vehicles (a)	27,087	28,229	28,537
Ores and concentrates—Copper	24,253	27,137	24,108
Iron	24,935	25,503	27,994
Lead	5,823	7,538	7,471
Tin	18,088	20,364	21,455
Tungsten	7,888	7,320	6,515
Sulphuric acid	3,435	7,096	8,657
Textile yarn, fabrics and made-up articles	28,425	29,938	31,680
Timber—Dressed	8,904	8,875	7,481
Undressed	8,298	8,510	13,341
Vegetables, fresh and preserved	13,241	16,782	16,518
Woodchips	438	4,354	16,833
Wool, greasy	14,350	17,180	34,579
Commodities not available for publication (b) ..	115,029	133,097	168,703
All other exports	58,821	56,748	24,837
Total	447,970	510,932	570,247

(a) Mainly tourist and other motor vehicles exported as personal effects.

(b) Commodities comprising this item are: aluminium, alumina, beadings and mouldings, paper, hardboard, cement, ferro-manganese, silicon-manganese, confectionery, cocoa and chocolate, food beverages, paper pulp, metal scrap, calcium carbide, titanium oxides, plywood, welding rods and electrodes, particle board and asbestos-cement articles.

The next table shows the quantities of the principal commodities exported and has been compiled, as far as this is practicable, to match the preceding table of values:

Exports of Principal Commodities by Sea and Air: Quantities

Commodity (a)	Unit of quantity	1970-71	1971-72	1972-73
Butter (including butter oil)	'000 kg	10,663	9,829	7,437
Cheese	'000 kg	6,259	6,816	6,656
Fertilisers, manufactured	t	31,863	35,346	34,293
Fish—Abalone	kg	873,140	880,252	699,918
Rock lobster	kg	572,492	689,388	847,217
Other	kg	893,359	964,432	908,573
Fruit—Apples (fresh)	'000 kg	91,482	70,505	79,781
Juices and syrups	'000 ℓ	1,430	1,243	2,231
Other	'000 kg	13,037	11,525	12,670
Hides and skins (cattle, calf and sheep)	'000 kg	6,353	6,742	7,074
Hops	'000 kg	1,374	1,208	1,470
Live animals—Cattle	no.	15,736	23,707	33,899
Sheep	no.	80,172	81,161	125,529
Meat—Beef and veal	'000 kg	7,424	10,115	14,472
Lamb and mutton	'000 kg	5,486	7,780	4,893
Pork	'000 kg	1,914	2,155	2,202
Other	'000 kg	931	1,417	1,494
Metals, refined—Cadmium	kg	357,649	398,290	475,966
Zinc	t	142,755	194,258	208,349
Motor cars and commercial vehicles (b)	no.	17,332	18,064	17,006
Ores and concentrates—Copper	t	93,847	113,570	99,440
Iron	t	2,062,934	2,189,437	2,535,575
Lead	t	23,402	45,248	47,404
Tin	t	11,625	13,447	15,331
Tungsten	t	2,160	2,633	2,381
Timber—Dressed	m ³	80,609	80,272	60,547
Undressed	m ³	119,974	122,061	164,281
Vegetables—Fresh	'000 kg	19,417	10,521	12,926
Preserved	'000 kg	35,528	46,959	45,393
Woodchips	t	29,884	301,410	1,156,134
Wool, greasy	'000 kg	17,146	20,413	17,735

(a) Principal commodities not available for publication comprise: aluminium, alumina, hardboard, cement, ferro-manganese, silicon-manganese, confectionery, cocoa and chocolate, food beverages, paper pulp, metal scrap, calcium carbide, titanium oxides, plywood, welding rods and electrodes, particle board and asbestos-cement articles.

(b) Mainly tourist and other motor vehicles exported as personal effects.

Exports of Selected Commodities

The following table shows, in summary form, total exports of some important commodities for selected years since 1939-40:

Exports of Selected Commodities by Sea and Air

Commodity	Unit of quantity	1939-40	1949-50	1959-60	1969-70	1972-73
QUANTITY						
Apples and pears, fresh	'000 kg	74,373	56,911	80,683	109,384	84,066
Butter (including butter oil)	'000 kg	2,816	2,179	7,864	12,611	7,437
Hops	'000 kg	719	802	1,340	1,368	1,470
Meat, fresh, chilled or frozen	'000 kg	2,534	957	9,225	17,048	23,061
Ores and concentrates	'000 t	137	6	28	2,175	2,700
Timber, dressed and undressed	'000 m ³	120	148	178	207	225
Woodchips	'000 t	..	..	..	..	1,156
Wool, greasy	'000 kg	5,110	5,228	12,690	16,513	17,735
Zinc, refined	t	72,047	81,998	115,680	163,847	208,349

Exports of Selected Commodities by Sea and Air—continued

Commodity	Unit of quantity	1939-40	1949-50	1959-60	1969-70	1972-73
VALUE (\$'000)						
Butter (including butter oil)	742	1,278	5,390	6,950	6,104
Fish, crustaceans and molluscs	68	732	1,362	3,562	4,336
Apples and pears, fresh	2,270	4,348	9,490	14,905	11,566
Meat, fresh, chilled or frozen	310	312	3,788	11,774	20,368
Hides and skins (cattle, calf, horse and sheep)	251	1,199	3,028	2,801	5,364
Refined copper	1,416	1,478	5,022	9,783	..
Refined zinc	2,856	9,964	22,922	42,625	63,707
Ores and concentrates	2,144	4,076	5,952	63,478	87,548
Textile yarn and fabrics	2,674	5,540	17,524	27,784	31,680
Wool, greasy	1,376	6,202	15,254	17,821	34,579
Timber, dressed and undressed	1,238	2,930	8,952	16,238	20,822

Exports to Principal Overseas Countries

Details for commodities exported to principal overseas countries are given in the next table:

Exports to Principal Overseas Countries

Commodity	Unit of quantity	Quantity			Value (\$'000)		
		1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
JAPAN							
Abalone	'000 kg	341	444	246	569	1,012	604
Cheese	'000 kg	8	1,640	1,870	5	851	1,092
Copper ores and concentrates	t	76,109	74,421	71,409	19,195	15,669	15,793
Hides and skins (cattle and calf)	'000 kg	610	784	1,040	194	298	773
Iron ores and concentrates	'000 t	2,063	2,189	2,532	24,935	25,503	27,950
Lead ores and concentrates	t	6,456	3,657	3,207	1,341	576	619
Meat and bone meal	t	352	3,367	3,955	35	231	529
Meat, fresh, chilled or frozen	'000 kg	2,332	5,045	4,172	849	1,982	3,510
Woodchips	'000 t	30	301	1,156	438	4,352	16,833
Wool, greasy	'000 kg	3,963	3,335	3,415	3,479	2,771	5,987
Other (a) .. ..	..	..	..	..	3,959	2,750	1,541
Total .. ..	..	..	..	..	54,999	55,997	75,231
UNITED KINGDOM							
Apples, fresh	'000 kg	42,765	38,688	27,407	5,909	5,586	3,498
Butter	'000 kg	7,210	7,222	4,678	3,761	6,238	3,959
Cadmium, refined	'000 kg	76	63	49	403	249	221
Cheese	'000 kg	4,351	2,235	100	1,610	1,208	82
Meat, fresh, chilled or frozen	'000 kg	2,215	3,390	4,541	1,232	1,666	3,201
Pears, fresh	'000 kg	3,238	3,175	2,440	447	486	361
Sheep and lamb skins	'000 kg	481	291	364	115	159	404
Tin ores and concentrates	t	1,959	2,900	4,210	1,096	2,176	1,815
Wool, greasy	'000 kg	847	1,004	1,052	605	831	1,943
Zinc, refined	t	14,543	41,953	33,432	3,578	9,986	7,740
Other (a) .. ..	..	..	..	..	1,818	995	694
Total .. ..	..	..	..	..	20,574	29,580	23,918

Exports to Principal Overseas Countries—*continued*

Commodity	Unit of quantity	Quantity			Value (\$'000)		
		1970-71	1971-72	1972-73	1970-71	1972-73	1973-74
UNITED STATES OF AMERICA							
Cadmium, refined	'000 kg	..	7	62	..	28	298
Casein	t	829	1,050	1,071	351	762	785
Cheese	'000 kg	411	655	1,415	211	450	956
Lead ores and concentrates	t	16,914	41,341	39,300	4,475	6,903	6,642
Meat, fresh, chilled or frozen	'000 kg	6,338	7,814	8,530	5,881	7,434	9,526
Rock lobster	'000 kg	186	155	71	1,096	1,032	418
Wheat gluten	'000 kg	..	..	1,251	..	..	536
Wool, greasy	'000 kg	66	82	181	57	81	396
Zinc, refined	t	20,538	30,938	40,255	5,721	9,692	13,998
Other (a) .. .. .	..	..	..	..	635	680	1,879
Total .. .. .	..	..	..	..	18,427	27,062	35,434
THAILAND							
Zinc, refined	t	10,324	16,162	14,261	2,699	4,755	4,399
Other (a) .. .. .	..	..	..	..	1,443	2,078	2,641
Total .. .. .	..	..	..	..	4,142	6,833	7,040

(a) Includes item(s) for which details are not available for separate publication.

RETAIL TRADE IN TASMANIA

Censuses of Retail Establishments

Historical

Before the Integrated Economic Censuses of 1968-69, retail censuses were undertaken for the years ended 30 June 1948, 1949, 1953, 1957 and 1962. The information collected in each census was extensive and provided details of retail trading in local government areas, in statistical divisions, and in special 'statistical retail areas'. The census information was also used as a bench-mark for designing a sample representative of all retail establishments for the purpose of inter-censal quarterly surveys which are the basis for calculating estimates of the quarterly value of retail sales; estimates of the value of retail sales, based on these surveys, have been calculated for each quarter.

In 1968-69 simultaneous economic censuses for five sectors were undertaken: manufacturing; mining; wholesaling; retailing; and electricity and gas. Results of these censuses appear in the special appendix to this chapter. Definitions of concepts and terms appear in Appendix B 'Economic Censuses' of this Year Book. In 1973-74 a further retail census using the integrated economic census definitions and concepts was undertaken, however, data coverage was not as extensive as in the 1968-69 retail census. The full title of the 1968-69 retail census was 'Census of retail establishments and selected service establishments'.

Census of Retail Establishments, 1968-69

Effects of New Classification

The establishment's classification is based on the Australian Standard Industrial Classification (ASIC). ASIC defines the industries in the economy for statistical purposes and specifies the scope of the different economic censuses without gaps or overlaps. Adoption of ASIC has resulted in changes in scope between the 1968-69 retail census and the earlier retail censuses. The main changes are as follows:

(i) Motion picture theatres, licensed clubs and laundry and dry cleaning services were added to the 'selected services' group (details were obtained in supplementary collections for 1961-62 but not included in the main retail statistics).

(ii) Activities previously reported in both manufacturing and retail censuses are, by definition, allocated exclusively to the retail sector (i.e. if these defined activities were the establishment's major activity). Such activities include: (a) motor vehicle repairs; dry cleaning; shoe repairs; and tyre retreading; (b) custom dressmaking and custom tailoring; clothing repair and alterations; making up and repair of blinds, awnings and curtains; repair of domestic appliances; panel beating and smash repairs; watch and clock repairs; jewellery repairs; and baking of cakes in cake shops. (Group (b) was only included in the 1961-62 retail census if carried on at establishments also making retail sales.) With the adoption of the new criterion of major activity and the use of ASIC, no establishment is required to supply returns in more than one census and all establishments mainly engaged in the above activities are now included in the retail census only.

(iii) Some changes are due to the concept of major activity. Previous retail censuses covered the retailing activities of all establishments which normally sold goods by retail to the general public from rooms, kiosks and yards, irrespective of what their main activity may have been. The 1968-69 retail census excludes locations where the main activity is something other than retailing.

(iv) Some changes in scope are not related to the introduction of ASIC. For example, bread vending and milk vending by independent vendors mainly engaged in retailing bread or milk by home service delivery are included for the first time.

(v) The basic definition of 'retail trade' remains the same: the resale of new and used goods to final consumers for personal and household consumption.

Results

The following tables give results for Tasmania of the 1968-69 retail census. Direct comparisons with the results of previous censuses cannot be made because of changes in the census units and the scope of the census.

Census of Retail and Selected Service Establishments, 1968-69
Summary of Operations by Industry Group

Industry group	ASIC code (a)	Establishments operating at 30 June 1969	Persons employed (b)			Wages and salaries
			Males	Females	Persons	
		no.	no.	no.	no.	\$m
Department, variety and general stores..	481	114	849	2,128	2,977	5.3
Food stores	482	1,714	2,899	3,660	6,559	6.5
Bread and milk vendors	483	115	317	58	375	0.3
Clothing, fabric and furniture stores ..	484	519	909	1,572	2,481	4.2
Household appliances and hardware stores	485	242	780	497	1,277	2.6
Motor vehicles, petrol and tyre retailers	486	851	4,206	865	5,071	9.7
Other retailers	487	452	911	1,224	2,135	2.8
Total retail establishments ..	..	4,007	10,871	10,004	20,875	31.5
Motion picture theatres	911	40	142	105	247	0.4
Restaurants and licensed hotels	921	368	1,612	2,308	3,920	6.1
Licensed clubs	922	143	418	97	515	1.0
Laundries and dry cleaners	931	47	191	365	556	1.0
Hairdressing and beauty salons	932	252	204	613	817	0.9
Total selected service establishments	..	850	2,567	3,488	6,055	9.2
Grand total .. .. .	..	4,857	13,438	13,492	26,930	40.7

Census of Retail and Selected Service Establishments, 1968-69
Summary of Operations by Industry Group—continued

Industry group	Retail sales (c)	Turnover	Stocks at 30 June		Purchases, transfers in and selected expenses	Value added
			1968	1969		
	\$m	\$m	\$m	\$m	\$m	\$m
Department, variety and general stores ..	40.3	43.1	6.9	8.0	32.2	11.9
Food stores	96.1	97.5	5.7	6.2	79.0	19.1
Bread and milk vendors	4.9	5.2	..	..	4.2	1.0
Clothing, fabric and furniture stores ..	37.5	38.6	8.7	9.2	28.1	11.0
Household appliances and hardware stores	15.3	18.4	3.6	3.9	13.1	5.6
Motor vehicles, petrol and tyre retailers	90.3	113.5	10.2	11.0	91.1	23.2
Other retailers	23.2	24.0	3.8	4.1	16.8	7.5
Total retail establishments ..	307.6	340.4	38.8	42.3	264.5	79.4
Motion picture theatres	0.2	1.3	..	..	0.5	0.8
Restaurants and licensed hotels	27.2	37.7	1.0	1.0	22.4	15.3
Licensed clubs	4.2	5.0	0.2	0.2	3.1	1.9
Laundries and dry cleaners .. ..	..	2.3	..	..	0.5	1.8
Hairdressing and beauty salons	0.3	2.4	0.1	0.1	0.5	1.9
Total selected service establishments	31.9	48.8	1.3	1.4	27.1	21.7
Grand total	339.5	389.1	40.1	43.7	291.6	101.1

(a) Australian Standard Industrial Classification.

(b) At last pay day in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(c) Retail sales is a component of turnover in next column.

In the next table, details are given of establishments, persons employed and value of retail sales by statistical divisions:

Number of Retail and Selected Service Establishments, Persons Employed and Value of Retail Sales, by Statistical Division 1968-69

Statistical division and sub-division	Retail and selected service establishments r	Persons employed (a)	Value of retail sales (b)
	no.	no.	\$'000
Hobart	1,707	11,548	149,672
Southern	356	1,217	12,640
Tamar	1,300	6,861	84,519
North Eastern	227	849	8,479
Northern	1,527	7,710	92,997
North Western	1,107	5,684	75,706
Western	160	771	8,463
Mersey-Lyell	1,267	6,455	84,169
Tasmania	4,857	26,930	339,478
Urban Hobart	1,504	10,703	139,670
Urban Launceston	962	5,654	71,278

(a) At last pay day in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) These figures refer to the total value of all commodities sold retail by all retail establishments and similar sales by selected service establishments.

Sales by Commodity: Classifications by industry, or by region of the commodities shown in the next table are available from the Bureau. However, further dissection of the commodities is difficult due to problems encountered in collecting the data.

**Number of Retail and Selected Services, Manufacturing, Mining, Wholesale
and Electricity and Gas Establishments Reporting Retail Sales, and
Value of Sales by Commodity Item, 1968-69**

Commodity item	Establishments	Retail sales	Proportion of total sales
	no.	\$'000	per cent
Groceries	1,232	48,651	13.92
Fresh meat	474	20,661	5.91
Fresh fruit and vegetables	904	5,969	1.71
Bread, cakes and pastries	908	4,604	1.32
Delivered bread	67	1,153	0.33
Delivered milk	99	6,216	1.78
Fish, chips, hamburgers, etc.	249	2,014	0.58
Confectionery, ice cream, soft drinks, wrap- ped lunches, etc.	1,689	10,532	3.01
Beer, wine and spirits	462	30,936	8.85
Cigarettes and other tobacco products	2,178	11,902	3.41
Furniture, mattresses, blinds, etc. (including installation and repairs)	164	8,501	2.43
Floor coverings, carpets, lino, etc. (including laying of floor coverings)	125	4,133	1.18
Fabrics, piece goods, manchester, blankets, soft furnishings, etc.	288	7,248	2.07
Clothing—Men's and boys'	325	12,732	3.64
Women's, girls' and infants'	434	22,407	6.41
Footwear—Men's and boys'	298	2,759	0.79
Women's, girls' and infants'	271	4,312	1.23
Radios, radiograms, tape recorders, etc.	152	2,469	0.71
Musical instruments, records, etc.	98	1,108	0.32
Television sets and accessories	131	2,075	0.59
Domestic refrigerators and freezers	128	2,143	0.61
Washing machines, stoves and household heating appliances	141	2,967	0.85
Other household appliances	188	2,686	0.77
Domestic hardware, china and glassware, including garden equipment	455	6,266	1.79
Petrol, oils and motor lubricants, etc.	672	19,137	5.48
New motor vehicles	77	32,360	9.26
New parts and accessories for motor vehicles	401	5,256	1.50
Used motor vehicles	129	25,258	7.23
Used parts and accessories for motor vehicles	70	506	0.14
New and used motor cycles and motor scooters	34	409	0.12
New and used motor tyres, tubes and batt- eries	440	6,585	1.88
Boats, outboard motors and caravans	43	2,304	0.66
Cosmetics, perfumes, toilet preparations, etc.	563	4,250	1.22
Patent medicines and therapeutic appliances	427	3,344	0.96
Prescription medicines	143	4,101	1.17
Photographic equipment and supplies	284	1,653	0.47
Watches, clocks, jewellery and silverware	208	2,540	0.73
Sporting goods, bicycles, toys, etc.	313	3,932	1.13
Books, stationery, newspapers, etc.	558	9,231	2.64
Antiques, disposal goods and secondhand goods (excluding trade-ins), etc.	39	<i>n. p.</i>	<i>n. p.</i>
Cut flowers, garden seeds, shrubs, etc.	145	852	0.24
Travel goods, brief cases, etc.	96	474	0.14
Bottled liquified petroleum gas	20	<i>n. p.</i>	<i>n. p.</i>
Other goods	218	2,408	0.69
Total .. .. .	..	349,439	100.00

Quarterly Estimates of Value of Retail Sales

Each quarter, returns of retail sales are collected from a fraction (or sample) of all retail businesses recorded in the most recent census of retail establishments, the fraction being selected to represent the field covered by the census. Total sales for 1968-69 shown in the table below are less than the census total since, for collection convenience, sales by bread and milk vendors, motion picture theatres, laundries and dry cleaners are excluded from the quarterly estimates. This sample is varied annually to make provision for 'new' establishments opening up, 'old' establishments closing down and 'old' establishments changing type ('old', in this context, relates to businesses as recorded at the most recent census of retail establishments).

Estimated Value of Retail Sales of Goods by Commodity Groups (a)

Commodity group	1968-69 (a)		1972-73 (b)	
	Value	Proportion of total	Value	Proportion of total
	\$m	%	\$m	%
Groceries	49.0	14.3	59.5	12.9
Butchers' meat	20.7	6.0	22.1	4.8
Other foods	23.3	6.8	31.7	6.9
Beer, wine and spirits	30.9	9.0	43.6	9.4
Clothing, drapery and footwear	49.5	14.5	65.4	14.2
Domestic hardware, china and glassware	8.8	2.6	11.0	2.4
Electrical goods	13.3	3.9	18.5	4.0
Furniture	12.7	3.7	17.3	3.7
Chemists' goods	11.7	3.4	17.1	3.7
Newspaper, books, stationery, etc. . . .	9.3	2.7	13.5	2.9
Other goods	21.6	6.3	29.2	6.3
Motor vehicles, parts, petrol, etc. . . .	91.5	26.7	133.1	28.8
Total	342.3	100.0	462.0	100.0

(a) From Integrated Census 1968-69.

(b) For the year ended 30 September 1973. Derived from quarterly sample surveys of retailers.

Note: Survey figures prior to 1 October 1972 were based upon the retail census of 1961-62 which used different data concepts.

WHOLESALE TRADE

Introduction

Censuses and surveys of retail trade were introduced by the Bureau in the late 1940s; a continuous quarterly series shows retail sales for the last 25 years or so in terms of broad commodity groups. Developments in this field occupied all the resources available and the problem of creating a matching wholesale series had to be deferred. However, a pilot census was conducted covering wholesale trading in 1963-64, the aim being to identify the various categories of wholesalers and to discover the various types of operation.

The results of the pilot census were not published but they served to show the definitional framework necessary for a full-scale census, and to highlight differences between retail and wholesale operations (e.g. the greater relative importance in the wholesale sector of sales on commission).

The decision was taken to defer any full-scale wholesale census until 1968-69 when simultaneous censuses were being held in other sectors of the economy, the more relevant being those covering manufacturing and retailing. The link between wholesaling and these two sectors is easily apparent; manufacturers often market through wholesalers, and wholesalers in turn are suppliers of goods to retailers. The inclusion of all three sectors in three simultaneous censuses meant that there were no overlaps or gaps in coverage.

Census of Wholesale Establishments, 1968-69

For definitions of terms, concepts, etc., see Appendix B 'Economic Censuses' of this Year Book.

Types of Wholesale Operation

(i) *Primary Produce Dealers or Agents*: Establishments mainly purchasing produce direct from farmers, graziers, fishermen, etc. or selling produce on commission to such producers; included are all establishments of the country 'stock and station agent' type.

(ii) *Wholesale Merchants*: Establishments mainly selling goods owned by the enterprise and not bought direct from primary producers. A further dissection separates out 'import and/or export merchants' as a special sub-set.

(iii) *Manufacturers' Sales Branches Holding Stocks*: Establishments mainly selling goods manufactured by other establishments of the same enterprise *provided* (a) the sales branch is separately located from all manufacturing establishment locations; and (b) it supplies goods direct to customers from stocks physically held at premises occupied or controlled by the branch itself.

(iv) *Commission Agents or Brokers*: Establishments mainly selling or purchasing goods on commission for other enterprises (except those selling on behalf of primary producers, included in (i) previously; and on behalf of oil companies, included in (v) following).

(v) *Petroleum Distributors*: Establishments mainly dealing in petroleum products, either on account of the enterprise or on commission for other enterprises.

(vi) *Repairers and Lessors of Machinery and Equipment*: Establishments mainly repairing farm machinery or business machines, or leasing machinery or equipment without operators for periods exceeding one year. These activities are included in wholesale trade because they are usually performed by establishments whose main activity is the wholesale distribution of machinery. Other repair activity which is usually performed by manufacturing establishments is, of course, included in the manufacturing census.

Results of the 1968-69 Census

The tables that follow show some of the main items recorded in the 1968-69 census of wholesale establishments. A peculiarity of wholesale trading is that there are two types of sales: (i) those made on own account; and (ii) those made on commission. While 'turnover' includes value of sales on own account it includes only the commission received in respect of sales on commission.

Census of Wholesale Establishments, 1968-69
Summary of Operations by Broad Type of Operation

Type of operation	Establishments operating at 30 June	Persons employed (a)			Wages and salaries	Sales on commission (b)
		Males	Females	Total		
Primary produce dealers or agents	no.	no.	no.	no.	\$m	\$m
Wholesale merchants—	87	1,279	356	1,635	4.7	53.1
Import and/or export ..	57	330	127	457	1.2	1.6
Other	500	3,982	1,080	5,062	13.3	5.4
Manufacturers' sales branches	98	560	160	720	2.2	12.1
Commission agents or brokers	102	224	146	370	0.5	21.9
Petroleum distributors ..	56	392	71	463	1.5	54.9
Repairers and lessors of machinery and equipment	20	59	9	68	0.2	..
Total wholesale trade ..	920	6,826	1,949	8,775	23.6	149.1

Census of Wholesale Establishments, 1968-69
Summary of Operations by Broad Type of Operation—continued

Type of operation	Turnover	Stocks at 30 June		Purchases, transfers in and other selected expenses	Value added
		1968	1969		
Primary produce dealers or agents ..	\$m 45.4	\$m 6.1	\$m 6.1	\$m 35.1	\$m 10.3
Wholesale merchants—					
Import and/or export	24.5	3.3	3.2	21.3	3.2
Other	178.9	25.0	27.7	148.9	32.8
Manufacturers' sales branches	31.9	3.0	3.2	25.6	6.5
Commission agents or brokers	3.5	0.2	0.2	2.1	1.5
Petroleum distributors	23.3	1.4	1.9	17.5	6.4
Repairers and lessors of machinery and equipment	1.0	..	0.1	0.4	0.6
Total wholesale trade	308.6	39.1	42.4	250.7	61.2

(a) At last pay period in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) The *commission* from these sales is included in the calculation of 'value added' (since commission received is a component of 'turnover') but the sales themselves are excluded from the calculation.

The next table shows a broad geographical distribution of the main wholesale census items:

Census of Wholesale Establishments, 1968-69: Main Items by Statistical Division

Statistical division and sub-division	Establishments operating at 30 June	Total persons employed (a)	Wages and salaries	Sales on commission (b)	Sales on own account and transfers out	Value added
Hobart	no. 395	no. 4,008	\$m 11.1	\$m 64.9	\$m 144.7	\$m 29.1
Southern	44	241	0.4	1.2	4.2	0.8
Tamar	283	2,674	7.1	47.0	76.6	16.4
North Eastern	32	83	0.2	0.2	2.9	0.5
Northern	315	2,757	7.3	47.2	79.5	16.9
North Western	161	} n.p.	n.p.	n.p.	n.p.	n.p.
Western	5					
Mersey-Lyell	166	1,769	4.9	35.8	58.3	14.4
Tasmania	920	8,775	23.6	149.1	286.7	61.2
Urban Hobart	384	3,921	10.9	63.1	144.0	28.7
Urban Launceston	251	2,578	6.9	35.1	74.5	15.7

(a) At last pay period in June; includes working proprietors and unpaid helpers working at least 15 hours during the week.

(b) The *commission* from these sales is included in the calculation of 'value added' (since commission received is a component of 'turnover') but the sales themselves are excluded from the calculation.

INTEGRATED ECONOMIC CENSUSES

Introduction

In the 1972 Year Book, Appendix A gave a detailed description of the Australian Integrated Economic Censuses conducted by the Australian Bureau of Statistics for the 1968-69 financial year.

The Tasmanian results of these five simultaneous censuses appear in the appropriate chapters of this book; references are:

- (i) *Census of Manufacturing Establishments*, Chapter 9;
- (ii) *Census of Mining Establishments*, Chapter 8;
- (iii) *Census of Wholesale Establishments*, Chapter 10;
- (iv) *Census of Retail Establishments and Selected Service Establishments*, Chapter 10;
- (v) *Census of Electricity and Gas Establishments*, Chapter 9.

The purpose of this section is to bring together the results of the five 1968-69 censuses, and those for later years when a less comprehensive coverage of ASIC Divisions was attempted. Comparison and combination is possible since common definitions and concepts were employed in each.

Definitions of terms and concepts used in the economic censuses are given in Appendix B 'Economic Censuses' of this Year Book.

Value Added, Employment, etc.

'Value added' is a concept allied to 'net value of production'; the former is a new value concept employed in the integrated censuses just specified while the latter is still employed in series related to primary production (excluding mining). Although broadly analogous, the two concepts are differently defined and direct comparisons are therefore not made.

The following table shows value added as recorded in each census:

Integrated Economic Censuses 1968-69: Value Added

Classification of establishments (a)	Amount	Proportion of total	Per head of mean population
	\$'000	per cent	\$
Mining	44,286	10.1	115.71
Manufacturing	197,464	45.1	515.96
Electricity and gas	33,437	7.6	87.37
Wholesaling	61,210	14.0	159.94
Retailing	79,380	18.1	207.42
Selected services (b)	21,717	5.0	56.75
Total	437,494	100.0	1,143.15

(a) As defined in the Australian Standard Industrial Classification.

(b) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

Comparison with Primary Industry Series

As previously explained, it is not possible to make a direct comparison between net value of production in the primary industry series and value added in the integrated census series. However, the net value of production series are included in Chapter 8 in the special Appendix, 'Value of Production'. Net value of production for the rural group of primary industries in 1972-73 was \$105.5m (1968-69, \$74.1m); for the non-rural group (excluding mining) \$31.5m (1968-69, \$18.0m); and for both groups \$136.9m (1968-69, \$92.1m).

The last year in which manufacturing and mining values could be directly compared with those in the primary production series was 1967-68; in that year for example, the net value of production for the rural group of primary industries (\$62.7m) was approximately one third of the corresponding manufacturing figure (\$198.0m). A somewhat similar relativity can be observed in 1968-69 between net value of production for the rural group of primary industries (\$74.1m) and value added in the manufacturing census (\$197.5m). Thus, even if a direct comparison cannot be made, it is still possible to draw very broad conclusions about the relative economic significance of various types of activity by examining the net value of production series in Chapter 8 and the value added series in this section.

Other Comparisons

The next table combines the results of the five simultaneous censuses to show the derivation of value added:

Integrated Economic Censuses 1968-69: Derivation of Value Added
(\$ million)

Classification of establishments (a)	Turnover	Stocks at 30 June		Purchases, transfers in and selected expenses	Value added (b)
		1968	1969		
	(1)	(2)	(3)	(4)	(5)
Mining	63.1	8.1	9.5	20.1	44.3
Manufacturing	487.1	94.6	104.7	299.7	197.5
Electricity and gas	34.8	5.1	4.7	0.9	33.4
Wholesaling	308.6	39.1	42.4	250.7	61.2
Retailing	340.4	38.8	42.3	264.5	79.4
Selected services (c)	48.8	1.3	1.4	27.1	21.7
Total	1,282.7	187.0	204.9	863.1	437.5

(a) As defined in the Australian Standard Industrial Classification.

(b) (5) = (1) minus (2) plus (3) minus (4).

(c) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

The following table shows the number of establishments, persons employed and wages and salaries:

Integrated Economic Censuses 1968-69: Number of Establishments, Persons Employed and Wages and Salaries

Classification of establishments (a)	Number of establishments (b)	Persons employed (c)			Wages and salaries
		Males	Females	Persons	
		no.	no.	no.	\$m
Mining	75	3,932	145	4,077	17.2
Manufacturing	951	25,340	6,729	32,069	95.1
Electricity and gas	5	2,432	194	2,626	10.6
Wholesaling	920	6,826	1,949	8,775	23.6
Retailing	4,007	10,871	10,004	20,875	31.5
Selected services (d)	r850	2,567	3,488	6,055	9.2
Total	r6,808	51,968	22,509	74,477	187.1

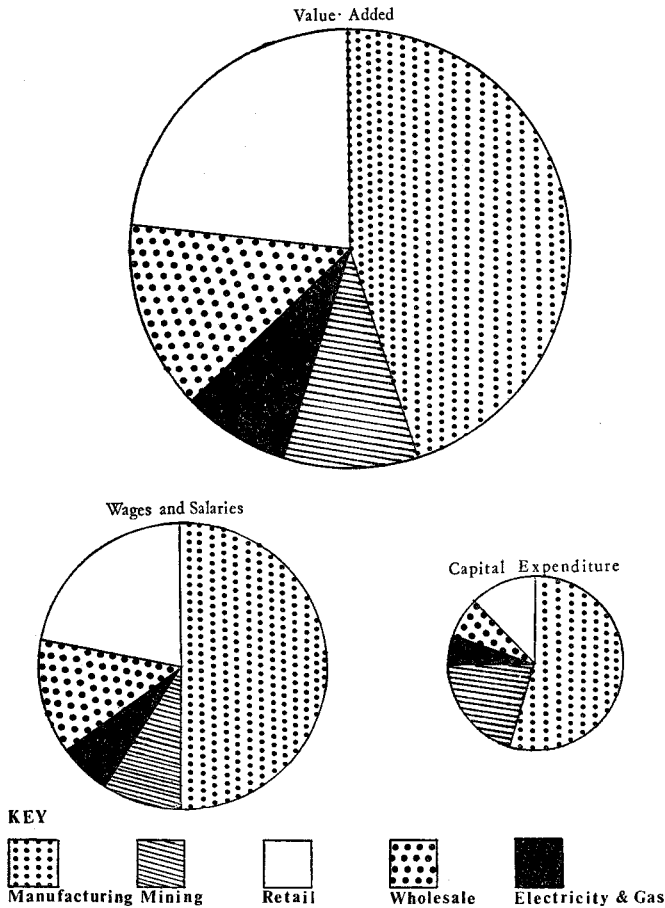
(a) As defined in the Australian Standard Industrial Classification.

(b) At 30 June 1969.

(c) At last pay day in June; includes working proprietors and unpaid helpers.

(d) Comprises: picture theatres, restaurants, licensed hotels and clubs, laundries, dry cleaners, hairdressing and beauty salons.

Integrated Economic Censuses
ECONOMIC CENSUSES, 1968-69



Development After 1968-69 Censuses

Principal items from economic censuses conducted after 1968-69 follow:

Mining, Manufacturing, Electricity and Gas Censuses, 1969-70 to 1972-73: Number of Establishments, Employment, Wages and Salaries and Value Added

ASIC classification of establishments		Number of establishments (a)	Persons employed (a)	Wages and salaries	Value added
Mining—	1969-70	78	no. 4,312	\$'000 18,544	\$'000 44,286
	1970-71	59	r4,660	22,641	58,096
	1971-72 (b)	r53	r4,640	r25,521	r59,317
	1972-73	48	4,326	28,091	62,186
Manufacturing (c)—	1969-70	945	32,414	102,104	226,083
	1971-72r	933	31,144	119,411	245,068
	1972-73p	912	31,526	131,445	284,720
Electricity and gas (c)—	1969-70	6	2,754	11,965	38,722
	1971-72	5	2,971	14,658	45,749

(a) At 30 June.

(b) The 1971-72 Census results excluded 'small' tin miners whose sales were less than \$20,000.

(c) No economic census for 1970-71.

Chapter 11

TRANSPORT AND COMMUNICATION

PORT AUTHORITIES

Introduction

Tasmania has a number of ports capable of accommodating overseas vessels; they are sited on the Derwent and Huon Rivers in the south (Hobart and Port Huon); in Spring Bay on the east coast; on the Tamar in the north (Beauty Point, Inspection Head, Long Reach and Bell Bay); on the Mersey (Devonport), in Emu Bay (Burnie) and at Port Latta, all in the north-west. All these ports provide depths of approximately 9 metres or more of water at berths; Port Latta provides a depth of 16 metres nearly one and a half kilometres off-shore.

Interstate and intrastate trade passes through the main ports and operates as well through ports at Strahan, Stanley, Ulverstone, Currie (on King Island) and Lady Barron (on Flinders Island). A new interstate and intrastate port at Grassy, King Island, was completed in early 1972.

This section deals primarily with the authorities which control the harbours but a brief description is given of the main ports.

Port of Hobart

Location

The approach to the Derwent and the Port of Hobart is made through a very wide strait between Cape Queen Elizabeth (Bruny Island) and Cape Raoul (Tasman Peninsula), approximately 50 kilometres south-east from the city. The mouth of the Derwent, five and a half kilometres wide, lies 19 kilometres south-east of the port which is built upstream on the western bank in a U-shaped cove; the opposite bank lies two and a half kilometres away to the east. The shores of the Derwent and the arms of the cove act as natural breakwaters.

Description

The present main port of Hobart is extremely compact, being U-shaped with only 610 metres or less separating the southern and northern arms. The southern arm is devoted to Princes Wharf with berths numbered one to four; the centre contains Elizabeth Street Pier and Kings Pier while the northern arm is made up of the Macquarie Wharves with berths one to four. Most wharves and sheds in the main port are of concrete construction. A tanker berth, formerly sited on Macquarie Point, about 305 metres north of Macquarie Wharves, has been decommissioned and work has started on the redevelopment of the whole area to provide additional berths.

Princes No. 1 and No. 4 berths are specialised terminals with a drive-on ramp and vehicle marshalling areas. The berths accommodate the 'Seaway' class vessels and the passenger-cargo ferry *Australian Trader*. Macquarie No. 4 berth has been modified to accommodate the roll-on roll-off vessel *Mary Holyman* which operates on the Hobart-Adelaide service.

The most striking feature of the Port of Hobart is the ease with which large vessels can be brought to berth. Tides present no problem, the rise and fall being 1.37 metres (average approximately 0.61 metres), and dredging of approach channels has never been necessary.

Subsidiary Ports

In addition to the main port in the heart of the city, there are a number of subsidiary outlets serving the south of the State. Near Snug, on D'Entrecasteaux Channel, is the private wharf of the Electrona carbide works. Port Huon wharf, located on the west bank of the Huon River near Geeveston, is in the centre of the principal orcharding area and used mainly for fruit exports. Also based on the Huon River (at Hospital Bay) is the A.P.M. Ltd private wharf (for export of paper pulp). At the port of Spring Bay, near Triabunna on the east coast, accommodation has been provided for bulk carriers loading woodchips for Japan. In the Derwent itself, four kilometres upstream from the main port, is a tanker berth at Sels Point where bulk petrol and oil are stored; tankers pass under the 47 metre high navigation span of the Tasman Bridge on their way.

The Sels Point area is being developed as a petroleum products storage area and has replaced the Macquarie Wharf facilities as Hobart's petroleum installation. One and a half kilometres upstream from Sels Point is the Electrolytic Zinc Company Ltd private wharf at Risdon. At Boyer, located nearly 32 kilometres upstream from the main port, is the Australian Newsprint Mills Ltd plant. Newsprint is ferried to the main port by barge.

Administration

The Marine Board of Hobart is the authority controlling the main ports of Hobart, Port Huon and the Port of Spring Bay. When the Marine Board of Strahan ceased to function on 30 September 1970, Parliament extended the responsibilities of the Marine Board of Hobart to cover the control and operation of the Port of Strahan. The Board's jurisdiction covers the west, south and east coasts of Tasmania between the parallel of $41\frac{1}{2}^{\circ}$ South latitude and Cape Portland.

Works Programme

The 1973-74 works programme included: (i) extensions to Lindisfarne Jetty and construction of Franklin Wharf Jetty for passenger ferry services; (ii) completion of dredging to a depth of 10.97 metres at Macquarie Berths Nos 2 and 3, Sels Point Wharf and Risdon Berth; (iii) construction of a training wall at the Hobart Rivulet outfall; and (iv) continuation of the Macquarie Point development scheme—during the year Macquarie No. 5 Wharf was completed together with foundations for No. 5 shed. Currently under construction are the Macquarie No. 5 Ramp and Macquarie No. 6 Wharf.

Port of Launceston

Location

The port of Launceston is situated on the River Tamar, which originates at the confluence of the North and South Esk Rivers at the City of Launceston and flows 60 kilometres to Bass Strait where deep water and broad expanses of river provide a valuable natural harbour. In this area, encompassing Bell Bay, Beauty Point and Long Reach, are located the major activities of the Port of Launceston. A tidal range of between three and 3.6 metres creates strong tidal currents, which by natural scour eliminate the need for any maintenance dredging in the lower reaches of the river.

Because extensive areas of deep water frontage are available, the development of the port is decentralised with the main operations located as follows:

- (i) *Bell Bay*: Wharves include two tanker berths, a general cargo and bulk berth, a passenger berth, roll-on roll-off facilities and a special bulk berth serving Comalco Aluminium Ltd. One roll-on roll-off berth serves Australian National Line vessels and a common-user roll-on roll-off berth is also available. The Bell Bay site is on the eastern shore, some 13 kilometres upstream from the mouth of the Tamar. The Bell Bay and Long Reach areas have been linked to the State railway system.
- (ii) *Long Reach*: Port facilities have been developed upstream from Bell Bay, the main function being export of woodchips from adjacent plants.
- (iii) *Inspection Head*: Overseas berths on the western bank, opposite Bell Bay, for shipment of fruit, frozen meat and general cargo. Large cool storage and freezer facilities are provided.
- (iv) *Beauty Point*: Bulk storage and special loading facilities for tallow as well as general cargo facilities. Location is on the western bank, almost one kilometre upstream from Inspection Head.
- (v) *Kings Wharf, Launceston*: Berths for inter and intrastate trade; facilities also include a graving dock and fitting out berths for small ship docking and repair.

Description

All berths and facilities now in service in the port have been constructed since about 1950 and are, therefore, of modern standard.

Channel and lighting improvements in the lower reaches, have been carried out over recent years, permitting vessels drawing up to 10.67 metres to work the river for 16 kilometres from Bass Strait to the site of the new woodchip berths in Long Reach. The channel improvement works have been designed to provide for the rapidly growing industrial complex at Bell Bay which is creating an ever increasing demand for large bulk carriers.

Administration

The port is administered by the Port of Launceston Authority whose jurisdiction covers the full length of the River Tamar, together with the northern coastline westward to Badger Head and eastward to Cape Portland.

Port of Devonport

Location

The Port of Devonport is situated on the Mersey River within two kilometres of the coast. The entrance is sheltered by Mersey Bluff on the west and by a retaining wall extending over half a kilometre northward from the eastern shore of the river. The river was always a natural harbour for small craft and its development as a major port by extensive dredging and engineering works has resulted in a secure harbour for large ships.

Description

The main harbour is formed around two turning basins each 259 metres in diameter with wharves on both banks providing 1,067 lineal metres of berthage.

The western bank contains four overseas and interstate berths and one specialised cattle jetty. These berths are provided with storage sheds, oil pipelines, wheat silos, bulk cement silos, as well as one of the largest and most modern cold storage facilities in the State. Provision has also been made for the handling of bulk commodities and heavy lifts while all berths are connected to the State railway network.

Two terminals for roll-on roll-off and container cargo are located on the eastern bank; one is leased to the Australian National Line and the other is a common-user facility. Both are equipped with stern loading ramps and cranes for lift-on lift-off cargo. Extensive vehicle marshalling and cargo assembly areas are provided with land available for expansion. Approx-

imately 100,000 passengers pass through the No. 1 Terminal each year. In July 1972 the *Empress of Australia* replaced the *Princess of Tasmania* on the passenger run to and from Melbourne. The A.N.L. vessels *Bass Trader*, *Sydney Trader*, *Brisbane Trader* and *Townsville Trader* maintain a regular cargo service from both terminals.

A 30 tonne portal travelling crane at No. 2 Berth is capable of handling all types of cargo units. For the speedy handling of bulk cargoes a 14-tonne grab crane and 40-tonne capacity hopper are available as auxiliaries to the crane. The container vessel *Echuca* maintains a weekly feeder service from this berth, which handles the majority of Tasmania's international container traffic. Future extensions of port facilities will be based upon proposed major expansions of the Goliath Portland Cement Co. at Railton and of A.P.P.M's Wesley Vale paper mills.

The Port of Burnie

Location

The ports of Hobart, Launceston and Devonport all lie within the shelter of rivers but the Port of Burnie, on Emu Bay, was built out into the open sea in the lee of Blackmans Point. Immediately to the west of the Point is a beach on which breaks the short surf of Bass Strait which can produce very rough seas, the nearest land being the Victorian coast 320 kilometres to the north.

Description

The shelter necessary for all-weather use of the port is provided by a 380-metre breakwater anchored to Blackmans Point, and running out to sea with a south-east orientation. The wharves are thus protected by the Point and by the breakwater from swells coming in from the west or north, the two quarters from which heavy seas are feared. Ocean Wharf is constructed immediately in the lee of the breakwater, the two structures appearing as one, and other berths are provided by piers parallel to the breakwater but lying further south.

Future development of the port could not be undertaken without the provision of further protection, and an island breakwater sited north-east from the end of Ocean Wharf has been constructed. The breakwater, consisting of concrete caissons 488 metres long, is orientated south-east and is calculated to give ample protection for up to 610 metres of berthage south of existing piers. An interesting feature is the use of the lee of the island breakwater for a tanker berth for both petroleum and sulphuric acid, the fuel being pumped to the land along a submarine pipe, and the sulphuric acid pumped to the berth over a bridge spanning the gap between the two breakwaters.

In 1961 special facilities were provided to handle the roll-on roll-off vessel *Bass Trader*. In 1969 the first phase of the southern port development, which included new facilities for roll-on roll-off vessels, was commissioned by the maiden visit, to the port, of the *Australian Trader*. The new terminal is used regularly by five roll-on roll-off vessels.

Large scale storage and handling facilities for metal concentrates have been provided within the port complex. A new general cargo berth, Jones Pier South, was completed during 1973-74. The new wharf is 198 metres long and has been dredged to a depth of 9.4 metres. A 2,973 square metre storage shed, which incorporates a 2,548 cubic metre capacity cool store, is included in the new pier development.

Port Latta (Circular Head)

A deep-water offshore terminal, capable of accommodating bulk ore carriers, has been constructed at Port Latta for the export of iron ore pellets to Japan. The loading facility consists of a 1.2 metre wide conveyor belt which carries pellets to two swivel loaders located 1.6 kilometres offshore. Vessels moor in 15.8 metres of water to take on pellets, the system having a discharge capacity of about 3,050 tonnes per hour.

Constitution of Port Authorities

Establishment of Boards

Operation of Tasmania's chief ports ceased to be a direct function of the government of the colony in 1857 when legislation was passed to set up the marine boards of Hobart and Launceston. Each board consisted of five wardens; the mayor and the collector of customs were *ex officio* wardens, the remaining three members being appointed as nominees of the respective Chambers of Commerce. In 1867 the Governor was empowered to create other boards, such bodies to consist of three wardens appointed by the Governor; within a year, boards had been constituted under the titles Mersey, Circular Head and Table Cape.

Boards of Hobart and Launceston

The *Marine Boards Act* 1889 created a special electorate for the Hobart and Launceston boards, the nine wardens for each to be elected by ship-owners, importers and exporters. The respective collectors of customs were required annually to compile rolls of these users of the ports and the number of votes each elector could exercise was proportional to his financial interest; for example, an exporter of goods valued from \$400 to \$3,999 had one vote, \$4,000 to \$9,999 two votes, and over \$10,000, three votes. Importers received similar voting powers in proportion to the wharfage paid while shipowners' votes were proportional to tonnage of their vessels. It was further provided that three wardens should retire annually and the master warden be elected by board members. By an amending Act in 1895, the voting powers of importers were divorced from wharfage paid, and placed on the same basis as those exercised by exporters.

The special electorate just described continues to elect the wardens of the Hobart Marine Board; the scale of values affecting the number of votes to be exercised by importers and exporters also remains unchanged. However, in the case of the marine board for Launceston, the system of the special electorate was abolished in 1902. All Launceston citizens on the rolls for the House of Assembly became eligible to cast single votes, a right extended in 1910 to citizens in the other municipalities bordering the Tamar. In 1916 with the adoption of the Hunter scheme for improvements affecting the whole length of the river, changes were made to increase the number of wardens by representatives from the bordering municipalities. The *Marine Act* 1921 reduced the number of wardens to five, restricted eligibility for standing as warden to citizens of Launceston and changed the voting qualifications so that marine board electors had to be those qualified to vote at an election of aldermen for the City of Launceston. More recently, electors in Beaconsfield and George Town have again been given voting rights.

Constitution of Boards

The present system of appointing or electing wardens is summarised as follows:

Election or Appointment of Port Authorities

Authority	Number of wardens	System of election or appointment of wardens
Hobart Marine Board	9	Special electorate of ship-owners, importers and exporters
Port of Launceston Authority	5	Electors of Launceston, Beaconsfield and George Town as for local government elections
Burnie Marine Board	8	} Municipal electors within proclaimed areas
Devonport Marine Board	11	
Circular Head Marine Board	5	
King Island Marine Board	5	
Flinders Island Marine Board	3	Municipal electors

Navigation and Survey Authority of Tasmania

The authority was constituted in 1963 to implement sections of the *Marine Act* 1921 relating to the safety of life and property at sea. Member marine boards contribute equally to the costs of running the Authority; the income is derived from survey and service fees.

Transport and Communication
Finances of Port Authorities

The principal sources of revenue of the port authorities are shipping tonnage rates and import and export wharfage rates; other sources are charges for pilotage services and the hiring of equipment. Expenditure is summarised under the heading 'works and services' which includes the provision of ordinary port services (e.g. pilotage, tug assistance, etc.), the maintenance of the port (e.g. dredging, etc.) and the improvement of the port (e.g. new wharves, new berths, etc.). To raise the additional funds required to finance port improvements, the authorities borrow money subject to State Treasury approval, the Treasury acting on behalf of the Australian Loan Council.

Port Authorities
Receipts and Expenditure: All Funds, 1972-73
(\$'000)

Particulars	Authority								Total
	Hobart	Launceston	Devonport	Burnie	Circular Head	King Island	Flinders Island	Smithton	
REVENUE FUNDS									
Receipts—									
Wharfage charges	1,239	985	990	1,126	9	44	26	..	4,419
Other service charges	588	1,041	408	290	44	4	3	2	2,380
Plant hire	549	514	170	244	..	4	..	..	1,481
Government grants	30	..	..	..	72	..	..	5	107
Other (a)	210	175	84	148	..	3	..	..	620
Total	2,616	2,715	1,652	1,808	125	55	29	7	9,007
Payments (b)—									
Administration	267	297	134	191	8	12	1	1	911
Debt charges—									
Interest	245	515	425	755	66	3	12	..	2,021
Redemption and sinking fund contributions	358	259	275	76	34	..	3	..	1,005
Works and services	875	1,007	513	295	8	49	9	5	2,761
Other	150	164	80	52	6	17	3	..	472
Total	1,895	2,242	1,427	1,369	122	81	28	6	7,170
LOAN FUND									
Receipts, loan raisings, etc. ..	1,100	2,001	300	..	56	..	..	..	3,457
Payments (c)	1,957	2,124	422	228	70	4	..	..	4,805
REVENUE AND LOAN FUNDS—CLOSING BALANCES LESS OPENING BALANCES (d)									
Net movement	-59	+231	+89	-269	-10	-28	+1	+1	-47

(a) Includes interest receipts, sundry licences, fines and discounts received.

(b) Excludes amounts applied from reserves for capital purposes.

(c) Includes amounts applied from reserves for capital purposes.

(d) Includes net movement in balance sheet items such as debtors, creditors, trust accounts, etc.

The next table summarises the transactions of all port authorities:

Port Authorities
Receipts and Expenditure: All Funds, Summary
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
REVENUE FUNDS					
Receipts—					
Wharfage charges	3,193	3,565	3,660	3,881	4,419
Other service charges	1,783	1,839	1,880	2,098	2,380
Plant hire	966	982	1,085	1,268	1,481
Government grants	30	30	30	57	107
Other (a)	301	642	477	449	620
Total	6,273	7,058	7,133	7,752	9,007
Payments (b)—					
Administration	553	625	803	861	911
Debt charges—					
Interest	1,246	1,403	1,564	1,738	2,021
Redemption and sinking fund contributions	780	897	971	1,106	1,005
Works and services	2,350	2,554	2,618	2,928	2,761
Other	308	344	411	562	472
Total	5,236	5,822	6,366	7,194	7,170
LOAN FUNDS					
Receipts—					
Loan raisings	2,837	3,910	4,471	4,590	3,455
Other .. .. .	..	20	..	7	2
Total	2,837	3,930	4,471	4,597	3,457
Payments (c)					
	5,536	4,140	5,042	5,261	4,805
REVENUE AND LOAN FUNDS—CLOSING BALANCES LESS OPENING BALANCES (d)					
Net movement	-1,465	+839	+170	+350	-47

(a) Includes interest receipts, sundry licences, fines and discounts received.

(b) Excludes amounts applied from reserves for capital purposes.

(c) Includes amounts applied from reserves for capital purposes.

(d) Includes net movement in balance sheet items such as debtors, creditors, trust accounts, etc.

Port Authorities
Loan Debt of Principal Authorities at End of Year
(\$'000)

Authority	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Hobart	2,658	2,760	3,394	4,378	5,885	6,627
Launceston	3,341	4,399	5,200	6,504	7,441	9,196
Devonport	5,258	5,766	6,404	6,921	7,118	7,160
Burnie	10,443	10,782	11,554	12,462	12,950	12,722
Other	549	669	912	792	1,254	(a) 1,268
Total	22,249	24,376	27,464	31,057	34,648	36,973

(a) Comprised: Circular Head, \$1,019,000; Flinders Island, \$191,000; King Island, \$58,000.

The next table shows a summary of annual borrowings, aggregate debt and the provision for loan redemption.

Port Authorities
Loan Raisings, Loan Debt and Provisions for Redemption
('\$000)

Year	Total loan raisings during year (a)	Loan debt at end of year			Provisions for loan redemption at end of year (b)
		To State Government	To other creditors	Total	
1962-63	2,167	..	12,671	12,671	187
1963-64	2,631	..	14,737	14,737	221
1964-65	2,842	..	17,102	17,102	300
1965-66	2,055	..	18,617	18,617	366
1966-67	2,310	..	20,361	20,361	525
1967-68	2,598	..	22,249	22,249	608
1968-69	2,837	..	24,376	24,376	683
1969-70	3,910	..	27,464	27,464	743
1970-71	4,471	..	31,057	31,057	874
1971-72	4,590	..	34,648	34,648	999
1972-73	3,455	..	36,973	36,973	1,151

(a) No loans were raised from the State Government during the period covered by the table.

(b) Balance of sinking funds and loan redemption provision accounts at end of year.

SHIPPING AT TASMANIAN PORTS

System of Record

The shipping statistics contained in this section were compiled on a new basis from 1 July 1966 and are not fully comparable with statistics published for previous periods. Prior to this date, shipping statistics were compiled from details assembled and supplied by the Department of Customs and Excise and by State port authorities. Since 1966-67 Tasmanian shipping statistics have been compiled from details submitted by shipping companies or their representatives, through the Department of Customs and Excise, for each arrival and each departure of a vessel. Not all vessels which arrived at, and departed from, ports in Tasmania are included in the new series of shipping statistics; the following are now excluded:

- (i) naval vessels;
- (ii) yachts and other craft used for pleasure;
- (iii) foreign fishing vessels that neither load nor discharge cargo;
- (iv) Australian-registered fishing vessels operating from Tasmanian ports;
- (v) geographical, seismic and oceanographic survey vessels;
- (vi) offshore oil drilling rigs and vessels servicing them; and
- (vii) vessels of 200 registered net tons and under.

Movements of Vessels

The inward and outward movements of vessels using Tasmanian ports were classified according to type of voyage and not according to the type of vessel. Each movement of a vessel was allocated to one of the following:

- (i) overseas direct;
- (ii) overseas via other state;
- (iii) interstate direct;
- (iv) overseas via port in Tasmania;
- (v) interstate via port in Tasmania; and
- (vi) intrastate.

Addition of the first three classifications (overseas and interstate movements) gives an unduplicated total for Tasmania. The inclusion of the other three classifications (intrastate or coastal movements) must be taken into account to reflect the volume of shipping arriving at, or departing from, individual ports in Tasmania.

However, in 1969-70, it was decided that classification by type of voyage was unsatisfactory in two particular categories, namely:

- (ii) overseas via other state; and
- (iii) interstate direct.

While vessels confining their operations to Australian waters could never be associated with category (ii), it was nevertheless possible for vessels engaged in overseas voyages to undertake movements classified under category (iii). For example, a ship bound for the U.K. could be sailing Sydney-Hobart-Melbourne-London. The arrival in Hobart, under the pre-1969-70 classification, could be called 'interstate direct' as would the arrival in Melbourne.

For 1969-70 and following years, the classification has been varied so that categories (ii) and (iii) are based on the type of vessel, not on the type of movement. Thus, in terms of the previous example, the U.K.-bound ship's arrival both in Hobart and Melbourne would be classified 'overseas via other state', and not 'interstate direct'.

Tonnage of Vessels

Statistics of vessels are compiled in terms of registered net tonnage. This is an international unit of measurement of a vessel's carrying capacity. (There is no recognised equivalent in the metric system of net tonnage.) Net tonnage is expressed in units of 100 cubic feet (i.e. 100 cubic feet equals 1 ton) and it represents the volume of enclosed space which can be utilised for cargo or passengers.

Overseas and Interstate Shipping

The following tables show the number of vessels which entered Tasmanian ports and their net tonnage. The details are restricted to entries classified as overseas and interstate movements and exclude coastal movements of vessels.

Shipping: Overseas and Interstate (a)
Vessels Entered Ports in Tasmania, 1972-73

Port of entry	Overseas				Interstate direct		Total vessels entered	
	Direct		Via other state					
	No.	Net tons ('000)	No.	Net tons ('000)	No.	Net tons ('000)	No.	Net tons ('000)
Hobart ..	81	738	98	460	346	621	525	1,820
Burnie ..	8	27	93	479	254	664	355	1,169
Currie ..	..	..	..	..	13	16	13	16
Devonport ..	5	11	27	132	398	1,426	430	1,569
Lady Barron ..	..	..	..	..	11	5	11	5
Launceston ..	38	656	80	329	285	811	403	1,796
Stanley ..	40	724	10	131	1	9	51	864
Total ..	172	2,156	308	1,531	1,308	3,552	1,788	7,239

(a) Excludes intrastate shipping.

In 1971-72 a total of 1,754 overseas and interstate vessels with a total capacity of 5,937,000 net tons entered Tasmanian ports. These totals were made up as follows:

Port	Number of vessels	Net tonnage ('000 of net tons)
Hobart	536	1,760
Burnie	333	1,179
Currie	1	6
Devonport	424	894
Lady Barron	24	15
Launceston	395	1,326
Stanley	41	758

Definitions

In a later table, figures are given for total vessels entered and for total net tonnage associated with each port; the figures in each case are higher than those shown in the previous table since they include intrastate movements.

The classification 'overseas' in the preceding table is now much more meaningful since, from 1969-70, the category 'interstate direct' is not used to describe movements of ships engaged in overseas travel voyaging from one Australian state to another; the category now used is 'overseas via other state'.

Shipping: Overseas and Interstate (a), Summary Vessels Entered Ports in Tasmania

Year	Overseas				Interstate direct		Total vessels entered	
	Direct		Via other state		No.	Net tons ('000)	No.	Net tons ('000)
	No.	Net tons ('000)	No.	Net tons ('000)				
1963-64 ..	81	275	296	1,353	1,131	1,719	1,508	3,346
1964-65 ..	83	281	238	994	1,151	2,136	1,472	3,412
1965-66 ..	123	331	264	1,092	1,258	2,464	1,645	3,887
1966-67 (b) ..	87	321	160	715	1,437	3,049	1,684	4,085
1967-68 ..	67	252	146	635	1,463	3,215	1,676	4,102
1968-69 ..	81	580	134	672	1,580	3,393	1,795	4,645
1969-70 (b) ..	113	996	462	2,035	1,184	2,543	1,759	5,574
1970-71 ..	110	952	297	1,467	1,232	2,920	1,639	5,338
1971-72 ..	117	1,209	267	1,443	1,370	3,285	1,754	5,937
1972-73 ..	172	2,156	308	1,531	1,308	3,552	1,788	7,239

(a) Excludes intrastate shipping.

(b) Not fully comparable with previous years; see beginning of this section for explanations.

Comparability

In the previous table, breaker bars are inserted to show the break in comparability between 1968-69 and 1969-70. However, there is no break in comparability affecting the columns under 'total vessels entered'. The effect of the definitional change is simply to transfer certain movements of overseas vessels from 'interstate direct' to the category 'overseas via other state'.

The following table has been compiled to show the country of registration of vessels entering all ports in Tasmania. The number of vessels and net tonnage figures shown in this table cannot be added to arrive at a State total as some vessels may have called at two or more ports within the State during the same voyage and are therefore subject to double, triple, etc., counting.

Country of Registration of Vessels Entered Tasmanian Ports: Overseas, Interstate and Intrastate

Country of registration	Vessels entered Tasmanian ports					
	1970-71		1971-72		1972-73	
	Number	Net tons	Number	Net tons	Number	Net tons
Australia	1,596	3,574,092	1,613	4,035,310	1,472	4,023,306
Bahama Islands .. .. .	..	..	..	..	2	814
Belgium-Lux. .. .. .	..	..	2	57,467	1	29,500
Bermuda .. .. .	..	..	..	..	1	6,121
Cyprus	3	20,438	5	21,337	6	27,584
Denmark	5	13,245	5	17,478	35	90,521
Finland .. .. .	..	..	2	12,632	..	..
France	2	10,431	..	..	..	..
Germany, F.R.	20	94,042	24	110,520	21	109,047
Greece	8	80,061	11	97,153	21	177,150
Hong Kong	14	29,731	12	25,608	14	37,063
India	25	121,357	21	100,403	12	53,235
Indonesia	1	2,785	6	14,990	9	23,001
Ireland	1	11,146	..	..	..	..
Israel	2	7,011	1	4,833	5	24,127
Italy	3	29,178	3	36,214	4	36,125
Japan	43	507,146	32	459,782	69	1,098,983
Korea, Republic of	1	1,902	..	..	..	..
Liberia	38	367,434	37	512,154	39	635,981
Nauru	1	5,497	..	..	..	..
Netherlands	36	179,488	29	182,721	26	150,412
Netherlands Antilles	1	5,652	3	16,956	..	..
New Zealand	29	56,104	27	54,311	22	46,031
Norway	38	204,441	26	166,298	43	212,791
Panama	14	82,838	18	56,917	17	75,863
Papua New Guinea .. .. .	..	..	2	1,112	1	556
Philippines	1	3,189	4	14,999	3	4,941
Poland	12	47,854	20	78,078	25	99,867
Singapore	20	65,778	15	58,428	16	108,419
Somalia	1	2,201	..	..	..	..
South Africa	1	5,652	1	5,652	1	5,652
Spain .. .. .	..	..	..	..	1	2,443
Sweden	42	228,836	28	186,248	24	140,395
Taiwan .. .. .	..	..	..	..	1	5,641
United Kingdom	144	646,240	182	631,886	227	781,383
United States of America	14	63,900	13	93,406	15	122,258
U.S.S.R.	4	10,304	2	4,171	7	20,669
Yugoslavia	5	23,762	5	29,232	9	46,568

The next table shows the number and net tonnage of vessels which entered individual Tasmanian ports during 1972-73. The names of ports in this table refer to the cities or towns in which the controlling port authorities are located:

- (i) 'Hobart' includes Port Huon, Port of Spring Bay and from 1 October 1970, Strahan;
- (ii) 'Launceston' includes Bell Bay, Beauty Point, Long Reach and Inspection Head;
- (iii) 'Devonport' includes Ulverstone;
- (iv) 'Stanley' includes Port Latta;
- (v) 'Currie' includes Naracoopa and Grassy; and
- (vi) 'Lady Barron' includes Whitemark.

A State total of number of vessels entered and their net tonnage cannot be obtained from this table by adding the port totals since vessels falling within the categories 'overseas via port in same state', 'interstate via port in same state' and 'intrastate' will be counted at each port of entry as a 'vessel entered'.

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports, 1972-73**

Port (a) of entry and type of service (b)		Vessels entered					
		In cargo		In ballast		Total	
		No.	Net tons	No.	Net tons	No.	Net tons
Hobart—	Overseas direct	44	221,238	37	517,207	81	738,445
	Overseas via other state ..	94	447,557	4	12,792	98	460,349
	Overseas via port in same state	26	106,669	..	..	26	106,669
	Interstate direct	280	527,536	66	93,947	346	621,483
	Interstate via port in same state	21	94,129	..	..	21	94,129
	Intrastate	37	89,916	3	5,698	40	95,614
	Total Hobart	502	1,487,045	110	629,644	612	2,116,689
Burnie—	Overseas direct	5	16,782	3	10,063	8	26,845
	Overseas via other state ..	89	459,359	4	19,164	93	478,523
	Overseas via port in same state	18	86,238	..	..	18	86,238
	Interstate direct	187	549,630	67	114,070	254	663,700
	Interstate via port in same state	37	116,147	..	..	37	116,147
	Intrastate	3	696	17	29,350	20	30,046
	Total Burnie	339	1,228,852	91	172,647	430	1,401,499
Devonport—	Overseas direct	5	10,974	..	..	5	10,974
	Overseas via other state ..	26	130,021	1	1,970	27	131,991
	Overseas via port in same state	12	62,111	..	..	12	62,111
	Interstate direct	333	1,345,053	65	81,445	398	1,426,498
	Interstate via port in same state	8	78,034	..	..	8	78,034
	Intrastate	35	8,906	2	9,254	37	18,160
	Total Devonport	419	1,635,099	68	92,669	487	1,727,768
Launceston—	Overseas direct	12	98,705	26	556,905	38	655,610
	Overseas via other state ..	78	308,294	2	21,058	80	329,352
	Overseas via port in same state	15	62,167	1	248	16	62,415
	Interstate direct	280	787,860	5	22,774	285	810,634
	Interstate via port in same state	36	122,384	..	..	36	122,384
	Intrastate	6	3,056	3	1,482	9	4,538
	Total Launceston	427	1,382,466	37	602,467	464	1,984,933
Stanley—	Overseas direct	6	42,469	34	681,952	40	724,421
	Overseas via other state ..	4	19,109	6	111,787	10	130,896
	Overseas via port in same state	4	31,146	..	..	4	31,146
	Interstate direct	1	9,022	..	..	1	9,022
	Interstate via port in same state	1	7,231	..	..	1	7,231
	Total Stanley	16	108,977	40	793,739	56	902,716

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports, 1972-73—continued**

Port (a) of entry and type of service (b)	Vessels entered					
	In cargo		In ballast		Total	
	No.	Net tons	No.	Net tons	No.	Net tons
Currie— Overseas via port in same state	7	1,736	..	..	7	1,736
Interstate direct	12	15,367	1	296	13	15,663
Interstate via port in same state	1	7,181	..	..	1	7,181
Intrastate	49	25,387	..	..	49	25,387
Total Currie	69	49,671	1	296	70	49,967
Lady Barron—Overseas via port in same state	1	248	..	..	1	248
Interstate direct	11	4,811	..	..	11	4,811
Interstate via port in same state	1	296	..	..	1	296
Intrastate	17	7,520	..	..	17	7,520
Total Lady Barron ..	30	12,875	..	..	30	12,875

(a) See introduction to this table.

(b) Type of service ('overseas direct', etc.) is defined under 'Movements of Vessels' at the beginning of this section.

The following table shows, in summary form, the number and net tonnage of vessels which entered Tasmanian ports during the last three years:

**Shipping: Overseas, Interstate and Intrastate
Vessels Entered Tasmanian Ports**

Port (a) of entry	1970-71		1971-72		1972-73	
	Number	Net tons	Number	Net tons	Number	Net tons
Hobart (b)	601	1,659,401	626	2,052,578	612	2,116,689
Burnie	388	1,390,412	425	1,542,214	430	1,401,499
Currie	66	25,918	42	26,028	70	49,967
Devonport	467	958,183	493	1,047,968	487	1,727,768
Lady Barron	51	30,957	51	30,582	30	12,875
Launceston	488	1,590,747	468	1,613,664	464	1,984,933
Stanley	64	846,117	44	773,262	56	902,716
Strahan	(c) ..	(c) ..	..	..	..	..

(a) See explanation in introduction to previous table.

(b) Includes Strahan from 1 October 1970.

(c) July to September 1970 only; on 1 October 1970 the port of Strahan came under the control of the Marine Board of Hobart.

Cargo Discharged and Shipped

Cargo handled at ports is recorded in terms of units of weight or units of measurement depending on the basis on which freight is charged. In these statistics separate details are shown in tonnes for cargo recorded in units of weight and in cubic metres for cargo recorded in units of measurement.

In the next table, details are given of the cargo handled at each port in Tasmania. The classifications 'overseas' and 'interstate' relate either to the origin or destination of the cargo.

Transport and Communication
Cargo Discharged and Shipped
Individual Tasmanian Ports, 1972-73

Port	Overseas		Interstate		Total		
	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres	
DISCHARGED							
Hobart	231,081	12,368	636,976	227,340	868,057	239,708	
Burnie	84,795	2,263	248,890	256,369	333,685	258,632	
Currie .. .. .	..	..	8,005	1,788	8,005	1,788
Devonport	52,984	310	130,515	648,260	183,499	648,570	
Lady Barron .. .. .	..	..	350	1,221	350	1,221
Launceston	86,191	3,942	653,648	303,193	739,839	307,135	
Stanley	61,840	..	5,902	..	67,742	..	
Total	516,891	18,883	1,684,286	1,438,171	2,201,177	1,457,054	
SHIPPED							
Hobart	925,525	5,594	483,094	159,897	1,408,619	165,491	
Burnie	188,911	8,728	400,097	160,305	589,008	169,033	
Currie .. .. .	..	..	1,847	2,413	1,847	2,413
Devonport	12,089	16,545	207,431	644,265	219,520	660,810	
Lady Barron .. .. .	..	..	6	4,064	6	4,064
Launceston	771,164	6,365	144,761	210,657	915,925	217,022	
Stanley	2,519,543	..	..	..	2,519,543	..
Total	4,417,232	37,232	1,237,236	1,181,601	5,654,468	1,218,833	

The following table gives a summary of overseas and interstate cargo discharged and shipped at Tasmanian ports:

Cargo Discharged and Shipped, All Tasmanian Ports

Year	Overseas		Interstate		Total		
	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres	
DISCHARGED							
1963-64	331,275	48,818	1,049,810	508,566	1,381,085	557,384	
1964-65	395,016	82,047	1,031,488	676,585	1,426,504	758,632	
1965-66	341,087	39,580	1,114,755	802,922	1,455,842	842,502	
1966-67 (a)	378,729	46,301	1,507,095	948,843	1,885,824	995,144	
1967-68	264,914	46,736	1,607,425	1,034,153	1,872,339	1,080,889	
1968-69	246,826	53,225	1,752,557	1,088,925	1,999,383	1,142,150	
1969-70	327,242	51,102	1,682,528	1,240,547	2,009,770	1,291,649	
1970-71	414,304	29,664	1,702,148	1,228,912	2,116,452	1,258,576	
1971-72	375,197	17,852	1,825,406	1,350,451	2,200,603	1,368,303	
1972-73	516,891	18,883	1,684,286	1,438,171	2,201,177	1,457,054	

Cargo Discharged and Shipped, All Tasmanian Ports—continued

Year	Overseas		Interstate		Total	
	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres	Tonnes weight	Cubic metres
SHIPPED						
1963-64	156,978	286,713	639,954	435,116	796,932	721,829
1964-65	198,528	224,791	672,550	586,646	871,078	811,437
1965-66	206,075	244,971	647,178	600,418	853,253	845,389
1966-67 (a)	223,702	208,792	629,498	758,517	853,200	967,309
1967-68	277,379	282,402	696,318	855,309	973,697	1,137,711
1968-69	1,618,480	264,051	817,726	913,968	2,436,206	1,178,019
1969-70	2,585,794	104,238	935,089	907,559	3,520,883	1,011,797
1970-71	2,577,912	84,002	991,636	985,409	3,569,548	1,069,411
1971-72	2,919,672	184,107	1,188,696	1,134,175	4,108,368	1,318,282
1972-73	4,417,232	37,232	1,237,236	1,181,601	5,654,468	1,218,833

(a) From 1966-67 not comparable with previous years; see beginning of this section for explanation.

Passenger Movements

Statistics of overseas arrivals and departures are compiled from information supplied by the Department of Labor and Immigration under the *Migration Act 1958-1966*. The shipping companies supply details for compilation of statistics relating to inter and intrastate passenger movements.

A number of definitions, listed as follows, apply to the various categories of passenger movements by ship:

- (i) overseas passengers are persons travelling to or from overseas destinations who embark or disembark in Tasmania;
- (ii) transit passengers are persons from overseas, passing through Tasmanian ports, who continue on board the same ship to an overseas destination;
- (iii) interstate passengers are persons travelling by sea from other Australian states or round-trip passengers, i.e. passengers travelling interstate and returning either to the same port or to another port in Tasmania; and
- (iv) cruise passengers are persons on overseas journeys which have been classified as cruises by Australian authorities to simplify legal requirements. These journeys begin and end in Australia, do not exceed 30 days and are confined to the South-West Pacific.

The following table shows, for a five-year period, passenger movements at the major Tasmanian ports:

Passenger Movements, Tasmanian Ports

Port	1969	1970	1971	1972	1973
INTERSTATE, DISEMBARKING					
Hobart	5,094	4,622	4,635	3,687	3,618
Launceston	9,214	11,638	11,719	7,614	4,927
Burnie	4,458	8,458	7,751	2,998	286
Devonport	42,116	43,612	39,625	48,368	55,284
Total	60,882	68,330	63,730	62,667	64,115

Transport and Communication

Passenger Movements, Tasmanian Ports—continued

Port	1969	1970	1971	1972	1973
INTERSTATE, EMBARKING					
Hobart	5,301	4,676	4,346	3,732	3,650
Launceston	4,263	7,430	7,582	3,315	681
Burnie	8,170	11,598	11,573	7,382	4,587
Devonport	41,263	44,465	39,898	48,020	55,008
Total	58,997	68,169	63,399	62,449	63,926
INTERSTATE, IN TRANSIT					
Hobart	365	338	994	169	109
Launceston	1,120	864	720	491	238
Burnie	1,813	1,432	1,538	935	491
Devonport	38	27	69	1	19
Total	3,336	2,661	3,321	1,596	857
OVERSEAS, DISEMBARKING					
Hobart	64	129	224	117	86
Launceston	6	6	2	..	1
Burnie .. .. .	..	3	4	1	..
Devonport	2	6	..	..	..
Total	72	144	230	118	87
OVERSEAS, EMBARKING					
Hobart	256	344	341	261	208
Launceston	2	3	22	8	..
Burnie	4	..	1	11	1
Devonport	2	..	..	..	..
Total	264	347	364	280	209
OVERSEAS, IN TRANSIT (a)					
Hobart	1,795	2,951	962	2,287	4,019
Launceston	47	38	55	95	44
Burnie	21	23	26	73	22
Devonport	29	88	12	6	13
Total	1,892	3,100	1,055	2,461	4,098
CRUISE, DISEMBARKING					
Hobart	93	..	23	..	..
Launceston .. .. .	..	..	..	..	..
Burnie .. .. .	..	..	..	..	..
Devonport .. .. .	..	..	..	..	..
Total	93	..	23	..	..

Passenger Movements, Tasmanian Ports—continued

Port	1969	1970	1971	1972	1973
CRUISE, EMBARKING					
Hobart	101	..	72	80	..
Launceston .. .. .	..	..	..	..	..
Burnie .. .. .	..	..	..	..	..
Devonport .. .. .	..	..	..	..	..
Total	101	..	72	80	..
CRUISE, IN TRANSIT					
Hobart	1,679	..	1,007	996	..
Launceston .. .. .	..	..	..	..	..
Burnie .. .. .	..	..	..	..	..
Devonport .. .. .	..	..	..	..	..
Total	1,679	..	1,007	996	..

(a) Overseas passengers beginning or ending their journey in Australia.

TRANSPORT COMMISSION

Origin of Commission

The State railways operated at a considerable loss during the period following World War I and this difficulty was accentuated by the increasing use of commercial road transport. The 1938 report of the Commonwealth Grants Commission contained the following comment: 'A large State may conceivably stand the cost of duplicated transport, but it is obvious that Tasmania cannot. We believe that the Tasmanian Government appreciates this position and that it can only be met by initiative and decision.' At the time of this report, railways were controlled by a Minister; motor vehicle registration and licensing of drivers were Police Department functions; and public vehicle licensing was administered by a Transport Committee appointed by the Government.

Following an enquiry, Parliament passed the *Transport Act 1938* establishing a new authority headed by a Commissioner and two Associate Commissioners. In December 1972 the Act was amended and the number of Associate Commissioners increased to three. The Associate Commissioners' areas of responsibility are: (i) management and operation of railways; (ii) public transport operations and administration and control of road traffic; and (iii) management and operation of shipping services. This Act and subsequent amending legislation had the effect of creating an administrative authority unique in Australia because the management and control of all public transport, with minor exceptions, became the responsibility of one central authority. The government omnibus services in Hobart, Launceston and Burnie and the privately-owned Emu Bay Railway are the exceptions.

Functions of the Commission

The functions of the Commission are as follows:

- (i) the control and management of the Government railways;
- (ii) the regulation and licensing of commercial road transport (i.e. of 'public vehicles');
- (iii) the registration and taxation of motor vehicles and the licensing of drivers;
- (iv) the control and operation of the Bruny Island ferry service and the Flinders Island and King Island shipping services;

- (v) the administration of regulations under the *Traffic Act* concerning road traffic control;
- (vi) the administration and control of State aerodromes;
- (vii) traffic engineering associated with the control of traffic; and
- (viii) control and operation of an engineering plant (known as the 'precision tool annexe').

In brief, the Transport Commission emerges as a *business undertaking*, an *administrative body* and a *taxing authority*.

Control of Commission

The Commission, by Section 6 (2) of the Act, is absolutely free from political control except that the Minister for Transport may, under Section 33, appeal to the Governor if dissatisfied with decisions of the Commission. Section 34 allows the Governor, as a form of assistance to industry in certain cases, to direct the Commission to reduce freight charges but, to the extent that such direction causes a revenue loss, the Treasurer is obliged to reimburse the Commission; the formula for reimbursement requires either acceptance of the Commission's original charges as the economic cost of the service or substitution of the Auditor-General's calculation of the economic cost, should the level of the Commission's original charges be considered uneconomic by the Auditor-General.

Commission's Financial Operations

The revenue of the Commission comes from three main sources:

- (i) own business undertakings—railways, shipping services and an engineering plant ('precision tool annexe');
- (ii) public vehicle licensing fees; and
- (iii) grants from Consolidated Revenue.

The financial transactions of the Commission are summarised in the tables that follow. For simplicity of presentation, the transactions are arranged in two sets of accounts, firstly Trading and Profit and Loss and secondly Taxation, Licensing, etc. It should be noted that the net loss in the trading and profit and loss account for any year becomes a charge on Consolidated Revenue in the following year; also that the proceeds from motor taxation, registration, licensing, etc. are passed to Consolidated Revenue, the Commission being reimbursed the costs of collecting such revenues and the costs and expenses incurred in connection with the control of, and the provision of facilities for motor traffic. A distinction is drawn, however, between public vehicle fees and public vehicle licensing; the latter charges are taken into the profit and loss account as an offset against net trading loss.

Of the total taxes and charges levied on motorists and paid into the Consolidated Revenue Fund, only the motor tax and public vehicle fees components (\$5,912,000 in 1972-73) are transferred by the Treasurer to the State Highways Trust Fund. A part of motor vehicle registration fees, licences, etc. is retained in the Consolidated Revenue Fund.

Transport Commission: Trading and Profit and Loss Account
(\$'000)

Particulars	1969-70	1970-71	1971-72	1972-73
REVENUE				
Railways	7,245	6,125	6,326	7,373
Marine services	385	285	314	573
Tool annexe	328	370	340	347
Public vehicle licensing (by transfer)	80	80	80	82
Other revenue	101	97	121	145
Net loss (a)	3,502	5,830	6,340	7,796
Total	11,642	12,788	13,522	16,315

Transport Commission: Trading and Profit and Loss Account—continued
(\$'000)

Particulars	1969-70	1970-71	1971-72	1972-73
EXPENDITURE (b)				
Railways	9,326	10,149	10,587	12,360
Marine services	374	438	464	767
Tool annexe	307	341	345	336
General, including administration ..	385	390	463	563
Interest	1,250	1,470	1,663	2,290
Total	11,642	12,788	13,522	16,315

(a) To be charged against Consolidated Revenue in following year.

(b) Provisions for depreciation included in each item.

The remaining transactions can be summarised as follows (road safety accounts are excluded):

Transport Commission: Motor Taxation Collection, Licensing, etc.
(\$'000)

Particulars	1969-70	1970-71	1971-72	1972-73
REVENUE				
Motor tax	4,456	4,683	5,323	5,539
Public vehicle licensing, fees, etc. ..	443	439	448	445
Registration, licences, etc. ..	1,262	1,593	1,631	1,913
Refunds of stamp duty	-1	-1	-1	-1
Stamp duty on vehicle registrations	365	396	441	514
Transfers from Consolidated Revenue—				
Road transport administration ..	599	726	685	795
Traffic engineering section ..	295	356	415	475
Minister for Transport	15	22	r25	27
Total	7,435	8,214	r8,967	9,707
EXPENDITURE				
Profit and loss account (transfers) (a)	80	80	80	82
Paid to Consolidated Revenue ..	6,480	7,066	7,789	8,328
Administration, traffic control, etc.	903	1,073	r1,086	1,280
Total	7,463	8,218	r8,955	9,690

(a) Receipts from public vehicle licensing paid into profit and loss account.

Annual Loss

In 1968-69 and earlier years the Commission received two grants from Consolidated Revenue: (i) reimbursement of the previous year's loss; and (ii) a grant equal to State Land Tax collections. From 1969-70, the loss incurred by the Commission for the previous year has been reimbursed by a single grant from Consolidated Revenue (\$7,795,672, the loss for 1972-73 reimbursed during 1973-74). The accounts reveal that the Commission's net loss occurs principally in respect of railways but the case for continued subsidisation is argued on a number of grounds: (i) abandonment of all railway operations would still leave the State with liability for annual debt charges exceeding \$1.5m; (ii) heavy bulk freights now carried by rail would rapidly break up present road surfaces if they were transferred to road haulage, and considerable

sums would have to be spent on increased road maintenance or road improvements; and (iii) because rail transport for certain types of freight is still considered more economical than road haulage closing the railways might add appreciably to the costs of many primary and secondary producers.

Transport Commission Shipping Services

The Transport Commission exercises control over: (i) the Bruny Island ferry; and (ii) shipping services between King Island, Flinders Island, Hobart, Launceston and Victorian ports.

The *Joseph Banks*, which came into service in January 1969, operates on the inter-island run and between Tasmanian and Victorian ports. The vessel handles livestock and general bulk cargoes. In 1971 the State Government purchased the *Straitsman* for the triangular service of Stanley-Grassy-Melbourne. However, in March 1974 the vessel sank in the Yarra River and was salvaged in May. At the end of June 1974 the *Straitsman* was awaiting refit. In July 1974 the State Government purchased the Finnish vessel *Ra*, a roll-on roll-off vessel with a cargo capacity of approximately twice that of the *Straitsman*. The *Ra* was expected to commence service in late 1974 on the Melbourne-King Island-Stanley run.

During 1972-73 the Commission's shipping services handled 52,958 sheep, 9,303 cattle and carried 36,228 tonnes of general cargo.

RAILWAYS

Historical

Tasmania has a 1,067 millimetre gauge government railway system based on a route network of 850 kilometres. A private railway of 134 kilometres is operated by the Emu Bay Railway Company Ltd between Burnie and Melba Siding (19 kilometres south of Rosebery).

The first railway in Tasmania was opened for traffic in 1871 (construction having begun three years earlier on the 72 kilometre line from Deloraine to Launceston). It is significant that only one-ninth of the original capital was subscribed by the shareholders of the Launceston and Western Railway Company, the remainder, \$800,000, being raised by the Government. The line was laid in broad gauge (1,600 millimetre) without regard for the fact that narrower gauge might be needed in the more mountainous parts of the island. Within a year of opening, the company was in financial difficulties and the line was taken over by the Government. At the date of starting construction, the island's population had not passed 100,000.

The second line was an even more ambitious undertaking—196 kilometres of 1,067 millimetre track from Hobart to Western Junction, linking there with the 1,600 millimetre line—and involved considerable problems of contour survey because of the high plateau lying across the route. The Tasmanian Main Line Railway Company opened the line for traffic in 1876. The problem of differing gauges on the two systems was overcome by laying a third rail on the 16 kilometres of the 1,600 millimetre track from Western Junction to Launceston, the Main Line Company having running rights over this stretch. In 1890 the Government purchased the line for \$2,213,000.

The next line to open for traffic (1884) was owned by the Emu Bay and Mount Bischoff Railway Company which converted an existing horse-tramway to 1,067 millimetre gauge; the 77 kilometre line connected Waratah to the Port of Burnie, the primary objective being to ship out freight from the rich Mount Bischoff tin mines.

By 1890 the essential framework of the present railway system on 1,067 millimetre gauge had been laid, and future growth involved track extensions mainly in directions already determined in the first twenty years of rapid construction. The following table shows the pattern of development in 1890 and compares it with that of the present system. Under 'route' is shown firstly the terminals of individual tracks in 1890 and secondly the present extent of the same tracks. Except for the Cold Water Creek-Bell Bay line, construction dates only before 1890 are quoted since later extension of track was carried out in several stages.

**Government and Private Railways
Route-kilometres of Lines Open: 1890 and 1974**

Route	Area served	Year open for traffic	Kilometres of lines open	
			1 Jan. 1890	30 June 1974
Launceston to Devonport ..	North-west	1885	(a)132	..
Launceston to Smithton ..	" "	..	..	(a)286
Hobart to Western Junction ..	North-south link	1876	(b)196	(a)198
Burnie to Waratah ..	West coast	1884	(b)77	..
Burnie to Melba Siding ..	" "	..	..	(b)134
Conara to St Marys ..	Fingal Valley	1886	(a)76	(a)76
Bridgewater to Glenora ..	Derwent Valley	1888	(a)39	..
Bridgewater to Florentine ..	" "	..	..	(a)71
Launceston to Scottsdale ..	North-east	1889	(a)76	..
Launceston to Herrick ..	" "	..	..	(a)137
Cold Water Creek to Bell Bay ..	Tamar Valley	1973	..	(a)45
Other branches ..	..	..	(a) 6	(a)37
Total route-kilometres open	..	..	602	983
Government ..	..	..	327	850
Private ..	..	..	275	134

(a) Government.
(b) Private.

The table does not show two defunct lines which used to operate on the west coast; these were: the government service, Zeehan to Strahan (47 kilometres), opened in 1892; and the private service, Queenstown to Strahan (34 kilometres), opened in 1899. The Emu Bay railway had reached Zeehan by 1900 when it became possible to make a Burnie-Queenstown trip by using all three services and moving Burnie-Zeehan-Strahan-Queenstown.

In 1965, the Emu Bay Railway Company Ltd closed the line from Rosebery to Zeehan; 19 kilometres of this line, from Rosebery to Melba Siding, were re-opened in January 1970 to enable the transportation of iron pyrites to the North-West Acid Pty Ltd plant at Burnie.

Work commenced in 1971 on the construction of a new rail link from Cold Water Creek to the Port of Bell Bay, a distance of some 37 kilometres. Log trains began using the first section of this line (Cold Water Creek to Long Reach) in February 1973. The final section to Bell Bay became operational in the latter part of 1973.

Growth and Decline

The main task of developing and maintaining railways became the responsibility of the Tasmanian Government after it purchased the Hobart-Western Junction line in October 1890.

The next table shows the length of Government-owned railways from 1895 to the present:

Government Railways: Route-kilometres of Lines Open at 30 June

Year	Route-kilometres open	Year	Route-kilometres open	Year	Route-kilometres open
1895 (a) ..	676	1930 ..	1,093	1955 ..	974
1905 ..	745	1935 ..	1,038	1960 ..	866
1915 ..	858	1940 ..	1,036	1965 ..	805
1920 ..	1,012	1945 ..	1,033	1970 ..	805
1925 ..	1,083	1950 ..	987	1974 ..	850

(a) At 31 December 1895.

The peak of development was reached in 1930 when 1,093 kilometres were open for traffic; since then, many branch lines have been closed down, the competition of road transport making their operation uneconomic. Length of lines open has actually declined to what it was at the outbreak of World War I. Examples of lines now closed down are: Brighton to Apsley, 43 kilometres; Bellerive to Sorell, 24 kilometres; and Zeehan to Strahan, 47 kilometres.

Recent Developments

The long-term problem of the State railway system has been to limit its annual operational loss. Cost increases, particularly wages and salaries, without comparable increases in freight rates and fares have accentuated this problem. (During 1972-73 the wage and salary bill for railway employees exceeded railway revenue by 34 per cent.)

The Commission is pursuing the objective of securing rationalisation of operating methods. This includes not only reviews of the methods of obtaining and transporting various types of freight, but also the closing of sidings and country stations which are no longer economic to keep open and maintain, and the disposal of railway buildings no longer required for traffic purposes. Efforts are being made to increase railway revenue, reduce costs and provide improved services.

Bell Bay Rail Link

Although various proposals to construct the link had been made, some dating as far back as 1912, it was not until two woodchip exporting companies announced proposals to construct shipping berths at Long Reach, near Bell Bay, that the link was considered economically feasible. Work started on the project in late 1971. This project involved: (i) the construction of a new section of railway on the eastern bank of the Tamar River from Cold Water Creek to Bell Bay; (ii) up-grading of existing track between Launceston and Cold Water Creek, and purchase of eight heavy-duty main-line locomotives and 200 bogie log wagons; (iii) construction of new running lines and loops in Launceston; (iv) a bridge across the North Esk River; and (v) a spur line to serve the two woodchip plants at Long Reach. The new locomotives are capable of hauling a trailing load of about 1,220 tonnes on a gradient of 1 in 70. The new bogie wagons have a maximum gross tonnage of 59 tonnes.

The Bell Bay link became operational in late 1973, and the train services to Bell Bay have been co-ordinated with the regular overnight services between Hobart and Launceston.

Upgrading of Tracks

In recent years the Commission has taken active steps to upgrade the tracks in Tasmania. The consulting engineers, Maunsell and Partners Pty Ltd, are preparing a master plan for up-grading all track in the Tasmanian Government system. An outline of the plan had been submitted by June 1974 and detailed reports on each section of line were being prepared. During 1973-74 up-grading of seven kilometres of track on the Main Line near Conara and of another seven kilometres on the Western line at Rocky Cape (north-west coast) was commenced.

Possible Transfer of Tasmanian Government Railways

During 1973-74 negotiations were carried out between representatives of the State and Australian Governments on the possible transfer of the Tasmanian Government Railways to the Australian Government. A report on the proposal was submitted to both governments in mid-1974.

Operating Statistics

The next table shows the principal operating statistics for the Tasmanian system:

**Tasmanian Government Railways
Operating Statistics**

Year				Route-kilometres open (a)	Revenue train-kilometres	Passenger- journeys	Goods and livestock carried
				kilometres	'000 kilometres	'000	'000 tonnes
1967-68	..	..	..	804	2,007	1,087	1,181
1968-69	..	..	..	804	1,926	1,045	1,262
1969-70	..	..	..	804	1,899	907	1,278
1970-71	..	..	..	804	1,764	871	1,221
1971-72	..	..	..	804	1,767	785	1,299
1972-73	..	..	..	831	1,960	752	1,554

(a) At end of period.

Financial Operations

The following table gives details of gross earnings and working expenses:

**Tasmanian Government Railways
Financial Operations**

Year				Gross earnings		Working expenses (a)		Net earnings (b)	
				Total	Per revenue train-kilo- metre	Total	Per revenue train-kilo- metre	Total	Per revenue train-kilo- metre
				\$'000	\$	\$'000	\$	\$'000	\$
1967-68	..	..	..	6,587	3.28	8,751	4.36	-2,164	-1.08
1968-69	..	..	..	6,947	3.60	9,089	4.72	-2,142	-1.12
1969-70	..	..	..	6,950	3.66	9,031	4.75	-2,081	-1.09
1970-71	..	..	..	5,867	3.32	9,891	5.60	-4,024	-2.28
1971-72	..	..	..	6,129	3.47	10,391	5.88	-4,262	-2.41
1972-73	..	..	..	6,842	3.49	11,829	6.03	-4,987	-2.54

(a) Includes provision for depreciation but excludes interest.

(b) Excess of gross earnings over working expenses.

Employment and Wages

In the table that follows, details are given of the number of employees, and of wages and salaries paid:

**Tasmanian Government Railways
Number of Employees and Wages and Salaries Paid**

Year	Average number of employees (a)		Salaries and wages paid (\$'000)	Year	Average number of employees (a)		Salaries and wages paid (\$'000)
	Salaried	On wages			Salaried	On wages	
1965-66	..	379	1,781	1969-70	..	419	1,783
1966-67	..	386	1,854	1970-71	..	421	1,701
1967-68	..	417	2,007	1971-72	..	404	1,582
1968-69	..	399	1,949	1972-73	..	402	1,574
			5,651				7,024
			6,107				7,637
			6,425				7,914
			6,700				9,197

(a) Excludes construction staff.

Comparison with Other Australian Systems

The Tasmanian system of government railways is the smallest in Australia and the following table, showing principal operational details, allows a comparison to be made:

Australia: Government Railway Systems, 1972-73
Operating Statistics

System	Route-kilometres open	Revenue train-kilometres	Passenger-journeys (a) (b)	Revenue goods and livestock carried (a)	Revenue net tonne-kilometres
	kilometres	'000 kilometres	'000	'000 tonnes	million
N.S.W.	9,754	59,941	206,125	31,044	8,117.6
Victoria	6,685	33,058	135,189	11,475	3,164.8
Queensland	9,559	29,523	32,145	24,666	7,613.1
S.A.	3,884	10,024	14,042	5,781	1,588.4
W.A.	6,167	11,669	11,518	13,706	3,686.2
Tasmania	830	1,960	752	1,554	210.6
Australian Government ..	3,595	5,859	(c)222	(d)4,255	2,201.1
Total Australia ..	40,474	152,035	399,993	92,481	26,581.7

(a) Interstate traffic is included in the total for each system over which it passes.

(b) Based on ticket sales making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys.

(c) Passenger journeys continuing over both the Trans-Australian and Central Australian Railway systems are counted twice. In 1972-73 these numbered 9,144.

(d) Tonnages carried over both the Trans-Australian and Central Australian Railways systems are counted twice. In 1972-73, 214,936 tonnes were counted twice.

The financial operations of the six state railways and the Australian Government line are shown below:

Australia: Government Railways, 1972-73
Financial Operations
(\$ Million)

System	Gross earnings (a)	Working expenses (b)	Net earnings (c)	Plus other earnings payable to railways (d)	Less other expenses charged to railways (e)	Surplus or deficit
N.S.W.	254.1	298.2	-44.1	4.7	40.2	-79.6
Victoria	111.8	156.1	-44.3	0.1	10.7	-54.9
Queensland	137.7	133.4	4.4	..	36.3	(f)-32.0
S.A.	35.1	(g) 52.3	-17.3	22.7	8.9	-3.4
W.A.	63.6	(g) 68.2	-4.6	1.2	13.6	-17.1
Tasmania	6.8	(g) 11.8	-5.0	..	2.1	-7.1
Australian Government ..	31.2	(g) 34.5	-3.2	..	..	-3.2
Total Australia ..	640.4	754.5	-114.1	28.8	112.0	-197.3

(a) Excludes government grants and road motor services.

(b) Excludes road motor services.

(c) Gross earnings less working expenses. See notes (a) and (b).

(d) Includes state government grants and road motor earnings.

(e) Includes interest and exchange, sinking fund, road motor expenses and other expenses charged to railways.

(f) Includes deficit (\$1,069,037) on the Queensland 1,435mm gauge.

(g) Includes provision for depreciation.

Financial Comparison

In comparing the financial results of the Tasmanian system with those of other authorities, certain difficulties arise from the treatment of depreciation. In the preceding table, working expenses for the Tasmanian, S.A., W.A. and Australian Government systems include provision of reserves for depreciation. A further complication arises from the fact that interest is not charged against the railways accounts of the Australian Government system, and in the Victorian system only in respect of loan expenditure incurred since 1 July 1960.

To the extent that there is differing treatment of interest and of depreciation provisions in the various systems, the 'surplus or deficit' shown in the table is not a good basis for making comparisons; however, if due allowance is made for interest charges in the case of the Australian Government system, it will be seen that loss, rather than profit, is characteristic of all Australian systems.

GOVERNMENT OMNIBUS SERVICES

Introduction

The only Government road services in operation from 8 December 1968 (when the Transport Commission road services were discontinued) are those operated by the Metropolitan Transport Trust at Hobart, Launceston and Burnie. Previous to this date the Transport Commission operated omnibus services throughout the State. However, following trading losses on the operation of the Transport Commission's omnibus services during 1965-66 and 1966-67 Parliament refused approval for continuation of the service. The *Transport Commission (Road Transport Undertaking Disposal) Act* 1968 required the Commission to sell its omnibus fleet to a private operator. Disposal of the fleet was completed in December 1968.

Metropolitan Transport Trust

Until 1955, tramway, trolley-bus and omnibus services were operated in Hobart and Launceston by the local government authority in each city. The Hobart system had operated without subsidy but the Launceston system received, as one item of revenue, the annual proceeds from a special tramways rate.

The *Metropolitan Transport Act* 1954 empowered the State to enter into agreements for the acquisition of the two systems and to vest them in the newly constituted semi-government authority named in the Act. After negotiation with the two local government authorities, the Trust arranged to take over the Hobart system from 28 February 1955, and the Launceston system from 1 July 1955. It was part of the agreement that the Trust should reimburse to the local government authorities the annual charges relating to the loan debt of each system. Future capital was to come from the State Loan Fund. During 1959-60, the Trust commenced the operation of omnibus services in Burnie.

The present service is based entirely on omnibuses, although trolley-buses were in use on some Hobart and Launceston routes as late as 1968. It was in October 1960 that the Trust closed down the last of the tramway services in Hobart; Launceston City had closed down all its tramway services before the city transport system was taken over by the Trust in July 1955. One paradoxical feature of recent years is the decline in passenger journeys, despite increases in urban population; increasing private motor vehicle ownership explains this trend.

Financial Operations of Trust

The following table shows the income and expenditure of the Metropolitan Transport Trust:

Metropolitan Transport Trust
Income and Expenditure
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
INCOME					
Traffic operations	2,235	2,297	2,284	2,597	2,612
Other earnings	35	35	38	41	46
Subsidy, State Government ..	1,030	1,011	1,418	1,310	1,692
Total	3,300	3,343	3,739	3,948	4,350
EXPENDITURE					
Traffic operations	1,688	1,785	2,040	2,160	2,407
Maintenance	492	530	578	596	664
Power and fuel	226	218	250	267	265
Workshop and stores .. .	49	55	56	65	67
Administration and general ..	405	415	462	516	594
Debt charges	156	147	144	146	143
Depreciation charges .. .	234	208	211	199	194
Total	3,250	3,358	3,741	3,949	4,333

A break-down of income earned from traffic operations in the three centres (Hobart, Launceston and Burnie) for 1972-73 follows (in \$'000): Hobart, 1,912; Launceston, 536; and Burnie, 164.

Loan Debt of Trust

The Trust has now fully repaid all loans originally floated by the Hobart and Launceston City Corporations for tramways. Net advances to the Trust from the State Loan Fund at 30 June 1973 stood at \$2,606,493.

Operating Statistics

The next table shows the principal operating statistics for the Metropolitan Transport Trust:

Metropolitan Transport Trust
Operating Statistics

Particulars	1968-69 (a)	1969-70	1970-71	1971-72	1972-73
Route-kilometres (b)—					
Omnibus	356	383	383	385	402
Vehicle-kilometres—					
Trolley-bus .. '000	243	233	266	267	281
Omnibus '000	8,436	8,739	8,766	8,647	8,381
Passenger-journeys .. '000	21,246	20,707	20,797	19,606	18,728

(a) Trolley-buses ceased operating in Launceston on 19 July 1968 and in Hobart on 24 November 1968.

(b) At end of period.

At 30 June 1974 the Metropolitan Transport Trust had a fleet of 300 vehicles comprising 285 passenger buses and 15 maintenance vehicles. Disposition of the fleet was: Hobart, 197 passenger buses and 15 maintenance vehicles; Launceston, 66 passenger buses and four maintenance vehicles; and Burnie, 22 passenger buses and one maintenance vehicle.

ROADS AND BRIDGES

Scope

The details in the following section refer to: (i) 'classified' roads; (ii) roads of local government authorities; and (iii) roads of other government authorities. A further qualification is that the roads are those normally open to traffic.

In the first table showing road lengths, there has been a substantial reduction in 1971 figures for classified roads and for roads of local government authorities; this was due principally to revisions based on a Public Works Department survey involving actual field measurement, but some of the reduction in the length of the classified system is due to improvements (new by-passes, bend elimination, etc.). (The further reductions in local government roads in 1972 and 1973, resulted from additional survey work carried out by the Public Works Department.)

Definitions and Road Lengths

(i) *Classified Roads*: These are roads for which the State Government accepts direct responsibility, the construction and maintenance authority being the Public Works Department. The length of classified (or State) roads at 30 June 1973 was as follows: State highways, 1,929 kilometres; main roads, 1,065 kilometres; secondary roads, 308 kilometres; tourist roads, 76 kilometres; developmental roads, 144 kilometres; total State roads, 3,521 kilometres.

(ii) *Roads of Local Government Authorities*: The roads for which the local government authorities accepted responsibility at 30 June 1973, comprised: sealed roads, 3,363 kilometres; unsealed roads, 9,447 kilometres; total 12,810 kilometres.

(iii) *Roads of Other Government Authorities*: Roads which were the responsibility of these authorities at 30 June 1973 comprised: roads of the Hydro-Electric Commission, 514 kilometres; Forestry Commission, 3,785 kilometres; total, 4,298 kilometres. The Hydro-Electric Commission roads include the Gordon River Road from Maydena to the Gordon River dam site (85 kilometres) and the Scotts Peak Road which runs from the Gordon River Road to Scotts Peak (35 kilometres).

It is not generally recognised that the Hydro-Electric Commission, intent on developing the State's power supplies, has made valuable contributions to Tasmania's road system. Roads, originally built to give access to construction sites, have later been absorbed into the classified road system and therefore are available for general use. This type of development has not come to an end and new roads are likely to result from the future operations of the authority in the Pieman River area of the west coast, and in the region of the major rivers further south. The main areas where the authority's activities have already affected the road system are in the upper Derwent; Great Lake; Mersey Valley; and remote south-west areas.

Surface of Roads

The following table shows lengths of all roads normally open to traffic classified according to road surface and according to the level of government which accepts responsibility for construction and maintenance. The proportion of classified (State) roads with sealed surfaces has increased from 73.9 per cent at 30 June 1968 to 84.4 per cent in June 1973. The majority of the unsealed State (classified) roads are located in the centre of the State, where the high altitude *Lake* and *Lyell Highways* present serious construction problems. However, during 1972-73 further sealing work was carried out on both of these highways. On the *Lake Highway* an additional 18.9 kilometres were sealed while on the *Lyell Highway* the unsealed segment was reduced by 7.2 kilometres to a section 9.3 kilometres long.

Length of Roads According to Nature of Surface at 30 June

Type of surface		1968	1969	1970	1971	1972	1973
CLASSIFIED STATE ROADS							
Sealed (a)	kilometres	2,617	2,739	2,840	2,890	2,905	2,973
Unsealed (b)	kilometres	925	813	726	618	607	548
Total ..	kilometres	3,542	3,552	3,566	3,508	3,512	3,521
Sealed ratio (c)	.. %	73.9	77.1	79.6	82.4	82.7	84.4
ROADS OF LOCAL GOVERNMENT AUTHORITIES (d)							
Sealed (a)	kilometres	2,718	2,969	3,291	3,050	3,219	3,363
Unsealed (b)	kilometres	11,964	11,652	11,413	10,145	9,794	9,447
Total ..	kilometres	14,682	14,621	14,705	13,195	13,013	12,810
Sealed ratio (c)	.. %	18.5	20.3	22.4	23.1	24.7	26.3
ROADS OF OTHER GOVERNMENT AUTHORITIES							
Sealed (a)	kilometres	84	84	105	119	167	151
Unsealed (b)	kilometres	3,278	3,541	3,758	3,853	4,005	4,148
Total ..	kilometres	3,362	3,625	3,862	3,972	4,172	4,299
Sealed ratio (c)	.. %	2.5	2.3	2.7	3.0	4.0	3.5
ALL ROADS (d)							
Sealed (a)	kilometres	5,419	5,792	6,236	6,059	6,292	6,487
Unsealed (b)	kilometres	16,166	16,005	15,897	14,616	14,405	14,143
Total ..	kilometres	21,585	21,797	22,133	20,675	20,697	20,630
Sealed ratio (c)	.. %	25.1	26.6	28.2	29.3	30.4	31.4

(a) Bitumen or concrete.

(b) Includes roads formed or cleared only.

(c) Sealed roads as a proportion of total roads.

(d) See introductory section under 'Scope' for explanation of apparent decrease in lengths from 1971.

Classified (or State) Roads

The next table analyses the length of classified roads according to their description and surface. The principal State highways include the following: (i) *Arthur* (74 kilometres), from Sorell to Port Arthur; (ii) *Bass* (283 kilometres), from Launceston to Marawah in the far north-west; (iii) *Channel* (95 kilometres), from Hobart to Huonville, via D'Entrecasteaux area; (iv) *Huon* (99 kilometres), from Hobart to Hythe via Dover; (v) *Lake* (150 kilometres), from Deloraine via Great Lake to Melton Mowbray; (vi) *Lyell* (284 kilometres), from Granton, near Hobart, to Strahan; (vii) *Midland* (185 kilometres), from Glenorchy to Launceston; (viii) *Murchison* (78 kilometres), from *Zeehan Highway* to Waratah area; (ix) *Tasman* (422 kilometres), from Hobart to Launceston, via east coast and St Helens; (x) *Waratah* (72 kilometres), from Somerset to Waratah.

Classified (or State) Roads
Description and Length of Roads at 30 June 1973
(Kilometres)

Description	Nature of surface		Total
	Sealed (a)	Unsealed (b)	
Highways	1,806	123	1,929
Main roads	894	171	1,065
Secondary roads	147	160	308
Tourist roads	7	69	76
Developmental roads	119	25	144
Total	2,973	548	3,521

(a) Bitumen or concrete.

(b) Gravel or stone.

Expenditure on Roads

As indicated in the preface to this section, the responsibility for road construction and maintenance is placed upon the State Government and upon local government and semi-government authorities. The next table gives a detailed analysis only of funds available to the State Government and expenditure from State road funds:

State Road Funds: Receipts and Payments
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
Motor vehicle taxation, registration, licences, fees, fines, etc.	4,587	4,827	5,033	5,569	5,912
Australian Government grants	8,500	9,100	10,230	10,820	12,150
State Loan Fund	739	1,100	1,020	930	540
Contributions by local government authorities	17	18	17	17	19
Other	102	128	93	307	277
Total	13,945	15,173	16,393	17,733	18,897
PAYMENTS					
Construction and reconstruction of roads and bridges	10,180	11,322	12,320	12,960	13,810
Maintenance of roads and bridges	3,263	3,662	4,297	4,475	4,686
Planning and research .. .. .	..	120	185	189	186
Total	13,442	15,105	16,802	17,624	18,682

Grants under Commonwealth Aid Roads Acts provide the bulk of the funds with a major contribution also coming from motor vehicle taxation, registration fees, etc.

Receipts and Expenditure, Local Government Authorities

Some of the expenditure appearing in the State Road Funds table consists of grants from the State Government to local government authorities, although such grants are not specifically dissected. In Chapter 4, 'Local Government', details will be found of: (i) grants from the State to local government authorities for road purposes; (ii) road rates collected by local government authorities; and (iii) expenditure on road construction and maintenance by local government authorities from revenue, and from loan funds.

The Paterson Bridge

The Paterson Bridge, Tasmania's latest major bridge construction, is located across the mouth of the South Esk River just downstream from the existing Kings Bridge. The new bridge provides a separate connection between the West Tamar Road and the City of Launceston. The existing Kings Bridge is retained as the direct connection between Trevallyn and the City.

The Structure

Paterson Bridge is a continuous three span structure formed from four parallel welded steel box beams with a composite reinforced concrete deck. The box beams are of constant depth and are fabricated from high yield steel. Support for the bridge superstructure is provided by twin reinforced concrete piers set close to the bank at each side of the river and two reinforced concrete abutments. The piers are carried on piles while both abutments are founded on spread footings.

The road alignment requires a horizontal curve of 365.76 metres radius and the profile requires a vertical curve with a general fall of 5.18 metres from the south to the north abutment. This double curvature is achieved by using a regular number of straight beam sections.

Dimensions

A central span, 73.15 metres long over the river, and two flanking spans, each 36.17 metres long give the bridge a total length of 145.50 metres between abutments. The bridge provides two carriageways, each with a 7.32 metre wide pavement surface. The carriageways are separated by a raised 1.83 metre wide median strip which incorporates a central crash rail. Safety curbs are also provided on each side of the bridge. Total width of the structure is 20.73 metres.

MOTOR VEHICLE REGISTRATIONS

General

Statistics in this section deal with: (i) motor vehicles 'on register' at specific dates; and (ii) new motor vehicles registered within a specified period, e.g. a year.

Definitions

Register: To be allowed on the public roads, motor vehicles, except those owned by the Australian Government, are required to be registered with the State Transport Commission; State Government vehicles, as well as privately-owned vehicles, are registered with this authority. Australian Government-owned vehicles, except those belonging to the defence services, are recorded on a separate Australian Government register. 'On the register', in this section, refers to both the State and Australian Government registration records, and to all motor vehicles except those of the defence services. Statistics of new motor vehicle registrations comply with the same definition.

Vehicles Included: The statistics cover cars, station wagons, motor cycles and commercial vehicles. Commercial vehicles as defined include utilities, panel vans, rigid and articulated trucks, other truck type vehicles (i.e. commercial vehicles used for purposes other than freight carrying, e.g. fire engines) and omnibuses. Tractors, trailers and mobile plant and equipment are excluded.

Because of the multi-purpose nature of rear-door sedans it is possible for these types of vehicles to be registered as either cars or station wagons. In these statistics all rear-door sedans are classified as cars.

Vehicles on Register

The following table has been compiled to show, in summary form, the increase in motor vehicles on the register since 1910. To give a convenient measure of this growth, vehicles on the register have been related to the population (vehicles per 1,000 persons), and increases have been expressed as annual averages for each decade.

Motor Vehicles on Register from 1910

At 30 June	Cars and station wagons	Com-mercial vehicles	Motor cycles	All vehicles		
				Total	Average annual increase (a)	Per 1,000 of population
			'000			
1910	0.2	(b)	0.2	0.4	..	2
1920	2.4	(b)	1.7	4.1	0.4	20
1930	12.5	2.2	4.8	19.5	1.5	89
1940	17.6	5.2	3.4	26.2	0.7	109
1950	25.3	12.9	4.9	43.2	1.7	156
1960	63.7	26.4	3.1	93.2	5.0	271
1970	118.6	32.6	3.1	154.3	6.1	398
1973	136.6	34.2	4.6	175.4	(c)7.0	443

(a) For decade ending in year shown.
 (b) Included with cars and station wagons.
 (c) For three years ended 30 June 1973.

The next table gives details of motor vehicles on the register during the past decade; annual increases are shown to allow comparison with the average annual rates for each decade appearing in the previous historical table.

Motor Vehicles on Register r

At 31 December	Cars and station wagons	Com-mercial vehicles	Motor cycles	All vehicles		
				Total	Annual increase	Per 1,000 of population
			'000			
1964	87.9	28.5	1.6	118.0	6.8	322
1965	93.7	29.0	1.4	124.1	6.1	336
1966	99.5	30.2	1.6	131.3	7.2	352
1967	104.2	30.6	1.8	136.6	5.3	362
1968	110.6	31.6	2.5	144.7	8.1	378
1969	116.1	32.4	2.9	151.4	6.7	391
1970	122.0	32.7	3.3	158.0	6.6	405
1971	128.0	33.3	3.7	165.0	7.0	420
1972	133.6	33.7	4.1	171.5	6.5	434
1973	140.2	34.5	5.3	180.0	8.5	451

Motor Vehicles on Register in Australia

While different concepts of what constitutes 'motor vehicles on register' at a particular point of time may be appropriate for different purposes; for the purpose of obtaining uniform statistics for all states and territories, it is necessary to adopt a common concept of what constitutes 'motor vehicles on register' at a particular date. For this series, the Bureau has adopted the concept of motor vehicles on register at a particular date as being:

- (i) vehicles whose fees were paid up at that date, in respect of that date; and
- (ii) vehicles whose fees were not paid up at that date but subsequently were paid retrospectively to that date (or to an earlier date);

and excluding all vehicles whose fees were not subsequently paid up in respect of that particular date, even though at that date their registrations may not have been formally terminated.

The following table shows estimated details of motor vehicles on the register for each state and territory at 30 June 1973. The figures are based on the final results of the census of motor vehicles conducted in respect of 30 September 1971. Motor vehicles on register are compiled from data supplied by the various registration authorities and include diplomatic and consular vehicles and all Australian Government-owned vehicles other than those belonging to the defence services.

Australia: Motor Vehicles on Register, 30 June 1973

State or territory	Cars and station wagons	Commercial vehicles	Motor cycles	All vehicles	
				Total	Per 1,000 of population
	'000	'000	'000	'000	no.
N.S.W.	1,525.8	349.4	72.7	1,947.8	414
Victoria	1,227.9	248.5	40.3	1,516.6	423
Queensland	604.9	190.1	42.8	837.8	438
S.A.	427.5	93.8	25.7	547.1	456
W.A.	364.2	109.4	17.4	491.1	460
Tasmania	136.6	34.2	4.6	175.4	443
N.T.	20.5	12.4	3.0	35.9	376
A.C.T.	68.8	9.7	3.9	82.4	489
Total	4,376.2	1,047.5	210.4	5,634.1	429

Registration of New Motor Vehicles

A revised classification of commercial vehicles was adopted from 1 January 1972. Under the new classification commercial vehicles are grouped into the following categories:

- (i) *Light commercial—open*: vehicles, (utilities and open light trucks) with a manufacturer's carrying capacity specification of less than one tonne.
- (ii) *Light commercial—closed*: vehicles (panel vans and closed light trucks) with a manufacturer's carrying capacity of less than one tonne, and all ambulances and hearses.
- (iii) *Heavy commercial*: rigid and articulated vehicles with a manufacturer's carrying capacity specification of one tonne or over; and vehicles other than those used for freight carriage (e.g. fire engines).

The next table shows details of registrations for recent years:



Public Works Department road construction, Midland Highway at Constitution Hill



The Lyell Highway descending to Queenstown

[Dept of Film Production]

Annual Registrations of New Motor Vehicles

Classification	1969	1970	1971	1972	1973
Motor cars	9,798	10,364	10,633	11,051	12,269
Station wagons	1,335	1,250	1,282	1,204	1,396
Commercial vehicles—					
Light open	1,114	1,144	1,076	(a)1,054	1,118
Light closed	530	543	635	(a)486	706
Heavy	777	720	714	(a)892	1,058
Buses	82	98	97	83	114
Motor cycles	763	804	851	1,089	1,863
Total	14,399	14,923	15,288	15,859	18,524

(a) See section preceding the table.

New Registrations According to Make

The table that follows analyses Tasmanian registrations of new cars and new station wagons according to make, and illustrates the present popularity of Holden, Ford, Datsun, Chrysler and Toyota makes.

Registrations of New Cars and New Station Wagons, 1973
Classified to Predominant Make

Make	Cars		Station wagons	
	Number	Proportion of total cars (per cent)	Number	Proportion of total station wagons (per cent)
Auto Union	10	0.1	..	..
B.M.W.	21	0.2	..	..
Chrysler	1,075	8.7	167	12.2
Citroën	8	0.1	3	0.2
Datsun	1,397	11.4	82	6.0
Fiat	164	1.3	..	..
Ford	2,402	19.5	249	18.2
Holden	3,386	27.5	589	43.1
Honda	54	0.4	..	..
Jaguar	14	0.1	..	..
Leyland	873	7.1	..	..
Mazda	772	6.3	55	4.0
Mercedes Benz	54	0.4	..	..
Peugeot	92	0.7	..	..
Renault	244	2.0	39	2.9
Rover	8	0.1	..	..
Statesman	92	0.7	..	..
Subaru	205	1.7	22	1.6
Toyota	1,057	8.6	112	8.2
Triumph	82	0.7	..	..
Volkswagen	179	1.5	28	2.0
Volvo	87	0.7	12	0.9
Other	30	0.2	10	0.7
Total	12,306	100.0	1,368	100.0

'Scrapping' of Motor Vehicles

Apart from the few 'veteran' cars owned by enthusiasts, most vehicles are eventually scrapped. No information is collected on the number scrapped each year but the following table contains information from which some inferences may be drawn:

**New Motor Vehicles Registered and Annual Increase in Motor Vehicles on Register
(*000)**

Particulars	1968	1969	1970	1971	1972	1973
New motor vehicles registered (a)	14.6	14.4	14.9	15.3	15.9	18.5
Annual increase, motor vehicles on register (b)	8.1	6.7	6.6	7.0	6.5	8.5

(a) During year ended 31 December.

(b) Annual increase measured at 31 December.

In comparing the two sets of figures in the previous table, it would be wrong to assume that the difference in each year represented scrapped vehicles only; exceptions would include vehicles transferred interstate and vehicles 'on blocks'—the fact that an owner has let a registration expire does not necessarily mean that he intends to scrap his vehicle. Subject to these and similar difficulties of interpretation, it would appear that about eight thousand motor vehicles have been scrapped annually since 1967.

ROAD TRAFFIC ACCIDENTS IN TASMANIA

Scope of Statistics

With the rapid development of road transport, there has been an increase in the number of road traffic accidents; some merely involve damage to vehicles, but others result in injury or death. To evolve meaningful statistics describing these events, it has been found necessary to narrow the field of observation to those road traffic accidents which involve casualties, since most accidents resulting only in vehicle damage are not required by law to be reported to the police (the drivers might merely exchange names and report to their respective insurance companies). Further, there is the difficulty of fixing, in monetary terms, some valid standard for determining what degree of vehicle damage warrants inclusion of an accident in a long-term statistical series—obviously \$20 or \$50 for repairs in 1950 is not comparable with \$20 or \$50 for repairs now.

For these and other reasons, the statistics in this section are restricted to details of those road traffic accidents involving casualties requiring medical or surgical treatment, or causing death and which were recorded by the police.

Source of Data

Details of each road traffic accident reported to the police, or investigated by the police, are recorded on a standard form and copies are made available to the Transport Commission and to the Australian Bureau of Statistics; at the Bureau, quarterly statistics are compiled only from those reports describing accidents involving casualties. The Transport Commission employs the reports it receives in connection with road engineering, the location of traffic signs and signals, the pin-pointing of dangerous locations, traffic engineering, and accident prevention in general.

Responsibility for, and Causes of, Accidents

For the purposes of the statistics in this section, the police officer reporting the accident determines, on the basis of the evidence available, the road user or agency responsible, and also the cause of the accident. The fact that civil or criminal courts may later make different decisions on these matters is disregarded in these statistics; nor is any attempt made to distinguish between accidents giving rise to subsequent legal action and those not doing so.

Causes of Accidents

Causes of accidents in Australian states are classified, for statistical purposes, in accordance with a standard list of 76 prime causes (although, in this section, only the most frequent causes are shown). Contributory causes and conflicting or incomplete evidence make precise classification difficult. No provision is made to record and classify such antecedent causes as fatigue, discourtesy, impatience or other driving faults. However, since July 1971 accidents where consumption of alcohol is involved have been given a special classification. Where the blood alcohol level of the road user considered responsible is 0.05 (grams of alcohol per 100 millilitres of blood) or greater, this is recorded separately and no cause for the accident is assigned. The same practice is followed for road users who were reported 'obviously affected by alcohol' by the police and: (i) refused breath and/or blood tests; or (ii) had a blood alcohol level under 0.05; or (iii) were not tested because facilities were not readily available. The assumption in each case is that the road users' skills were impaired or may have been impaired by alcohol to such an extent as to have led to the accident.

Road Traffic Accident Statistics

The following table summarises the principal statistics of road traffic accidents involving casualties from 1949-50:

Road Traffic Accidents Involving Casualties, Selected Years from 1949-50

Period	Accidents		Persons			
	Number	Per 10,000 vehicles registered (a)	Killed		Injured	
			Number	Per 10,000 vehicles registered (a)	Number	Per 10,000 vehicles registered (a)
1949-50	969	242	64	16.0	1,154	288
1959-60	743	82	79	8.7	1,004	111
1964-65	1,180	r100	97	8.2	1,692	r143
1967-68	1,268	r92	112	r8.2	1,990	r145
1968-69	1,400	r97	122	r8.4	2,228	r154
1969-70	1,413	r93	122	r8.0	2,268	r150
1970-71	1,396	r89	124	r7.9	2,031	r129
1971-72	1,371	r83	118	r7.2	1,984	r120
1972-73	1,423	82	83	4.8	2,052	119

(a) Based on average number of motor vehicles on register during period. 'Vehicles on register' is defined in the earlier section headed 'Motor Vehicle Registrations'.

Location of Accidents

The first table shows the location of accidents in the State:

Road Traffic Accidents and Casualties by Local Government Area, 1972-73

Local government area	Accidents involving casualties	Persons killed	Persons injured
Hobart	288	12	373
Launceston	150	3	182
Glenorchy	162	11	219
Clarence	110	7	156
Burnie	60	5	85
Devonport	53	6	73
Other	600	39	964
Total	1,423	83	2,052

Responsibility for Road Accidents

The next table shows the type of road user or agency believed responsible:

Responsibility for Road Traffic Accidents, 1972-73

Responsibility attributed to—	Accidents involving casualties	Persons killed	Persons injured
Drivers of motor vehicles	1,031	55	1,624
Riders of motor cycles	81	3	90
Pedal cyclists	25	1	25
Pedestrians	197	19	188
Passengers	5	1	4
Motor vehicle defects	16	..	28
Motor cycle defects	1	..	1
Pedal cycle defects	1	..	1
Animals	5	..	6
Road conditions	25	..	36
Weather	10	..	17
Parties not involved (a)	22	1	26
Other causes	4	3	6
Total	1,423	83	2,052

(a) e.g. a car collides with another, after swerving to avoid a pedestrian who is not struck.

Causes of Accidents—Drivers of Motor Vehicles Responsible

The next table analyses accidents for which drivers of motor vehicles were believed responsible:

Road Traffic Accidents Caused by Drivers of Motor Vehicles, 1972-73**Classification by Cause**

Principal causes of accidents for which drivers of motor vehicles (excluding motor cycles) were responsible	Accidents involving casualties	Persons killed	Persons injured
Accidents involving alcohol—			
Driver's blood alcohol level 0.05 (a) or greater	270	23	417
Driver refused test	3	..	9
Other cases (b)	18	2	25
Other accidents—			
Excessive speed having regard to conditions	136	5	245
Not keeping to the left	89	13	189
Not giving right of way	189	6	282
Failing to make right-hand turn with due care	63	..	75
Inexperience	26	1	46
Inattentive driving	91	..	122
Reversing without care	8	..	8
Overtaking without sufficient clearance	28	..	48
Following other vehicle too closely	37	..	55
Infirmity of driver	6	..	9
Driver asleep or drowsy	14	3	28
Dazzled by lights of approaching vehicle	4	..	9
Failing to signal intention of turning or stopping	12	..	12
Pulling out from kerb without warning	11	1	16
Failing to observe traffic sign or signal	3	..	4
Crossing railway level crossing without due care	1	..	1
Hit-run (n.e.i.)	14	1	14
Other causes	8	..	10
Total	1,031	55	1,624

(a) Grams of alcohol per 100 millilitres of blood.

(b) Driver reported obviously affected by alcohol by Police but blood alcohol level less than 0.05, or not tested because facilities not readily available.

A summary of road traffic accidents for which drivers of motor vehicles were responsible follows:

Road Traffic Accidents, Drivers of Motor Vehicles Responsible (a): Summary

Accidents involving casualties	1968-69	1969-70	1970-71	1971-72	1972-73
Drivers of motor vehicles responsible—					
Number of accidents	1,077	1,032	1,004	1,002	1,031
Proportion of total accidents .. %	76.9	73.0	71.9	73.1	72.5

(a) Excludes riders of motor cycles.

Alcohol-factor Accidents, Drivers of Motor Vehicles Responsible

The following table shows the blood alcohol level and age group of drivers of motor vehicles (excluding motor cycles) believed responsible for casualty accidents:

**Road Traffic Accidents, Drivers of Motor Vehicles Responsible, 1972-73
According to Blood Alcohol Level and Age Group**

Blood alcohol level (a)	Age group of drivers responsible (in years)							Total	
	20 and under	21-24	25-29	30-39	40-49	50-59	60 and over		Not stated
Less than 0.05 .. .. .	..	..	..	..	..	..	..	..	..
0.05	3	3	1	2	..	..	..	..	9
0.06	3	5	..	..	..	..	..	..	8
0.07	9	1	1	..	..	..	..	..	11
0.08	4	5	1	1	1	..	..	..	12
0.09	11	4	2	1	2	..	..	..	20
0.10	5	3	3	3	2	1	..	..	17
0.11 or 0.12	16	10	4	7	3	1	1	..	42
0.13 or 0.14	13	6	5	7	3	1	2	..	37
0.15 or 0.16	17	10	4	10	3	1	1	..	46
0.17 or 0.18	4	5	6	6	3	..	1	..	25
0.19 or 0.20	1	3	4	5	4	2	1	1	21
0.21 or 0.22	1	1	1	1	4	1	..	..	9
0.23 or 0.24 .. .. .	..	1	1	..	3	1	..	..	6
0.25 or 0.26 .. .. .	..	..	..	1	..	2	..	..	3
0.27 or 0.28 .. .. .	..	..	2	..	1	..	..	..	3
0.29 or 0.30 .. .. .	..	..	..	..	..	..	..	..	..
0.31 or above .. .. .	..	..	..	1	..	..	..	..	1
Refused test .. .. .	..	..	2	..	1	..	..	..	3
Test facilities not available	5	4	3	4	1	1	..	..	18
Total	92	61	40	49	31	11	6	1	291

(a) Grams of alcohol per 100 millilitres of blood.

Of the 291 driver responsible casualty accidents in which alcohol was considered to be the possible prime or antecedent cause, 153 accidents (i.e. 52.6 per cent) involved drivers under 25 years of age.

Drivers Involved in Accidents, Age Group and Licence Type

During 1972-73 a total of 2,023 drivers of motor vehicles (excluding motor cycles) were involved in casualty accidents which were reported to the police. The age group and type of driving licence held by these drivers at the time of the accident are shown in the next table:

**Road Traffic Accidents, Drivers of Motor Vehicles Involved, 1972-73
According to Licence Type and Age Group**

Type of driving licence	Age group of drivers involved (in years)								Total drivers involved
	Under 21	21-24	25-29	30-39	40-49	50-59	60 and over	Not stated	
Learner	18	5	2	7	4	..	3	..	39
Provisional	391	72	30	17	15	4	3	3	535
Ordinary	52	221	221	276	236	160	103	9	1,278
Interstate or international	6	17	13	10	8	1	2	2	59
No licence	38	15	13	11	2	..	1	1	81
Not known .. .. .	..	1	2	3	..	2	..	23	31
Total	505	331	281	324	265	167	112	38	2,023

Causes of Accidents—Pedestrians Responsible

The table below analyses road traffic accidents for which pedestrians were held responsible:

**Road Traffic Accidents, Pedestrians Responsible, 1972-73
Classification by Cause**

Principal causes of accidents for which pedestrians were responsible	Accidents involving casualties	Persons killed	Persons injured
Accidents involving alcohol—			
Pedestrians blood alcohol level 0.05 (a) or greater	5	3	3
Pedestrians refused test .. .. .	..	..	..
Other cases (b)	13	3	10
Other accidents—			
Walking across roadway without due care	83	6	82
Running across roadway	34	4	31
Passing behind or in front of moving or stationary vehicle or object	12	..	12
Stepping off kerb without due care	5	..	8
Children under seven years of age not under, or breaking away from the supervision of an older person	41	2	39
Other causes	4	1	3
Total	197	19	188

(a) Grams of alcohol per 100 millilitres of blood.

(b) Pedestrian reported 'obviously affected by alcohol' by Police but blood alcohol level less than 0.05, or not tested because facilities not readily available.

Road Features and Accidents

The next table analyses all accidents according to the road features at the site:

Features of Roadways on Which Accidents Occurred, 1972-73

Feature of roadway	Accidents involving casualties	Persons killed	Persons injured
At intersections—			
Controlled	37	1	44
Uncontrolled	401	6	565
Other than at intersections—			
Straight road	561	45	747
Bend or curve	415	31	679
Bridge, culvert or causeway	5	..	13
Other locations	4	..	4
Total	1,423	83	2,052

Road Users Killed or Injured

The next table analyses the type of road user killed or injured:

Type of Road User Killed or Injured, 1972-73

Type of road user involved	Killed			Injured		
	Males	Females	Persons	Males	Females	Persons
Drivers of motor vehicles	24	2	26	652	181	833
Motor cyclists	5	..	5	132	13	145
Pedal cyclists	3	..	3	26	9	35
Passengers—Motor vehicle	16	12	28	379	427	806
Motor cycle .. .. .	..	..	..	14	5	19
Pedal cycle .. .. .	..	..	..	..	1	1
Pedestrians	13	8	21	117	95	212
Other .. .. .	..	..	..	..	1	1
Total	61	22	83	1,320	732	2,052

Types of Accidents

Most accidents arise from collisions between vehicles, followed by vehicles overturning or leaving the road, as shown in the following analysis:

Types of Accidents, 1972-73

Types of accidents	Accidents involving casualties	Persons killed	Persons injured
Collisions between vehicles—			
Angle	359	12	528
Head on	146	17	316
Rear end	105	1	157
Side swipe—Same direction	42	1	63
Opposite direction	67	2	103
Vehicle—			
Overturning or leaving road	414	27	600
Colliding with—Fixed object (incl. parked vehicle)	54	1	59
Pedestrian	227	21	217
Animal	4	..	5
Passenger accidents	3	1	2
Other types of accidents	2	..	2
Total	1,423	83	2,052

Age and Responsibility

Drivers of motor vehicles (excluding motor cycles) were believed responsible for 1,031 out of the 1,423 accidents involving casualties which were reported to the police during 1972-73. Out of the 1,031 casualty road traffic accidents for which drivers of motor vehicles (excluding motor cycles) were held responsible drivers under 25 accounted for 488 (47.3 per cent) of this class of accident. (Male drivers under 25 were responsible for 422 road traffic accidents.) Casualties associated with accidents attributed to drivers under 25 were: killed, 30; injured 802.

The following table analyses the age and sex of the drivers responsible:

Road Traffic Accidents, 1972-73
Age and Sex of Drivers of Motor Vehicles Responsible

Age group of drivers responsible (in years)	Male driver			Female driver		
	Accidents involving casualties	Persons killed (a)	Persons injured (a)	Accidents involving casualties	Persons killed (a)	Persons injured (a)
Under 17	12	3	18	..	..	..
17-20	268	13	457	33	3	50
21-24	142	11	225	33	..	52
25-29	100	3	151	17	..	32
30-39	111	3	173	40	4	71
40-49	88	3	138	22	..	28
50-59	67	6	89	14	..	15
60 and over	53	5	81	11	..	15
Not stated (b)	18	1	26	2	..	3
Total	859	48	1,358	172	7	266

(a) The age groups relate to the driver who may, or may not be included in the casualty figures.

(b) Includes accidents for which hit-run drivers were responsible.

Age and Sex of Road Users Killed

The next table shows the age and sex of the various types of road user killed:

Road Traffic Accidents, 1972-73
Age and Sex of Road Users Killed

Age group (in years)	Type of road user killed					All road users
	Drivers of motor vehicles	Motor cyclists	Pedal cyclists	Passengers (all types)	Pedestrians	
MALES						
Under 7 .. .. .	..	..	..	..	2	2
7-16	1	2	2	3	3	11
17-20	6	2	..	9	1	18
21-29	9	1	..	1	1	12
30-39	2	..	..	..	1	3
40-49	1	..	..	..	..	1
50-59	2	..	..	..	1	3
60 and over	3	..	1	3	4	11
Not stated .. .. .	..	..	..	..	..	..
Total	24	5	3	16	13	61
FEMALES						
Under 7 .. .. .	..	..	..	1	..	1
7-16 .. .. .	..	..	..	3	1	4
17-20 .. .. .	..	..	..	1	1	2
21-29 .. .. .	..	..	..	..	..	..
30-39	2	..	..	..	..	2
40-49 .. .. .	..	..	..	1	..	1
50-59 .. .. .	..	..	..	3	2	5
60 and over .. .. .	..	..	..	3	4	7
Not stated .. .. .	..	..	..	..	..	..
Total	2	..	..	12	8	22

Days of the Week on Which Accidents Occurred

The following table shows accidents and casualties according to the day of the week on which they occurred:

Road Traffic Accidents, 1972-73
Days of the Week on Which Accidents Occurred

Day of the week	Accidents involving casualties	Persons killed	Persons injured
Monday	138	5	209
Tuesday	130	2	176
Wednesday	180	10	243
Thursday	182	6	274
Friday	233	21	312
Saturday	358	19	530
Sunday	202	20	308
Total	1,423	83	2,052

CIVIL AVIATION IN TASMANIA

Introduction

On 16 December 1919 Lt Arthur Long of the Army Flying Corps crossed Bass Strait to Melbourne. Shortly afterwards he started an aerial newspaper-carrying business between Hobart and Launceston.

In January 1931 a scheduled air service from Melbourne to Hobart was commenced by Australian National Airways, but only operated until June 1931. Separate Launceston-Flinders Island services were commenced in 1932 by L. Johnson and the Holyman brothers—these two services were soon merged to become Tasmanian Aerial Services.

Across Bass Strait services were reintroduced in 1933 by two operators (Matthews Aviation operating via King Island and Hart Aircraft via Flinders Island). In the same year Tasmanian Aerial services extended their Launceston-Flinders Island run to Melbourne. Matthews Aviation and Hart Aircraft ceased operations in 1934 and Tasmanian Aerial Services was reformed and renamed Holymans Airways. The company introduced, in October 1934, four-engined DH86 bi-planes on the Bass Strait routes—six crossings were made each week (three via King Island and three via Flinders Island). In 1936 Holymans put a Douglas DC 2 monoplane on a daily Melbourne-Launceston-Hobart service in addition to the DH86 services. In November 1936 Holymans merged with Adelaide Airways and West Australian Airways—the new company was named Australian National Airways.

In November 1946 the newly formed Australian Government airline, Trans-Australian Airlines, began services from Melbourne to Launceston and Hobart. Ansett Airways entered the Tasmanian air services in November 1946. (Ansett Airways and A.N.A. merged in 1957 to become Ansett-A.N.A.; this name was changed in 1968 to Ansett Airlines of Australia.)

Currently passenger services to and from Tasmania are operated by Ansett Airlines of Australia and Trans-Australian Airlines. With the exception of two return Sydney-Hobart flights each week all other services to and from Tasmania pass through Melbourne. Weekly passenger services from the mainland to Tasmania at the end of August 1973 were: 90 jet passenger flights (mainly provided by McDonnell-Douglas DC 9 aircraft); and 76 Fokker Friendship flights.

Ansett Airlines also operates a scheduled freight service between Melbourne and Launceston using Lockheed Electra freighters. T.A.A. use quick-change Fokker Friendships on freight services to Hobart, Launceston, Devonport and Wynyard. Regular freight services are also operating between Essendon and Launceston and to King Island and Flinders Island on a charter basis.

Air Transport and Land Use Planning

Because of the importance of aviation to Tasmania, efforts are being made to have transportation studied as an integrated system to maximise returns on investment in transport facilities. This requires close co-operation between federal, state and local government since policy decisions in relation to air transport not only affect other transport methods but also have an impact on land use in areas adjacent to airport terminals. In Tasmania the Tasmanian Airfields Committee has been established to co-ordinate airport developments and adjacent land development.

Intrastate Services

Supplementary intrastate services have operated since May 1964. Air Tasmania operates commuter services on the intrastate routes linking Hobart, Launceston, Devonport, Wynyard, Queenstown and Strahan and between Hobart and Flinders Island.

Administration of the Air Navigation Act and Regulations in Tasmania

The federal *Air Navigation Act 1920-1973* and associated regulations are administered for Tasmania by the Regional Director, Victoria-Tasmania region; the authority is the Civil Aviation Department. The Department's more important functions include the provision and maintenance of government aerodromes, the licensing of aircraft and pilots, and a responsibility for supervising all aspects of air safety.

Classification of Flying Activities

Flying activities are classified by regulation into the following well-defined categories:

- (i) *Private Operations*: Private use of aircraft may be gauged by the fact that there were 527 licensed *private* pilots in the State in June 1974.
- (ii) *Aerial Work Operations*: These operations refer to aircraft used for aerial survey; spotting; agriculture; advertising; flying training; ambulance service; police or customs work; or for the carriage of goods owned by the pilot, the owner or the hirer, for the purposes of trade. Within Tasmania there are five licensed flying training organisations and one aerial agricultural organisation carrying out most of the aerial work activities.
- (iii) *Charter Operations*: These refer to aircraft hired for passenger or freight movement, but not according to fixed schedules, or to and from fixed terminals. There were 12 licensed charter operators based in Tasmania in June 1974.
- (iv) *Commuter Operations*: These are charter operations on a fixed schedule, and to or from fixed terminals; they are authorised by an exemption granted under Air Navigation Regulations. Tasmania has one approved operator.
- (v) *Regular Public Transport*: This refers to aircraft carrying freight and passengers according to fixed schedules, and operating on specified routes. All services of this kind are provided in Tasmania by T.A.A. and Ansett Airlines.

Tasmanian Aerodromes

The major aerodromes in Tasmania are owned and operated by the Australian Government through the Department of Civil Aviation. Since 1957 the Australian Government policy has been that aerodromes (except capital city airports) should be owned and operated by local authorities under the local ownership plan. The following describes both Australian Government-owned and other aerodromes in use at 30 June 1973.

Australian Government-owned Aerodromes

Hobart Airport: Is situated 18 kilometres east of the city and ranks seventh in the volume of passengers handled at Australian terminals. It was completed in 1956. Extension and strengthening of the runway, taxiway and aprons to take DC9 and Boeing 727 aircraft at full weight was completed in 1966. The airport is equipped with complex aviation aids. New terminal and communications buildings are scheduled for completion in early 1976.

Launceston Airport: Is situated 16 kilometres south-east of Launceston and ranks next after Hobart in passenger volume but handles considerably more freight. The area control centre provides air traffic control for Tasmania via repeater stations, south on Mt Wellington and north on Mt Barrow. The airport is also used for flying training and other light aircraft charter and aerial work operations.

Devonport Airport: This was originally constructed in the early 1930s. In 1950 it was developed to handle DC₃, DC₄ and Viscount type aircraft. Regular passenger services (using F27 aircraft), aerial and charter work, flying training and private operations are carried on from this location.

Wynyard Airport: This has one sealed runway 1,341 metres and one 1,189 metres long for regular public transport operations, charter, aerial work and private operations.

King Island Airport: Is situated six kilometres north-east of Currie. It has three gravel runways, night lighting and radio navigational equipment. The terminal, at the airport, is owned by Ansett Airlines.

Flinders Island Airport: Is located five kilometres north of Whitemark. There are two gravel and one grass landing strips plus an apron, taxiway, terminal and navigation aid facilities.

Cambridge Airport: This was constructed during the early period of aviation and has four runways. The proximity of hills prevented further development, and after completion of the Hobart Airport, Cambridge became a centre for light aircraft activities.

Locally Owned Aerodromes

Smithton Airport: Is located three kilometres west of Smithton and is owned by the Transport Commission. It has a sealed main runway plus lesser gravel strips and is used for itinerant charter and private flights.

St Helens Airport: The aerodrome is owned and operated by the Municipality of Portland. A grassed strip 1,189 metres long and 91 metres wide is of sufficient dimension to permit operations by DC₃ and F27 type aircraft. The aerodrome currently serves the charter, aerial work and private operation requirements for the area and has a non-directional beacon for instrument navigation.

Queenstown Airport: The Municipality of Queenstown provided an authorised landing area for light aircraft in 1937. In 1963 work was commenced on the construction of a runway suitable for the operation of DC₃ type aircraft at Queenstown under the Local Ownership Plan; it was opened on 17 April 1966.

Strahan Airport: The port of Strahan serves the west coast of Tasmania and, in particular, the Queenstown and Zeehan areas. Opened for regular public transport operations in 1964, Strahan aerodrome was constructed under the federal Aerodrome Local Ownership Plan and is owned by the Municipality of Strahan.

Aircraft, Passenger and Freight Movements

The following table shows the number of aircraft movements at the principal airports in Tasmania during recent years. For the purposes of the statistics in this table a take-off is regarded as one movement and a landing as another.

Aircraft Movements: Principal Airports

Year	Hobart	Launceston	Devonport	Wynyard	King Is.	Flinders Is.
1969	7,216	10,658	3,643	4,192	1,212	657
1970	(a) 6,301	10,463	3,649	3,727	1,297	600
1971	(a) 6,404	11,165	4,039	4,056	1,221	609
1972	(a) 6,254	10,581	4,147	4,144	1,283	591
1973	(a) 7,061	11,297	4,982	4,769	1,279	604

(a) The phasing-out of turbo-prop aircraft and the introduction of pure jet aircraft has increased carrying capacity and reduced the number of flights required.

The next table shows the volume of passengers and freight handled at each airport; the following definitions apply:

Passengers: The figures are for fare-paying passengers only at each airport and are the sum of embarkations and disembarkations.

Freight: The figures are the sum of all revenue freight (including excess baggage) loaded and unloaded at each airport.

Passenger and Freight Movements: Principal Airports (a)

Year	Hobart	Launceston	Devonport	Wynyard	King Is.	Flinders Is.
PASSENGERS ('000)						
1969	198	176	70	60	18	11
1970	209	186	67	64	20	10
1971	226	205	76	71	23	10
1972	236	216	76	69	23	11
1973	345	271	95	82	26	12
FREIGHT (TONNES)						
1969	6,375	7,681	292	1,537	410	288
1970	6,706	9,514	290	281	395	188
1971	6,749	9,730	333	286	471	161
1972	6,487	9,701	318	266	401	118
1973	6,449	12,368	434	304	287	118

(a) See definitions preceding this table.

Comparison of Principal Australian Airports

The next table shows the volume of activity at the principal Australian airports in terms of the number of passengers, freight and aircraft movements. Details of international services have been excluded so that comparisons are purely in terms of domestic traffic (international services are centred on Melbourne, Sydney, Brisbane and Perth).

**Australia: Principal Airports
Passengers, Freight and Aircraft Movements (a), 1973**

Airport	Passengers	Freight (tonnes)	Aircraft movements
Sydney (b)	4,449,950	48,695	83,774
Melbourne	3,582,157	56,443	67,517
Brisbane	1,900,046	25,412	37,165
Adelaide (b)	1,268,358	16,572	22,906
Canberra	883,210	4,041	19,771
Perth (b)	599,701	10,213	10,935
Hobart	345,010	6,449	7,061
Launceston	270,696	12,368	11,297

(a) See definitions earlier in this section.

(b) Partially estimated.

POSTAL AND TELECOMMUNICATION SERVICES

Development of Communication Services

General

The Australian Government Postmaster-General's Department provides and controls postal facilities and telecommunication services in Tasmania. Basically the Australian Post Office consists of two services, *postal* and *telecommunications*, supported by engineering, supply, finance and accounting, personnel and administration establishments.

The Postal Service

The first long-distance mail service in Australia was started between Hobart and Launceston in 1816, the carrier walking both ways and taking a fortnight for the round trip.

By 1835 Hobart Town and its environs was served by a thrice daily, twopenny post; today the service is once per day at a cost of ten cents. The number of individual postal articles handled in Tasmania in 1972-73 amounted to 64 million as compared with more than 2,828 million articles handled by the Post Office throughout Australia.

All letter class mail, within the dimensions of *Post Haste*, to and from Tasmania is carried by air, free of airmail surcharge, while the bulk of 'other article' mail is received and despatched daily by ship. In the more heavily populated areas of the State, one mail delivery is made daily except in the Hobart inner-city area where two deliveries are made. The rationalisation of rural postal services in recent years has preceded improvement of rural mail delivery services.

Telecommunications

Hobart and Launceston were linked by a telegraph line in 1857 and two years later a Bass Strait cable was in operation, only to fail in 1861. By 1869 a second cable was laid and communication with overseas countries became possible in 1872 when the Overland Telegraph was established between Adelaide and Darwin.

The first telephone line in Tasmania linked Hobart and Mt Nelson signal station in 1880, both Hobart and Launceston having exchanges by 1883. However, no link with Victoria or overseas countries was provided until 1936.

The State is now served with a network of high-capacity, high-quality trunk channels which are extended to other Australian states and linked with the Seacom and Compac cables connecting Australia to overseas countries. There are also links to the Overseas Telecommunications Commission earth satellite stations at Carnarvon, Ceduna and Moree.

Telegraph: The teleprinter exchange (TELEX) had only one Tasmanian subscriber in 1957 but 314 were connected by 30 June 1973. The TELEX service is fully automatic and subscribers can now contact each other without an exchange operator's assistance. Calls can be made automatically to many overseas countries tied in with Australian telegraphic services, while the remainder can be contacted through an exchange operator. Extensive use is made of the long established picturegram service by the press; organisations such as the Bureau of Meteorology and private companies have a similar service available for the transmission of charts and documents.

Telephones: The Post Office is working towards a highly automated telephone system in Tasmania. More than 95 per cent of telephone subscribers in the State are connected to automatic exchanges which provide continuous service.

The installation, in recent years, of the high-capacity trunk channels, known as the Broad-band System, together with modern trunk switching exchanges, has enabled the Post Office to provide Subscriber Trunk Dialling (S.T.D.) facilities for the direct dialling of trunk calls. This facility enables subscribers to make direct long-distance calls to anywhere in Australia, where the facility operates, by simply dialling the required number. Nearly 92 per cent of telephone subscribers in Tasmania have access to S.T.D. which avoids the delays associated with manually-operated exchanges. Charges are based on actual time used and there is no minimum time period as with manually booked trunk calls.

Facilities for Data Transmission are also available from the Post Office in Tasmania. An extension in the use of UHF (ultrahigh frequency) radio to provide mobile telephone services from vehicles is foreseen and the introduction of a radio paging system is under development.

Construction: In recent years, the Post Office in Tasmania has had a policy of installing underground cables which have higher traffic densities. This policy, resulting in a reduction of overhead wires, is illustrated in the following table:

Cable and Aerial Wire Kilometres at 30 June

Particulars	1969	1970	1971	1972	1973
Aerial wire, single wire	73,599	52,811	45,548	37,728	31,434
Conductors in cable, single wire (a) ..	1,123,592	1,225,194	1,276,195	1,343,912	1,401,030
Co-axial cable, tube	922	906	943	943	943

(a) Laid underground.

Employment

The next tables analyse the total number employed by the Department in Tasmania:

**Postmaster-General's Department
Persons Employed by Category at 30 June 1973**

Office staff (a)	No.	Others	No.
Permanent officers	2,753	Non-official postmasters and staff ..	259
Temporary and exempt officers (b) ..	737	Telephone office keepers	5
		Mail contractors (c)	139
		Part-time employees	18
Total	3,490	Total	421

(a) 'Official staff' are those directly under the control of the Department. The remainder shown as 'others' provide services, which may or may not occupy their full time, under contract or in return for payments appropriate to work performed.

(b) Exempt staff are persons exempt from the provisions of the *Public Service Act* (federal).

(c) Includes persons employed to drive vehicles.

Persons Employed at 30 June (a): Summary

Year	Number	Year	Number
1964	4,184	1969	4,034
1965	4,169	1970	4,030
1966	4,254	1971	3,828
1967	4,247	1972	3,897
1968	4,188	1973	3,911

(a) Total full-time and other persons included in preceding table.

Revenue and Expenditure

The table that follows gives details of the financial operations of the Department in Tasmania. The following points of explanation are necessary:

Cash Receipts: Prior to 1968-69, cash receipts were paid into the Australian Government Consolidated Revenue Fund; since 1968-69, they have been paid into the Post Office Trust Account which forms part of the Trust Fund of the Australian Government.

Cash Expenditure: Up to, and including 1967-68, cash payments for 'non-capital works' and 'capital works' were made from the Australian Government Consolidated Revenue Fund. From 1968-69, cash expenditures were made from the Post Office Trust Account. Interest and superannuation liability are not brought to account in this table.

Postmaster-General's Department: Financial Operations in Tasmania, 1972-73

Cash receipts (a)		Cash expenditure (b)	
Particulars	\$'000	Particulars	\$'000
Postal	5,197	Salaries and wages	18,736
Telephone	17,215	Material	4,694
Telegraph	491	Carriage of mails by contractors	340
Proceeds of sales	300	Buildings, sites and properties	968
Recoverable works	689	Accommodation services	756
International services	61	Other (c)	1,381
Total	23,953	Total	26,875

(a) Excludes revenue earned but not actually received.

(b) Excludes expenditure incurred but not actually paid.

(c) Includes travelling allowances, repairs to plant, engineering works and hire of vehicles.

Operations of the Department

Apart from its obvious role of providing communication facilities through various media, the Department provides a money order and postal order service and also acts as an agent for a number of other instrumentalities in transactions which include: savings banks deposits and withdrawals; War Service Homes repayments; sale of State duty stamps; and sale of taxation instalment stamps.

Money Orders: An order may be obtained for sums up to \$200 on a single order. Orders for overseas are limited to \$50, and a remitter may send only one such order in any week.

Postal Orders: Postal Orders provide security since they can be traced and may also be 'crossed' like a bank cheque. The highest denomination is \$20.

Postal Services

The following table shows the volume of mail handled and the monetary transactions carried out through use of the Post Office in Tasmania:

Postal Services

Particulars	Unit	1968-69	1969-70	1970-71	1971-72	1972-73
Post offices—Official ..	no.	53	52	50	46	46
Non-official ..	no.	344	322	307	288	284
Postal traffic (a)—						
Letters, postcards, etc.	'000	56,516	58,824	57,916	54,780	56,328
Newspapers, books, etc.	'000	9,425	8,953	8,640	6,773	6,859
Parcels	'000	282	300	353	352	358
Registered articles ..	'000	325	312	313	268	228
Money orders—						
Issued—No.	'000	(b) 271	265	214	166	165
Value	\$'000	(b) 5,870	5,229	4,624	4,335	4,416
Paid—No.	'000	(b) 216	211	167	128	128
Value	\$'000	(b) 5,220	4,516	4,257	3,721	3,826
Postal orders—						
Issued—No.	'000	378	428	496	498	505
Value	\$'000	731	871	1,295	1,514	1,605
Paid—No.	'000	212	223	276	263	285
Value	\$'000	448	512	784	942	1,078

(a) Number of separate articles handled.

(b) Prior to 1968-69 figures included official money orders used in bringing to account telephone account collections and War Service Homes Repayments. This practice was discontinued towards the end of 1967-68.

Telephone and Telegraph Services

The next table shows the usage of telephone and telegraph services in Tasmania:

Telecommunications

Particulars	Unit	1968-69	1969-70	1970-71	1971-72	1972-73
Telephone—						
Automatic service subscribers	'000	60	66	72	76	80
Manual service subscribers	'000	10	8	6	5	4
Subscribers with access to S.T.D.	'000	43	52	60	r71	77
Automatic exchanges	no.	153	161	167	178	183
Manual exchanges	no.	135	112	90	60	47
Value of calls made—						
Metered (local and S.T.D.)	\$'000	3,643	4,667	5,621	r7,263	8,430
Trunk	\$'000	2,511	2,497	2,503	2,477	2,562
Public telephone (local and trunk)	\$'000	418	448	465	r510	558
Telegraph—						
Phonograms lodged	'000	311	295	266	231	259
All telegrams lodged (a)	'000	582	566	534	494	473

(a) Includes telegrams lodged by telephone (i.e. phonograms).

Telephones: The following table further analyses the telephone services in Tasmania, showing the dissection between *business* and *residential*:

Telephone Services at 30 June: Operating Services ('000)

Particulars	1968	1969	1970	1971	1972	1973
Services in operation—						
Business	32.4	33.3	35.8	36.5	37.3	37.9
Residential	33.4	35.6	37.8	41.3	43.2	46.4
Public telephones	1.2	1.1	1.1	1.1	1.1	1.1
Instruments in operation	93.0	98.3	104.8	108.5	112.6	118.4

RADIO COMMUNICATION

Stations in Tasmania

The section that follows relates to radio communication (radio telegraph and radio telephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are specifically excluded and are dealt with in a subsequent section.

Number of Authorised Radio Communication Stations at 30 June (Two-way Services)

Particulars	1968	1969	1970	1971	1972	1973
Fixed stations (a)—						
Aeronautical	8	8	8	7	r..	..
Outpost (b)	19	17	16	17	17	16
Other	57	61	89	108	r92	103
Total	84	86	113	132	r109	119
Land stations (c)—						
Aeronautical	7	7	8	8	8	8
Base stations for—						
Land mobile services	319	350	401	453	r478	523
Harbour mobile services	13	14	16	13	8	7
Coast (d)	24	29	29	27	32	36
Special experimental	17	17	17	16	18	16
Total	380	417	471	517	r544	590

**Number of Authorised Radio Communication Stations at 30 June
(Two-way Services)—continued**

Particulars	1968	1969	1970	1971	1972	1973
Mobile stations—						
Aeronautical	26	32	38	47	42	48
Land mobile services	2,588	2,985	3,489	3,867	4,201	4,606
Harbour mobile services	75	65	72	78	70	69
Outpost	66	71	60	58	72	43
Ships	415	483	507	569	625	691
Total	3,170	3,636	4,166	4,619	5,010	5,457
Amateur stations	222	238	244	231	229	224
Grand total	3,856	4,377	4,994	5,499	5,892	6,390

(a) For exchange of radio messages with other similar stations.

(b) Stations established in remote localities for communication with control stations, e.g. the lighthouse service.

(c) For exchange of radio messages with mobile stations.

(d) Land stations for communication with ocean-going vessels.

To establish and operate radio communication equipment as previously described, it is necessary to obtain a licence from the Postmaster-General's Department which is responsible for overall management of the radio frequency spectrum involving the following radio regulatory functions: (i) frequency allocation; (ii) frequency measuring and radio monitoring; (iii) determination of equipment standards; (iv) conduct of examinations for Radio Operators' Certificates of Proficiency; (v) inspectorial functions; and (vi) licensing formalities. The radio frequency spectrum is a national resource although it is somewhat different from other resources such as minerals, water, fuels, fisheries, forestry, etc. The radio frequency spectrum is used and not consumed and it is wasted when not used correctly. It is for this reason that the Post Office makes every effort to ensure interference-free operation for all services.

Some examples of the use to which this form of communication is put, include: (i) the police networks for intrastate signals and for links with police cars; (ii) coastal radio service to ships at sea (the same service provides links with outpost transmitters in the State's remote areas, e.g. Port Davey); (iii) army network with direct link to Melbourne; (iv) fire brigade network operating in the area controlled by each authority; (v) fishermen's network with base stations at Triabunna, Dunalley, Bicheno, St Helens, Lady Barron, Currie, Stanley and Strahan; (vi) lighthouse network (the source of weather reports at remote coastal stations); (vii) special purpose networks of various authorities, e.g. Hydro-Electric Commission, Forestry Commission, ambulance services, etc.; (viii) marine boards' V.H.F. networks (international channel) for ship-to-shore link with overseas vessels; (ix) the mine networks, e.g. central control linked to outposts engaged in blasting; and (x) freighting services, taxi networks, etc.

RADIO AND TELEVISION BROADCASTING

General

In Australia radio and television services are provided both from commercial and Australian Government transmitters; the federal *Broadcasting and Television Act 1942-73* governs the operation of services designated to the national broadcasting service, the national television service the commercial broadcasting service and the commercial television service.

The National Services

The national services (both radio and television) are provided by the Australian Broadcasting Commission which has sole responsibility for programme material; the actual transmitters are operated by the Postmaster-General's Department.

The Commercial Services

The commercial services (both radio and television) are operated under licences granted by the Minister for the Media, who, in exercising his licensing powers, takes into consideration recommendations made by the Australian Broadcasting Control Board. The revenue of the commercial services is obtained from advertising. Licence fees, payable to the Australian Broadcasting Control Board, are charged on a sliding scale from one per cent to four per cent of gross advertising revenue.

The Australian Broadcasting Control Board

Although the commercial services are operated as private enterprise undertakings, the Board exercises control in certain fields, by prescribing programme standards, laying down rules for advertising time and advertising content, determining hours of operation, and by establishing and supervising operational standards. The Board allocates frequencies for transmission and investigates applications for the establishment of stations. In all these functions, it works under the jurisdiction of the Minister for the Media.

Hours of Transmission

At 30 June 1974, eight commercial radio stations were operating in Tasmania; two in the Hobart area each averaging 168 hours weekly; six elsewhere in the State averaging 121 hours weekly. The corresponding figures for the two commercial television stations were 76.5 hours weekly in the Hobart area, and 70.25 hours in the Launceston area.

Programme Standards—Commercial Stations*Broadcasting Standards*

Licensees are required to provide programmes in accordance with standards determined by the Australian Broadcasting Control Board. These standards contain requirements for the acceptability of programme material and advertising. There are special provisions dealing with family and children's programmes designed to ensure that all programmes broadcast at times when large numbers of children and young persons are likely to be listening will be suitable for this category of listener. Special provisions relate to the duration and suitability of advertisements; with regard to their duration the standards require for example, that advertisements in a sponsored programme should not exceed 20 per cent of the programme time and that in the case of programmes during which spot advertisements are broadcast, advertisements should not exceed 30 per cent of programme time. Not more than 18 minutes of spot advertising may be included in any period of 60 minutes.

Also under the *Broadcasting and Television Act 1942-73*, licensees are required to broadcast religious services, or other matter of a religious nature during such periods as the Board determines. The minimum time set by the Board is one hour per week but many stations are providing, free of charge, considerably more time than required for religious broadcasts.

Television Standards

The Board has prescribed programme standards for commercial television, and these, as in the case of radio, contain requirements for the acceptability of programme material and advertising. The standards contain special provisions designed to protect the interests of children and young persons with respect to televising of material prior to 7.30 p.m. on any day during periods when there are likely to be large numbers of this category of the population viewing. The advertising standards relate to the suitability, number, content and duration of advertisements; with regard to their duration, the standards make the distinction between prime time (7.00 p.m. to 10.00 p.m.) and non-prime time. Broadly, advertisements should not occupy more than 11 minutes in each clock hour in prime time and not more than 13 minutes in each clock hour in non-prime time.

Australian Content

Section 114 of the *Broadcasting and Television Act* provides that commercial stations shall as far as possible employ the services of Australians in the production and presentation of programmes. It also provides that not less than five per cent of the time occupied by music on radio stations shall be devoted to works of Australian composers.

Australian programmes amount to 51.0 per cent of metropolitan radio stations' programmes and 50.4 per cent of country radio stations' programmes, and on average just over nine per cent of radio music consists of works of Australian composers. Since July 1973, an additional requirement has applied to radio stations. This called for at least 10 per cent of music time to be occupied by performances (as distinct from compositions) by Australians. In July 1974 this requirement was raised to 12.5 per cent with a further increase to 15 per cent to become operative from January 1975.

In August 1973, the Board introduced a revised system of requirements designed to encourage a better balanced service by giving incentive to the production and presentation of more Australian material in a wide variety of programme categories. Essentially the revised system is based on programmes in differing categories being awarded differing point scores with the highest point ratings being awarded to those categories which are most in need of encouragement. These include drama, quality variety, current affairs, documentaries and programmes dealing with the arts and education. Stations are required to meet a total points target equal to their transmission time in hours. The new system, which retained the specific quotas for drama and childrens' programmes, was revised after operating for six months.

In its revised form, the system provides for greater flexibility for the Board in determining the points value of programmes in the light entertainment, information and drama fields based on such factors as their value to viewers, cost of production and degree of effort involved. It also reduces the points value of repeat programmes; increases the quotas for drama and childrens' programmes and in addition is now designed to be applied on a differential basis to stations operating under differing degrees of competition. Stations in single commercial station areas, including Hobart and Launceston, will no longer be eligible for full points value for all programmes obtained from other sources. Most programmes from these sources will be eligible for 50 per cent of the points value only.

Category of Television Programmes

The following table shows, as varying proportions of transmission time, the types of programmes televised in the Hobart area. The figures are based on a 50 per cent sampling of programmes.

Category of Television Programmes: Hobart 1973-74
Proportion of Transmission Time
(Source: Australian Broadcasting Control Board)

Programme category	Commercial programmes	National programmes
	per cent	per cent
Cinema movies	18.0	4.8
Other drama	34.9	17.8
Light entertainment	15.0	8.3
Sport	10.3	11.6
News	6.5	6.6
Children	4.0	20.2
Family activities	4.1	0.8
Information	2.6	4.1
Current affairs	2.6	8.1
Election matter .. .. .	..	0.1
Religious matter	2.0	2.0
The arts .. .. .	..	0.9
Education .. .. .	..	14.7
Total	100.0	100.0

Television Stations in Operation

The next table gives details of the television stations in operation:

Television Stations in Operation, 30 June 1974

Call sign and channel	Area	Transmitter location	Height above sea level—top of aerial (metres)	Hours of service (weekly)
NATIONAL				
ABT 2	Hobart	Mt Wellington	1,344	88.30
ABNT 3 (a)	NE. Tasmania	Mt Barrow	1,457	88.30
ABKT 2 (a)	King Island	Gentle Annie Hill	245	88.30
COMMERCIAL				
TVT 6	Hobart	Mt Wellington	1,323	76.50
TNT 9	NE. Tasmania	Mt Barrow	1,419	70.25

(a) Transmits programmes originating from ABT2.

Relay of Television Programmes from Other States

Tasmania is linked with Victoria by a broadband radio link installed by the Postmaster-General's Department which enables the direct relay of television programmes from the mainland states.

Microwave Links and Intrastate Relays

The prime sources of programmes in Hobart are the commercial and national studios which are linked to their Mt Wellington transmitters (TVT6 and ABT₂) by micro-wave links; the commercial studio in Launceston feeds programmes to its Mt Barrow transmitter (TNT9) by the same method. As there is no national studio at Launceston, the transmitter on Mt Barrow (ABNT₃) relays the Hobart national programmes through the broadband radio link. This service is also available to commercial stations.

Television Translator Stations

Tasmania, due to its terrain, has areas where television reception direct from the Mt Wellington or Mt Barrow transmitters is either difficult or impossible. To provide good reception in such areas, translator stations, which are low-powered stations receiving signals from a parent station and re-transmitting on another channel to areas with poor reception, have been installed as follows:

Television Translator Stations in Operation at 30 June 1974

Area served	Parent station		Local channel	
	National	Commercial	National	Commercial
Queenstown-Zeehan	ABT2	TVT6	4	8
Rosebery-Renison Bell	ABT2	TVT6	1	10
Taroona .. .. .	..	TVT6	..	8
Swansea-Bicheno .. .. .	..	TVT6	..	8
Smithton-Stanley	ABNT3	TNT9	1	6
Gowrie Park	ABNT3	TNT9	11	1
South Launceston	ABNT3	TNT9	1	11
St Marys-Fingal Valley	ABNT3	TNT9	1	11
Maydena .. .. .	..	TVT6	..	8
Waratah	ABNT3	TNT9	2	10
Savage River-Luina	ABNT3	TNT9	4	7
Strahan	ABT2	..	10	..
Strathgordon	ABT2	TVT6	5	8
Derby .. .. .	..	TNT9	..	11

De-icing

In view of the temperature and weather conditions existing at Mt Wellington and Mt Barrow, precautions have been necessary to prevent the formation of ice on the aerial elements and the resultant danger of damage from falling ice.

In the case of the aerial at the Hobart national station (ABT₂, Mt Wellington), the aerial elements are heated by mains power which is switched on automatically by means of a thermostat when the temperature falls below freezing point. In the case of the Hobart commercial station (TVT₆, Mt Wellington), the junctions between the coaxial feeder lines and the aerial elements are protected by small plastic covers. In the case of the Launceston (Mt Barrow) commercial station TNT₉ and national station ABNT₃, the whole of the aerials are covered by a plastic cylinder. The lower part of the ABNT₃ mast is metal-sheathed for 57.91 metres to ward off ice which falls from the plastic cylinder and which could damage the mast.

Radio Stations In Operation

The following table gives details of the radio stations in operation:

Radio Stations in Operation at 30 June 1974

Call Sign	Classification	Location	Hours of service (weekly)
7ZL	National	Hobart	133.00
7ZR	National	Hobart	133.00
7NT (a)	National	Launceston	133.00
7QN (a)	National	Queenstown	133.00
7HO	Commercial	Hobart	168.00
7HT	Commercial	Hobart	168.00
7AD	Commercial	Devonport	116.30
7BU	Commercial	Burnie	113.30
7EX	Commercial	Launceston	150.00
7LA	Commercial	Launceston	134.30
7QT	Commercial	Queenstown	98.30
7SD	Commercial	Scottsdale	112.00

(a) Transmits, in the main, programmes originating from 7ZL and 7ZR.

Although there are areas of poor reception due to difficult terrain, most of Tasmania receives a satisfactory radio service from one or more of the above stations. In addition, the northern part of the State receives a service from some mainland stations.

The structure and population distribution in the State has given rise to a regional pattern of radio stations with concentrations in Hobart and Launceston and outlying stations in the north-east, north-west and west.

Listening and Viewing Licences

In the 1974-75 Australian Government Budget viewers' and listeners' licences were abolished.

Revenue from Licences

The revenue from licences in force in Tasmania for the past decade is shown in the following table. From 1 April 1965 three types of licences—listeners', viewers' and combined—were issued; separate revenue figures are not available.

Transport and Communication
Broadcast and Television Licences: Revenue
 (\$'000)

Year				Amount	Year				Amount
1964-65	..	..	..	1,005	1969-70	..	..	..	1,397
1965-66	..	..	..	1,047	1970-71	..	..	..	1,429
1966-67	..	..	..	1,127	1971-72	..	..	..	1,670
1967-68	..	..	..	1,157	1972-73	..	..	..	1,871
1968-69	..	..	..	1,314	1973-74	..	..	..	1,879

Licences in Force:

The following table shows the number of listeners' and viewers' licences in force in Tasmania from 1925:

Licences in Force (a): Listeners' and Viewers' Licences from 1925

At 30 June						Broadcast listeners'	Television viewers'	Combined (a)
1925	..	..	..	..	..	567	..	..
1930	..	..	..	..	..	6,048	..	..
1940	..	..	..	..	..	42,191	..	..
1950	..	..	..	..	..	64,369	..	..
1960	..	..	..	..	..	78,900	4,662	..
1965	..	..	..	..	..	62,943	47,173	12,906
1967	..	..	..	..	..	21,917	10,708	60,405
1968	..	..	..	..	..	14,179	11,532	63,049
1969	..	..	..	..	..	12,232	11,896	66,320
1970	..	..	..	..	..	10,074	12,317	68,439
1971	..	..	..	..	..	8,883	12,752	70,534
1972	..	..	..	..	..	7,483	12,996	69,613
1973	..	..	..	..	..	8,344	13,205	72,785
1974	..	..	..	..	..	8,652	14,284	73,404

(a) The combined receiving licence was introduced in April 1965, to be held by those persons owning both a radio and a television receiver at the same address. Separate licences were available for persons owning only one type of receiver.

Chapter 12

PRIVATE FINANCE

BANKING AND EXCHANGE RATES

Types of Banks

General

Banks in Tasmania can be classified by ownership as follows: (i) Government—The Reserve Bank of Australia, the Commonwealth Development Bank of Australia, the Commonwealth Trading Bank of Australia and the Commonwealth Savings Bank; (ii) Private—the private trading banks and the private savings banks; and (iii) Trustee—The Savings Bank of Tasmania (previously the Hobart Savings Bank) and the Launceston Bank for Savings. The Agricultural Bank is *not* a bank for the purpose of these statistics.

For statistical purposes such a classification is not helpful since banks, both government and private, may be engaged in the same type of activity. Hence, the classification in use is one which groups banks according to their type of activity, not according to their ownership. The major banking statistics for the State are presented in two distinct series under the headings 'Trading Banks' and 'Savings Banks'.

Trading Banks

The following seven institutions in Tasmania are classified, for statistical purposes, as 'trading banks': Commonwealth Trading Bank of Australia; Australia and New Zealand Banking Group; Bank of New South Wales; Commercial Bank of Australia Ltd; Commercial Banking Company of Sydney Ltd; National Bank of Australasia Ltd; and The Bank of Adelaide.

Savings Banks

In the 1950s, only three savings banks operated branches in Tasmania: Hobart Savings Bank (now The Savings Bank of Tasmania), Launceston Bank for Savings (both trustee savings banks) and the Commonwealth Savings Bank. The trustee savings banks date from early colonial days, the Launceston Bank opening in 1835, and the Hobart Bank in 1845. In recent years, private trading banks have opened savings bank subsidiaries in the State, the current list of such banks being: Australia and New Zealand Savings Bank Ltd, Bank of Adelaide Savings Bank Ltd, Bank of New South Wales Savings Bank Ltd, Commercial Savings Bank of Australia Ltd, C.B.C. Savings Bank Ltd and the National Bank Savings Bank Ltd.

Savings banks also offer cheque facilities to customers; however, for statistical purposes their cheque operations are included in 'savings banks statistics'.

Banking Legislation

Under Section 51 of the Commonwealth Constitution, the Australian 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 Australian Government Acts at present in force relating to banking are:

The Reserve Bank Act 1959-1967

Provision for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue is covered by this Act. (Central banking functions had previously been vested in the Commonwealth Bank of Australia.)

The Banking Act 1959-1967

Objectives of the Act are: (i) to provide a uniform legal framework throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; and (v) to mobilise and to provide machinery for the control of foreign exchange and the gold resources of the Australian economy.

The Commonwealth Banks Act 1959-1968

This Act created the Commonwealth Banking Corporation as the controlling body for the newly-constituted Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia and Commonwealth Development Bank of Australia. The Corporation and its constituent banks are subject to the same banking controls as are the private trading banks. (The Commonwealth Bank, established in 1911, had performed a number of diverse roles, e.g. as a trading bank, a savings bank and a central bank. The effect of the legislation was to isolate the individual functions and to create a special organisation for each.)

Transactions of Trading Banks

The accompanying table summarises the principal statistics relating to all trading banks in Tasmania for a five-year period. The following definitions apply:

- (i) Deposits—a bank liabilities item. The figure is the average, for the year, of *balances* read at weekly intervals.
- (ii) Loans, advances and bills discounted, etc.—a bank assets item. The figure is the average, for the year, of *balances* read at weekly intervals.
- (iii) Debits to customers' accounts—mainly the total of all cheques drawn by customers during a given period. The figure is the average, for the year, of such weekly entries.

**Transactions: All Trading Banks
(Including Commonwealth Trading Bank)**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
NUMBER					
Branches open (a)	105	107	107	104	103
WEEKLY AVERAGES (\$'000)					
Deposits—					
Australian and state governments ..	2,502	1,685	6,465	1,210	3,029
Other—					
Fixed	46,585	51,444	50,525	54,940	64,743
Current—Bearing interest	8,018	8,094	6,816	7,273	8,915
Not bearing interest	67,369	70,277	69,782	71,676	82,454
Total	124,473	131,501	133,587	135,099	159,141
Loans, advances and bills discounted (b)	72,394	77,603	86,976	88,098	99,192
Debits to customers' accounts (c) ..	55,896	61,173	64,177	69,970	85,291

(a) At end of year.

(b) Excludes loans to authorised dealers in the short-term money market.

(c) Excludes debits to Australian and state government accounts at Hobart branches. In addition to trading bank transactions, those of the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank are included in this item.

The next table gives a classification of trading bank advances outstanding within Tasmania by type of borrower resident in Australia:

Trading Banks: Classification of Advances Outstanding Within Tasmania to Borrowers Resident Within Australia (\$'000)

Type of advance	At second Wednesday in July		
	1971	1972	1973
BUSINESS ADVANCES BY MAIN INDUSTRY OF BORROWER			
Agriculture, grazing and dairying—			
Mainly—Sheep grazing	8,335	7,791	5,297
Wheat growing	41	8	6
Dairying and pig raising	4,580	4,787	6,204
Other	8,169	8,982	9,732
Total	21,125	21,568	21,239
Manufacturing	20,851	21,983	23,642
Transport, storage and communication ..	1,754	2,662	3,029
Finance—			
Building and housing societies	250	199	697
Pastoral and finance companies	1,864	285	5
Hire purchase and other finance companies	470	512	483
Other	726	515	1,147
Total	3,310	1,511	2,332
Retail and wholesale trade	15,006	15,673	17,600
Building and construction	2,414	2,821	3,809
Other business	9,754	13,359	14,288
Unclassified	504	741	559
Total business advances	74,718	80,318	86,498
ADVANCES TO PUBLIC AUTHORITIES			
Public authorities (excl. Australian and state governments)	315	127	92
PERSONAL ADVANCES BY PURPOSE OF ADVANCE			
Building or purchasing own home (individuals)	4,424	4,961	6,379
All other	8,243	10,042	17,461
Total personal advances	12,667	15,003	23,840
ADVANCES TO NON-PROFIT ORGANISATIONS			
Non-profit organisations	1,002	892	1,080
TOTAL ADVANCES TO RESIDENT BORROWERS			
Total advances to resident borrowers ..	88,722	96,340	111,510

Interest Rates and Security Yields

The next table shows the interest rates available on fixed deposits, the interest yield from treasury notes and the yield from government securities:

Interest Rates and Security Yields
(Per Cent Per Annum)

Particulars	Rate		
	June 1972	June 1973	June 1974
Trading banks (maximum rate)—			
Fixed deposits (less than \$50,000)—			
3 months and less than 12 months ..	4.30	4.30	6.75
12 months and less than 2 years ..	4.50	4.50	7.50
2 years and less than 4 years ..	5.00	5.00	7.50
4 years ..	5.50	5.50	7.50
Fixed deposits (\$50,000 and over)—			
30 days to 4 years ..	(a) 6.50	(a) 6.50	(a) 8.00
Australian Government securities yield—			
Non-rebateable bonds— 2 years ..	5.05	6.04	n.a.
10 years ..	5.85	6.72	n.a.
20 years ..	5.99	6.99	n.a.
Treasury notes (issue yield)—			
13 week notes ..	4.50	4.91	n.a.
26 week notes ..	4.66	5.10	n.a.

(a) Actual rates are a matter for negotiation between the bank and customer.

Savings Banks

Transactions

The following table summarises the principal statistics relating to savings banks in Tasmania. Deposits are compiled on a basis different from that used in the case of trading banks. 'Deposits lodged' is the total inflow of deposits during the year, and 'depositor's' balances' is a single liability reading taken at the end of the year.

Transactions: All Savings Banks

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	no.	no.	no.	no.	no.
Branches open (a)	151	152	153	151	155
Operative accounts (a)	452,280	465,888	485,629	506,642	529,359
	\$'000	\$'000	\$'000	\$'000	\$'000
Deposits lodged	217,531	244,416	285,190	333,667	419,885
Interest added	6,529	7,087	7,625	9,406	10,469
Excess of deposits over withdrawals ..	5,687	2,660	10,247	15,787	35,660
Depositors' balances (a)	190,043	199,790	217,663	242,856	288,986
	\$	\$	\$	\$	\$
Per head of population—					
Depositors' balances (a)	494	515	558	619	730

(a) At end of year.

The next table gives details of housing finance transactions by savings banks in Tasmania. Figures for this activity are not available prior to 1969-70.

Savings Banks: Housing Finance Transactions

Period	Loans approved to individuals for—					Total all loans approved	Loans cancelled (a)	
	Dwellings not previously occupied		Dwellings previously occupied		Alterations and additions		Number	Amount
	Number (b)	Amount	Number (b)	Amount		Amount		
		\$'000		\$'000	\$'000	\$'000		\$'000
1969-70 ..	444	3,357	865	5,542	289	9,188	78	524
1970-71 ..	578	4,853	1,281	8,989	242	14,085	113	1,151
1971-72 ..	630	5,718	1,580	12,171	409	18,298	125	999
1972-73 ..	776	7,953	2,037	18,108	569	26,630	135	1,350

(a) Includes amounts cancelled as a result of periodic examination of undrawn commitments.

(b) Includes details of number of loans for dwelling units approved for first mortgage finance only. Second mortgage finance is included under 'Amount'.

At 30 June 1973, the balances outstanding on housing loans made by savings banks to individuals and to building societies were \$70,824,000 and \$2,007,000 respectively.

Savings Banks Interest Rates

The next table shows the maximum rates of interest received by depositors or charged to borrowers with home mortgages:

The Savings Bank of Tasmania: Maximum Interest Rates (a)
(Per Cent Per Annum)

Date of change in rate	On savings accounts (b)	On home mortgages	Date of change in rate	On savings accounts (b)	On home mortgages
August 1962 .. ..	..	6.00	August 1968	4.00	6.25
April 1963	3.25	..	May 1970	4.25	7.00
May 1963 .. ..	..	5.50	May 1971	5.00	7.00
June 1964	3.50	..	June 1972	(c) 4.50	7.00
April 1965	3.75	5.75	March 1973	(c) 4.00	7.00
June 1966 .. ..	..	6.00	October 1973	(c) 4.00	(d) 8.00

(a) Operative from first day in month shown.

(b) Interest on fixed deposits is as for trading banks.

(c) Effective on accounts to \$4,000. From \$4,001 to \$20,000 the interest rate was 5.0 per cent, from 1.6.72 to 28.2.73; 4.75 per cent, from 1.3.73 to 30.9.73; and 6.25 per cent from 1.10.73.

(d) Effective rate for loans to \$12,500. For loans over \$12,500 the rate is 9.5 per cent.

Overseas Exchange Rates

The next table shows average overseas exchange rates operative for recent periods:

Exchange Rates (a): Average for Period Shown, Overseas Currency Relative to Australian Dollar

Country	Unit of overseas currency	1969-70	1970-71	1971-72	1972-73
New Zealand (b)	Dollars	0.998	0.998	0.998	0.971
United Kingdom (b)	Pound stg	0.465	0.465	0.461	0.522
Belgium (c)	Francs	55.22	55.11	52.49	53.51
Canada	Dollars	1.19	1.13	1.17	1.27
China, People's Republic of (d)	Renminbi	2.72	2.72	2.71	2.74
France (c)	Francs	6.08	6.13	6.00	6.05
Germany, West.. ..	Deutsche marks	4.16	4.02	3.80	3.85
Hong Kong	Dollars	6.74	6.74	6.67	6.94
India	Rupees	8.33	8.33	8.51	9.74
Italy (c)	Lire	696.00	694.00	696.00	828.00
Japan	Yen	396.96	397.36	368.29	363.49
Malaysia	Dollars	3.40	3.41	3.38	3.37
Netherlands	Guilders	4.02	3.99	3.84	3.92
Pakistan	Rupees	5.28	5.29	5.39	n.a.
Singapore	Dollars	3.40	3.41	3.33	3.38
South Africa	Rands	0.795	0.795	0.852	0.957
Sri Lanka (Ceylon)	Rupees	6.59	6.59	6.85	8.12
Switzerland	Francs	4.78	4.76	4.57	4.50
U.S.A.	Dollars	1.11	1.12	1.17	1.28
U.S.S.R. (d)	Roubles	1.004	1.006	0.989	1.016

(a) Average telegraphic transfer selling rates at Sydney.

(b) Usual basis of quotation: (i) \$A to \$N.Z. 1; (ii) \$A to £1 stg. Value quoted is an inversion.

(c) From 20.9.71 (Belgium, France) and from 1.2.73 (Italy) two rates became operative; the rate shown is the financial rate used for trade transactions.

(d) Rates of exchange used in converting import values to Australian currency for purposes of calculating customs duty.

INSURANCE

General

Definitions

The following data on insurance are divided into life insurance and insurance other than life, i.e. fire, marine and general insurance. No distinction is made between insurance and assurance, the former term being used in all contexts.

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Australian Parliament to legislate with respect to 'insurance other than state insurance; also state insurance extending beyond the limits of the state concerned'. The principal Australian Government legislation affecting current insurance business is as follows:

Insurance Act 1932-1966: Insurance businesses are required to lodge a deposit with the Australian Government Treasurer, interest on the invested deposit being paid to the depositor. Deposits remain as a security against liability to policy holders and are available to satisfy judgments obtained in respect of policies. The following insurance business is exempted from these provisions: staff superannuation schemes; schemes of religious organisations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees. Deposits with a state made prior to the legislation could remain with the state and reduce the amount needed for deposit with the Australian Government. The passing of the *Life Insurance Act 1945-1965* had the effect of adding life insurance business to the list of activities exempted from the provisions of the *Insurance Act 1932-1966*.

Life Insurance Act 1945-1965: Objectives are: (i) to replace all state legislation on the subject of life insurance, except that relating to operations of a state insurance office within a specific state, and to provide uniform legislation for the whole of Australia; (ii) 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 of policy holders; and (iii) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

Life Insurance

Since 1947 returns lodged under the *Life Insurance Act 1945-1965* have been used to compile life insurance statistics. In Tasmania, the Government Insurance Office does not transact life insurance business so the tables that follow refer to the operations of enterprises exclusively in the private sector. The transactions in the next table are concerned with Tasmania as the State of issue of the policies, not necessarily as the State of risk.

Life Insurance Transactions (Excluding Annuities)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
ORDINARY BUSINESS					
New policies issued—					
Number	15,597	17,052	17,952	19,016	18,710
Sum insured \$'000	83,946	93,895	107,365	128,738	143,697
Annual premiums \$'000	1,927	2,201	2,430	2,914	2,953
Policies discontinued or reduced—					
Number	9,584	11,145	11,354	12,429	12,432
Sum insured \$'000	31,094	38,521	42,271	49,543	52,647
Annual premiums \$'000	693	918	999	1,153	1,258
INDUSTRIAL BUSINESS (a)					
New policies issued—					
Number	3,090	3,536	3,642	3,709	3,648
Sum insured \$'000	3,524	3,955	4,730	5,470	6,694
Annual premiums \$'000	133	153	167	185	213
Policies discontinued or reduced—					
Number	4,448	4,423	4,295	5,091	6,124
Sum insured \$'000	2,470	2,688	2,502	3,465	3,983
Annual premiums \$'000	104	110	99	129	138
SUPERANNUATION BUSINESS					
New policies issued—					
Number	2,300	1,848	1,925	1,903	1,785
Sum insured \$'000	24,714	26,726	35,400	38,011	61,799
Annual premiums \$'000	727	813	1,069	1,205	1,162
Policies discontinued or reduced—					
Number	3,883	2,226	2,105	2,074	2,900
Sum insured \$'000	14,738	14,496	18,131	17,080	27,464
Annual premiums \$'000	455	412	562	515	653
TOTAL BUSINESS					
New policies issued—					
Number	20,987	22,436	23,519	24,628	24,143
Sum insured \$'000	112,183	124,576	147,494	172,220	212,189
Annual premiums \$'000	2,787	3,167	3,666	4,305	4,330
Policies discontinued or reduced—					
Number	17,915	17,794	17,754	19,594	21,456
Sum insured \$'000	48,302	55,705	62,904	70,088	84,095
Annual premiums \$'000	1,253	1,441	1,659	1,797	2,051

Life Insurance Transactions (Excluding Annuities)—continued

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
NEW LOANS PAID OVER (EXCLUDING ADVANCES OF PREMIUMS)					
On mortgage of real estate .. \$'000	4,886	4,737	3,345	2,293	2,779
On companies' policies \$'000	1,631	1,764	2,004	2,211	1,606
On other securities \$'000	15	33	60	52	45
Total \$'000	6,531	6,534	5,408	4,555	4,428

(a) Industrial business refers, in the main, to policies on which the premiums are collected as regular instalments by agents on commission.

Fire, Marine and General Insurance

Information for insurance, other than life, is compiled from returns provided by insurance companies transacting fire, marine and general insurance business in Tasmania (including the Tasmanian Government Insurance Office). Statistics that follow are for financial years of companies ending within the period shown.

Definitions

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 shown in the following statistics, premiums receivable are greater than 'earned premium income' appropriate to the year. The converse applies when business is declining.

Claims include payments made during the year *plus* estimated amount of outstanding claims at end of year *less* estimated amount of outstanding claims at beginning of year.

Contributions to fire brigades, commission and agents' charges, and expenses of management are those amounts actually paid during the year.

Taxation represents payments made during the year, including 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 following table should not be construed as a profit and loss statement; selected revenue and expenditure items only have been used. In cases where the business is underwritten in one state and the risk situated in another, the business is included in the state of issue.

Fire, Marine and General Insurance
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Premiums (less returns, rebates and bonuses)	19,380	20,813	23,248	r 27,952	30,781
Interest, dividends, rents	434	457	487	639	660
Total revenue	19,814	21,270	23,735	r 28,591	31,441
Claims (less amounts recoverable) ..	10,865	12,285	13,214	15,279	18,241
Contributions to fire brigades	(a) 508	521	583	(a) 815	979
Commission and agents' charges	2,063	2,118	2,388	2,696	2,999
Expenses of management	3,929	4,407	4,942	5,856	6,364
Taxation	588	424	626	738	780
Total	17,953	19,757	21,753	25,384	29,362

(a) Contribution formula changed by law.

Types of Insurance

The next table shows premiums and claims according to the class of insurance business transacted in 1972-73. ('Premiums' and 'Claims' have been compiled in accordance with the definitions introducing the section.)

**Fire, Marine and General Insurance
Premiums and Claims for Each Type of Insurance, 1972-73
(\$'000)**

Class of business	Premiums	Claims	Class of business	Premiums	Claims
Fire	4,525	1,791	Public risk, third party ..	601	166
Householders' comprehensive	3,070	1,221	General property	135	48
Sprinkler leakage	4	1	Plate glass	127	87
Loss of profits	691	325	Boiler	120	55
Fruit crop	26	16	Livestock	45	30
Marine	1,502	773	Burglary	338	147
Motor vehicles (incl. motor cycles)	8,832	5,964	Guarantee	33	(a)-2
Compulsory third party (road accidents)	2,157	2,542	'Pluvius'	14	1
Workers' compensation	6,499	4,166	Aviation	72	31
Personal accident	1,195	458	All risks	234	94
Contractors' all risks	52	24	Television	2	1
			Other	503	305
			Total	30,781	18,241

(a) Negative claims figure due to over-estimation of claims outstanding at end of 1971-72.

Ratio of Claims to Gross Premiums: The following table shows the ratio of claims to premiums for the more important classes of business over a five-year period:

**Fire, Marine and General Insurance
Ratio of Claims to Premiums (a)
(Per Cent)**

Class of business	1968-69	1969-70	1970-71	1971-72	1972-73
Fire	30.7	46.0	45.8	31.5	39.6
Householders' comprehensive	29.4	30.0	33.8	33.6	39.8
Loss of profits	(b)	81.3	8.4	39.6	47.0
Marine	84.0	25.0	43.3	55.7	51.4
Motor vehicles (including motor cycles)	68.7	67.1	64.0	62.8	67.5
Compulsory third party (road accidents)	108.8	109.2	116.4	106.2	117.8
Workers' compensation	57.9	62.4	59.2	55.6	64.1
Personal accident	50.2	41.0	39.8	35.0	38.3
Public risk, third party	49.9	40.3	29.0	25.7	27.6
Plate glass	68.2	64.5	72.3	65.8	68.3
Burglary	52.6	49.2	54.9	52.4	43.4
All classes	56.1	59.0	56.8	54.4	59.3

(a) See beginning of section for definition of claims and premiums.

(b) No percentage because of negative claims figure due to adjustments made to offset over-estimation of claims outstanding in previous years.

INSTALMENT CREDIT AND OTHER FINANCING

Finance Companies

Finance Companies: In these statistics finance companies are incorporated companies mainly engaged in providing, to the general public, these credit facilities: (i) instalment credit for retail sales; (ii) personal loans; (iii) wholesale finance; (iv) factoring; (v) commercial loans repayable at call or within 90 days; and (vi) other consumer and commercial loans.

The definitions associated with the statistics are set out in considerable detail in the bulletin *Finance Company Transactions* published by the Australian Bureau of Statistics, Canberra.

Comparability: This was affected by changes introduced from 1 July 1971; (i) Companies with Australia-wide balances outstanding of less than \$100,000 had been previously excluded; the exclusion level was raised to \$500,000, thereby reducing the balances total by less than three per cent. (ii) Previously leased business plant and equipment was valued in terms of initial capital cost; the new basis for valuation is 'gross receivables', i.e. the value of the expected future receipts, including unearned income, plus the agreed residual value of the goods at the end of the earning period.

Finance Companies: Collections and Other Liquidations, Balances Outstanding and Amount Financed by Type of Agreement, Revised Series (a)
(\$m)

Year	Instalment credit for retail sales	Wholesale finance	Other consumer and commercial loans		Total all contracts
			Contracts including charges (b)	Contracts excluding charges (c)	
COLLECTIONS AND OTHER LIQUIDATIONS OF BALANCES					
1968-69	33.2	27.6	2.2	1.2	64.1
1969-70	36.3	29.0	2.4	1.4	69.0
1970-71	<u>39.8</u>	<u>31.1</u>	<u>2.3</u>	<u>1.7</u>	<u>74.8</u>
1971-72	<u>42.9</u>	<u>34.7</u>	<u>1.8</u>	<u>2.8</u>	<u>82.3</u>
1972-73	47.2	43.8	<u>1.9</u>	<u>4.2</u>	<u>97.0</u>
BALANCES OUTSTANDING AT END OF YEAR					
1968-69	40.6	4.2	3.0	2.8	50.5
1969-70	44.8	4.4	2.7	4.2	56.2
1970-71	<u>49.2</u>	<u>4.7</u>	<u>2.5</u>	<u>5.1</u>	<u>61.5</u>
1971-72	<u>52.7</u>	<u>5.6</u>	<u>2.3</u>	<u>5.4</u>	<u>66.0</u>
1972-73	57.3	5.8	<u>2.9</u>	4.5	<u>70.5</u>
AMOUNT FINANCED					
1968-69	26.1	27.4	r 3.5		57.0
1969-70	28.7	29.1	4.8		62.5
1970-71	<u>32.3</u>	<u>31.0</u>	3.9		<u>67.2</u>
1971-72	<u>34.1</u>	<u>r 35.5</u>	4.5		<u>74.0</u>
1972-73	38.0	43.1	5.0		<u>86.1</u>

(a) See explanatory notes preceding table.

(b) Includes details of personal loans.

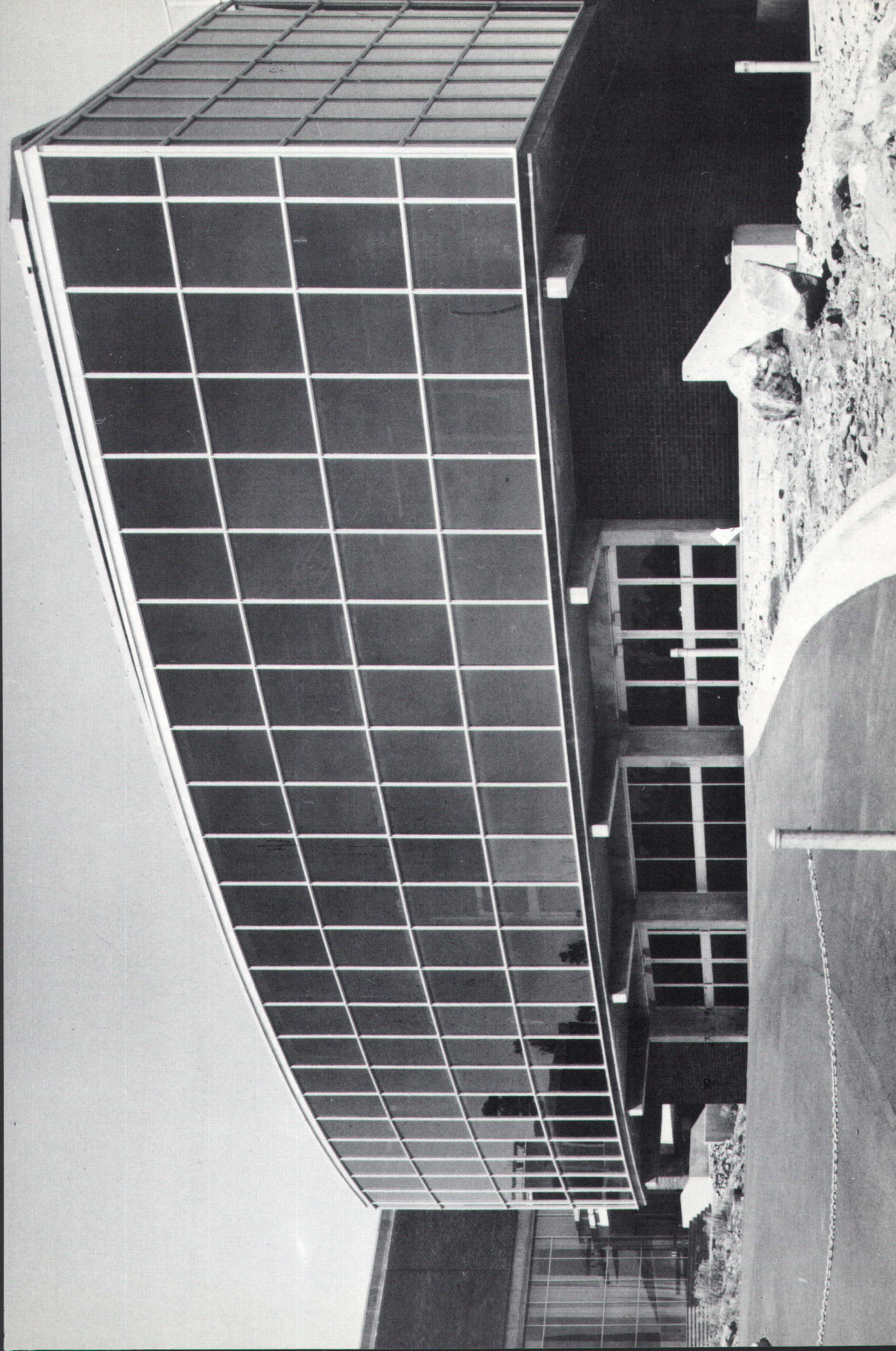
(c) Includes factoring.

The value of capital goods (business equipment and plant) leased by finance companies, over a five-year period, is shown in the table below:

Finance Companies: Business Equipment and Plant on Lease
(\$m)

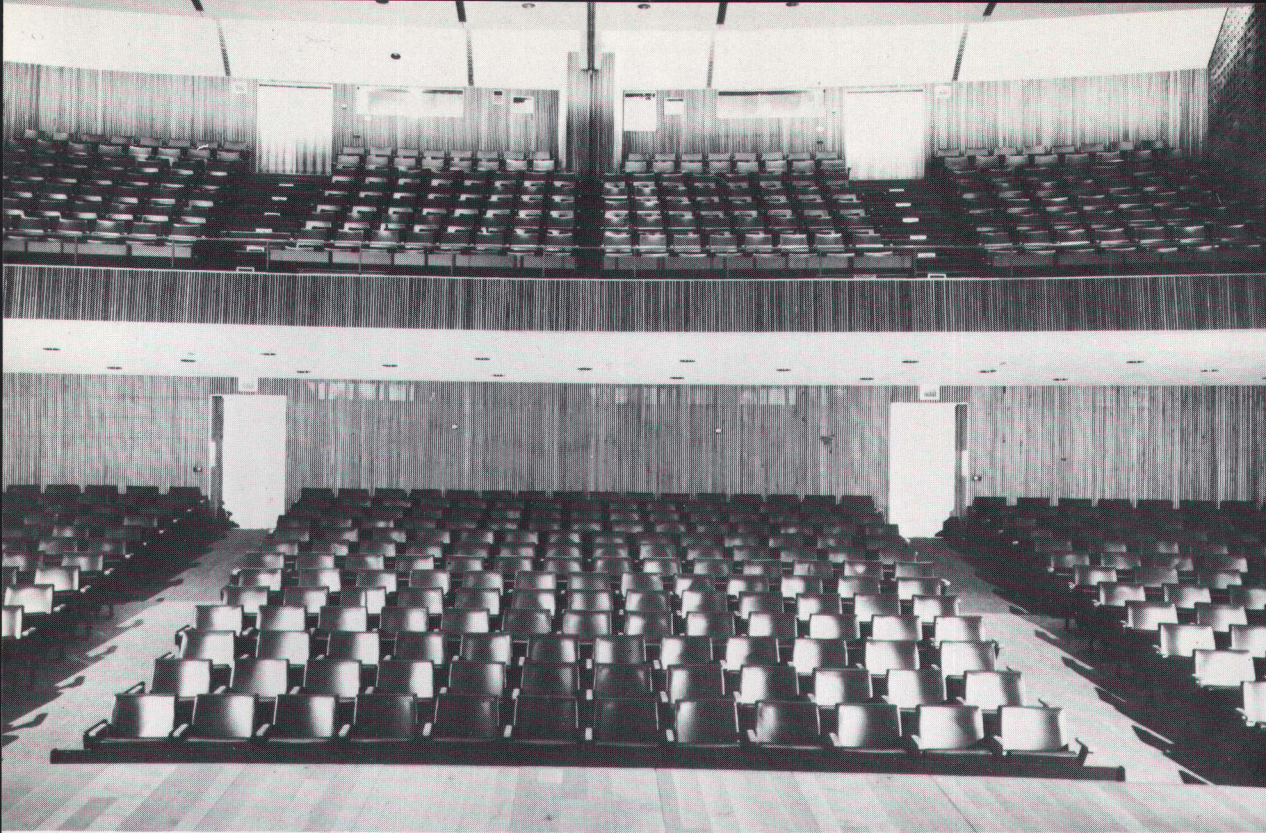
Particulars	1968-69	1969-70	1970-71	1971-72 (a)	1972-73
Value of goods leased during period ..	2.5	3.5	5.1	5.5	7.5
Balances outstanding at end of year ..	5.0	6.1	8.3	11.8	15.1

(a) Change in basis of reporting value of leased goods; see earlier section 'Comparability'.



The College Theatre, College of Advanced Education, Hobart

[Dept of Film Production]



Inside the Theatre, College of Advanced Education

[Dept of Film Production]

The main foyer, College of Advanced Education

[Dept of Film Production]



In the following table the amount financed in respect of instalment credit for retail sales agreements (a single item in previous tables) is further classified by type of commodity.

Finance Companies: Instalment Credit for Retail Sales, Revised Series
Amount Financed, Collections and Other Liquidations, and Balances Outstanding
 (\$m)

Year	Amount financed during year					Collections and other liquidations during year			Balances outstanding at end of year
	Motor vehicles, etc.		Plant and machinery	Household and personal goods	Total	Cash collections	Other liquidations	Total	
	New	Used							
1968-69	9.4	10.8	3.4	2.5	26.1	32.3	0.9	33.2	40.6
1969-70	9.3	12.3	3.6	3.5	28.7	35.1	1.1	36.3	44.8
1970-71	10.4	14.9	3.4	3.5	32.3	37.7	2.0	39.8	49.2
1971-72 ^r	10.5	17.0	2.8	3.7	34.2	41.1	1.8	43.0	52.7
1972-73	11.9	19.3	3.8	3.0	37.8	44.7	2.4	47.2	57.3

Instalment Credit for Retail Sales in Tasmania

The collection of data on instalment credit transactions began as a series dealing simply with the hire purchase operations of non-retail finance businesses; it was then expanded to cover the hire purchase operations of retail businesses. The final stage was reached when a concept of instalment credit, considerably broader than just hire purchase, was introduced.

In the next table the *instalment credit for retail sales* transactions of finance companies are entered as part of those headed *non-retail finance businesses*; included under the same heading are the transactions of unincorporated businesses. The relation between the series in the previous section and this section can be established as follows: balances outstanding at 30 June 1973: (i) to *finance companies* \$57.3m; (ii) to *all non-retail finance businesses* \$60.9m; and (iii) to *all businesses*, including retail businesses, \$67.4m.

Definitions

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 predetermined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to financing of retail sales of goods. The term 'retail sales' relates not only to retail sales covered by the censuses of retail establishments, but also includes other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance, etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payment, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series: amount financed, collections and balances outstanding.

Statistics of amount financed are classified by type of goods, defined as follows: (i) *motor vehicles, etc.*—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; (ii) *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machinery and equipment, etc.; and (iii) *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, televisions, musical instruments, bicycles, motor mowers, clothing, etc.

Instalment Credit for Retail Sales, Revised Series (a)
(Hire Purchase and Other Instalment Credit)
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
FINANCED BY RETAIL BUSINESSES					
Amount financed during period (b)—					
Motor vehicles, etc. (c)	821	925	1,215	1,117	616
Plant and machinery	5,442	5,703	5,871	5,956	6,321
Household and personal goods ..	}	}	}	}	}
Total all goods	6,263	6,628	7,086	7,073	6,937
Balances outstanding at end of period (d)	6,826	7,317	7,293	7,097	6,497
FINANCED BY NON-RETAIL FINANCE BUSINESSES					
Amount financed during period (b)—					
Motor vehicles, etc. (c)	21,001	22,353	25,485	28,240	32,695
Plant and machinery	3,917	3,969	3,879	3,445	4,472
Household and personal goods ..	4,392	4,144	3,955	4,110	3,786
Total all goods	29,310	30,466	33,322	35,795	40,953
Balances outstanding at end of period (d)	44,205	46,537	50,453	54,463	60,860
FINANCED BY ALL BUSINESSES					
Amount financed during period (b)—					
Motor vehicles, etc. (c)—New ..	10,358	10,609	11,422	11,977	13,575
Used	11,464	12,669	15,278	17,380	19,736
Total vehicles	21,822	23,278	26,700	29,357	33,311
Plant and machinery	13,751	13,816	13,705	13,511	14,579
Household and personal goods ..	}	}	}	}	}
Total all goods	35,573	37,094	40,408	42,868	47,890
Balances outstanding at end of period (d)	51,031	53,854	57,746	61,560	67,357

(a) Includes time payment, budget account, and personal loan schemes relating primarily to the financing of retail sales.

(b) Excludes hiring charges, interest and insurance.

(c) Types of goods included are defined under 'Definitions' preceding the table.

(d) Includes hiring charges, interest and insurance.

OTHER PRIVATE FINANCE

Friendly Societies

Scope

The details that follow refer to 'ordinary' societies, not to 'special' societies. Ordinary societies are those which provide customary sick and funeral benefits and are subject to actuarial valuation. Special societies restrict their membership to employees of industrial parent organisations and are not subject to actuarial valuation.

Friendly Health Services (F.H.S.): This organisation was originally established to administer medical and hospital benefit funds to which members of existing societies could contribute; funds, membership and activities of this description are excluded from statistics of ordinary friendly society activities. F.H.S. later extended its scope to 'ordinary' society activities. Details of the latter only are included in friendly society statistics.

Membership

Friendly societies were a form of social organisation to help members meet the costs of sickness, burial, etc. at a time when government social services were either meagre or non-existent. Membership reached a maximum (over 22,000 in male lodges) in the pre-depression years but has since steadily declined. From the 1950s, there has been rapid development of various government-encouraged insurance schemes to assist families with hospital and other expenses associated with sickness; such schemes have evolved, in general, outside the framework of the friendly society movement.

With F.H.S. excluded from consideration, it was observed that: (i) decline in membership of other ordinary societies has continued (from 6,816 members in 1962 to 3,726 in 1972); (ii) the average age of members has continued to increase (from 36.7 years in 1920 to 65.8 years in 1972, 72 per cent of the members being aged more than 60 years).

In the following table male and female members of the F.H.S. Sickness and Assurance Fund and Whole of Life and Endowment Fund have been included.

Friendly Society Membership and Number Who Received Sick Pay, 1972

Particulars	Membership details					Members who received sick pay
	Financial members	Total membership	Average age of members	Admissions	Departures	
	no.	no.	years	no.	no.	no.
All societies (excluding Friendly Health Services)—						
Males	3,605	3,665	65.8	2	209	563
Females	61	61	67.1	..	4	2
Total	3,666	3,726	65.8	2	213	565
Friendly Health Services ..	628	780	25.5	101	93	96
Total all societies ..	4,294	4,506	58.9	103	306	661

The figures in the next table, which excludes details for F.H.S., show the decline in membership of other ordinary societies:

Societies, Lodges and Membership (a)
(Number)

Particulars	1967	1968	1969	1970	1971	1972
Societies	8	8	8	8	8	8
Lodges—Male	107	105	105	105	103	102
Female	6	6	6	6	6	5
Benefit members	4,931	4,684	4,400	4,164	3,931	3,726
Financial members	4,827	4,612	4,347	4,104	3,877	3,666

(a) Friendly Health Services excluded.

Revenue and Expenditure

The following table shows the net revenue and expenditure (excluding interfund transfers and transfers between districts and lodges) of friendly societies for the financial years which ended in 1972:

Friendly Societies (a): Net Revenue and Expenditure, 1972
(\\$)

Revenue			Expenditure		
Particulars	Total	Per financial member	Particulars	Total	Per financial member
Members' contributions (b) ..	65,849	15.34	Medical attendance and medicine	1,466	0.34
Interest, rent and dividends ..	91,561	21.32	Sick pay	22,798	5.31
All other income	17,532	4.08	Funeral benefits	47,021	10.95
			Administration	44,647	10.40
			Endowment benefits	15,519	3.61
			Other	26,943	6.27
Total	174,942	40.74	Total	158,394	36.89

(a) Includes Friendly Health Services.

(b) Includes levies.

The next table summarises the main items of receipts and expenditure and accumulated funds for the period 1968 to 1972:

Friendly Societies (a): Receipts, Expenditure and Accumulated Funds
(\$'000)

Year	Net receipts (b)		Net expenditure (b)				Accumulated funds
	Contributions and levies	Total (c)	Sick pay	Funeral benefits	Other (d)	Total	
1968 ..	51	151	18	49	126	193	1,370
1969 ..	58	156	20	50	69	139	1,387
1970 ..	59	164	18	47	71	137	r 1,411
1971 ..	64	173	17	41	71	129	r 1,447
1972 ..	66	175	23	47	88	158	1,463

(a) Includes Friendly Health Services.

(b) Excludes interfund transfers and transfers within societies.

(c) Comprises: (i) income from investments; (ii) grants received by Friendly Health Services from the ordinary societies; and (iii) other revenue items not specified in the table.

(d) Includes administration and medical attention expenses and endowment benefits paid by societies to members.

Registered Building Societies

Types of Registered Society

There are two distinct types of building societies registered under Tasmanian law, namely permanent and terminating (or co-operative).

Permanent Societies: These societies are both savings and deposit-receiving institutions which advance funds for home building or purchase against the security of first mortgages. Those who invest by taking shares or by making deposits are in a separate category from those who borrow to build or buy a home. The following table summarises the transactions of the permanent building societies in Tasmania:

Permanent Building Societies

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	no.	no.	no.	no.	no.
Operating societies	6	6	6	6	6
Investing shareholders	10,600	11,650	13,104	14,347	15,765
Borrowers	5,580	5,840	6,094	6,408	7,514
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	6,826	10,273	6,520	10,097	18,777
Repaid	3,960	4,332	5,137	5,546	7,758
Deposits—Received (a)	14,185	22,805	29,549	38,975	52,625
Withdrawn	12,913	20,535	26,876	36,187	44,491
Liabilities—					
Paid-up capital and subscriptions	13,226	16,156	17,780	23,553	31,169
Accumulated profits, reserves	784	951	1,079	1,147	1,363
Deposits	14,898	17,169	19,841	22,630	30,763
Other	944	1,746	844	822	1,613
Total	29,853	36,022	39,544	48,152	64,907
Assets—					
Loans on mortgage	27,784	33,724	35,107	39,657	50,676
Land and buildings	683	584	1,188	928	1,240
Government securities	1,033	1,255	1,534	3,055	4,003
Other investments	106	181	1,430	4,151	8,508
Cash and current deposits	22	10	96	77	100
Other	224	268	188	283	380
Total	29,853	36,022	39,544	48,152	64,907

(a) Includes interest credited to depositors' accounts.

Terminating Societies: These are societies which, by their rules, are to terminate at a fixed date or when a result specified in their rules is attained. Societies issue members one class of share and require equated monthly instalments towards share capital from members; when a member borrows to build (and only a member may borrow) he is required to pay additional equated monthly instalments, such addition constituting interest only. The regular instalments in respect of share capital are calculated to amount, with interest, to the nominal amount of the member's shares over the life of the society (say 26 or 30 years). If the member takes out shares with a nominal value of \$6,000, then his borrowing ceiling is set at \$6,000—in other words, the member takes out, in nominal share capital, the amount which he wishes to borrow for home-building. In effect, the member is contributing to a sinking fund for the liquidation of his loan. The terminating societies are termed 'co-operative'.

In the following table relating to co-operative housing (terminating) societies, 'Loans from government' and 'Loans due to government' up to 1971-72 refer principally to loan money made available under the Federal-State Housing Agreement. Such funds were advanced to the societies through the Agricultural Bank which acted as agent for the Australian Government in this field. For 1971-72, loans from the Government for co-operative housing societies were allocated from the State Loan Fund. This system of allocation continued to operate during 1972-73, however, from July 1973 funds were again advanced from money made available under an Australian Government State Housing Agreement. The limit of an individual loan was raised from \$8,000 to \$9,000 in August 1969, to \$10,000 in August 1972 and to \$12,000 in July 1973.

The following table summarises the transactions of the co-operative housing societies operating in Tasmania:

Co-operative Housing Societies

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	no.	no.	no.	no.	no.
Operative societies	75	87	92	98	103
Shareholders	1,716	1,942	2,089	2,109	2,212
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	1,088	1,735	1,622	734	1,572
Repaid	440	454	480	558	888
Loans from—Government	1,014	1,059	1,333	525	1,553
Other lenders	155	737	373	258	98
Repayments to—Government	419	497	532	542	799
Other lenders	262	200	237	258	337
Liabilities—					
Share subscriptions	738	852	980	1,087	1,200
Reserves	316	378	447	522	604
Loans due to—Government	5,662	6,224	7,024	7,007	7,761
Other lenders (a)	2,224	2,761	2,897	2,898	2,658
Other	107	132	170	139	193
Total	9,048	10,348	11,518	11,652	12,415
Assets—					
Loans on mortgage	8,827	10,109	11,250	11,425	12,109
Other	221	239	268	227	306
Total	9,048	10,348	11,518	11,652	12,415

(a) Includes bank overdrafts for day-to-day running of societies.

Co-operative Societies

The next table summarises the financial transactions of societies registered under Tasmanian law as co-operative industrial societies; excluded are co-operative credit societies which are dealt with in a subsequent section. The activities of co-operative societies include processing of primary products, fish and meat marketing and wholesaling groceries; profits are distributed among members.

Co-operative Societies

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	no.	no.	no.	no.	no.
Societies	16	17	17	16	15
Shareholders	5,705	6,391	6,434	6,695	7,047
	\$'000	\$'000	\$'000	\$'000	\$'000
Sales	9,967	10,451	11,063	12,346	11,918
Less cost of goods	8,411	8,832	9,278	10,506	10,401
Trading profit	1,555	1,619	1,784	1,840	1,517
Add non-operating receipts (a)	657	749	626	670	474
Less expenses—					
Wages and salaries	665	788	893	871	559
Interest	129	130	169	172	142
Administration	245	281	281	316	313
Other	937	941	993	955	798
Net surplus	234	227	74	196	178
Dividends paid	51	56	74	32	26

(a) Commissions, discounts, services, etc.

The next table shows the assets and liabilities of the societies:

**Co-operative Societies: Assets and Liabilities at End of Year
(\$'000)**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Liabilities—					
Paid-up capital	1,221	1,224	1,248	1,304	1,410
Accumulated profits	566	631	685	788	907
Reserve funds	585	619	546	479	420
Loans and bank overdraft	2,082	2,229	2,388	2,333	1,633
Sundry creditors	1,647	2,012	2,041	2,022	1,319
Other	242	267	352	279	342
Total	6,342	6,983	7,260	7,205	6,032
Assets—					
Fixed	2,019	2,144	2,156	2,306	2,067
Stock on hand	961	1,236	1,224	1,228	944
Sundry debtors	2,393	2,527	2,920	2,804	1,484
Other	969	1,076	961	868	1,538
Total	6,342	6,983	7,260	7,205	6,032

Co-operative Credit Societies

Description

The co-operative credit societies (credit unions) are registered under the *Co-operative Industrial Societies Act 1928*. Most credit unions have been established by trade unions (e.g. those serving teachers, hospital employees, etc.) and by church groups. Members contribute capital by taking out shares and making deposits. The aim of the societies is to make loans to members at low rates of interest.

Transactions

The following table shows the societies' annual transactions:

Co-operative Credit Societies

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Operating societies	no. 19	no. 23	no. 26	no. 27	no. 26
Shareholders	10,428	13,681	16,983	19,882	22,918
Borrowers	6,091	8,153	9,773	11,728	14,185
	\$'000	\$'000	\$'000	\$'000	\$'000
Loans—Made	2,664	3,638	4,543	5,814	(a) 7,664
Repaid	1,757	2,188	3,112	4,148	(a) 5,284
Deposits—Received (b)	3,430	5,290	6,978	9,787	(a) 12,780
Withdrawn	2,508	3,979	5,378	7,862	(a) 10,397
Liabilities (at end of period)—					
Paid-up capital	89	118	149	174	195
Reserves, accumulated profits	69	75	84	78	72
Deposits	3,397	4,709	6,308	8,233	10,615
Other	163	355	318	378	500
Total	3,718	5,257	6,859	8,863	11,382
Assets (at end of period)—					
Loans	3,518	4,968	6,399	8,064	10,442
Cash and current deposits	89	111	207	349	366
Other	111	178	254	450	574
Total	3,718	5,257	6,859	8,863	11,382

(a) Partially estimated.

(b) Includes interest credited.

Pension and Superannuation Schemes

Private Schemes

Surveys on an Australia-wide basis have revealed superannuation and/or retiring allowance schemes for employees in the private sector as follows: (i) schemes operated through life insurance offices, friendly societies and other organisations such as unit trusts; (ii) superannuation, pension and retiring allowance funds constituted by businesses; and (iii) direct payments of pensions and/or retiring allowances by the employer. No details have been released for individual states. Australian data are published in the Bureau's bulletin 'Survey of Selected Private Pension Funds'.

Government, Local Government and Semi-Government Schemes

The levels of government operating in Tasmania are: (i) federal; (ii) state; (iii) local authority; and (iv) semi-government authority. In the section that follows, any pension or superannuation scheme affecting employees of the Australian Government or its instrumentalities is excluded; the principal fund so excluded is the Commonwealth Superannuation Fund for which state details are not available.

Government superannuation and pension schemes are included as part of 'Private Finance' because the funds involved do not belong to any government but are actually trust moneys held on behalf of contributors. Employees of the State Government contribute to separately constituted funds to which the State Government also makes contributions. Employees of local government and semi-government authorities are covered either by separately constituted funds or by schemes operated through life insurance offices.

The first pension and gratuity scheme for State public servants, introduced in 1860, was non-contributory and short-lived, being repealed in 1863. A contributory provident fund was established under the *Civil Service Act* 1900 but this scheme was also short-lived and made way for a contributory but State-subsidised scheme established under the *Public Service Superannuation Fund Act* 1905; a year earlier, a distinct fund had been established with similar principles to serve the teaching service. The *Superannuation Act* 1938 established a new fund to serve both public servants and teachers but some pensions continued to be paid from the two funds established in 1904 and 1905. It was not until 1 July 1968 that the residual assets and pension liabilities of these older funds were transferred to the State Superannuation Fund Board. The assets transferred from the 1904 teachers' fund were \$52,990 and from the 1905 public servants' fund, \$17,103.

State Superannuation Scheme 1971: In December 1970, the *Superannuation Fund Act* 1938 was amended to provide for adjustments to pensions in accordance with movements in the Consumer Price Index. Next, a new scheme was embodied in the *Retirement Benefits Act* 1970 the date of operation being fixed at 1 July 1971. Contributors to the 'old' scheme were given the right of election, i.e. to change to the 'new' scheme or to stay with the 'old'. The main provisions of the new scheme were as follows:

- (i) A new retirement fund was to be established with contributions from government and employees.
- (ii) Employees transferring from the old scheme to the new were to pay contributions equivalent to 5.5 per cent of annual salary. New entrants to the State service were to have a choice and either pay at a 5.5 per cent or 2.75 per cent rate.
- (iii) Pensions payable would depend on three factors: (a) length of service (40 years is necessary to obtain the best pension rate); (b) average annual salary received during the last three years of service; and (c) the chosen percentage contribution (i.e. 5.5 per cent or 2.75 per cent).
- (iv) Pensions payable were to be adjusted according to the annual movement in the Consumer Price Index revealed in September quarter figures.
- (v) Persons entering the State service from prescribed superannuation funds were to be able to transfer to the Retirement Benefits Fund without being treated as new entrants (for calculation of length of service).

- (vi) Management and control of the Retirement Benefits Fund is vested in the five-member Retirement Benefits Fund Board.
- (vii) Investment of the Fund is managed by the Retirement Benefits Fund Investment Trust comprising three members, including the Solicitor-General who is chairman. The Trust may invest in trustee securities and may also invest a small proportion of the Fund in company debentures and the acquisition of land.

The adoption of fixed percentage contributions as the basis for the new scheme overcomes the main difficulty with the more traditional type of scheme, namely the prohibitive cost of new units for contributors in the upper-age brackets. The other improvement is the annual provision for automatic adjustment of the pension in accordance with price index movements.

Separately Constituted Funds: In the table that follows, the operations of the following schemes have been combined and summarised: (i) State Superannuation Fund; (ii) State Retirement Benefits Fund; (iii) Police Provident Fund; (iv) Metropolitan Transport Trust—Retiring Allowance and Staff Pension Funds; (v) Marine Boards' independent schemes; (vi) University of Tasmania—Non-Assurance Subscribers' Accumulation and Additional Benefits Funds; (vii) Hobart Corporation Retiring Allowance Funds; and (viii) Milk Board of Tasmania Superannuation Fund.

State, Local Government and Semi-Government Pension and Superannuation Schemes Operated Through Separately Constituted Funds

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	1,985	2,239	2,715	3,647	4,098
Employing authorities	2,169	2,368	2,700	3,339	3,542
Interest, dividends and rent	1,450	1,654	1,905	r 2,194	2,513
Other income	75	18	84	(a) r 152	241
Total	5,679	6,278	7,405	r 9,332	10,394
Expenditure—					
Pensions	2,530	2,762	3,132	3,572	4,126
Lump sum payments—					
On retirement or death	273	347	570	1,032	755
On resignation or dismissal	445	495	485	362	530
Other expenditure	25	68	105	32	30
Total	3,273	3,673	4,292	4,998	5,441
Total assets at end of year	27,241	29,903	32,914	r 37,299	42,206
Funds in operation	no. 12	no. 12	no. 12	no. 13	no. 12
Contributors at end of year	13,329	13,618	14,006	14,699	15,087
Number of pensioners at end of year ..	2,700	2,757	2,886	3,053	3,152

(a) Includes value of insurance policies (\$29,000) transferred to the new Retirement Benefits Fund in 1971-72 from pension and superannuation schemes operated through life insurance offices.

In the previous table, the principal funds included are the State Superannuation Fund and the Retirement Benefits Fund contributed to by all permanent full-time employees of the Public Service, Teaching Service, Transport Commission, Hydro-Electric Commission, Metropolitan Transport Trust and all hospitals subsidised by the State Government. The following table gives principal details of these two funds:

State Superannuation Fund and Retirement Benefits Fund

Particulars at 30 June	Number of contributors	Number of pensioners		Accumulated funds (a) (\$'000)
		Ex-employees	Widows and children	
STATE SUPERANNUATION FUND				
1969	12,004	1,518	1,147	22,929
1970	12,268	1,585	1,154	25,190
1971	12,643	1,635	1,217	27,962
1972	7,282	1,577	1,213	30,280
1973	7,364	1,612	1,195	32,611
RETIREMENT BENEFITS FUND				
1972	6,117	184	43	r 1,624
1973	6,255	240	64	3,748

(a) Total assets less liabilities.

Police Provident Fund: The Police Provident Fund, a *closed fund* included in an earlier table, had accumulated funds of \$3,471,802 at 30 June 1973. An amendment to the *Superannuation Act 1938*, in 1963, provided that police officers appointed after 31 December 1963 were required to become contributors to the now closed State Superannuation Fund. Police Officers appointed prior to 1 January 1964 could continue as contributors to the Police Provident Fund or exercise an option to become contributors to the State Superannuation Fund.

Schemes Operated Through Life Insurance Offices: A number of local government and semi-government authorities in Tasmania operate pension and superannuation schemes for their employees through life insurance offices. The next table combines and summarises the operations of such schemes. The following are the main authorities concerned: (i) Semi-government—marine boards, fire brigades, Metropolitan Transport Trust (Launceston and Burnie), University of Tasmania, ambulances, Society for Blind and Deaf, Museum and Art Gallery, Botanical Gardens; and (ii) Local Government—the cities and municipalities. Some authorities, e.g. University, Metropolitan Transport Trust, etc., operate schemes on both bases, i.e. some through separately constituted funds, and others through life insurance offices.

Local and Semi-Government Pension and Superannuation Schemes Operated Through Life Insurance Offices

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	415	463	519	611	653
Employing authorities	595	663	782	923	994
Surrenders	78	143	148	184	125
Death claims	34	73	99	85	68
Matured policies	117	87	226	120	567
Other income	23	30	31	34	20
Total	1,260	1,458	1,804	1,957	2,428
Expenditure—					
Premiums paid to insurance companies	1,010	1,129	1,308	1,534	1,674
Benefits—					
On death or retirement	155	154	334	217	640
On resignation or dismissal	64	123	131	138	121
Other expenditure	13	19	14	(a) 43	7
Total	1,242	1,425	1,786	1,932	2,442
Funds in operation	no. 20	no. 20	no. 19	no. 19	no. 21
Contributors (at end of period)	2,392	2,374	2,436	2,448	2,832

(a) Includes \$29,000 transferred by policy surrender to the Retirement Benefits Fund.

Miners' Pension Fund

In 1943 a Bill was introduced into the Tasmanian Parliament to establish a miners' pension fund; the legislation received Royal Assent in 1944. For the purposes of the original legislation and subsequent amending Acts a mine was defined as '... a coal mine or oil-shale mine in this State, and includes a quarry in this State from which coal or oil-shale is obtained, and all the land at or near the entrance to the workings in such a mine or quarry and occupied by the owner in connection with the winning of coal or oil-shale therefrom.'

From the Fund, administered by a three-man board, pensions are paid to miners upon retirement or when incapacitated by injury, etc. and, in certain circumstances, to widows and dependants. Contributions to the Fund are made by the State Government, mine owners and miners. Details are as follows:

Miners' Pension Fund

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000	\$'000	\$'000	\$'000	\$'000
Income—					
Contributions—					
Employees	3	2	2	2	2
State Government	30	30	30	30	30
Mine owners	11	12	11	12	12
Interest, dividends and rent	10	10	9	10	10
Total	54	54	53	54	54
Expenditure—					
Pensions	69	61	57	56	52
Other expenditure	3	2	2	2	2
Total	71	63	59	59	54
Assets (at end of period)	187	178	172	168	167
	no.	no.	no.	no.	no.
Contributors (at end of period)	58	54	53	53	46
Pensioners (at end of period)	153	151	145	140	132

Until 1962-63, the State Government contributed an amount to match that of the mine owners, the employers' share being related to coal production. After actuarial investigation, it was decided to strengthen the Fund and an amount of \$30,000 was stipulated in amending legislation as the Government's maximum annual contribution. The maximum has since been paid.

The Parliamentary Pension and Superannuation Scheme

The *Parliamentary Retiring Allowances Act 1955* was repealed and replaced by the *Parliamentary Superannuation Act 1973*, effective from 1 July 1973.

The previous scheme was purely contributive. It provided for a full basic rate pension for members who retired, or were defeated, after a minimum qualifying period of 15 years. Lesser rate pensions were calculated pro-rata to the length of service expressed as a fraction of 15 years; for service less than eight years, a member received only a refund of his contributions. The pension applicable was an amount equal to \$12.50 weekly, plus 34.5 per cent of Australian average weekly earnings per employed male unit in each year ended March, as calculated from employment and wages data on pay-roll tax returns.

Parliamentary Superannuation Act 1973

Administration of the new scheme is in the hands of a three-man Tribunal; the President of the Legislative Council, the Speaker of the House of Assembly and the Under-Treasurer. The rate of contribution to the fund is 12 per cent of the current annual salary, effective from 1 July 1973.

The pension payable to a member on his retirement or defeat is now expressed as a percentage of his current annual basic salary as varied by his total period of service. Full pension rights are established by a minimum period of 15 years service. The percentage of basic salary at the date of retirement varies from 62.5 for 15 years but less than 16 years service, to 70.0 for 20 years or more service.

For those members with less than 15 years but with at least eight years service, the rate of pension applicable is an amount equal to the percentage amount of current basic salary according to the period of service, multiplied by the ratio of the total parliamentary salary received during the period of service to the total basic salary in respect of the period of service. The percentage of basic salary varies from 41.2 for eight years but less than nine years service, to 61.0 for 14 years but less than 15 years service.

Members who retire or resign with less than eight years service receive a refund of contributions. No interest is paid on the accrued contributions.

These general provisions of contribution and rate of pension may be varied in cases where the tribunal sees fit and which are in accordance with the Act. Any appeal against a decision of the Tribunal is heard by the Supreme Court of Tasmania.

Transactions of the old fund (Parliamentary Retiring Allowances Trust) are shown in the following table:

State Parliamentary Pension and Superannuation Scheme
(*\$'000*)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Income—						
Members' contribution (a)	40	39	41	43	46	49
Government contribution	3	3	34	49	76	72
Interest	2	2	..	..	..	..
Total	45	43	75	92	122	121
Expenditure—						
Pension payments (b)	50	68	86	90	93	120
Other (including refunds) .. ..	..	11	1	3	29	1
Total	50	79	86	92	122	121
Total assets (at end of period)	49	14	4	..	..	..
Less liabilities	2	3	3	..	..	..
Accumulated funds	48	12	..	..	..	..

(a) Number of contributors throughout period, 54 (House of Assembly, 35; Legislative Council, 19). Contribution for basic rate pension compulsory.

(b) Number of pensioners at 30 June 1973, 33.

Real Estate Transactions

Title to Land

When acquiring land today, the buyer needs to know whether the documents are under the 'old system' or the 'new system'. The new system dates from the *Real Property Act 1862* when Tasmania introduced an adaptation of the Torrens system (Sir Robert Torrens' Real Property Act became law in S.A. in 1858). The Torrens system provides that the matter of title to land shall be a government responsibility. Each piece of separately-owned land is represented by a certificate of title which, with a few minor exceptions, is guaranteed by the State; in Tasmania, the issue and registration of titles is the work of the Land Titles' Office. A statutory assurance fund is maintained to indemnify owners against loss through error.

Land alienated before 1862 was not subject to the provisions of the *Real Property Act* and transactions involving such land are still being recorded under the *Registration of Deeds Act* (the first Tasmanian Deeds Act was made in 1827); this is the 'old system', involving complicated conveyancing, searching, etc. The conveyance is merely evidence of ownership as between the parties to the agreement and lacks the element of conclusive proof inherent in the Torrens certificate of title which proclaims 'that the person mentioned in it is owner of the land therein described as against all the world.' Put another way, land passing from A to B, and then to C under the old system requires a search to ascertain the validity of B's ownership and then of A's ownership; under the new system, C's certificate of title is adequate proof without any reference to A and B.

The dual system persists to this day but the *Local Government (Registered Titles) Act 1966* provided that all new sub-divisions of land should be brought under the *Real Property Act* without charge. Fees on voluntary applications to bring land under the *Real Property Act* have also been abolished to encourage other owners to change to the Torrens system.

Property Sales and Mortgages

Sales of real estate, and mortgages on the security of real estate, involve either certificates of title, under the new system, or deeds, conveyances, etc. under the old system. In the following table, sales and mortgages recorded both under the *Real Property Act* and the *Registration of Deeds Act* are combined to give a single series showing real estate transactions in Tasmania over a 10-year period:

Real Estate Transactions (a)

Year	Property sales		Mortgages			
	Number	Total consideration	Registered		Discharged	
			Number	Amount	Number	Amount
		\$'000		\$'000		\$'000
1963-64	8,946	47,602	8,754	37,516	6,172	18,264
1964-65	10,163	60,690	9,304	45,996	6,571	22,992
1965-66	10,272	56,637	9,818	44,999	6,722	22,957
1966-67	11,011	65,341	9,408	52,258	7,578	24,990
1967-68	11,626	72,651	10,233	60,980	7,419	25,086
1968-69	10,657	74,069	10,616	67,009	7,009	25,237
1969-70	11,478	87,763	9,877	68,924	7,359	28,490
1970-71	11,092	85,043	9,085	66,468	7,150	32,286
1971-72	11,452	91,435	9,803	71,007	7,813	37,332
1972-73	14,052	135,539	12,134	93,804	9,842	59,796

(a) Registered under the *Real Property Act* and *Registration of Deeds Act*.

Chapter 13

HOUSING AND BUILDING

DWELLING STATISTICS

Information concerning the housing of the State's population is obtained from householders' schedules collected during the population censuses. For the purposes of the 1971 Census an 'occupied 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, therefore, has a very wide reference.

Private Dwellings

Private dwellings are further classified into the following three categories:

Private Houses: These include separate semi-detached and attached (i.e. a house attached to business premises) houses, terrace (or row) houses and villa flats or cottage units (i.e. one of a group (three or more) of single or double storey homes separate or joined together in sets and *all occupying a common block of land*). Includes shared private houses for which only one census schedule was received.

Flats: Include self-contained flats and home units i.e. they are able to be completely closed-off and have their own cooking and bathing facilities.

Other Private Dwellings: Include non-self-contained flats, room(s), shared part of house for which a separate census schedule was obtained and where occupied on a semi-permanent basis, improvised homes (shed, tent, garage, etc.) and caravans, houseboats, etc.

Other Than Private Dwellings

These include hotels; motels; boarding houses; hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; residential clubs; staff barracks and quarters, etc.

Unoccupied Dwellings

These include vacant dwellings available for sale or renting; dwellings such as 'week-ender', 'holiday-home', 'second home', 'seasonal workers' quarters', which were not occupied on the night of the census; dwellings normally occupied but whose usual occupants were temporarily absent on the night of the census; newly completed dwellings whose owners or tenants had not entered into occupation on the night of the census; dwellings described as 'to be demolished', 'condemned', 'deceased estate'; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the census. The total of unoccupied dwellings must not be read as the number of vacant houses and flats available for sale or renting.

1971 Census: Dwelling Statistics

Dwellings at 1971 Census

The following table shows the classification of occupied dwellings and the number of unoccupied dwellings at the 1971 Census:

Dwellings at Census 30 June 1971

Description	Number	Total occupants	Description	Number	Total occupants
Private—			Non-private—		
Occupied—			Occupied—		
House	99,396	352,105	Hotels, motels ..	297	2,454
Self-contained flat ..	8,417	18,161	Staff quarters ..	122	2,842
Other	1,784	3,264	Boarding houses ..	178	1,603
Total	109,597	373,530	Boarding schools (incl. residential colleges) ..	44	2,310
Total unoccupied ..	13,307	..	Hospitals	46	2,459
Total private dwellings	122,904	373,530	Other	178	(a)5,215
			Total	865	16,883

(a) Includes migratory.

Nature of Occupancy

The details contained in the next table relate only to occupied private dwellings classified as houses or flats:

Occupied Private Houses and Flats by Nature of Occupancy at Census 30 June 1971

Nature of occupancy	Houses		Flats	
	Number	Proportion of total (per cent)	Number	Proportion of total (per cent)
Owner	71,334	71.77	1,504	17.87
Tenant—Housing department ..	6,485	6.52	452	5.37
Other	16,614	16.71	6,032	71.66
Other and not stated	4,963	4.99	429	5.10
Total	99,396	100.00	8,417	100.00

Facilities

At 30 June 1971, 78.8 per cent of the occupied private houses had television. The corresponding percentage for occupied flats was 65.6. In the next table details of the number of occupied private houses and flats served by electricity and gas are given:

Occupied Private Houses and Flats by Facilities at Census 30 June 1971

Facilities	Houses		Flats	
	Number	Proportion of total (per cent)	Number	Proportion of total (per cent)
Electricity only	91,664	92.22	7,015	83.34
Gas only	60	0.06	2	0.02
Electricity and gas	6,889	6.93	1,311	15.58
No gas or electricity	240	0.24	2	0.02
Not stated	543	0.55	87	1.03
Total	99,396	100.00	8,417	100.00

Material of Outer Walls

The next table classifies occupied private houses and flats by material of their outer walls:

Material of Outer Walls of Occupied Private Houses and Flats at Census 30 June 1971

Material of outer wall	Houses		Flats	
	Number	Proportion of total (per cent)	Number	Proportion of total (per cent)
Brick (including brick veneer)	29,300	29.48	4,919	58.44
Stone or concrete	3,255	3.27	1,035	12.30
Wood	62,235	62.61	2,269	26.96
Fibro-cement	3,460	3.48	159	1.89
Other	1,146	1.15	35	0.42
Total	99,396	100.00	8,417	100.00

Intercensal Estimates of Houses and Flats

It is not possible to prepare a detailed analysis of dwellings between censuses but intercensal estimates of the number of houses and flats by local government areas are prepared. The base for the estimates is the total number of occupied and unoccupied private houses and flats as recorded at the preceding census. The census figures are then adjusted for: (i) demolitions, destructions by fire, conversions and transfers of houses and flats; and (ii) completions of new houses and flats. Transfer of houses between local government areas is merely a redistribution and does not affect total number of houses for the State. Information about demolitions, conversions and transfers is obtained from local government authorities and the Hydro-Electric Commission. The number of new houses and flats completed is available from the quarterly Building Construction collection conducted by the Bureau.

The following table shows the distribution of total houses and flats recorded at the 1971 Census and the estimated distribution for other years:

Number of Houses and Flats at 30 June

Local government area (statistical division and sub-division in bold type)	Houses and flats				
	1970	1971 Census (a)		1972	1973
	Estimate (b) (c)	Number	Percentage occupied	Estimate (b)	Estimate (b)
Hobart (H)	16,398	16,793	94.1	17,056	17,371
Glenorchy (H)	11,367	11,749	97.5	12,109	12,369
Clarence (H)	9,892	10,344	92.6	10,785	11,292
Brighton (H) (S)	624	639	95.3	643	788
Kingborough (H) (S)	3,118	3,222	92.8	3,361	3,535
New Norfolk (H) (S)	2,558	2,588	93.0	2,610	2,658
Sorell (H) (S)	1,992	2,185	50.0	2,228	2,287
Bothwell (S)	708	707	35.9	707	712
Bruny (S)	306	323	35.0	324	325
Esperance (S)	1,159	1,167	81.6	1,185	1,196
Glamorgan (S)	646	685	52.6	694	715
Green Ponds (S)	263	261	95.8	266	269
Hamilton (S)	1,048	1,028	91.4	1,065	1,083
Huon (S)	1,397	1,379	96.2	1,381	1,384
Oatlands (S)	771	771	84.6	772	777
Port Cygnet (S)	753	741	78.7	741	748
Richmond (S)	497	493	94.3	512	519
Spring Bay (S)	597	609	66.2	651	684
Tasman (S)	619	627	51.5	641	662
HOBART	} 54,713	56,311	89.8	57,731	59,374
SOUTHERN					

Number of Houses and Flats at 30 June—continued

Local government area (statistical division and sub-division in bold type)	Houses and flats				
	1970	1971 Census (a)		1972	1973
	Estimate (b) (c)	Number	Percentage occupied	Estimate (b)	Estimate (b)
Launceston	11,528	11,605	94.5	11,694	11,767
Beaconsfield	3,713	3,825	82.4	3,935	4,069
Deloraine	1,518	1,524	91.9	1,549	1,570
Evandale	435	431	95.6	431	436
George Town	1,777	1,854	77.3	1,926	1,980
Lilydale	2,157	2,205	95.8	2,262	2,321
Longford	1,595	1,609	93.9	1,621	1,638
St Leonards	4,343	4,490	95.7	4,639	4,814
Westbury	1,478	1,483	93.9	1,520	1,553
Tamar	28,544	29,026	91.9	29,577	30,148
Campbell Town	549	547	83.9	547	546
Fingal	1,114	1,104	87.3	1,103	1,104
Flinders	339	329	83.3	331	333
Portland	945	1,035	44.3	1,068	1,089
Ringarooma	825	815	88.0	822	827
Ross	185	182	90.7	182	184
Scottsdale	1,294	1,322	80.6	1,339	1,362
North Eastern	5,251	5,334	76.9	5,392	5,445
NORTHERN	33,795	34,360	89.6	34,969	35,593
Burnie	5,449	5,588	95.3	5,715	5,824
Circular Head	2,393	2,442	85.3	2,463	2,487
Devonport	5,665	5,871	95.4	6,021	6,231
Kentish	1,581	1,572	88.2	1,561	1,501
King Island	732	753	93.6	762	779
Latrobe	1,545	1,606	85.4	1,640	1,702
Penguin	1,336	1,354	95.3	1,393	1,426
Ulverstone	3,209	3,304	93.8	3,409	3,515
Wynyard	2,991	3,086	90.8	3,183	3,293
North Western	24,901	25,576	92.5	26,147	26,758
Gormanston	118	119	97.5	119	117
Queenstown	1,267	1,288	97.6	1,288	1,289
Strahan	184	190	64.7	201	205
Waratah	446	477	94.1	495	516
Zeehan	1,004	1,107	79.0	1,261	1,273
Western	3,019	3,181	88.6	3,364	3,400
MERSEY-LYELL	27,920	28,757	92.1	29,511	30,158
TASMANIA	116,428	119,428	90.3	122,211	125,125

NOTE: Symbols above mean: (H) = Hobart Division; (S) = Southern Division; (H) (S) = part of municipality in Hobart Division and remainder in Southern Division.

- (a) Comprises only those dwellings classified as private (occupied or unoccupied) houses and flats.
- (b) Census figures adjusted for new houses and flats completed, demolished, destroyed by fire, transferred between local government areas, etc.
- (c) Revised to take account of the results of the 1971 Census.

BUILDING STATISTICS

Scope

For statistical purposes, building relates exclusively to the erection of new buildings (including major new additions to existing buildings); construction work such as the building of railways, bridges, earthworks, water storages, piers, wharves, etc. is excluded. Minor additions, alterations, renovations and repairs to buildings are also excluded because of the difficulty of obtaining lists of persons who undertake this work.

When a dwelling is attached to a new building, the whole unit, both in regard to number and value, is classified according to the type of new building (e.g. a new shop and dwelling is classified simply as a shop). Figures for flats include 'home units' but not conversions of existing buildings into flats. Number of flats refers to the number of new individual dwelling units.

Details obtained from government authorities on their construction programmes and from building contractors refer to all parts of the State. Details for owner-builders cover only those areas subject to building control by local government authorities; thus some farm buildings are excluded but this does not materially affect the figures.

Source of Data

The main statistics relate to building approvals and to building operations (commencements, completions, etc.). The data are derived as follows:

Building Approvals: These comprise: (i) approvals by local government authorities for the construction of private buildings; (ii) contracts let and day labour projects commenced by governmental authorities; and (iii) private buildings reported by contractors to have been commenced in certain areas of the few rural municipalities where building regulations do not apply to the whole municipality. Details are compiled monthly.

Building Operations: Returns are obtained from: (i) building contractors engaged in the erection of new buildings; (ii) owner-builders; and (iii) federal, state, local and semi-government authorities. Statistics are compiled at quarterly intervals.

Definitions

Contract-built: Includes the operations of all building contractors and government authorities which undertake the erection of new buildings.

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.

Commenced: A building is regarded as having been commenced when work on the foundations has begun.

Completed: A building is regarded as having been completed when the contractor has fulfilled the terms of the contract.

With both 'completions' and 'commencements' there is some difficulty in maintaining a uniform classification since the definition of an exact point of time in building operations is involved.

Under Construction: A building is so classified if it is uncompleted at the end of the period, whether or not work on it was actively proceeding at that date.

Values: All values shown exclude the value of land and represent the estimated value of buildings *on completion*. In the case of owner-built dwellings, the owner-builder is required to estimate the value from the cost of the materials and the cost of labour, including his own.

New buildings, including dwellings, with an estimated value on completion of less than \$1,000 for approvals and \$2,000 for construction are excluded from the tabulations.

Building Approvals

The following table shows details of building approvals; a distinction is made between 'private' and 'government' and the information is dissected to give separate figures for statistical divisions. In 1972-73 49 per cent of the total value of building approvals was attributed to the Hobart Division, 4 per cent to the Southern Division, 25 per cent to the Northern Division and 22 per cent to the Mersey-Lyell Division.

Building Approvals, By Statistical Division, 1972-73

Particulars	Hobart	Southern	Northern	Mersey-Lyell	Total Tasmania
NUMBER					
New houses—Private ..	1,027	208	638	584	2,457
Government ..	328	41	65	167	601
Total	1,355	249	703	751	3,058
VALUE (\$'000)					
New houses—Private ..	15,894	1,893	8,018	7,572	33,378
Government ..	3,347	477	646	1,606	6,077
Other new buildings (a)—					
Private ..	11,864	371	5,240	4,418	21,892
Government ..	12,832	427	9,013	6,803	29,074
Alterations and additions—					
Private ..	1,897	187	927	647	3,659
Government ..	63	11	63	77	213
All buildings—Private ..	29,655	2,451	14,185	12,637	58,929
Government ..	16,242	915	9,722	8,485	35,364
Grand total	45,897	3,366	23,907	21,123	94,293

(a) Includes flats.

The next table shows the decline in the number of building approvals for new houses between 1968-69 and 1971-72 and the substantial increase in house building activity recorded in 1972-73.

Building Approvals, Selected Years

Particulars	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
NUMBER						
New houses—						
Private	1,921	2,206	2,124	1,969	1,996	2,457
Government	550	488	532	612	488	601
Total	2,471	2,694	2,656	2,581	2,484	3,058
VALUE (\$'000)						
New houses—						
Private	13,328	22,292	22,417	21,333	23,896	33,378
Government	3,214	3,602	4,214	5,286	4,535	6,077
Other new buildings (a)—						
Private	9,369	14,543	21,214	24,281	21,218	21,892
Government	9,839	11,855	11,690	17,092	20,434	29,074
Alterations and additions—						
Private	1,471	2,219	2,464	2,801	3,408	3,659
Government	194	211	274	253	337	213
All buildings—						
Private	24,168	39,054	46,095	48,415	48,522	58,929
Government	13,247	15,667	16,177	22,631	25,305	35,364
Grand total ..	37,416	54,721	62,272	71,046	73,827	94,293

(a) Includes flats.

Government Construction of Houses: The post-war era was notable for the entry of the State Government into the housing field on a large scale; in November 1945, the Australian Government entered into an agreement with the states whereby it would provide finance for housing projects to be built by the state governments. Under the agreement, Tasmania received \$5,670,000 which it repaid on withdrawing from the scheme in August 1950. The Tasmanian Government nevertheless continued to build houses using the resources available from its own Loan Fund. In 1956, the State Government entered into a new agreement with the Australian Government, an arrangement renewed with minor modifications in 1961 and 1966. This method of allocating funds to the states ceased at 30 June 1971. Tasmania's aggregate advances under the scheme to 30 June 1971 were \$89,477,000. For 1971-72 and 1972-73 funds for State housing were provided as a part of the State's approved loan raisings (i.e. loans raised for housing were credited to Loan Fund and expenditure was made from Loan Fund). Tasmania's Loan Fund allocations for housing were: 1971-72, \$8,300,000 (*Homes Act 1935*, \$5,810,000 and advances through the Agricultural Bank for private home construction, \$2,490,000); and 1972-73, \$9,050,000 (*Homes Act 1935*, \$6,500,000 and advances through the Agricultural Bank \$2,550,000). However, at the June 1973 Premiers' conference the question of allocation of funds for state housing was again discussed and a new Federal-State Housing Agreement was proposed which provided for the states to receive advances for welfare housing during the five years 1973-74 to 1977-78; these advances are in addition to the states' loan fund borrowing programmes (In effect the pre-1971-72 situation has been restored.) Tasmania's allocation for 1973-74 under the new Housing Agreement was \$16m and for 1974-75, \$20m.

The following table shows, for Tasmania, the number of new houses completed, for a recent ten-year period and distinguishes between those built for government authorities (all types) and those built for private persons:

Number of New Houses Completed For Government Authorities and Private Persons

Year	For government authorities	For private persons	Total	Year	For government authorities	For private persons	Total
1963-64	554	1,957	2,511	1968-69	735	1,969	2,704
1964-65	579	2,000	2,579	1969-70	683	2,178	2,861
1965-66	557	1,703	2,260	1970-71	627	1,636	2,263
1966-67	627	2,138	2,765	1971-72	466	1,795	2,261
1967-68	737	2,594	3,331	1972-73	542	1,842	2,384

The principal construction authority in Tasmania is the State Housing Department but 'houses built for government authorities' includes construction by, or for, other State and Australian Government departments, instrumentalities, etc.

New Houses Constructed: The next table shows details of number and value of houses commenced, completed and under construction:

Construction of New Houses

Year	Commenced		Completed		Under construction (a)	
	Number	Value (b)	Number	Value (b)	Number	Value (b)
		\$m		\$m		\$m
1967-68	3,142	27.5	3,331	28.3	1,538	13.3
1968-69	2,580	25.4	2,704	25.5	1,372	12.9
1969-70	2,682	27.6	2,861	28.3	1,163	11.9
1970-71	2,546	27.0	2,263	24.5	1,393	14.5
1971-72	2,231	25.7	2,261	26.2	1,337	14.5
1972-73	2,795	36.4	2,384	29.6	1,735	22.0

(a) At end of year.

(b) When completed.

Material of Outer Walls: The following table shows the number of new houses completed and their classification according to the material used in their outer walls. Until 1963-64, wood was the predominant material used for outer wall construction. However, since then there has been a continuous fall in the proportion of wooden walled houses completed; in 1972-73, brick veneer houses accounted for 82 per cent of all houses completed.

Number of New Houses Completed Classified by Material of Outer Walls

Material of outer walls	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
Brick, concrete, etc.—						
Solid	231	177	173	93	80	75
Veneer	775	1,547	1,719	1,618	1,701	1,943
Wood (weatherboard, etc)	1,426	755	577	350	196	204
Asbestos cement	72	124	137	121	103	125
Other .. .. .	..	101	255	81	181	37
Total	2,504	2,704	2,861	2,263	2,261	2,384

Construction of New Houses and Flats

The figures for the more recent years show a marked increase in the number of flats (individual units) erected. In 1972-73 flats comprised 25 per cent of the total number of houses and flats completed.

In the following table, details are given of completions of new houses and new flats:

New Houses and Flats Completed

Particulars	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
NUMBER						
New houses—						
Government ownership—						
Contract-built	288	447	370	307	243	280
Day labour	275	288	313	320	223	262
Private ownership—						
Contract-built	1,086	1,170	1,279	1,092	1,198	1,117
Owner-built	855	799	899	544	597	725
Total new houses	2,504	2,704	2,861	2,263	2,261	2,384
New flats (individual units) (a)	97	366	502	667	767	781
Total new houses and flats	2,601	3,070	3,363	2,930	3,028	3,165
VALUE (\$'000)						
New houses	16,484	25,523	28,283	24,459	26,165	29,648
New flats (individual units) (a)	404	2,619	3,887	4,816	5,534	6,542

(a) Individual dwelling units; conversions of existing dwellings to flats are excluded.

Approximately one-third of all new dwellings built in Tasmania in recent years have been located in Urban Hobart. The State Housing Department's activities in southern Tasmania in recent years have been concentrated in the Clarence Municipality with the result that during 1972-73 more houses were built in that municipality than in any other.

The next table shows the distribution of houses and flats completed during 1971-72 and 1972-73:

Number of New Houses and Flats Completed

Area	1971-72			1972-73		
	Houses	Flats	Total	Houses	Flats	Total
STATISTICAL DIVISIONS AND SUB-DIVISIONS						
Hobart	875	482	1,357	1,045	503	1,548
Southern	178	8	186	162	6	168
Northern—						
Tamar	463	154	617	468	168	636
North Eastern	49	21	70	57	7	64
Total	512	175	687	525	175	700
Mersey-Lyell—						
North Western	523	91	614	607	95	702
Western	173	11	184	45	2	47
Total	696	102	798	652	97	749
Total Tasmania	2,261	767	3,028	2,384	781	3,165
URBAN AREAS						
Urban Hobart	639	435	1,074	596	485	1,081
Urban Launceston	289	128	417	308	140	448

Construction of All New Buildings

The previous tables in this section have been concerned with the construction of new houses or of new houses and flats. In the five years ended 30 June 1973, the value of houses and flats completed has approximated half of the total value of all new buildings completed in each year. The next table shows the value of all new buildings completed according to type; houses and flats are included to allow comparison.

Value of All New Buildings Completed: Classified According to Type
(\$'000)

Type of building	1962-63	1968-69	1969-70	1970-71	1971-72	1972-73
Houses (a)	16,484	25,523	28,283	24,459	26,165	29,648
Flats	404	2,619	3,887	4,816	5,534	6,542
Hotels, etc.	1,590	1,513	2,107	2,609	2,464	7,752
Shops	868	1,103	2,348	2,097	2,515	2,471
Factories	5,050	8,722	6,322	7,451	4,124	4,448
Offices	1,210	4,539	5,291	2,905	6,746	7,287
Other business premises	2,306	3,019	1,753	4,330	2,854	2,037
Education	1,956	3,853	6,469	4,259	9,240	10,654
Religion	290	316	576	377	162	289
Health	2,148	2,251	4,965	1,921	6,668	4,208
Entertainment and recreation	826	507	925	1,264	1,006	1,801
Miscellaneous	996	2,984	3,527	3,197	2,238	969
Total all buildings	34,128	56,947	66,452	59,684	69,717	78,104

(a) Includes estimated value of owner-built houses.

The following table gives details of the total value of all new buildings commenced, completed and under construction. The items included under 'all new buildings' are specified in the previous table.

Value (When Completed) of All New Buildings (a)
((\$m))

Year	Com- menced	Com- pleted	Under construc- tion (b)	Year	Com- menced	Com- pleted	Under construc- tion (b)
1963-64	34.7	34.0	29.1	1968-69	56.2	56.9	51.9
1964-65	42.0	37.7	33.5	1969-70	62.1	66.5	51.0
1965-66	43.8	39.7	37.4	1970-71	70.2	59.7	63.5
1966-67	62.1	48.2	51.3	1971-72	64.3	69.7	61.6
1967-68	63.2	61.9	52.5	1972-73	90.6	78.1	76.5

(a) Includes estimated value of owner-built houses.

(b) At end of period.

The following table shows the distribution of the value of new buildings completed according to type:

Value of New Buildings Completed, By Type of Building, 1972-73
((\$'000))

Area	Houses	Flats	Shops	Factories	Education	Other buildings
STATISTICAL DIVISIONS AND SUB-DIVISIONS						
Hobart	14,150	4,423	1,656	1,523	8,030	14,185
Southern	1,615	36	7	322	186	666
Northern—						
Tamar	5,746	1,288	261	533	1,283	4,006
North Eastern	620	57	49	157	101	1,272
Total	6,367	1,345	310	689	1,384	5,278
Mersey-Lyell—						
North Western	7,039	709	436	1,850	963	3,329
Western	477	29	62	62	91	886
Total	7,516	738	498	1,912	1,054	4,216
Total Tasmania	29,648	6,542	2,471	4,448	10,654	24,344
URBAN AREAS						
Urban Hobart	8,614	4,285	1,447	1,361	7,266	13,879
Urban Launceston	3,842	1,101	172	279	1,283	3,517

FINANCIAL ASSISTANCE FOR HOUSING

The State Housing Department

General

The Housing Department was established in July 1953 as a separate authority to administer that portion of the *Homes Act 1953* which relates to the purchase and development of land for housing, and the erection of homes for rental and sale. Funds for these purposes, up to 30 June 1971, were made available under the Federal-State Housing Agreement; allocations of loan funds under the agreement were: (i) in addition to loan raisings credited to State Loan Fund;

and (ii) not part of State public debt. For 1971-72 and 1972-73 loans for State housing were credited to State Loan Fund and formed part of public debt. However, for 1973-74 the pre-1971-72 situation was restored when a new Federal-State Housing Agreement became operative. In addition to providing finance for the purchase and development of land and construction of houses, the new Agreement also provides finance for the purchase, upgrading and renovating of existing dwellings and places certain restrictions on the allocation of homes constructed from Agreement funds. The Department uses both day labour and private contractors and has its own factory for timber storage, milling and joinery manufacture in addition to plumbing and electrical workshops, etc. Most dwellings constructed are three-bedroom timber or brick veneer units, roofed with tiles or corrugated iron. Flats for elderly persons, multi-unit flats and two-bedroom villa units have also been constructed.

Departmental Construction of Dwellings

During 1972-73, 642 dwellings (512 houses, 70 elderly persons' units and 60 villas) were completed. The following table shows the aggregate of dwelling units produced by the Housing Department (and by an earlier State housing construction authority) since 1944:

Aggregate of Dwellings Constructed by State Housing Department From 1944 to 30 June 1973 (a)

Type of dwelling	Bed-sitting room	One bedroom	Two bedroom	Three bedroom	Total
Single unit—Timber ..	..	..	566	9,195	9,761
Other material ..	..	..	63	3,063	3,126
Elderly persons' flatettes ..	342	177	..	..	519
Maisonettes .. .. .	..	..	12	10	22
Multi-unit flats (individual units) .. .. .	..	125	157	14	296
Villa flats .. .. .	..	..	118	12	130
Total dwelling units ..	342	302	916	12,294	13,854

(a) Construction to 30 June 1953 undertaken by Housing Division of State Agricultural Bank; subsequent construction by State Housing Department.

Dwellings for Rental

Flats, maisonettes and elderly persons' homes are for rental only. Houses may be occupied on either a rental or purchase contract basis. There is no actual income limit for eligibility to rent homes built prior to January 1974, but families on higher incomes may be expected to purchase. The 1973-74 Agreement, however, does provide certain income limits for eligibility where homes financed from the Agreement are concerned. It also stipulates that, in the case of Tasmania, 50 per cent of the homes built from the advances in the year commencing 1 January 1974 shall be rented, 60 per cent in the year commencing 1 January 1975, and 70 per cent for the remaining three years of the Agreement. The weekly rental of a newly erected three-bedroom house in the Hobart metropolitan area approximated \$21.50 in the March quarter 1974. In all cases where the occupiers' incomes are insufficient to enable them to afford the full economic rental, rebates may be provided. Rebates are graduated according to the incomes of the occupiers.

Dwellings for Sale

Sales are made on a no-deposit purchase contract basis with repayments over a maximum term of 53 years but buyers are encouraged to pay a deposit if they are in a position to do so. When the agreed purchase price and other charges have been paid ownership of the property is transferred from the Department to the purchaser. Purchasers may sell their homes in certain circumstances. The aggregate number of purchase contracts less surrenders entered into by 30 June 1973 was 9,351. The sale price, excluding land, of a new three-bedroom Department house in the Hobart metropolitan area was approximately \$12,800 in the March quarter 1974.

Amounts outstanding in respect of loans made by the Housing Department by way of purchase contracts are shown in the following table:

Housing Department: Purchase Contracts at 30 June

Loans outstanding	1968	1969	1970	1971	1972	1973
Number	r 6,633	7,099	r 7,434	7,770	r 8,001	8,123
Value \$'000	44,708	48,940	52,199	55,892	58,740	60,948

The interest rate at 1 January 1974 was 5.75 per cent. To be eligible for housing assistance an applicant must satisfy the Department that he is in need of such assistance. Date of application, number of dependants, income and existing accommodation are considered in determining priorities for applicants.

Agricultural Bank of Tasmania—Advances to Homebuilders*Housing Function*

The Agricultural Bank, as an approved institution under the Federal-State Housing Agreement, receives part of the funds made available to make advances to home builders. To be eligible for a loan, an applicant, whose income is subject to a needs test, must be married or about to be married or have dependants for whom it is necessary to provide a home. The maximum amount of an advance is \$12,000 for all types of houses, provided that the total advance does not exceed 90 per cent of the Bank's valuation of land and dwelling cost. Advances are repayable by equated instalments over a period of up to 30 years. Limited funds can be made available without application of a needs test.

The following table shows details for recent years:

Agricultural Bank: Advances for Housing (a)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Advances approved—						
Number	219	338	274	322	291	317
Value \$'000	1,737	2,708	2,250	2,840	2,571	3,018
Advances outstanding (b) .. \$'000	16,172	17,697	19,184	20,939	22,187	23,219

(a) Excludes advances to building societies.

(b) At end of period.

The Agricultural Bank also acts as agent for the State in the transmission of advances under the Federal-State Housing Agreement to the co-operative building societies; details of such advances and of the building societies appear in chapter 12, 'Private Finance'.

The Australian Department of Housing and Construction*General*

The Department has four main functions: (i) to assist certain ex-servicemen to obtain housing with finance made available on a term of up to 45 years at an interest rate of 3½ per cent; (ii) to administer the Homes Savings Grant Scheme; (iii) to advise the Federal Minister on the Federal-State Housing Agreements; and (iv) to advise on the administration of the Housing Loans Insurance Scheme.

Defence Service Homes Loans

Broadly, to be eligible for a loan, an ex-serviceman must have dependants, and must have volunteered for, or had, overseas service. Also, he must not be the owner of a home at the time of seeking a loan. The following table shows details of Defence Service Homes activities in the provision of finance for Tasmanian housing. Transfers of loans (and houses) between borrowers are not shown as expenditure, nor are details given of additional loans advanced for alterations, etc. to homes already subject to Defence Service Homes finance.

Defence Service Homes Operations: Homes Financed in Tasmania

Year	Loans approved (a)	Homes financed			Expenditure
		Homes purchased (b)	Homes built	Mortgages taken-over (c)	
	no.	no.	no.	no.	\$'000
1967-68	187	108	15	47	1,195
1968-69	180	123	13	41	1,350
1969-70	181	127	6	32	1,300
1970-71	217	133	9	49	1,530
1971-72	r 221	144	16	41	1,670
1972-73	203	153	17	47	2,050

(a) Loans approved are not necessarily paid out in the same year. A transfer from one borrower and a resale to another is included as a loan approved but not included elsewhere.

(b) New or existing properties not previously subject to Defence Service Homes finance.

(c) Mortgages, raised by individuals to build homes, taken over by Defence Service Homes on satisfactory completion of the home.

Homes Savings Grant Scheme

Under the Federal *Homes Savings Grant Act 1965-72*, a grant is payable to eligible persons who have accumulated savings, over a period of at least three years, towards the purchase of their first home. In September 1972 conditions of the scheme were liberalised and the maximum grant increased to \$750.

In the 1973-74 Budget the Australian Government announced its intention to end the current homes savings grant scheme and introduce a scheme of tax deductibility of mortgage interest to have effect from 1 July 1974. Homes savings grants are to be continued for homes contracted to be bought or built, or to be commenced by an owner-builder, on or before 31 December 1976, by persons who had already commenced to save by 21 August 1973.

The following table gives details for recent years of grants made under the scheme:

Home Savings Grants in Tasmania

Year	Grants approved for—			Grants made—	
	Home purchase	Contractor construction	Owner construction	Number	Value
	no.	no.	no.		\$'000
1967-68	458	205	121	784	305
1968-69	442	212	101	755	300
1969-70	432	208	76	716	297
1970-71	638	264	101	947	370
1971-72	712	204	86	1,047	442
1972-73	1,109	256	86	1,446	710

Housing Loans Insurance Corporation

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act 1965-1966* to administer the Australian Government Housing Loans Insurance Scheme under which approved lenders may be insured against losses arising from the making of housing loans. The Corporation consists of a Chairman (who is also Managing Director) and a Deputy Chairman, who are full-time members plus three part-time members, all of whom are appointed by the Governor-General.

The main purpose of the Housing Loans Insurance Scheme is to assist people to borrow, as a single loan at a reasonable rate of interest, the money they need and can afford to repay to obtain a home suited to their requirements.

To encourage lenders to make high ratio loans, the Corporation may insure a loan of up to \$40,000. The maximum loan to valuation ratio is: (i) 95 per cent where the security is a house or a unit; or (ii) for loans in respect of two units of accommodation 90 per cent.

A once and for all premium is charged by the Corporation at the time the loan is made. The premium is payable by the borrower but lenders may agree to add it to the amount of the loan for repayment by the borrower over the period of the loan. On loans comprising 94 and 95 per cent of the valuation of a home the premium is 1.4 per cent of the amount of the loan. On loans less than 94 per cent of valuation, the premium falls progressively down to 0.25 per cent on loans of less than 76 per cent of valuation.

The Corporation will insure a loan made to enable a borrower who is to occupy the dwelling to buy or build a house, to buy a home unit, or to discharge an existing mortgage. A loan for a dwelling consisting of two units of accommodation is insurable if one of the units is to be occupied by the borrower. Loans for alterations and extensions and loans to meet expenses of providing or improving lighting, sewerage, drainage, fences, roads, etc. are also insurable. An insurable loan normally must be secured by a first mortgage over the property concerned, but a second mortgage may be an acceptable security for a loan for such purposes as minor alterations or improvements to the property.

An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Federal Minister for Housing. Approved classes include banks, building societies, friendly societies, mortgage management companies, solicitors, credit unions and trustees of superannuation funds.

The Corporation commenced operations in November 1965 and to April 1974 had insured loans in Tasmania totalling \$75m.

**Housing Loans Insurance Corporation
Loans Insured in Tasmania**

Purpose of loan	1970-71		1971-72		1972-73	
	Number	\$'000	Number	\$'000	Number	\$'000
Housing—						
Building a new house	83	801	117	1,296	137	1,725
Purchase of—						
New house	80	833	123	1,365	160	2,114
Established house ..	641	5,542	1,047	9,137	1,416	14,359
Discharge of mortgage	21	182	42	386	58	619
Home units	11	127	17	152	28	316
Other	7	54	5	53	20	312
Total	843	7,539	1,351	12,389	1,819	19,445

Chapter 14

EDUCATION AND CULTURAL ACTIVITIES

EDUCATION IN TASMANIA

Introduction

In 1869 Tasmania became the first colony in the British Empire to make education compulsory. The ages for obligatory attendance at school were progressively widened: in 1898 school attendance was made obligatory between the ages of seven and 13 years; in 1912 between six and 14 years; and in 1946 Tasmania became the only Australian state to make attendance compulsory up to the age of 16, the starting age being six.

Education in Tasmania is now provided at primary, secondary and tertiary levels by government institutions and to secondary level by non-government schools.

A period of 82 years in which the State accepted no financial responsibility for non-government education ended in 1967 when amendments to the *Education Act 1932* allowed government grants to independent schools. The assistance is paid on a capitation basis and is dependent upon the level of schooling of the pupil.

The task of Tasmanian educational authorities, as in other Australian states in the post-war period, has been to provide more schools, more teachers and better facilities; the principal factors exerting pressure have been: (i) a rapidly growing school population; (ii) a change in attitude resulting in increased demand for secondary and tertiary education; and (iii) community acceptance in general of the need for better education.

The sections that follow deal with:

- (i) Education in government and non-government schools.
- (ii) University and college of advanced education courses.
- (iii) Technical education.
- (iv) Adult education.
- (v) Australian Government activities in education in Tasmania.

Schools, Government and Non-Government

General

In 1946 the Tasmanian government and non-government systems of education were reorganised to provide a three, four or five-year post-primary course. (The pre-war system of secondary education had comprised two stages, a three-year course followed by a two-year course; with a leaving age of 14, and with *selective entry* to government high schools, the proportion of pre-war pupils taking secondary education was very low.)

The dual nature of educational responsibility in Tasmania and the numbers of pupils in both government and non-government schools, in primary and secondary grades, are shown in the following table:

Government and Non-Government Schools
Pupils Enrolled at 1 August According to Grade of Education
(Number)

Particulars	1969	1970	1971	1972	1973
Government schools—					
Primary grades (a)	51,658	51,677	51,361	50,584	49,845
Secondary grades	25,900	26,895	27,888	28,541	28,935
Special (b)	781	813	843	832	925
Total	78,339	79,385	80,092	79,957	79,705
Non-government schools—					
Primary grades	8,381	8,293	8,028	7,815	7,882
Secondary grades	6,328	6,302	6,361	6,266	6,342
Special	31	28	26	17	13
Total	14,740	14,623	14,415	14,098	14,237
Total all schools	93,079	94,008	94,507	94,055	93,942

(a) Includes kindergarten classes; see text below.

(b) Includes pupils in special classes attached to ordinary schools.

Kindergarten Classes

In this chapter, the term *kindergarten* is used to describe all pre-school classes, irrespective of whether they operate attached to other schools or whether they operate as separate entities. Strictly speaking the primary level of education begins in Grade 1 so separate figures are shown in a later table for enrolments in kindergartens.

The State (or Government) School System

Introduction

The present system had its genesis in the *Education Act 1885*, under which a department was established, headed by a Director of Education, responsible to a Minister. Under the Act, aid to non-government schools was abolished and only in 1967 was this principle re-introduced (with a system of capitation subsidies).

Education is compulsory between the ages of six and 16 years although, in some cases, special exemptions may be obtained. With two exceptions, all schools are co-educational. Education is secular and free; parents buy their children's books, paints, instruments, etc. Pupils' transport is either provided by the Department or subsidised where daily travel costs on public transport exceed 14 cents. The arrangement of transport has been important in the organisation of district and high schools where educational facilities are concentrated and centralised, thereby eliminating many of the smaller country schools.

Present Organisation

Under a Director-General operate three Directors designated: (i) primary; (ii) secondary; and (iii) technical. Regional directors and superintendents are responsible for specific activities and districts; supervisors assist in administration and provide services to schools. Specialist sections deal with curricula, teaching aids, science equipment, speech education, music, physical education, guidance and welfare, library services, educational planning and research, etc.

Expenditure on Education

The following table shows educational expenditure by the State Government from the public account; expenditure from Trust Funds is made by the State acting mainly as agent for the Australian Government.

Expenditure on Education from Consolidated Revenue, Loan Fund and Trust Funds
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
From Consolidated Revenue—					
General administration regulation and research	1,174	1,480	1,868	1,462	1,658
Transportation of students	1,770	1,894	1,995	2,252	2,459
Primary and secondary	16,663	18,873	23,274	26,574	30,316
Technical	1,129	1,215	1,411	1,710	2,227
University	1,788	2,038	2,260	2,664	3,312
Other higher education	2,411	2,837	3,810	4,975	6,605
Special schools for handicapped children	289	324	408	442	529
Adult education	148	158	184	184	207
Total	25,372	28,819	35,210	40,263	47,313
From Loan Fund (a)—					
Primary and secondary	2,586	2,293	2,474	4,764	5,223
Technical	-81	155	-20	114	612
University	592	1,216	172	338	1,260
Other higher education	35	294	659	1,179	2,021
Adult education .. .. .	..	..	..	..	47
Other	1,245	1,508	2,406	2,013	2,638
Total	4,377	5,466	5,691	8,408	11,801
From Trust Funds	3,454	3,610	4,123	4,923	7,003
Grand total	33,203	37,895	45,024	53,594	66,117

(a) *Net* expenditure.

It should be noted that the preceding table includes amounts voted under other departmental heads for the provision of educational facilities, principally rental and tenancy charges and water, sewerage and other rates paid by the Lands Department.

Enrolment

Enrolments in government schools in the last five years were:

Government Schools
Number of Pupils at 1 August

Pupils	1969	1970	1971	1972	1973
Boys	40,725	41,319	41,783	41,654	41,318
Girls	37,614	38,066	38,309	38,303	38,387
Total	78,339	79,385	80,092	79,957	79,705

Age of Pupils in Each Class

The following table summarises the system of government schooling in Tasmania showing the average ages of pupils in each class and the type of certificate issued for final year examinations:

Government Schools
Average Age of Pupils, Primary and Secondary, in Each Class, and Certificates Issued

Primary schools (including primary classes of district and area schools)				Secondary schools (including high schools and secondary classes of district and area schools)				
Grade	Mean Age at 1.8.73		Grade	Mean Age at 1.8.73		Certificate issued		
	Years	Months		Years	Months			
Kindergartens—								
Separate	4	11	7 ..	12	10	..		
Attached	5	4	8 ..	13	10	..		
1	6	7	9 ..	14	9	} Preliminary School Certificate School Certificate Higher School Certificate		
2	7	8						
3	8	9	10 ..	15	8			
4	9	9	11 (a) ..	16	8			
5	10	9	12 (a) ..	17	9			
6	11	9						

(a) Secondary grades eleven and twelve indicate pupils in their first or second year at Higher School Certificate level.

Number of Government Schools

The following table shows the number of government schools in Tasmania:

Number of Government Schools at 1 August							
Type of school	1968	1969	1970	1971	1972	1973	
Kindergartens (separate)	58	58	45	44	41	39	
Primary (a)	136	140	143	144	144	148	
Primary with secondary classes	10	9	8	7	8	2	
Special (b)	15	15	15	16	16	17	
Area (c)	35	35	35	35	34	..	
District (c)	7	8	6	6	6	39	
High	27	27	28	28	30	30	
Matriculation colleges	3	3	3	3	3	5	
Total	291	295	283	283	282	280	

(a) Many have kindergartens attached.

(b) Includes the correspondence school.

(c) These schools provide both primary and secondary facilities. From 1973 'area schools' became 'district schools'.

Kindergarten Education

Until 1969, pre-schools were established on the initiative of groups of parents, the Department providing the cost of the building but eventually recovering half its outlay from the parents. Commencing in 1969, all new facilities for pre-school education are being provided in kindergartens attached to primary schools. At present, there is a mixture of pre-school facilities, some being provided at primary schools and others constituting separate entities. Pupils at this level of education are shown in the next table:

Enrolments in Kindergartens at 1 August					
Particulars	1969	1970	1971	1972	1973
Kindergartens—					
Separate	2,635	1,938	1,928	1,745	1,714
Attached	3,343	4,217	4,502	4,955	5,277
Total (a)	5,978	6,155	6,430	6,700	6,991

(a) Included in other tables as part of total government school enrolments.

State Primary Schools

General: As shown in the earlier table dealing with average ages of pupils, primary education commences at grade 1 and finishes at grade 6. However, some pupils entering grade 1 will have attended kindergarten classes, either attached to primary schools or constituted as separate entities. From 1974 a preparatory grade between kindergarten and grade 1 is progressively being introduced as accommodation and staffing allow. Within the next few years, the approximate age of entry to kindergarten will be 4 years, to preparatory 5 years and to grade 1, 6 years as at 1 January.

Primary Classes: The majority of government primary schools have six grades with kindergartens attached; only one has secondary grades as well. Generally parents may select the school they prefer for their children without restriction but, in some areas, zoning directs children to attend a particular primary school.

In addition 40 district schools have primary grades and draw many pupils from outlying localities previously served by one or two-teacher schools. Free transport has made this possible and has led to a reduction in the total number of primary schools.

Primary Curriculum: The primary school curriculum has undergone considerable changes in recent years both in teaching methods and subject matter. The subjects are English (including reading, spelling, oral and written work), social science, arithmetic, science, art, music, arts and crafts, religious and moral education, and health and physical education.

Pupil Grouping: Promotion within the schools is generally by age at the beginning of the school year, with accelerated progress or repetition of classes at the principal's discretion; grouping may be by ability, where numbers allow, with each child being able to work with his equals in each subject, regardless of age. Differential teaching adapts the school programme to meet the widely varying needs and abilities of pupils. The skilled subjects of reading, writing, spelling and arithmetic are particularly suited to this method of teaching, testing and grading. The increasing provision of specially designed open plan areas housing two, three or four classes in the space available, provides opportunity for teachers to work as a team and assist in the treatment of individual differences in pupils. Some schools have experimented widely with *non-grading*, a method of organisation which allows pupils in certain subjects to work at their own level of competence. A few other schools have adopted this organisation in one or two subjects only.

Primary Pupils: The table below shows the age and number of pupils receiving primary education in Tasmanian government schools:

Age and Number of Pupils Receiving Government Primary Education (a) at 1 August

Age last birthday (years)	1969	1970	1971	1972	1973
Under 5	1,794	1,806	2,053	2,012	2,054
5	4,871	4,806	4,781	4,923	5,418
6	6,979	6,954	6,534	6,264	6,219
7	7,445	7,174	7,058	6,549	6,341
8	7,633	7,449	7,127	7,019	6,502
9	7,313	7,498	7,394	7,089	7,098
10	7,069	7,283	7,518	7,258	7,036
11	6,400	6,620	6,826	7,225	6,972
12	1,943	1,924	1,889	2,104	2,048
13	192	142	160	124	140
14	15	12	14	9	11
15 and over	4	9	7	8	6
Total—Boys	26,831	26,800	26,652	26,288	24,797
Girls	24,827	24,877	24,709	24,296	25,048
Pupils	51,658	51,677	51,361	50,584	49,845

(a) Includes kindergarten classes.

Special Schools and Special Classes

The Department has special schools, and also special classes in ordinary schools, for children who are physically handicapped, mentally retarded, or otherwise unable to profit from ordinary class teaching. Instruction varies according to the handicap; where it is physical, the main need is to maintain normal or near-normal individual programmes. Many pupils eventually can be transferred to ordinary schools into the grades appropriate to their ages.

Schools and classes for slow learners and mentally retarded children follow the curricula for kindergartens and primary schools but no attempt is made to reach examination standards. The teaching of activities and basic skills is the main concern in these classes which are also to be found in some primary and high schools.

Government Secondary Schools

Almost all children attend secondary classes, starting at an age varying from 11½ to 13 years. If a choice has to be made between a high and a district school a transfer committee considers the matter, taking note of performance in grade 6. High schools are non-selective, comprehensive and, with two exceptions, co-educational.

The differences between the types of secondary schools are related mainly to the level of the final examination or certificate available to students. The levels are: School Certificate endorsed Preliminary (three-year course); School Certificate (four-year course); Higher School Certificate (five or six-year course). The School and Higher School Certificates replaced the Secondary Schools, Schools Board and Matriculation Certificates which were last awarded in 1968.

The essence of the present system is: (i) all assessment and certification come under the authority of the Schools Board of Tasmania; (ii) two certificates only are issued; and (iii) the certificates record achievement in individual subjects. The certificates are:

The School Certificate: Awarded in subjects for three and four-year courses; basis of award is by internal assessment and recommendation by schools.

The Higher School Certificate: Awarded in subjects studied in fifth or sixth secondary year; basis of award is an external examination conducted by the Board (not the University as for matriculation in the past). The University is still free to determine what constitutes qualification for university entrance and can nominate the subjects and the levels of achievement at the Higher School Certificate examination necessary for entry; the scope of the examination has been enlarged to cover subjects not designed primarily for purposes of university entrance.

A more detailed account of the examinations and procedures adopted for awarding the School and Higher School Certificates is contained in a later section, 'Examinations'.

The following table shows the age and number of students in Tasmanian government secondary schools:

Pupils Receiving Government Secondary Education at 1 August, By Age

Age last birthday (years)	1969	1970	1971	1972	1973
11	(a) 453	(a) 518	(a) 420	389	261
12	4,457	4,756	4,864	4,837	4,902
13	6,519	6,262	6,640	6,682	6,924
14	6,242	6,503	6,381	6,681	6,787
15	4,950	5,107	5,540	5,451	5,640
16	2,188	2,408	2,522	2,800	2,645
17	862	1,047	1,130	1,285	1,284
18 and over	229	294	391	416	492
Total—Boys	13,442	14,022	14,609	14,841	14,928
Girls	12,458	12,873	13,279	13,700	14,007
Pupils	25,900	26,895	27,888	28,541	28,935

(a) Includes boys under 11 years: 1969, one; 1970, four; 1971, one.

The next table shows the number of secondary pupils by sex and class in all government schools:

Secondary Pupils in Government Schools at 1 August by Class

Year	Secondary grade						Total	
	7	8	9	10	11	12		
Boys								
1969 ..	3,646	3,586	3,041	2,050	616	503	13,442	
1970 ..	3,668	3,541	3,260	2,191	797	565	14,022	
1971 ..	3,669	3,590	3,301	2,476	865	708	14,609	
1972 ..	3,605	3,542	3,360	2,617	934	783	14,841	
1973 ..	3,736	3,565	3,305	2,642	890	790	14,928	
GIRLS								
1969 ..	3,354	3,362	2,937	1,952	555	298	12,458	
1970 ..	3,292	3,283	3,145	2,067	696	390	12,873	
1971 ..	3,347	3,211	3,156	2,333	789	443	13,279	
1972 ..	3,453	3,284	3,040	2,426	922	575	13,700	
1973 ..	3,473	3,365	3,124	2,458	912	675	14,007	

District Schools

Area schools, first established in 1935, were replaced by district schools from the beginning of 1973. The area schools were designed to serve rural areas; however, changing concepts of education and parental demands for a higher level of education more closely related to the levels provided by high schools, led to an upgrading of the level of education offered at country secondary schools and to the creation of district schools.

Subjects for the School Certificate are available to pupils in all district schools and high schools.

Government Matriculation Colleges

At matriculation colleges students are exclusively concerned with Higher School Certificate subjects undertaken as one or two-year courses. The first such college was the Hobart Matriculation College (previously Hobart High School)—no junior students were enrolled after 1961 and by 1965 all students were attempting matriculation. In 1967 Launceston High reached this stage and in 1968 the Elizabeth Matriculation College, in Hobart, was opened and elimination of junior students was completed by 1970. In 1973 the newly constructed Rosny College was opened to serve the eastern shore suburbs of Urban Hobart. (The three earlier matriculation colleges had resulted from conversion of existing high schools.) A matriculation college was also opened at Devonport during 1973 while another college is planned for Burnie. (At present Burnie High School has Higher School Certificate classes.)

The advantage claimed for matriculation colleges is that they concentrate, in the one centre, teachers who are specialists; further, the students benefit to the extent that the colleges are an intermediate step between the disciplined high school and the university.

Correspondence School

This school offers a wide variety of courses at the primary and post-primary levels, and provides instruction for adults as well as children. Valuable assistance is given to pupils in secondary classes of some district schools to assist them to achieve School Certificate standard.

The courses available include all primary and most secondary subjects: mathematics, English literature and history at the Higher School Certificate stage; English for New Australians; and courses for adults with special problems such as illiteracy.

Teachers and Teacher Training

There is a variety of courses available to trainee teachers in this State. The University of Tasmania awards the Diploma of Education after one year of a post-graduate course in which graduate students train as infant, primary or secondary teachers. The Tasmanian College of Advanced Education, with a northern division in Launceston and a southern division in Hobart, provides a basic three-year course with an extension to four years for some selected students. On completion of the three-year course the student is awarded the diploma of teaching and on completion of a four-year course the student qualifies for the degree of Bachelor of Education. A course is provided for full-time and part-time graduate students leading to the degree of Master of Education. Both divisions offer courses for training in kindergarten, infant, primary and secondary teaching, but specialist courses are not common to both divisions. Specialisation in physical education, music, art and industrial arts is only possible in Hobart, whereas courses in English speech and drama, home economics and commercial subjects are only offered in Launceston.

Each year some students are given the opportunity of training in other states in areas for which courses are not available in Tasmania e.g. speech therapy (at the University of Queensland), Asian languages (at the Australian National University, Canberra) and training for teaching deaf children (at the Glendonald Institute in Victoria).

The following table shows the number of teachers, lecturers and instructors in Tasmanian government schools, technical colleges, etc:

Number of Government School Teachers, Lecturers and Instructors at 1 August 1973 (a)

Type of school	Full-time			Part-time		
	Males	Females	Persons	Males	Females	Persons
Kindergarten (separate) .. ..	..	40	40	..	5	5
Special	26	70	96	..	11	11
Primary	319	1,225	1,544	..	72	72
Primary with secondary classes	4	4	8	1	2	3
District	197	329	526	4	56	60
High	757	591	1,348	10	22	32
High with matriculation—						
High	20	17	37	..	1	1
Matriculation	19	9	28	..	..	..
Matriculation colleges	159	80	239	1	2	3
Technical colleges	164	30	194	421	92	513
Total	1,665	2,395	4,060	437	263	700

(a) Excludes teachers in non-teaching positions (e.g. curriculum branch staff guidance officers, speech education, music and training aid centres).

In the primary schools in 1973, 84 per cent of the teachers were females. All subjects are taught by each teacher in these schools but itinerant teachers, when available, take physical education, music and speech classes on a circuit basis with each teacher being responsible for the teaching of the subject in several schools. In the post-primary schools, most teachers are specialists attached to subject departments within each school. In the smaller district schools, one teacher may take several subjects; rural science, home arts and crafts and technical subjects are handled by resident or itinerant specialists as available.

The following table shows the number of teachers and teachers-in-training in Tasmania:

Full-Time Teaching Staff in Government Schools (a) and Teachers-in-Training at 1 August

Type of teacher	1969	1970	1971	1972	1973
Head teachers—					
Males	232	241	229	223	235
Females	12	12	15	17	15
Other teachers—					
Males	1,104	1,119	1,197	1,275	1,395
Females	2,237	2,330	2,368	2,391	p 2,410
Total teachers (a)—Males ..	1,336	1,360	1,426	1,498	1,630
Females ..	2,249	2,342	2,383	2,408	p 2,425
Teachers-in-training—					
Males	355	405	460	492	473
Females	773	763	856	945	997

(a) Includes teachers in non-teaching positions (e.g. curriculum branch staff, guidance officers, etc.) but excludes those engaged in teacher training and technical education, and part-time teachers.

Teacher Training: The institutions where teachers-in-training are studying are shown in the next table:

Teachers-in-Training at 1 August

Institution attended	1969	1970	1971	1972	1973
MALES					
Teachers College—Hobart	45	56	62	(a)	(a)
Launceston	49	55	66	(a)	(a)
University of Tasmania	226	249	266	243	244
School of Art	9	13	16	(a)	(a)
Tasmanian Conservatorium of Music ..	5	4	2	(a)	(a)
Tasmanian College of Advanced Education .. .. .	..	..	..	197	229
Other institutions	21	28	48	52	..
Total	355	405	460	492	473
FEMALES					
Teachers College—Hobart	212	212	211	(a)	(a)
Launceston	215	211	264	(a)	(a)
University of Tasmania	298	287	325	287	308
School of Art	24	34	35	(a)	(a)
Tasmanian Conservatorium of Music ..	16	13	14	(a)	(a)
Tasmanian College of Advanced Education .. .. .	..	..	..	653	686
Other institutions	8	6	7	5	3
Total	773	763	856	945	997

(a) From 1972 included under Tasmanian College of Advanced Education.

Non-Government (or Independent) Schools

Introduction

Non-government schools have played a valuable part in Tasmanian education. Policies are framed by principals in conjunction with their senior staff and with the approval of their governing bodies or church. There can be freedom to experiment and to diversify courses if desired and this is shown by the number of subjects available to students.

Registration

Non-government schools and teachers have to conform with the regulations of the Teachers' and Schools' Registration Board. This Board consists of nine members who hear and determine all applications for registration and keep a record of all teachers and schools not administered by the Education Department. Every school is graded and teachers are registered in one or more classifications or as special subject teachers. 'Provisional' teachers are those gaining qualifications so they can be registered. The Board may prescribe the mode of classifying teachers, the course of study and training required, the examinations to be passed, and the recognition of overseas qualifications. To secure registration, schools must provide for proper access, drainage, light, ventilation and sanitary conveniences, and inspections may be made by officers appointed by the Board. A daily register of attendance has to be kept.

State Assistance to Non-Government Schools and Pupils

The *Education Act* 1932 was amended in 1967 to provide for direct payments to non-government schools, the amount being calculated on a capitation basis; the subsidies are paid on the number of pupils enrolled at 1 August each year; for 1973-74 the amounts were \$24 per annum per primary pupil; \$34 per annum per secondary pupil up to fourth-year level; and \$54 per annum per pupil at fifth and sixth-year levels. From 1972-73 per capita grants of \$24 per annum per pupil were paid in respect of kindergarten pupils aged 5 years or more at 1 August. The 1973-74 expenditure was \$557,650. From the beginning of 1970, the Australian Government also provided per capita grants to independent schools. Details are contained in a later section dealing with Australian Government activities in education. State legislation passed in June 1970 provides for subsidies related to building loans interest. The amount of subsidy paid in 1973-74 was \$219,243

Apart from these subsidies, benefits include: free or subsidised transport; use of the facilities of the Department's curriculum, teaching aids, speech education and guidance branches; attendance at trade and domestic science classes if room is available; and attendance by teachers at Departmental schools of method. Equipment can be purchased at favourable rates through the Supply and Tender Department.

Enrolment at Non-Government Schools

Most non-government school pupils are in schools controlled by religious denominations, as the next table shows.

Non-Government Schools and Pupils at 1 August
(Number)

Particulars	Church of England	Presbyterian	Catholic (a)	Seventh-day Adventist	Other schools	All schools
PUPILS						
1969 Boys	1,003	303	4,968	80	770	7,124
Girls	825	329	5,446	75	941	7,616
1970 Boys	969	280	4,896	70	812	7,027
Girls	788	302	5,420	76	1,010	7,596
1971 Boys	878	256	4,800	70	876	6,880
Girls	734	299	5,367	67	1,068	7,535
1972 Boys	835	236	4,677	63	905	6,716
Girls	722	302	5,182	66	1,110	7,382
1973 Boys	852	247	4,633	64	999	6,795
Girls	706	325	5,211	62	1,138	7,442
SCHOOLS						
1973	4	2	43	3	13	65

(a) Includes one 'special school' with an enrolment of approximately 25 girl pupils.

Of the 23 schools in 1973 which catered for secondary pupils, 17 had Higher School Certificate classes.

Most independent school pupils are to be found in primary classes, and most of these are in Catholic schools. The following table shows the numbers and ages of all pupils in non-government school primary and sub-primary classes:

Pupils Receiving Non-Government Primary Education at 1 August, by Age (a)

Age last birthday (years)	1969	1970	1971	1972	1973
Under 7	2,182	2,254	2,109	2,106	2,363
7	1,193	1,097	1,081	959	857
8	1,128	1,138	1,073	1,073	1,000
9	1,163	1,131	1,089	1,057	1,037
10	1,170	1,165	1,133	1,106	1,098
11	1,047	1,094	1,147	1,103	1,131
12	396	365	358	373	367
13	93	46	33	36	26
14	8	2	3	1	3
15 and over	1	1	2	1	..
Total—Boys	4,051	3,978	3,829	3,703	3,750
Girls	4,330	4,315	4,199	4,112	4,132
Pupils	8,381	8,293	8,028	7,815	7,882

(a) Excludes the special school pupils specified in the note to the previous table.

The following table shows the age of pupils in non-government schools at secondary level:

Pupils Receiving Non-Government Secondary Education at 1 August, by Age

Age last birthday (years)	1969	1970	1971	1972	1973
11	(a) 158	159	109	118	107
12	1,040	1,059	1,042	942	1,051
13	1,255	1,268	1,309	1,321	1,283
14	1,284	1,286	1,304	1,309	1,337
15	1,177	1,160	1,200	1,191	1,214
16	905	795	863	790	799
17	410	460	428	484	442
18 and over	99	115	106	111	109
Total—Boys	3,073	3,049	3,051	3,013	3,045
Girls	3,255	3,253	3,310	3,253	3,297
Pupils	6,328	6,302	6,361	6,266	6,342

(a) Includes one 10-year old boy.

The following table shows the number of secondary pupils by sex and class in all non-government schools:

Secondary Pupils in Non-Government Schools by Year at 1 August 1973

Pupils	Secondary year						Total
	1	2	3	4	5	6	
Boys ..	652	589	617	570	321	296	3,045
Girls ..	718	686	702	636	350	205	3,297
Total ..	1,370	1,275	1,319	1,206	671	501	6,342

Examinations

Introduction

The Schools Board of Tasmania was constituted on 31 October 1944 by the *Education Act* 1944 to devise and govern new systems of awarding school certificates.

In 1946 the school leaving age in Tasmania was raised to 16 years and the Board instituted a four-year course of academic secondary education leading to the Schools Board Certificate. The Intermediate Examination, which had been conducted by the University at third-year secondary school level until 1938, had been replaced by similar examinations conducted by the State Education Department and the Associated Public Schools. These were replaced in 1946 by the Schools Board Certificate, studied at fourth-year level.

This Schools Board Certificate demanded a level of achievement in basic and optional subjects after a four-year course of general education. Secondary schools were allowed the choice between an accrediting system or an external examination.

As a result of the proposals of the Schools Board and the Radford Report, the Schools Board was re-constituted with a membership of 21 on 1 September 1966, to allow the Board to become, in 1969, the sole examining and certifying body at the secondary level. A further amendment to the Act in 1974 made provision for the Council of Advanced Education to nominate members, and increased the membership of the Board to 23 as from 1 July 1974.

An important change of considerable significance to employers, and to the prerequisites they demand of applicants for employment, concerns the new type of certificate introduced in 1969. There are only two such certificates issued, known as the School Certificate and the Higher School Certificate. These replaced all previous certificates. The Schools Board Certificate, the Secondary Schools Board Certificate of the Education Department and the Matriculation Certificate of the University of Tasmania are no longer issued. The previous certificates were *group* certificates demanding, in varying degrees of detail, certain compulsory subjects or groups of subjects as a prerequisite to the award of the certificate. The essential difference is that both of the new certificates are *subject* certificates requiring no compulsory subjects or groups of subjects to be studied.

For the School Certificate there are no external examinations and awards are determined by internal assessment with a wide variety of methods of evaluation. A system of regional moderation has been implemented by the Schools Board to ensure comparability of standards between schools. (*See the later section outlining organisation of moderation procedures.*) Final results of the School Certificate are notified to candidates in December by the principal of the school attended by the candidate. Each candidate receives a printed result slip showing the level of study and the award given in each subject. The formal certificate is issued by the Schools Board of Tasmania.

The School Certificate

The subjects for this certificate may be taken at various levels and a wide choice is available to cater for different levels of ability and interests. A preliminary award may be granted after the third year of secondary education to those candidates who leave school at this stage. The full award is granted to successful candidates who complete four years of study in the subject.

The Higher School Certificate

This is taken at the end of the fifth or sixth year of secondary education. The certificate is awarded as a result of examinations conducted in November or December each year. Subjects may be studied at Level I, Level II, Level III (Division 1) or full Level III, but all levels are not necessarily available for all subjects. Requirements for matriculation are determined by the University of Tasmania from the results of the Higher School Certificate examinations conducted by the Schools Board of Tasmania in certain Level III subjects.

In some Level III subjects awards are determined solely on the basis of an external examination. In other Level III subjects awards are determined by the use of an external examination component together with a school assessment component. The Schools Board has ruled that the school assessment component may provide a maximum of 50 per cent of the total result, but the actual proportion of this component to be used for each subject is determined by the Schools Board on the recommendation of the appropriate subject committee. Where an internal assessment component exceeds 10 per cent of the total result, the Board has ruled that the school assessments for each class must be standardised to have the same mean and standard deviation as the external examination results of the members of that class. In Level I, Level II and Level III Division 1 subjects awards are determined by the candidate's school, after the school has taken part in a consultative system, which aims to provide comparability in standards between schools in the subject. The Board appoints a subject adviser in each subject field.

In most subjects a Level III (Division 1) syllabus will also be provided for those wishing to undertake a preliminary study of the subject before attempting the full Level III syllabus. It is not necessary to attempt the Division 1 syllabus to obtain a full Level III award, nor do results at Level III (Division 1) count towards the full Level III award.

State Organisation of Moderation Procedures

The Schools Board of Tasmania is the body responsible for awarding the secondary school awards (the School and Higher School Certificates) discussed in the previous section. The Schools Board is also responsible for ensuring development of satisfactory moderation procedures and the maintenance of subject standards. To this end, the State is divided into seven *moderation regions*. Moderation is the method used to ensure reasonable comparability of standards between schools throughout the State.

Committee for Moderation of Standards: This body determines subject standards and reviews moderation procedures. Members of the committee include representatives from the Schools Board, superintendents of high schools and representatives from non-government schools and the teachers' union—the Teachers' Federation.

Regional Council: Operations of the scheme for moderation of standards are reviewed by the Council which recommends variations to the Schools Board. Members include secondary school superintendents and school principals in the region. The chairman is appointed by the Schools Board from members of the Committee for Moderation of Standards.

Moderation Advisory Committee: Moderation procedures are planned in detail by the Committee which also investigates problems in particular subject fields. The chairman of the Committee for Moderation of Standards is also the chairman of this body; other members include the members of the Committee for Moderation of Standards and the chief moderators.

State Moderation Committee: The committee promotes the flow of ideas on moderation between regions and identifies and resolves problems connected with particular subjects. The chief moderator in each subject is chairman and the remaining members are the regional moderators (seven) in each subject.

Regional Moderation Committee: Application of moderation procedures within the region is the responsibility of this Committee. Chairmanship is vested in the regional moderator; other members are subject moderators from each school in the region.

As well as the various committees there are a number of positions, mostly filled by teachers, which are basic to the successful operation of the system. The following briefly outlines the functions associated with each position:

Chief Moderator: Appointed by the Schools Board and responsible for the co-ordination of moderation procedures between regions in each subject field.

Regional Moderator: Appointed by the Schools Board on the recommendation of the Regional Executive Committee. A regional moderator is appointed in each subject field. The duties associated with this position include: (i) maintaining contact between subject moderators within the region and ensuring satisfactory subject standards; and (ii) informing subject moderators of current developments in their subject and in the field of assessment.

School Moderator: This position will normally be held by the school principal. The school moderator's duties include: (i) appointing school subject moderators; (ii) determining the results of each School Certificate candidate in his school and submitting award recommendations to the Schools Board; (iii) communicating result sheets (showing percentage scores of students on test materials) to the Schools Board for distribution to the Regional Moderation Committees; and (iv) informing the Regional Executive Committee of names of teachers willing to accept nomination for the position of regional moderator.

Subject Moderator: Appointed by the school moderator. The duties include: (i) supervising all details of assessment in his subject for the award of the School Certificate; and (ii) informing the Regional Moderation Committee of proposed assessment plans.

Other Education Matters

Various functions of the Education Department are described in the following section; some of which are applicable to both government and non-government schools.

Equipment

The Department maintains an active interest in the development of teaching methods and of teaching aids. The Teaching Aids Centre provides specialised assistance to schools. A library of 16mm films, film strips and coloured slides and records are distributed on loan. The records are mainly used for music appreciation, poetry and languages. Printed aids, mainly in the form of charts and booklets, are provided (e.g. charts for cursive writing and booklets for the Cuisenaire system). Audio-visual aids (tape recorders, film projectors, centralised radio systems, strip and sound projectors, television receivers, etc.) are bought by the Centre and re-sold to the schools with a \$ for \$ subsidy given by the Department. Repair and maintenance of this equipment is done free of charge by the Centre. Specialised electronic equipment has been developed and produced, e.g. auditory training equipment for deaf students. A talks studio with recording equipment and tape duplicating facilities operates to prepare language laboratory programmes and the recording of school broadcasts.

A number of students' books are produced for sale to schools by both the Education Department and the Australian Broadcasting Commission.

Libraries

A significant development programme in this field has been implemented in recent years, particularly in the high schools and matriculation colleges where substantial print and audio-visual resource collections have been built up in attractive and spacious library suites. A comparable programme in primary and district schools is currently about to be launched. Grants are made directly to schools on a per capita basis for the purchase of library resources.

The introduction of a post-graduate course in librarianship at the Tasmanian College of Advanced Education has made possible the recruitment and training of at least 10 new teacher-librarians each year. Shorter courses to train primary school librarians became available in 1974.

The Library Services Branch, under the direction of a supervisor of libraries, offers expert bibliographic and technical advice to schools and controls a central cataloguing service to schools.

Radio and Television Programmes

Radio: All schools in the State use one or more of the programmes provided by the Australian Broadcasting Commission. In most primary schools programmes are taken direct from the air, but secondary schools use a tape service provided by the Education Department Teaching Aids Centre. The Centre records all secondary school programmes and distributes the tapes on loan to schools which would otherwise have trouble fitting programmes into school timetables. Some primary programmes are also recorded for schools in poor reception areas.

Television: Tasmania is well advanced in the availability and use of educational television; programmes are provided by the A.B.C. Every government and non-government school within a television reception area is equipped with at least one receiver. The schools have a standard issue of one free set each and extra sets may be purchased. For extra sets the State Government provides a subsidy equal to 50 per cent of the purchase price. The maximum use of television is made by primary schools where timetables are quite flexible; many secondary schools have difficulty in planning timetables so that classes may view programmes. For this reason great interest is being shown in Departmental experiments with video-recording which, it is hoped, will make television as flexible an educational aid as pre-recorded radio programmes.

Selection of Programmes: Curriculum officers and teachers are represented on the planning and appraisal committees for all Tasmanian produced programmes. The committees also assist with selection of series from other sources.

Staff: Apart from technical staff, the A.B.C. employs a state supervisor of education (schools broadcasts), two radio producers, two television producers and associated staff. The Education Department provides a liaison officer and studio teachers, seconded full-time to the A.B.C.

Safety Officers

Transport Commission officers visit the schools regularly to give lectures and practical demonstrations dealing with various aspects of road safety. Driver education courses are given in some schools, a type of training likely to be extended. Periodically students are reminded of the dangers associated with explosives, firearms and drug abuse.

Parents and Friends Associations

While a major function of these bodies is fund-raising for the provision of subsidised equipment and library books, they also act as a valuable forum for discussion on education.

Migrant Education

This is arranged by the Department at certain schools or by combined radio-correspondence lessons to teach English to migrants. The cost of migrant education is reimbursed by the Australian Government.

Bursaries

A system of junior and senior bursaries operated to assist pupils in post-primary government and non-government schools. However, senior bursaries have not been awarded since 1966 when Australian Government Secondary Scholarships were introduced. After the introduction in 1973 of an Australian Government scheme of assistance for school children living in remote localities the award of junior bursaries also ceased.

During 1973, 30 junior bursaries were held at a cost to the Bursaries Board of \$4,077. The Bursaries Board fund comprised money from the Government and private donations.

Currently the principal forms of assistance are:

- (i) *School Certificate Allowances* payable to parents or guardians of full-time students undertaking their fourth year of secondary education. The allowance, subject to a means test, amounts to \$50 per annum. The number granted during 1973 was 711 and expenditure was \$35,550.
- (ii) *Special Bursaries* awarded in cases of necessitous circumstances and where the student has shown an aptitude for further study. For 1973, 33 special bursaries, involving expenditure of \$5,762 were awarded.
- (iii) *Loan Issue Supplies* provided to assist parents who are unable to meet the cost of text books, materials and subject levies associated with educating their children. Expenditure under this scheme during 1973 was \$101,175.

Advanced Education in Tasmania

Concept

Education at tertiary level has been available at universities but there have also been professional courses provided by other institutions; in Tasmania technical colleges provided courses of this type in addition to playing their main role in providing apprentice training, trade courses, etc. So, in effect, the development in recent years of colleges of advanced education does not represent a radical innovation but rather a rationalisation and re-organisation of non-university tertiary courses. The Australian Government, having first accepted some financial responsibility for university education, has now gone further and is actively encouraging the development of colleges of advanced education.

In general terms, the colleges are providing tertiary education and training with a vocational emphasis, as distinct from the academic education provided by universities (though, of course, some university courses in Australia tend to be also vocational, e.g. legal and medical courses). In some states advanced education is being developed on a base provided by existing institutions but in Tasmania and the A.C.T. separate colleges have been established.

History

Following a national seminar on planning for colleges of advanced education held in Hobart towards the end of 1967, the educational specifications and a master plan for the Mt Nelson College were prepared. In June 1969 the contract for the Resources Materials Centre (stage 1) of the project was let. Appointment of staff to the College commenced in 1971 and during 1972 the first on-site lectures were held at Mt Nelson. In 1973 a campus of the College was established at Newnham (a suburb of urban Launceston).

Finance

At the June 1973 Premiers' Conference the states accepted the Australian Government's offer to assume full financial responsibility for tertiary education from 1 January 1974. (The amounts of recurrent expenditure saved by the states were deducted from their financial assistance grants.) Prior to this date the Australian Government provided \$1 for every \$1 of state capital expenditure and \$1 for every \$1.85 of state recurrent expenditure on colleges of advanced education. The Australian Government also announced in its 1973-74 Budget the decision to abolish tuition fees.

Payments for advanced education by the Australian Government for recent years have been (in \$'000): for current expenditure—1971-72, 887; 1972-73, 1,113; 1973-74, 3,819; for capital purposes—1971-72, 1,385; 1972-73, 1,175; 1973-74, 292.

Advanced Education Council and College

The *Advanced Education Act* 1968 established the Council of Advanced Education. An amendment to this Act now provides for the appointment of 15 members of whom one shall be the person holding the office of the Principal; two shall be officers of the Advanced Education Service (other than the Principal); and one shall be a person who is undertaking a course of advanced education.

The College is organised into divisions consisting of the Division of Administrative Studies, the Division of Science and Technology, the Division of Teacher Education, the Division of Educational Services and the Office of the Registrar. In addition, the School of Art and the Conservatorium of Music are part of the College. The campus at Newnham (Launceston) consists of the Division of Teacher Education and General Studies and extensions of the Divisions at the Mount Nelson (Hobart) campus.

Both campuses of the College are involved in extensive expansion of facilities. The Mount Nelson campus is approximately thirty per cent completed and the Newnham campus, which was recently handed over by the Education Department, is starting on an expansion programme. Some residential facilities exist at Newnham but none are available at Mount Nelson.

Courses

Awards are made at four levels: bachelor degree, diploma, graduate diploma and master degree. In the following table students in the education course have been shown at the bachelor degree level although a substantial number of students complete this course at the diploma level.

Advanced Education: Enrolments by Course, 1974
(Number)

Course	Full-time		Part-time		Total	
	Males	Females	Males	Females	Males	Females
Degree courses—						
Accounting	50	5	170	13	220	18
Business administration	5	1	39	4	44	5
Engineering	69	1	116	3	185	4
Education	224	686	4	1	228	687
Pharmacy	26	19	2	5	28	24
Public administration	5	..	48	..	53	..
Surveying	38	..	1	..	39	..
Total	417	712	380	26	797	738
Diploma courses—						
Applied chemistry	9	..	33	6	42	6
Architecture	19	5	..	..	19	5
Design	7	4	..	1	7	5
Environmental design	72	15	..	..	72	15
Fine art	48	58	9	11	57	69
Librarianship .. .. .	..	10	..	..	..	10
Medical laboratory technology	7	4	14	16	21	20
Metallurgy (a) .. .. .	..	..	9	..	9	..
Music	20	30	3	13	23	43
Old diploma courses (accountancy, business administration and public administration) (a)	1	..	47	1	48	1
School art	10	40	1	..	11	40
School music	10	14	..	..	10	14
Urban planning	6	..	..	..	6	..
Valuation	5	1	2	..	7	1
Total	214	181	118	48	332	229
Post-graduate diplomas—						
Legal practice	26	5	..	..	26	5
Librarianship	5	14	3	7	8	21
Social work	13	13	1	..	14	13
Special teacher education	5	15	..	..	5	15
Total	49	47	4	7	53	54
Post-graduate degree—						
Master of education .. .. .	..	1	40	17	40	18
Total .. .. .	..	1	40	17	40	18
Total all courses	680	941	542	98	1,222	1,039

(a) Courses are being phased out.

The next table shows student enrolments for a three year period:

**Advanced Education: Enrolments
(Number)**

Description	1972			1973			1974		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Full-time ..	416	783	1,204	578	842	1,420	680	941	1,621
Part-time ..	508	99	607	498	85	583	542	98	640
Total ..	924	887	1,811	1,076	927	2,003	1,222	1,039	2,261

University of Tasmania

History

The University of Tasmania was founded in 1890 and was the fourth to be established in Australia. When teaching began in 1893 with three lecturers and six students it occupied 1.6 hectares of land on the Queen's Domain at Hobart.

Growth of the University was slow for the first half century despite the State's progressive policy in education generally. The Faculties of Arts, Science and Law were established first with Commerce added in 1919 and Engineering in 1922. At the outbreak of World War II, the teaching staff in many departments consisted of one full-time professor or lecturer, possibly with part-time assistants.

After the war, the influx of ex-servicemen filled all Australian universities to capacity and student enrolments in Tasmania rose to 740 in 1947. Financial assistance from both State and Australian Governments enabled the staff to be almost doubled between 1945 and 1950 and energetic research schools developed. A Faculty of Education was established in 1947 with responsibility for some of the State's teacher training. In 1957 came the Murray Report on the Australian Universities, leading to a significantly increased flow of Australian Government money into the universities. Since 1958 Faculties of Agricultural Science and Medicine have been established.

In 1973 a further major development occurred when the offer made by the Australian Government to accept full financial responsibility for tertiary education, was accepted by the states. The 1973-74 Federal Budget announced the abolition of tuition fees as from the beginning of 1974, and the introduction of a scheme of means tested assistance for full-time students in tertiary education. Together these benefits remove virtually all the financial barriers to enrolment in universities in Australia.

Government of the University

The governing body of the University is the Council, comprising three members elected by the teaching staff, four by graduates, one by undergraduates and two by the two Houses of Parliament; four members are appointed by the Governor, and three appointed by the Governor on the recommendation of the Council. The Director-General of Education and the chairman and deputy chairman of the Professorial Board are *ex officio* members. The Council is presided over by the Chancellor.

The Vice-Chancellor is the chief academic and executive officer. He presides over the Professorial Board which is the governing body on academic matters. Reporting to the Board are the eight faculties.

Finance

The following table shows the income and expenditure of the University of Tasmania for a four-year period:

Education and Cultural
University Income and Expenditure (a)
 (\$'000)

Particulars	1970	1971	1972	1973
INCOME				
Recurrent purposes—				
Australian Government	1,648	1,916	2,166	2,706
State Government	2,132	2,448	2,835	3,866
Fees	881	1,062	1,136	1,141
Other	104	117	101	200
Total	4,765	5,543	6,238	7,913
Equipment grants—				
Australian Government .. ..	..	..	..	265
State Government .. ..	..	..	..	265
Total .. ..	..	..	..	530
Other purposes—				
Halls of residence	143	146	143	152
Prizes, scholarships and benefactions	42	45	52	98
Research grants	314	272	288	345
Other	236	150	194	61
Total	735	613	677	656
Total income	5,500	6,156	6,915	9,099
EXPENDITURE				
Recurrent purposes—				
Academic activities (incl. research)	3,461	3,835	4,297	5,410
Academic services	460	527	616	698
Student and staff services	79	80	87	108
General university services	969	1,130	1,315	1,626
Other	4	8	2	6
Total	4,973	5,580	6,317	7,848
Equipment grants—				
Academic activities (incl. research)	..	..	..	242
Academic services .. ..	..	..	..	173
General university services .. ..	..	..	..	10
Total .. ..	..	..	..	425
Other purposes—				
Halls of residence	137	142	148	164
Prizes, scholarships and benefactions	21	30	23	30
Research grants	231	270	312	377
Other	234	204	174	75
Total	623	646	657	646
Total expenditure	5,596	6,226	6,974	8,919

(a) Excludes receipts for capital purposes and capital expenditure.

Staff and Students

The next table shows the courses in which students were enrolled:

University Enrolments, 1974

Course	Students enrolled			
	New enrolments 1974 (a)	Total enrolments		
		Males	Females	Total
Master and doctor degrees	53	172	33	205
Bachelor degrees—				
Agricultural science	20	49	14	63
Arts	396	556	624	1,180
Economics	82	273	40	313
Engineering	42	190	2	192
Law	55	158	43	201
Medical science	} (b) 81	1	..	1
Medicine		190	78	268
Science	107	366	134	500
Total	783	1,783	935	2,718
Non-degree courses—				
Education	45	174	147	321
Other (c)	46	77	93	170
Total	91	251	240	491
Total all courses	927	2,206	1,208	3,414

(a) New enrolments refer to those students who either commenced studies for higher degrees or, being undergraduates, enrolled at the University of Tasmania for the first time in 1974.

(b) Students may enrol for an honours degree in Medical Science after completing at least three years of M.B., B.S. course.

(c) Of the students classified as 'other' 22 students were enrolled for a master degree qualifying examination. The remainder were enrolled for university subjects but were not proceeding to either a degree or diploma.

Comparable enrolment details for the more popular bachelor degree courses for 1973 were: arts—males 482, females 591, total 1,073; science—males 407, females 126, total 533; economics—males 301, females 33, total 334; medicine—males 162, females 69, total 231. New enrolments for these courses in 1973 were: arts, 269; science, 120; economics, 59; and medicine and medical science, 71.

The following table shows the number of teaching staff and students in selected years:

University Teaching Staff (Full-time) and Students Enrolled

Particulars	1968	1969	1970	1971	1972	1973	1974
Teaching staff—							
Professors	28	30	30	31	33	32	33
Other	141	163	172	189	215	219	238
Total teachers ..	169	193	202	220	248	251	271
Individual students enrolled	2,592	2,830	3,119	3,444	3,371	3,263	3,414

Degrees Conferred

The following table shows degrees conferred:

University of Tasmania: Degrees Conferred (a) During Year Ended 30 June

Degree (b)				1969	1970	1971	1972	1973	1974
B.Agr.Sc.	..	..	Males	7	11	11	14	9	13
			Females	..	..	..	..	4	5
B.A.	..	..	Males	88	90	110	122	109	120
			Females	126	119	r 127	r 154	149	169
B.Ec.	..	..	Males	40	48	42	43	60	67
			Females	6	3	4	5	7	5
B.E.	..	..	Males	28	23	20	26	36	34
			Females	..	..	..	..	..	1
B.Sc.	..	..	Males	76	92	96	89	83	101
			Females	27	21	25	22	29	35
LL.B.	..	..	Males	26	14	13	20	34	29
			Females	1	6	7	3	5	7
M.A.	..	..	Males	2	4	1	4	3	2
			Females	1	3	2	1	1	2
Ph.D. (Science)	..	..	Males	8	12	12	4	7	9
			Females	..	..	..	..	2	..
B.Med. Sc.	..	..	Males	..	..	..	19	21	14
			Females	..	..	..	6	8	11
M.B., B.S. (c)	..	..	Males	..	r ..	r 18	12	16	12
			Females	..	r ..	2	3	5	10
M.Sc.	..	..	Males	6	3	1	1	2	6
			Females	..	..	..	..	..	..
Other	..	..	Males	6	5	5	7	10	9
			Females	..	..	2	1	..	1
Total	..	..	Males	287	r 302	r 329	361	390	416
			Females	161	r 152	r 169	r 195	210	246

(a) Excludes honorary degrees.

(b) Bachelor degrees include bachelor degrees with honours.

(c) Medical graduates.

Residential Colleges

There are five residential colleges in the University. Christ College was affiliated with the University in 1933, moved to new premises on the University Campus at Sandy Bay in 1962 and provides accommodation in single study-bedrooms for 138 male and female students, eight tutors and a deputy warden. Hytten Hall was opened in 1959 accommodating 124 students. Extensions have raised this figure to 193 male students with 79 accommodated in single study-bedrooms and the remainder in double rooms. St John Fisher College, opened in 1962, accommodates 86 male students in single study-bedrooms and is under the direction of the Catholic Church. Jane Franklin Hall was founded by the Tasmanian Council of Churches in 1950 as a hall of residence for women students. The hall provides accommodation for 150 students. Ena Waite Women's College was founded in 1968 and accommodates 125 female students.

Buildings

The University site at Sandy Bay was chosen in 1944. Until 1957 temporary huts were used extensively, mainly by the rapidly growing science departments. In 1957 the first permanent building was erected and by 1973 all departments of the eight faculties were housed in permanent buildings.

In 1974 two small buildings, a store implement shed and a sports changing room, were completed. A gymnasium and cosmic ray observatory were under construction and the campus heating system was being extended. Other major projects on which construction was to start were a computer centre, extension to the Arts/Commerce/Education building, squash courts, child care centre, and possibly a multi purpose lecture theatre complex.

Technical Education

The Education Department administers Technical Colleges at Hobart, Launceston, Devonport, Burnie and Queenstown which provide trade, technical and sub-professional technician courses. Some students also receive tuition at Rosebery and Smithton using the high school facilities. Technical College courses cater for students who are above the age of compulsory school attendance.

Courses

Certificate Courses: These courses cater for middle level vocations that lie between trades and professions. They are designed in consultation with industry to meet the increasing need for sub-professional personnel who are performing many tasks previously carried out by university graduates or diplomates. On successful completion of a course, a certificate is awarded by the Education Department. Courses provided include drafting, engineering, surveying, architecture, building, commerce, business studies, marketing and food services.

Trade Courses: These courses combine theoretical and practical aspects of the trade, and are complementary to employer training given to apprentices. From 1965 apprentices have been required to attend one full day per week for three years and this has practically eliminated evening classes for apprentice training. Since 1968 a system of block training has operated in respect of a number of trades and for apprentices previously taught by correspondence. During the year, periods of two weeks are spent in full-time study in a technical college. On successful completion of the course a Certificate of Trade Proficiency is awarded. Post-trade courses are available to extend the skill and knowledge of the tradesmen.

Correspondence Tuition: This is administered through the Hobart Technical College and is intended for isolated students. Many apprentice correspondence courses have been replaced by the system of block training.

Enrolments

The total enrolment in technical colleges during 1973 was 7,519. Enrolment distribution was: Hobart Technical College, 53 per cent of total enrolments; Launceston, 24 per cent; Burnie, 10 per cent; Devonport Technical College, 10 per cent; and Mount Lyell School of Mines and Industries, 3 per cent. Distribution of persons enrolled between courses was: trade and post-trade courses, 47 per cent of total enrolments; certificate and post-certificate courses, 43 per cent; and miscellaneous subjects, eight per cent. Of the total number of students enrolled 73 per cent were males.

College Councils

Each technical college has a council comprising local community representatives who have been appointed by the Governor. Members are drawn from trades and industries, professions and municipal councils. They advise the Director of Technical Education on the provision and development of college facilities and courses.

Examinations

These are conducted by the Education Department in July and November each year. Papers are set and marked, or assessments carried out on a State-wide basis except for the first and second year trade subjects in which case each college makes its own arrangements.

Technical Teachers, Students and Expenditure

The following table shows the number of schools, teachers and students in technical education and the yearly expenditure:

Technical Education: Teachers, Students and Expenditure

Particulars	1969	1970	1971 (a)	1972 (a)	1973 (a)
Schools, colleges, etc. no.	9	9	7	r 7	6
Teachers—Full-time.. no.	186	199	189	172	194
Part-time.. no.	627	676	565	394	513
Students (b) .. no.	8,336	8,278	6,849	7,234	7,519
Expenditure (c) .. \$'000	1,764	2,025	2,366	2,607	3,004

(a) Excludes details for diploma courses provided as a part of the advanced education system.

(b) Gross number enrolled during the year.

(c) Excludes capital expenditure on new buildings, etc.

Adult Education

Origin and Organisation

Establishment of a mechanics' institute in Hobart in 1827 was the start of adult education in Australia. The mechanics' institute movement which was then just three years old (there were only two other institutes at that time: in London and Glasgow) was the fore-runner of the present adult education organisation in Tasmania which began in 1914. One part-time tutor was appointed and three classes started in 1914 with support for the new system coming from the University of Tasmania and the Workers' Educational Association. Financial assistance was given by the State Government.

The present Adult Education Board was established under the *Adult Education Act 1948*. The Board has nine members. Three of these are nominated by the Minister for Education and one each nominated by: University of Tasmania; the State Library Board; the Workers' Educational Association; the Arts Council; the Australian Broadcasting Commission; and the Education Department. In addition the Board has a Director, a Deputy Director, five Regional Directors, Community Arts Director, four Adult Education Officers and a Principal.

Hobart has three Adult Education Centres: at the Domain, South Hobart and North Hobart; as well as an enquiries and enrolment centre in the central city. Domain House Adult Studies Centre is a newly restored class complex and community centre in a building which once housed the University of Tasmania. Launceston has two centres, while Devonport and Burnie each have one. 'The Grange', a National Trust home at Campbell Town (south of Launceston), is the Board's residential college.

Operations

Courses: Courses are run throughout the year and vary in duration from one term to three terms. The 934 courses in 1973 attracted 11,671 enrolments requiring 355 part-time tutors. In addition there were 4,786 enrolments in seminars, lectures, weekend and summer schools. The range of courses included the arts, practical crafts, homecrafts, languages, physical education, liberal studies and social service courses. The Board, in co-operation with the University of Tasmania, arranges courses in Launceston for external students and, in conjunction with the Department of Immigration, eight-week courses in intensive English for migrants in Hobart.

Schools, Seminars, Special Lectures: During the year the Board ran 57 special one-day and week-end schools and seminars and conducted 44 special lectures. The four summer schools covered historic buildings, art, string playing and the Furneaux Islands. Highlights included a State-wide seminar, 'Craft 70's', and lecture tours by Professor Manning Clark, John Collier and Mr Leslie Greener. The Morris Memorial Lecture was delivered by Dame Enid Lyons, G.B.E.

Residential Schools: The Grange residential college has been leased from the National Trust since 1964. Built in 1848, The Grange is an elegant colonial country house used for both week-end schools and week-long summer schools. The house offers accommodation for 27 students. During 1973, 21 schools were held at The Grange with a record enrolment.

Community Arts: Assistance is given to more than 30 amateur drama groups throughout the State to assist in raising standards of acting and production.

Book Discussion Groups: Nearly 40 of these groups throughout the State meet regularly each month to discuss specially chosen books, mainly novels.

The following table shows the annual receipts and expenditure on selected items for a five-year period:

Adult Education: Selected Receipts and Expenditure
(Source: Annual Reports of the Auditor-General)
(\$)

Item	1968-69	1969-70	1970-71	1971-72	1972-73
RECEIPTS					
State Government grant ..	148,000	158,000	183,700	188,000	212,500
Student fees	50,189	55,074	64,029	75,704	93,450
Concert tours, film screenings, lectures, etc. . .	18,077	35,751	21,116	23,127	27,606
Other	3,349	4,717	2,990	6,052	5,073
Total	219,615	253,542	271,835	292,883	338,629
EXPENDITURE					
Salaries	104,781	109,788	134,591	143,045	162,362
Tutors' fees, allowances ..	45,304	50,304	53,912	60,721	86,700
General administration ..	34,832	45,314	34,293	47,026	48,182
Schools, seminars and exhibitions	22,130	15,017	18,813	31,401	32,217
Visiting artists	1,739	12,997	14,326	82	..
Other	9,922	9,914	19,251	13,880	21,694
Total	218,708	243,334	275,186	296,155	351,155

Australian Government Activities in Education

Introduction: The Australian Government first became directly involved in education when it established an Office of Education in 1945 and a branch was opened in Hobart. However, education remained a state responsibility—the principal functions of the Australian Government's Hobart office were migrant education and administration of Australian Government university scholarships. In 1951 the Hobart office was closed and its functions transferred to the Tasmanian Department of Education which acted as an agent for the Australian Government. With increased financial involvement in education the Hobart office was re-opened in 1964. However, education was still primarily a state responsibility. With the advent of a federal Labor Government in December 1972 Australian Government involvement in education increased considerably. An initial step was the establishment of the Schools Commission to inquire into government and non-government schools throughout Australia and to report on their financial needs. Several other committees of inquiry (e.g. the Australian Preschools Committee) and assistance schemes were established and in 1973 it was announced that the Australian Government would assume full financial responsibility from 1 January 1974 for the financing of tertiary education.

The Australian Schools Commission

On 12 December 1972 the Prime Minister appointed the Interim Committee for the Australian Schools Commission (Karmel Committee) to examine government and non-government primary and secondary schools throughout Australia and to make recommendations on: (i) the immediate financial needs of schools; (ii) priorities; and (iii) appropriate measures to meet the needs. The Committee presented its report to the Federal Minister for Education on 18 May 1973.

The Federal *Schools Commission Act* 1973 received royal assent in December 1973 and the Schools Commission was established; the Commission took over the work and functions of the Interim Committee. Recommendations of the Committee were embodied in the 1973 Act and the Commission's functions were set out as follows in the legislation:

- (i) Determine acceptable standards for primary and secondary schools and recommend means of achieving the standards.
- (ii) Inform the Minister on the needs of primary and secondary schools throughout Australia.
- (iii) Recommend to the Minister levels of financial grants to assist schools and school systems.
- (iv) Advise the Minister upon any subject relating to primary and secondary education, referred to it by the Minister or upon which the Commission considers it desirable to advise the Minister.
- (v) Enhance access to education and equality of opportunity within schools. Special regard is to be given to handicapped and disadvantaged children and youth.
- (vi) Stimulate public awareness of and support for education.
- (vii) Encourage diversity and innovation in schools, curricula and teaching methods.
- (viii) Undertake and/or commission research into education.
- (ix) Promote economic use of educational resources.
- (x) Investigate the desirability of providing special educational opportunities for students who have demonstrated their abilities in particular fields.
- (xi) Report annually to the Minister.

School Libraries: In August 1968 the Australian Government commenced an assistance programme for secondary school libraries. Funds were made available for: (i) the erection, alteration and extension of library buildings; and (ii) provision of furniture, equipment, a basic book stock and instructional materials. During the first triennium, 1969-1971, Tasmania received \$290,900 (\$216,200 for government schools and \$74,700 for non-government schools). In December 1971 this programme was extended for a further three years; Tasmania's annual allocation under this scheme was \$352,241 comprising government schools \$285,506 and non-government schools, \$66,735. Under the federal *States Grants (Schools) Act* 1973 further funds were allocated for both secondary school and primary school libraries for expenditure during 1974 and 1975. Tasmania's allocation from the additional fund, is: government schools—secondary, \$640,000, primary, \$510,000; non-government schools—secondary, \$70,000, primary, \$80,000. The Schools Commission has decided that funds for the primary school libraries should be used to develop library projects in selected schools and build up libraries in those schools which have only limited resources. As well as the library development programmes funds have also been provided to finance extended librarian training courses for both primary and secondary schools. Finance was also provided to pay for salaries of replacement staff for those attending librarian training courses. Tasmania's allocation is \$140,000 comprising \$40,000 for librarian training and \$100,000 for replacement staff salaries. In Tasmania a committee, with members from the State Education Department and representatives from non-government schools, has organised training courses for teacher-librarians. One course was held in 1974 and two are planned for 1975; attendances were 10 teachers from government schools and 3 from non-government schools.

Teacher Development Programme: Teachers' centres have been established in Hobart, Launceston and Burnie. Special in-service training courses have been prepared and run. From 1 March 1974 to 30 May 1974 220 courses were provided. Non-government school teachers also participated in the programme.

Special Projects (Innovation Programme): Fourteen such projects have been offered grants totalling \$82,000. Projects include both government and non-government proposals.

Allocations for Non-government Schools: To 30 June 1974 the Schools Commission had approved grants for building projects totalling \$249,000. (The schools contribute at least 20 per cent of the cost of each project.) The building programmes cover replacement classrooms, new toilet blocks, staff rooms, etc.—only six per cent of the approved total has been for new pupil places. Non-government schools (excluding systemic Catholic schools) have received per capita grants for recurrent expenditure. (Catholic systemic schools (i.e. primary parish and some diocesan run secondary schools) received an allocation of \$1,210,000 for 1974 and 1975.)

Per Capita Grant Levels: Non-Government Schools (a)
(\$)

School category	Primary schools	Secondary schools	School category	Primary school	Secondary schools
A	55	85	E	75	110
B	60	90	F	80	120
C	65	95	G	85	130
D	70	102	H	90	140

(a) Catholic systemic schools are excluded from the per capita grant scheme.

The following shows total allocations under the federal *States Grants (Schools) Act 1973* and Tasmania's share:

Funds Allocated for 1974 and 1975 Under the Federal States Grants (Schools) Act 1973
(\$'000)

Programme	Total allocation for Australia	Allocation to Tasmania		
		Government schools	Non-government schools	Total
General building	117,680	3,600	(a) 159	3,759
Recurrent expenditure—				
Government schools	175,830	4,980	..	4,980
Catholic systemic schools (b) ..	64,850	..	1,210	1,210
Other non-government schools ..	(c)	..	(c)	(c)
Libraries	40,000	1,150	150	1,300
Librarian training and teacher replacement (d)	3,780	140	..	140
Disadvantaged schools	50,000	630	70	700
Special schools—				
Buildings	20,000	630	..	630
Recurrent expenditure	14,160	330	..	330
Special training courses and related teacher replacement	9,380	330	..	330
Teacher development—				
In service teacher training (d) ..	7,650	270	..	270
Teachers' education centres ..	1,960	140	..	140
Recurrent expenditure on teacher education centres	640	50	..	50
Special projects	6,000	(e)	(e)	(e)

(a) Excludes \$322,000 granted under the 1972 Act.

(b) Parish primary schools and some diocesan operated secondary schools.

(c) Per student grants; amount per student varies according to school category and level of schooling.

(d) Some non-government school teachers are included in the courses.

(e) No specific allocations to states or between government and non-government schools.

Allocations for the Government School System: The following table shows Tasmanian Education Department allocations of funds provided under the federal *State Grants (Schools) Act 1973* for the years 1974 and 1975. The allocations shown in the table: (i) relate to the government school system; and (ii) relate to funds set aside for each purpose and *not* to actual expenditure made.

Allocations for Government Schools by the State Education Department under the Federal State Grants (Schools) Act 1973: Years 1974 and 1975
(\$'000)

Allocated for—	Amount	Allocated for—	Amount
Building programmes (a)—		Libraries	30
School projects	384	Disadvantaged schools programme—	
Staff residences and flats	116	Buildings	40
Libraries—Primary schools	80	Grants	25
High schools	110	Staff and development programmes	20
Special education facilities	114	Special projects	15
Total	804	Total	100
Recurrent expenditure—		Special schools (c)—	
Primary schools—		Teachers (home arts, physical educa-	
Services to all schools (b)	204	tion, diagnostic staff)	15
Part-time teachers and teachers aides	144	Specialist advisory staff	23
Administration	28	Teacher aids	16
To be allocated at discretion of Dir-		Materials, equipment, travel expenses,	
ector of Primary Education	58	etc.	11
Reserved for contingencies	36	Training courses	10
Total	470	Replacement staff salaries	56
Secondary schools—		Total	130
Services to all schools (b)	129	Teacher development programme—	
Part-time teachers, teachers' aides,		Staff for teachers' centres	9
travelling allowance, etc.	174	Specialist and advisory staff (libraries,	
Administration	27	audio-visual resources, etc. centres)	10
Total	330	Materials, equipment, travel expenses,	
Total recurrent expenditure ..	800	etc.	31
		Administration	10
		Total	60

(a) Includes special school building projects.

(b) Includes school-based specialist advisory staff, relief teachers, furniture and audio-visual equipment.

(c) Excludes building projects; see note (a).

Other Educational Committees

Australian Committee on Technical and Further Education (Kangan Committee): This committee was established in April 1973 to examine and make recommendations on technical and further education (TAFE) in Australia. Included in its scope were assessment of needs, priorities, the amount and allocation of financial assistance and conditions upon which assistance should be granted. The report *TAFE in Australia* was presented to the Australian Government in April 1974. The report recommended financial grants to the states for capital and recurrent expenditure on technical and further education over the period July 1974 to December 1975. Recommendations for assistance beyond 1975 will be the responsibility of the Commission on Technical and Further Education.

Australian Pre-schools Committee: Pending the establishment of the Australian Pre-schools Commission, this Committee was set up to examine and make recommendations as to the measures which the Australian Government should adopt to ensure that over a period of approximately six years all children are given an opportunity to undertake a year of pre-school education, and

that child-care centres for children below school age are established to meet the needs of children of working parents and underprivileged families. The Committee's report was released in December 1973, and its recommendations were taken into account in development of the Australian Government's child care and pre-school policies.

Australian Advisory Committee on Research and Development in Education: This Committee was established in 1970 to make recommendations for funding education research projects. In 1973 the Australian Government approved proposals to appoint a full-time chairman and the scope of the Committee's activities was broadened to include initiating schemes for the training of educational research workers.

Curriculum Development

While state education departments are responsible for the development of the curricula followed in their schools, the Australian Government is prepared to consider support for curriculum development proposals put forward by the states. Three such proposals currently receiving Australian Government support are:

- (i) *Australian Science Education Project:* This project is developing science learning materials for the first four years of secondary education. Australian Government contribution to the project is \$875,000 and the states contributed \$525,000 over the five-year period ending in 1974.
- (ii) *National Committee on Social Science Teaching:* The committee was established in 1970 as a joint Australian Government-State project to help foster development and improvement in the teaching of social sciences.
- (iii) *Asian Languages and Cultures:* In 1972 the Australian Government agreed to contribute \$1.5m over five years to a joint Australian Government-State programme to develop this area of education. A joint Australian Government-State committee has been established to co-ordinate the programme.

Curriculum Development Centre: In June 1973 the Australian Government announced the establishment, in co-operation with the states, of a curriculum development centre to undertake and promote curriculum development and to develop and assess teaching aids. The centre will be financed by the Australian Government.

Migrant Education

Child Migrant Education: Under this scheme, which commenced in April 1970, the Australian Government provided finance for both government and non-government schools for: (i) salary costs of teachers and supervisory staff involved in teaching English to migrant pupils; (ii) provision of approved language teaching equipment; (iii) provision of appropriate teaching and learning materials; (iv) special training courses for teachers in methods of teaching English as a foreign language; and (v) provision of emergency classroom accommodation during the financial years 1973-74 and 1974-75. Except for one non-government school at Launceston, children attend classes run in government schools—centres have been established at George Town, Queenstown, Rosebery, Strathgordon and Burnie. At 30 June 1974 the number of teachers involved was 25 and the number of children attending the classes was 548.

Adult Migrant Education Programme: For many years the Australian Government has provided adult migrants with the opportunity to learn English and also something of the Australian way of life. This has been done mainly through part-time evening classes, and to a lesser extent through radio and correspondence courses. The programme commenced in 1947 and since 1951 has been a joint effort by the Australian Government and the states. At the present time, following a series of agreements reached between the Australian Government and the states in 1951, the Australian Government retains overall responsibility for the programme while administrative control of migrant teaching activities is in the hands of the states. Recent developments in the programme have been the establishment of full-time courses and the payment

of a living allowance to students attending these courses. During the 1973-74 financial year the total expenditure on the adult programme in Australia was just over \$3m. At May 1974, 17 migrant continuation classes were operating in Tasmania for 194 students. A further 60 students were enrolled in the correspondence course.

Colleges of Advanced Education

Assistance for state colleges of advanced education commenced in March 1965 when the Australian Government agreed, as an interim measure, to pay capital grants of \$5m during the rest of the 1964-1966 triennium. Grants were subject to matching formula—for recurrent expenditure the basis was \$1 by the Australian Government for each \$1.85 provided by the states; capital expenditure grants were on a dollar for dollar basis. These matching arrangements ceased in January 1974 when the Australian Government assumed full financial responsibility for tertiary education. Tuition fees were also abolished from 1 January 1974.

For the 1973-1975 triennium the total allocation by the Australian Government for the Tasmanian College of Advanced Education is \$19m. This allocation comprises \$12.4m for recurrent expenditure, \$6.5m for capital purposes and \$0.1m for library materials. The next table shows Australian Government payments for advanced education in Tasmania:

Australian Government Payments for Advanced Education in Tasmania
('\$000)

Purpose of expenditure	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74 (a)
Recurrent ..	222	397	754	887	1,113	3,819
Capital ..	69	677	514	1,385	1,175	292

(a) From 1 January 1974 the Australian Government assumed full responsibility for financing tertiary education.

University Education

Assistance to the states for the recurrent expenditure of universities dates from 1951-52. Grants were made on a matching basis (one dollar for each \$1.85 of state expenditure). Assistance for capital purposes was provided on a dollar for dollar basis, however, from 1 January 1974 the Australian Government has financed universities and other tertiary education. The next table shows Tasmanian receipts from the Australian Government for university education:

Australian Government Payments to Tasmania for University Education
('\$000)

Purpose of expenditure	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74 (a)
Recurrent ..	1,315	1,504	1,818	2,105	2,530	(b) 5,830
Capital ..	902	757	429	665	842	(b) 1,229

(a) Estimate.

(b) From 1 January 1974 the Australian Government accepted full responsibility for financing tertiary education.

Technical Education

The federal *States Grants (Science Laboratories and Technical Training) Act* 1964 provided for grants to the states in 1964-65 of \$10m for building and equipment costs of technical schools and colleges. As a result of the TAFE Committee (see earlier section 'Other Education Committees') fees at technical institutions were abolished from 1 January 1974 and the Australian Government increased its contribution to the states to cover this loss of revenue. Payments to Tasmania for technical education for recent years have been (in \$'000): 1968-69, 275; 1969-70, 376; 1970-71, 325; 1971-72, 380; 1972-73, 380; 1973-74 (estimate), 769.

Australian Government Assistance for Tertiary and Secondary Students

Assistance for Isolated Children: This scheme provides financial assistance to enable children living in isolated areas to have improved educational opportunities. Benefits are available for pupils who must live away from home to attend school and those studying through state education department correspondence schools. At 30 June 1974 there were 603 Tasmanian students receiving this assistance.

Tertiary Allowances Scheme: In 1974 the Australian Government introduced a scheme of means-tested allowances for full-time, unbonded students attending approved courses at tertiary institutions. This scheme replaced the former competitive commonwealth university, advanced education and technical scholarship schemes. In Tasmania, approximately 1,500 students were receiving tertiary allowances at 30 June 1974. Benefits included an allowance, subject to the means test, of up to \$850 per annum for a student living with his parents, or up to \$1,400 for a student living away from home. Allowances were also payable to assist with student union and other incidental fees. The following incidentals allowances were paid in 1974: for students enrolled at universities, \$100; for students at colleges of advanced education, \$70; and for students at technical colleges, \$30. The introduction of the Tertiary Allowances Scheme, together with the abolition of compulsory tuition and associated fees at tertiary institutions, substantially form the programme under which the Australian Government assumed full responsibility for financing tertiary education.

Commonwealth Senior Secondary Scholarship Scheme: This scheme provided to senior secondary students a two-year scholarship to assist them with study for the Higher School Certificate examination. Benefits comprise a basic allowance, subject to family income, of \$250 per annum. Approximately 750 new awards were made available in Tasmania. It was announced during the year that no new awards would be offered under this scheme after 1974.

Secondary Allowances Scheme: In 1974 the Australian Government introduced a scheme of assistance for families with limited financial resources to maintain their children at school for the final two years of secondary education. Benefits of up to \$304 per annum are provided on a non-competitive basis subject to family income. In Tasmania 164 students were receiving this assistance at 30 June 1974.

Australian Government Post-graduate Awards: Awards are made annually to enable students to undertake post-graduate studies at an Australian university or college of advanced education. In Tasmania, in 1974, 15 new awards were made available for university research studies and one award was made for master's studies at a college of advanced education. Selection is made on the basis of ranking by each university or college of advanced education and the award, subject to annual renewal, may be held for a maximum of: (i) four years in the case of a doctorate degree candidate; (ii) two years in the case of a master's degree candidate; or (iii) for the duration of the course taken (normally one or two years) for course work awards. In 1974 award holders received a living allowance of \$3,050 per annum. Provision is also made for assistance with travel, establishment and thesis costs and married award holders receive a dependants' allowance for a dependent spouse and children.

Aboriginal Grants Schemes: The Department of Education administers, on behalf of the Department of Aboriginal Affairs, two schemes of assistance for students of Aboriginal descent: (i) the Aboriginal Study Grants Scheme; and (ii) the Aboriginal Secondary Grants Scheme. Aboriginal study grants were first awarded in 1969; they assist Aboriginals to take study courses after leaving school and provide the full-time student with fees and a living allowance, which for married students or students 21 and over is \$35 per week or \$27 per week for students under 21 and unmarried. Other special allowances are also payable. Part-time students receive fees and incidental expenses. The Aboriginal secondary grants scheme was introduced in 1970 to assist students to continue schooling beyond the age of 14. In 1973 this assistance was extended to all Aboriginal pupils enrolled in secondary schools. Benefits cover annual living costs, fees and other allowances.

The next table shows the number of students in Tasmania receiving Australian Government assistance under the various schemes:

Number of Students in Tasmania Receiving Australian Government Assistance at 30 June

Scheme	1970	1971	1972	1973	1974
Tertiary allowance .. ..	..	..	..	..	1,460
University	788	865	916	920	..
Advanced education	150	174	220	359	..
Technical	145	124	97	108	29
Secondary	558	559	560	274	2
Senior secondary .. .. .	..	..	..	739	1,341
Secondary allowances .. ..	..	..	..	..	164
Post-graduate	38	46	52	52	50
Aboriginal secondary	3	8	32	140	241
Aboriginal study	2	1	3	7	16
Isolated children .. .. .	..	..	..	805	603
Other (a)	25	30	32	55	37
Total	1,709	1,807	1,912	3,459	3,943

(a) Includes National Service Vocational Training Scheme, Pre-School Teacher Trainees (from 1973) and Australian Government Teaching Service Scheme.

STATE LIBRARY OF TASMANIA

General

The present State Library Service dates from the *Libraries Act 1943*. This legislation made provision for: (i) establishment of a State Library; (ii) constitution of a Tasmanian Library Board which would be responsible for management and development of library services in the State; and (iii) co-ordination of various library services then subsidised by the State Government. The system now has major libraries in three centres: Hobart (location of the principal library and headquarters for the library service), Launceston, and Burnie. In addition branch libraries are located in a number of smaller towns.

The next table gives selected statistics for the State Library of Tasmania:

State Library of Tasmania: Selected Statistics

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
EXPENDITURE (\$'000)					
Salaries and pay-roll tax ..	401	483	573	727	957
Purchase of books, etc. for adults	174	208	235	294	311
Lady Clark Library	35	49	69	70	79
Grants to municipalities	44	55	29	..	..
Other	84	101	104	207	273
Total expenditure	737	896	1,011	1,298	1,620
BORROWINGS: BOOKS, FILMS AND RECORDS ('000)					
Books borrowed—					
Adults	2,163	2,260	2,317	2,299	2,279
Children	1,206	1,240	1,319	1,343	1,126
Total	3,369	3,500	3,636	3,642	3,405
Films borrowed	12	17	13	13	10
Records borrowed	37	49	51	105	161

Receipts

An annual appropriation is made from the Consolidated Revenue Fund to cover the operational expenses of the State Library. The 1973-74 vote was \$1,620,000. The next main revenue item is local government contributions.

Organisation

Currently library services are administered from three centres (Hobart, Launceston and Burnie). The following sections outline the facilities provided from each centre.

Hobart

Hobart, headquarters of the State Library, is the location for the following major State Library departments:

State Reference Library: Provides reference and information facilities for the general public and industry, and contains a bookstock of approximately 158,600 books, periodicals, pamphlets, maps, etc. Special sections of this department house unique collections of books, documents, etc. relating to Tasmania. Collections include: (i) the *Tasmanian Collection*—a definitive collection of books published in Tasmania; (ii) the *W. E. Crowther Library*—a large research collection of books, pamphlets and other items relating to Tasmania and Australia; and (iii) the *Allport Library and Museum of Fine Arts*—comprises a collection of antique furniture, china, glass, silver, pictures, prints and rare books in fine editions.

Archives Office: The *Archives Act* 1965 made this library department the official repository for all official State Government records. A considerable quantity of private records of individuals, companies, associations, societies and institutions is held as well as official records.

Hobart Lending Library: Provides a book lending service for adults and children. Approximately 122,000 volumes are held in this collection.

Films and Recorded Music Library: Contains over 4,800 films and almost 40,000 gramophone records. Films and records are available for borrowing by individuals or organisations.

Division of External Services: This department co-ordinates the provision and development of public library services throughout the State.

Launceston

Headquarters of the Northern Regional Library Service are located at the new Launceston regional library building which was opened in mid-1971. The Northern Regional Library Service serves the City of Launceston and the Municipalities of Beaconsfield, Deloraine, Evandale, George Town, Lilydale, Longford, St Leonards, Scottsdale and Westbury. Twelve branch libraries are located in small towns of the region; rural areas are served by two bookmobiles.

Burnie

The Hellyer Regional Library Service comprises the Municipalities of Burnie, Circular Head, Penguin, Waratah and Wynyard and was inaugurated in 1965. A central library for the regional service is located at Burnie. Reference, lending, bookmobile and external services are provided for the region. A new regional library headquarters building is under construction at Burnie.

Chapter 15

SOCIAL WELFARE AND HEALTH SERVICES

WELFARE

Introduction

In Australia, the principal social welfare benefits are provided by the Australian Government under the *Social Services Act 1947*, as amended, which is administered by the Australian Government Department of Social Security. Finance for the benefits is provided from the National Welfare Fund which is augmented each year from the Consolidated Revenue Fund by an amount equal to the payments made.

State social welfare, which covers child welfare and relief, is administered by the State Department of Social Welfare.

Australian Government Department of Social Security

Federal activity in social services began with the passage of the federal *Invalid and Old Age Pensions Act 1909*. This and the *Maternity Allowances Act* were administered by the Department of the Treasury until 1941 when the Department of Social Services commenced to function as a separate organisation. Later, the functions of the Department were widened with the passing of the *Child Endowment Act*, the *Widows' Pensions Act* and the *Unemployment and Sickness Benefits Act*. A referendum held in 1946 empowered the Australian Government to legislate for the provision of certain social services formerly provided by the states. In 1947, a consolidated *Social Services Act* was passed. The Department also administers the *Aged Persons Homes Act* and the *Sheltered Employment (Assistance) Act* and co-operates with the federal Department of Health in the administration of the *National Health Act*.

On 1 March 1973 the Australian Government transferred the Health Insurance and Benefits Branch from the Department of Health to the Department of Social Security. Provision of hospital, nursing home, handicapped children's, medical and domiciliary nursing care benefits together with the operation of the Pensioner Medical Service are now the responsibility of the Department of Social Security.

The following table shows expenditure in Tasmania from the National Welfare Fund on benefits under the federal *Social Services Act*. The most noticeable fluctuations occur in expenditure on unemployment benefits.

Social Security Payments Under the Social Services Act
(\$'000)

Benefit or service	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Age and invalid pensions	16,768	19,517	21,835	25,543	33,656	35,804
Widows' pensions ..	2,465	2,927	3,327	3,842	5,136	6,582
Maternity allowances ..	267	259	274	260	241	230
Child endowment (a) ..	6,710	7,416	6,686	7,196	8,185	7,212
Unemployment benefits ..	297	360	366	966	2,095	3,125
Sickness benefits	166	199	327	497	792	1,247
Special benefits	55	68	71	79	128	224
Rehabilitation service ..	76	91	122	130	152	176
Funeral benefits	42	42	43	42	44	44
Double orphans pension ..	..	..	..	..	..	17
Total	26,846	30,880	33,050	38,556	50,428	54,661

(a) In 1969-70 and 1972-73 five 12-weekly payments, instead of the usual four, were paid.

Social Security benefit rates announced at recent budgets are set out in the next table:

Social Security Benefits, 1972-73 and 1973-74
(\$ Per Week Unless Noted as Lump Sum Payment)

Benefit	Maximum rate			
	1972-73		1973-74	
	August budget	Amending legislation (March)	August budget	Amending legislation (April)
Age and invalid pensions and sheltered employment allowances—				
Single person (a)	20.00	21.50	23.00	26.00
Married couple (both eligible and living together), each ..	17.25	18.75	20.25	22.75
Married couple (both eligible but living apart through ill health), each (a)	20.00	21.50	23.00	26.00
Married couple (one eligible) (a)	20.00	21.50	23.00	26.00
Wife (if not a pensioner) (b)	17.25	18.75	20.25	22.75
First child under 16 years (c)	4.50	4.50	5.00	5.00
Second and each subsequent child under 16 years (c)	4.50	4.50	5.00	5.00
Guardian's allowances—				
Where there is a child under 6 years or an invalid child requiring full-time care	6.00	6.00	6.00	6.00
Other cases	4.00	4.00	4.00	4.00
Maternity allowances (d)—				
No other children	30.00	30.00	30.00	30.00
One or two other children	32.00	32.00	32.00	32.00
Three or more other children	35.00	35.00	35.00	35.00
Multiple births, additional payment for each additional child ..	10.00	10.00	10.00	10.00
Child endowment—				
First child under 16 years	0.50	0.50	0.50	0.50
Second child under 16 years	1.00	1.00	1.00	1.00
Third child under 16 years	2.00	2.00	2.00	2.00
Each other child under 16 years	(e)	(e)	(e)	(e)
Student child over 16 years and under 21 years	1.50	1.50	1.50	1.50
Orphans' pension .. .. .	..	..	10.00	10.00
Supporting mother's benefit .. .. .	..	..	23.00	26.00
Widows' pensions (a)—				
Class A, widows with dependent children	20.00	21.50	23.00	26.00
Mothers' allowances—				
Where there is a child under 6 years or an invalid child requiring full-time care	6.00	6.00	6.00	6.00
Other cases	4.00	4.00	4.00	4.00
First child under 16 years (c)	4.50	4.50	5.00	5.00
Second and each subsequent child under 16 years (c)	4.50	4.50	5.00	5.00
Class B, widows aged 50 years or more (f)	17.25	21.50	23.00	26.00
Class C, widows under 50 years of age in necessitous circumstances (g)	17.25	21.50	23.00	26.00
Funeral benefits (b)	(d)40.00	(d)40.00	(d)40.00	(d)40.00
Unemployment and short-term sickness benefits—				
Single person	17.00	21.50	23.00	26.00
Married couple	25.00	37.50	40.50	45.50
First child under 16 years	4.50	4.50	5.00	5.00
Second and each subsequent child under 16 years	4.50	4.50	5.00	5.00
Person 16 and under 18 years	7.50	..	..	..
Person 18 and under 21 years	11.00	..	..	..
Long-term sickness benefits (i)—				
Adult or married minor	20.00	..	..	..
Spouse	8.00	..	..	..
First child under 16 years	4.50	..	..	..
Second and each subsequent child under 16 years	4.50	..	..	..
Person 16 and under 21 years	13.00	..	..	..
Rehabilitation service	(j)	(j)	(j)	(j)
Personal care subsidy (k)	5.00	10.00	12.00	12.00

(a) Supplementary assistance at a maximum rate of \$4.00 a week is payable, subject to the payment of rent and to a means test, to single age and invalid pensioners, to a married pensioner whose spouse is not a pensioner, to either or both of a married pensioner couple who, because of illness or infirmity, cannot live together in a

- matrimonial home, and to widow pensioners. Supplementary assistance may also be paid to recipients of sheltered employment allowances and to married pensioner couples paying rent, payment being made on the basis of half to each partner.
- (b) Wife's pension is payable, subject to a means test, to a non-pensioner wife.
 - (c) A child is, for pension purposes, a child under 16 years or a person who is a full-time student and dependent on the pensioner.
 - (d) Single lump sum payment.
 - (e) Child endowment for the fourth and subsequent children under 16 years in a family increases by 25 cents a week for each child so that the rate payable is \$2.25 a week for the fourth child, \$2.50 for the fifth child and so on.
 - (f) Class B Widows' pensions may also be payable to certain widows between 45 and 50 years of age.
 - (g) Class C Widows' pensions are generally payable for not more than 26 weeks immediately after the husband's death.
 - (h) A funeral benefit of up to \$40 is payable to an age, invalid or widow pensioner liable for the funeral costs of a spouse, a child or another such pensioner. A benefit of up to \$20 is payable to any person liable for the funeral costs of an age or invalid pensioner. For these benefits, 'pensioner' means a person who would be entitled to a pension if the tapered means test did not apply.
 - (i) Long-term sickness benefits are payable to persons who have received sickness benefits continuously for six weeks. A supplementary allowance at a maximum rate of \$4 a week is payable subject to the payment of rent and to a means test. Persons in hospital who have no dependants do not qualify for these benefits. From March 1973 no distinction is made between long-term and short-term benefit rates.
 - (j) Disabled persons may be given rehabilitation treatment, followed, where necessary, by vocational training. During the period of rehabilitation treatment patients receive the appropriate pension or benefit and while receiving vocational training they are paid a rehabilitation allowance. In addition a training allowance and, where appropriate, a living away from home allowance are also payable free of means test. Free vocational training, with associated allowances, may also be available to Class A and Class B widow pensioners.
 - (k) A subsidy of \$12 a week is payable in respect of persons who receive approved personal care and who reside in hostel-type accommodation in an aged persons' home conducted by an eligible organisation under the *Aged Persons Homes Act*.

Pensions and Benefits

In the previous table a description was given of the various pensions, benefits, etc. The rates and conditions are varied from time to time by amending legislation; the 1973-74 rates were announced in the Federal Budget of August 1973 and were further increased by legislation in April 1974. (The Federal Treasurer outlines social security proposals in his budget and these are implemented in later Acts.)

Age and Invalid Pensions

Generally pensions are payable to persons who have been resident in Australia, New Zealand or the United Kingdom for 10 years in the case of age pensioners and five years in the case of invalid pensioners. (Reciprocity agreements exist with New Zealand and the United Kingdom.)

The qualifying ages for age pensions are 65 years for men and 60 years for women; invalid pensions are payable to persons over 16 years of age who are permanently incapacitated for work. Additional allowances are payable for dependants under certain conditions.

For age and invalid pensions, the same means test on income and property operates. 'Means' can consist entirely of income, entirely of property, or any combination of them. The calculation of income excludes the pension itself, income from property, gifts from family, benefits from hospital and medical insurance schemes, child endowment, etc.; the property component excludes home, furniture, personal effects, the first \$400 of property and \$1,500 of surrender value of life policies, and the capital value of any life or contingent interest, etc. Blind persons, however, may receive the maximum rate of pension free of means test.

Amending legislation in April 1974 varied the sliding scale means test so that a single pensioner can draw the full pension (\$1,352 per annum) and also have other income not exceeding \$1,040. When the single pensioner's other income reaches \$3,744, all pension ceases.

Married pensioners can draw full pension (\$2,366 per annum) and also have other income of \$1,794. When their other income reaches \$6,526, all pension ceases.

Property equivalents of income are calculated by assuming that 'income' is 10 per cent of the value of property. So the permissible property limits under the varied means test are as follows:

Single: Lower Limit: \$1,040 × 10 plus \$400 = \$10,800.

Upper Limit: \$3,744 × 10 plus \$400 = \$37,840.

Married: Lower Limit: \$1,794 × 10 plus \$800 = \$18,740.

Upper Limit: \$6,526 × 10 plus \$800 = \$66,060.

If the only means are those assessed on the basis of property, then the lower limits shown above are compatible with drawing full pension; and the upper limits are those at which all pension ceases.

The 1973 Budget abolished the means test for all people aged 75 years or more and it is planned to progressively abolish the means test for all aged persons. However, aged pensioners with a total income (including pension) exceeding a specified limit are subject to income tax. Persons wholly or largely dependent upon the age pension do not have to pay income tax.

Free medical service and medicine are provided for pensioners and their dependants, and a concessional telephone rental equal to two-thirds of the amount otherwise payable is available to blind people, pensioners who live alone, and to certain others. Radio and television licences at a reduced rate were also available to these pensioners. Persons who become pensioners for the first time because of the 'tapered' means test, introduced in October 1969, are not eligible for membership of the Pensioner Medical Service or entitled to other subsidiary benefits.

On the death of one of a married pensioner couple, the survivor receives six fortnightly instalments at the married couple rate before reduction to the single rate.

Pensions are paid fortnightly by cheque posted to the pensioner's address.

Widows' Pensions

These were introduced by the Curtin Government in 1942. They are payable to widows who had been resident in this country, New Zealand or the United Kingdom for five years before claiming a pension. There is no residential qualification where the woman and her husband were living permanently in Australia before he died. A woman also qualifies if her husband died overseas and she has lived in Australia for 10 years at any time.

The classes of widows are as follows: (i) a class A widow has one or more dependent or student children in her care; (ii) a class B widow is at least 50 years of age, or 45 years when her class A pension ceases (because she no longer has a child in her care); and (iii) a class C widow is under 50, without children, and in necessitous circumstances in the 26 weeks following her husband's death. The term 'widow' includes a deserted wife, a divorcee and a woman whose husband has been imprisoned for at least six months or is a patient in a mental hospital. Certain 'dependent females' may also qualify for pension.

The following table shows, for Tasmania, the number and sex of persons receiving age, invalid and widows' pensions, and the amounts paid out in pensions and allowances:

Age, Invalid and Widow Pensioners and Payments

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Age and invalid pensions—						
Number of age pensioners (a)—						
Males	6,353	7,312	7,667	8,057	9,270	10,304
Females	14,676	16,603	17,227	17,611	19,837	21,600
Persons	21,029	23,915	24,894	25,668	29,107	31,904
Number of invalid pensioners (a)—						
Males	2,231	2,376	2,523	2,592	2,836	3,028
Females	1,588	1,675	1,793	1,906	2,019	2,059
Persons	3,819	4,051	4,316	4,498	4,855	5,087
Amount of pensions paid .. \$'000	16,768	19,517	21,835	25,543	33,656	35,804
Widow's pensions—						
Number of pensioners (a)	2,678	2,958	3,138	3,205	3,600	3,932
Amount of pensions paid .. \$'000	2,465	2,927	3,327	3,842	5,136	6,582

(a) At 30 June.

Unemployment, Sickness and Special Benefits

Legislation for these benefits was introduced in 1944 by the Curtin Government and payments began in 1945. The minimum age is 16 years, the maximum 65 (male) and 60 (female). There are no nationality restrictions, but if a claimant has not been resident in Australia for one year before making the claim, the Department must be satisfied that he intends to live here permanently. Benefits are not payable to people qualified to receive invalid, age, widows' or service pensions, or tuberculosis allowances.

To receive unemployment benefit, a person must be out of work (but not through being a direct participant in a strike), must be capable of undertaking and willing to undertake suitable work and have taken reasonable steps to obtain employment. Registration with the Commonwealth Employment Service is necessary; payment is at the discretion of the Department of Social Security.

Sickness benefit may be paid to a person temporarily unable to work because of sickness or accident and who has suffered a loss of income because of this. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where the husband is able to maintain her partially, a benefit may be paid at a rate considered reasonable in the circumstances.

A special benefit may be granted to a person not qualified for a pension or an unemployment or sickness benefit if, because of age, physical or mental disability, domestic circumstances, or for other valid reasons, he is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, persons caring for invalid parents, and persons ineligible for either age, or invalid or widowers' pensions because of lack of residence qualifications.

The next table gives Tasmanian details for unemployment, sickness and special benefits:

**Unemployment, Sickness and Special Benefits
Beneficiaries and Payments**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Unemployment benefits—						
Claims granted.. .. no.	4,110	3,825	4,388	8,974	12,536	11,562
Persons on benefit—						
At 30 June no.	600	437	782	1,697	2,330	1,769
Weekly average no.	571	548	501	1,187	2,073	2,089
Benefits paid \$'000	297	360	366	966	2,095	3,125
Sickness benefits—						
Claims granted.. .. no.	2,119	2,194	2,687	2,964	3,295	3,739
Persons on benefit—						
At 30 June no.	242	263	349	428	583	604
Weekly average no.	234	228	292	382	499	642
Benefits paid \$'000	166	199	327	497	792	1,247
Special benefits—						
Claims granted.. .. no.	414	429	388	418	459	574
Persons on benefit—						
At 30 June no.	147	157	150	138	148	172
Weekly average no.	135	145	146	139	136	148
Benefits paid \$'000	55	68	71	79	128	224
Total benefits—						
Claims granted no.	6,643	6,448	7,463	12,356	16,290	15,875
Persons on benefit—						
At 30 June no.	989	857	1,281	2,263	3,061	2,545
Weekly average no.	940	921	939	1,708	2,708	2,879
Benefits paid \$'000	518	628	764	1,542	3,015	4,596

Maternity Allowances

Maternity allowances were introduced by the Fisher Government in 1912. There is no means test and any mother is entitled to a maternity allowance if she gives birth to a child in Australia and if she resides or intends to remain in Australia.

The following table shows payments made in Tasmania during recent years:

Maternity Allowances

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Claims no.	8,373	8,130	8,594	8,211	7,615	7,296
Amount \$'000	267	259	274	260	241	230

Child Endowment

Child endowment was introduced by the Menzies Government in 1941, and is paid to persons or institutions having the care, custody and control of children under 16 years, or student children under 21. One year's residence in Australia is required if the mother and child were not born here, but this requirement is waived if the Department is satisfied they intend to remain here permanently.

The following table shows child endowment statistics for Tasmania:

**Child Endowment
Endowed Children and Students and Payments**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Endowed children and students (a)—						
Children in endowed families.. no.	129,200	129,853	129,322	128,946	128,297	126,595
Children in approved institutions no.	436	423	429	447	440	388
Students (a) no.	4,942	5,263	5,525	6,213	5,834	5,911
Total endowed .. no.	134,578	135,539	135,276	135,606	134,571	132,894
Amount paid during year (b) .. \$'000	6,710	7,416	6,686	7,196	8,185	7,212

(a) Number at 30 June. Children, under 16 years; students, 16 but under 21 years, includes students in approved institutions.

(b) In 1969-70 and 1972-73 five 12-weekly payments, instead of the usual four, were paid.

Orphans' Pension

The 1973 Budget introduced the double orphans' pension which is payable to institutions or persons caring for a child whose parents are both dead or one parent is dead and the other parent cannot be located. At 30 June 1974 there were 72 orphans for whom pensions were being paid. Total payments in 1973-74 were \$17,000.

Pensioner Health Benefits and Tuberculosis Allowances

The pensioner medical service and tuberculosis allowances are described later in this chapter under the heading 'Health Services'.

Australian Government Rehabilitation Service

In 1941 the Curtin Government introduced provisions for the vocational training of invalid pensioners. In 1948 the Chifley Government provided for the rehabilitation of invalid pensioners and of unemployment and sickness benefit recipients. The Menzies Government in 1955 extended eligibility to persons receiving tuberculosis allowances and to children of 14 and 15 years who otherwise might qualify for an invalid pension at 16. In 1958 widow pensioners and people receiving special benefits were granted eligibility.

The Service aims to fit handicapped people for employment by supplying medical and hospital treatment, surgical aids and appliances and, where necessary, arranging special education and training courses in industry, trade, commerce, public service, etc. Although employment is specifically the responsibility of the federal Department of Labour, vocational counsellors arrange employment with suitable employers and follow-up progress.

Rehabilitation training is given if the disability is a substantial handicap to engaging in full employment. Disabled people who do not qualify for free service may pay for rehabilitation themselves or may be sponsored by private or government organisations. In Tasmania the Department's rehabilitation centre is located in Hobart.

The following table shows the numbers accepted for rehabilitation and placed in employment in Tasmania:

Operation of the Australian Government Rehabilitation Service

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Persons—						
Accepted for rehabilitation .. no.	89	100	96	100	77	82
Placed in employment .. no.	81	90	80	91	71	45
Expenditure (a) \$'000	58	70	79	108	112	133

(a) Excludes capital expenditure on sites and buildings and administrative costs of the Rehabilitation Service.

Training Scheme for Widow Pensioners

In 1968 the Gorton Government introduced a training scheme to provide class A and class B widow pensioners with a vocational skill to enable them to undertake gainful employment and the scheme has since been extended to cover supporting mother beneficiaries. Training is limited to one year's duration; it may be either full-time or part-time, and generally it will be provided in business or technical colleges. This has necessitated special classes being organised by arrangement with the Tasmanian Education Department.

During training the trainee continues to receive her pension, subject to normal conditions of eligibility, and in addition receives a training allowance of \$16 per fortnight (full-time training) plus fares reimbursement. The Australian Government pays all tuition fees, and in addition provides essential books and equipment during training.

The following table gives details of expenditure on the scheme since its introduction and the numbers accepted for training and placed in employment:

Australian Government Training Scheme for Widow and Supporting Mother Pensioners

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Persons—					
Accepted for training no.	41	41	55	45	50
Placed in employment no.	2	17	20	23	15
Expenditure \$'000	6	13	14	18	19

Homes for the Aged

Under the *Aged Persons Homes Act 1954*, the Menzies Government provided for subsidies, on a \$ for \$ basis, to approved organisations intending to build or acquire homes for aged persons. In 1957 the cost of land was allowed as part of the capital cost and the Australian Government contribution was increased to \$2 for \$1. In 1974 a separate subsidy for land was introduced on the basis of two thirds of the Australian Government valuation. The aim is the provision of conditions approaching ordinary domestic life. ('Homes' in this context does not refer to houses built under the Federal-State Housing Agreement.) During 1972-73, 14 grants, amounting to \$322,727 were approved. Cumulative totals for Tasmania, since inception of the scheme, to 30 June 1973 were: number of grants approved, 147; value of approvals, \$5.85m.

Personal Care Subsidy

A subsidy of \$12 per week is payable to eligible organisations in respect of all persons who receive approved personal care in hostel-type accommodation in an aged persons' home eligible under the *Aged Persons Homes Act 1954-1972* and for whom National Health Benefit is not received. Prior to the 1973 Budget, this subsidy was \$10 per week and was restricted to those residents 80 years of age and over.

Delivered Meals Subsidy

A subsidy at the rate of 20 cents for each delivered meal is payable to approved organisations to establish, maintain, expand and improve 'meals-on-wheels' service. An additional subsidy of five cents per meal is payable when an appropriate vitamin C Supplement is provided. In 1972-73 18 organisations in Tasmania provided approved meal services, and subsidy payments were \$20,785.

Sheltered Workshops

The federal *Sheltered Employment (Assistance) Act 1967* incorporated the *Disabled Persons Act 1963*. The Act's object is to foster and encourage the development of sheltered workshops for disabled people who, on medical grounds, qualify or who may later qualify, as invalid pensioners; to provide such persons with work experience, and the opportunity to earn to the limit of their capabilities for work done, the hope being that some may graduate to normal employment in the future.

Assistance is given by a \$2 for \$1 subsidy towards: (i) the capital cost of erection or addition to workshops; (ii) the accommodation of people engaged in sheltered employment; (iii) the rental for up to three years of premises used to provide sheltered employment; (iv) the cost of workshop equipment; and (v) accommodation hostels for handicapped people engaged in normal employment.

In addition a \$1 for \$1 subsidy is payable towards part of the cost of salaries of managers and supervisors of sheltered workshops and hostels for disabled people engaged in sheltered employment. A training fee of \$500 is payable for each eligible disabled person placed in open employment for not less than twelve months.

During 1972-73 two workshop and 26 equipment grants totalling \$98,562 were approved. Payment of five training fees (\$2,500) was made and \$4,946 was paid in salary subsidies in respect of five approved positions. Grants approved in Tasmania since inception of the scheme to 30 June 1973, amounted to \$836,039.

Assistance for Handicapped Children

The federal *Handicapped Children (Assistance) Act 1970* is designed to assist organisations to provide special training and accommodation facilities for handicapped children with the aim that, in many cases, the children will eventually be engaged fully in the social and economic life of the community.

Under the Act a \$2 for \$1 subsidy is payable to eligible organisations towards: (i) the capital cost of premises for the training of handicapped children; (ii) the cost of equipment for, or in connection with, such training; and (iii) the capital cost of residential accommodation for handicapped children receiving training.

During 1972-73 five training programmes were approved. Four training centre grants, one accommodation grant and 11 equipment grants totalling \$209,251 were approved.

Pensioner Medical Service

Free general practitioner medical treatment is available for most age, invalid, widow and service pensioners and their dependants (the exclusion relates to those admitted to pension by liberalisation of the means test in October 1969). Entitlement cards for these benefits are issued by the Social Security Department (or by the Repatriation Department in respect of service pensioners). Eligible pensioners are treated free in out-patient departments and in standard wards of public hospitals.

National Health Benefits

The following table shows Australian Government payments for the various health benefits and services under the control of the Department of Social Security. Other National Health payments details are contained in the section dealing with the federal Department of Health.

National Health Payments Administered by Department of Social Security (a)
(\$'000)

Benefit or service	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Hospital benefits (b)	1,590	1,787	r 2,126	r 2,789	r 3,178	3,458
Nursing home benefits	1,010	1,393	1,512	2,343	2,840	3,272
Medical benefits—						
General	1,609	1,725	2,879	3,562	4,457	4,459
Pensioner medical service	491	580	639	876	946	1,040
Handicapped children's benefit	5	16	18	21	19	27
Domiciliary nursing care benefit (c) .. .. .	..	..	..	..	..	332
Total	4,705	5,501	r 7,174	r 9,591	r 11,440	12,588

(a) Payments from National Welfare Fund. The responsibility for administering these payments was transferred from the federal Department of Health on 1 March 1973. Hospital and medical benefits payments include payments in respect of the Subsidised Health Benefits Plan and advances and reimbursements of Special Accounts.

(b) Includes payments to public hospitals for pensioner patients.

(c) Introduced from 1 March 1973.

Medical Benefits: In 1970 important amendments to the *National Health Act 1953-69* introduced a new national medical benefits scheme based on the principle of a 'most common fee'. A list of fees representing those most commonly charged by doctors in each state was compiled, following a survey undertaken before finalising the new medical benefits scheme. From 1 July 1970 contributors to a registered medical benefits fund, whose doctor charges the 'most common fee', pay no more than \$5 for any service, ranging from 80c for a surgery visit to \$5 for a complicated surgical operation. The balance of the cost is then shared between the health fund and the Australian Government. The old multi-table scheme has been replaced by a single table with contribution rates varying from state to state; in Tasmania most organisations have a weekly family rate of 90c and a single rate of 45c.

Hospital Benefits: These benefits are paid for all patients by the Australian Government at a minimum rate of \$0.80 a day but if a person contributes to a hospital benefits organisation the Australian Government benefit increases to \$2. The highest combined organisation and Australian Government benefit in Tasmania is \$35 a day and the highest family rate of contribution is \$1.70 a week.

Subsidised Medical and Hospital Services: The Australian Government also provides special financial assistance in the following cases:

(a) Low income benefit: (i) a family with an income of \$68.50 (gross) or less: free medical benefits and public ward hospital cover, (ii) gross family income above \$68.50, but not exceeding \$73.00: medical benefits and public ward hospital cover for one-third of the normal health insurance contribution; (iii) gross family income above \$73.00, but not exceeding \$77.50: benefits as above, but for two-thirds of the normal health insurance contribution. (The above income figures were operative from 24 June 1974).

(b) Persons receiving unemployment, sickness or special benefits under the *Social Services Act*: full medical benefits and public ward hospital cover.

(c) Migrants: full medical benefits and public ward hospital cover during the first two months in Australia, providing the migrant has joined a medical benefits fund.

Hospital and Medical Benefits Payments: Federal hospital payments are made on a hospital bed-day basis as follows: insured patients, \$2; uninsured, 80c; pensioner patients, \$5. The following tables show payments by the Australian Government, and also by the health insurance organisations (referred to as 'Fund benefits') in Tasmania, together with details of the number of such organisations and their membership.

Hospital Insurance: Members and Benefits

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Registered organisations (a) .. no.	9	9	10	10	10	9
Members (a) '000	115	118	118	131	125	127
Hospital benefits paid—						
Australian Government benefits—	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Insured patients (b)	709	710	868	1,351	1,596	1,697
Uninsured patients (c)	45	46	33	27	20	18
Hospitalisation free of charge .. ..	..	..	4	6	16	13
Pensioner patients (c)	836	984	1,048	1,098	1,130	1,193
Subsidised health benefits patients .. ..	..	47	173	r 309	416	536
Total	1,590	1,787	2,126	2,789	3,178	3,458
Fund benefits (d)	3,228	3,310	3,701	5,354	6,326	6,382

(a) At end of year.

(b) Includes Special Account deficits.

(c) Paid direct to hospitals by the Australian Government.

(d) Includes ancillary benefits: certain supplementary services for which a fund benefit payment, but no Australian Government payment is made, e.g. home nursing, physiotherapy, provision of spectacles, orthoptics, chiropractice.

Medical Insurance: Members and Benefits

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
Registered organisations (a) .. no.	9	9	10	10	10	9
Members (a) '000	113	116	118	131	125	128
Medical services during year .. '000	1,065	1,165	1,174	1,202	1,395	1,490
Medical benefits paid—						
Australian Government benefits \$'000	1,609	1,725	2,879	3,562	4,457	4,459
Fund benefits (b) \$'000	1,704	1,916	1,997	2,206	2,627	2,702

(a) At end of year.

(b) Includes ancillary benefits—see note (d) in preceding table.

Nursing Home Benefits: Prior to 1 January 1973 the Australian Government paid a benefit of \$3.50 per day direct to the homes for each qualified patient and a further \$3.00 a day for patients classified as requiring intensive care. (Nursing homes are required to deduct the payment from patients' accounts.) As from 1 January 1973 a number of changes were made to the nursing home benefits scheme. The changes required nursing homes to re-apply for registration as nursing homes under prescribed new conditions which included acceptance of a fees control system and the necessity for Departmental approval to be obtained before a patient can be admitted. Fees actually being charged at 30 June 1972 by each nursing home were accepted as a 'base' figure (except for rationalisation to appropriate ward fees in those cases where the nursing home was agreeable). Any increases sought above the 'base' figure now have to be justified by certified cost increases e.g. award wages, cost of provisions, etc. An independent fees review committee was set up in each state to determine any appeals made by nursing homes against Departmental decisions on fees. In addition to the foregoing the Government arranged for additional nursing home benefits to be provided. In the case of pensioners with a pensioner medical service entitlement, an additional benefit up to \$3.10 per day is paid to nursing homes for deduction from the patients' accounts. In the case of non-pensioners, who are insured for hospital benefits with a registered organisation, the organisation pays a benefit up to \$3.10 per day to the nursing home for deduction from the insured patients' account. Prior to 1 August 1974 the additional benefit was paid at a maximum rate of \$1.50 per day. Payments now made are shown in the following table:

Nursing Home Benefit Rates
(\$ Per Week)

Particulars	Ordinary care patients	Intensive care patients
Benefit prior to 1 January 1973	24.50	45.50
Additional benefit from 1 August 1974 (a)	21.70	21.70
Patients share of fees	18.00	18.00
Total fee (b)	64.20	85.20

(a) Payable by the Australian Government for pensioners and by approved hospital benefits organisations for insured non-pensioners.

(b) 'Total fees' (\$64.20, ordinary care and \$85.20, intensive care) are the *standard fees* as determined by the Government at 1 August 1974. If fees actually charged are: (i) less than the standard fee the additional benefit, shown above, is reduced by the difference; or (ii) greater than the standard fee the patient's share, shown above, is increased by the difference.

Domiciliary Nursing Care Benefit: This new benefit was introduced by the Federal Government from 1 March 1973. The benefit of \$2 a day (\$14 a week) is designed to help meet the cost of home nursing and other professional care for aged people who are chronically ill but being cared for in their own homes. It is payable to any person who provides continuous care for a patient in a private home provided the home is the usual residence of both the person and the patient and provided the patient meets certain medical criteria. The main eligibility rules are: (i) patients must be 65 years of age or more; (ii) patients must have an official certificate from their doctor stating that because of infirmity or illness, disease, incapacity or disability they have a continuing need for nursing care by a registered nurse; and (iii) patients must be receiving care by a registered nurse on a regular basis involving multiple visits each week.

Handicapped Children's Benefit: A benefit of \$3.00 per day is paid for each handicapped child (to 16 years) in approved institutions.

State Department of Social Welfare

Expenditure

Activities of this State Government Department are grouped under Child Welfare and Relief. The following table shows expenditure over a five-year period:

Department of Social Welfare: Expenditure
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Administration and general ..	411	452	571	653	762
Relief division	259	386	484	653	1,043
Child Welfare division ..	300	307	325	368	408
Grants to organisations ..	109	121	146	127	149
Total	1,079	1,267	1,526	1,802	2,363

In 1972-73 the major expenses were: under Relief Division, fuel allowances for eligible pensioners, \$181,000 and relief and maintenance, \$823,000; under Child Welfare Division, maintenance of boarded-out children, \$179,000 and contributions towards maintenance of children in approved institutions, \$103,000; and under Grants to organisations, Tasmanian Institute for Blind and Deaf, \$107,000.

Relief Division

The functions of this Division are to investigate applications for assistance from needy mothers with dependent children and to give cash relief where necessary; to issue fuel allowances (subject to a means test) to age and invalid pensioners; and to help pay for funerals, transport, furniture removals, artificial limbs, spectacles, etc. for persons in indigent circumstances. Special grants are made to deserted wives (and sometimes deserted husbands) left with children, wives with husbands in gaol, to certain persons awaiting receipt of federal benefits or pensions, and to relatives supporting deserted children.

Child Welfare Division

The work of this Division includes the investigation of complaints that children are neglected or inadequately controlled; the supervision of neglected children in their own homes to avert the need for more drastic action; the investigation of cases to appear in Children's Courts; the supervision of children under court order; the placement and supervision of children made wards of the State; the control of the Department's receiving and other homes; the recovering of maintenance costs, where possible, from parents of children who are a charge on the Department; the licensing and supervision of children's boarding homes and day nurseries; the supervision of child migrants; and welfare of children referred by courts in divorce actions.

Where, because of illness, a mother is unable to undertake her normal duties, accommodation may be provided for her children at Rochebank Hostel in Hobart, or at other suitable residences throughout the State.

Adoption of Children: Women child welfare officers investigate applications by prospective adoptive parents and interview mothers wishing to place their children for adoption. Applications for adoption of children are heard by a magistrate. There were 268 orders for adoption made in 1972-73.

Children's Courts Statistics

In February 1970 the regulations dealing with the treatment of child offenders were changed so that police were no longer required to report cases to District Child Welfare Officers for approval of proceedings. Previously child welfare officers sometimes recommended that no further action be taken in particular cases, resulting in more children appearing in police reports than eventually appeared in court.

Children's Courts are established to hear cases involving persons under the age of 17 years. If proceedings are instituted, a child's parent has the right to be heard and to examine and cross examine witnesses or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience. For the powers of Children's Courts see the section under 'The Present Law Court System' in Chapter 16.

The following table shows the number and ages of children who appeared before Children's Courts in 1972-73:

Children Appearing Before Children's Courts (a), 1972-73
Classified by Age and Sex

Sex	Age (in years)										Total (b)
	Under 8	8	9	10	11	12	13	14	15	16	
Boys	24	5	19	42	64	100	169	312	444	763	2,050 374
Girls	24	4	1	5	5	16	50	56	86	112	
Total ..	48	9	20	47	69	116	219	368	530	875	2,424

(a) A child appearing twice or more before the Courts will appear twice or more in the table.

(b) Includes 123 children (108 boys and 15 girls) who were 17 years old when appearing before the Courts but 16 at the time the alleged offences were committed.

Before 1969-70 a child could not be prosecuted without his case having been referred to a welfare officer for investigation. The following table shows the offences for which children were reported during 1968-69; from 1969-70, however, the figures relate to actual prosecutions. Where a report concerned multiple offences the apparently more serious one has been listed.

Children in Police Reports (a)
Classified by Offence

Offence alleged	1968-69	1969-70	1970-71	1971-72	1972-73
Damage to property	99	86	103	92	114
Breaking, entering and stealing ..	326	338	320	327	379
Stealing	426	397	326	322	431
Receiving	12	19	24	22	27
Illegal use of vehicles	59	69	133	176	235
Offences involving fraud	14	10	18	17	17
Sex offences	11	16	8	19	24
Other offences against the person ..	41	30	62	53	43
Offences against decency	32	25	27	34	51
Relatively serious offences	1,020	990	1,021	1,062	1,321
Disorderly conduct	32	33	42	40	89
Traffic offences	185	177	229	218	339
Breaches of—Licensing laws	331	293	316	400	440
By-laws	7	27	44	50	12
Firearm offences	42	36	24	42	18
Gaming (b)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	45
Trespass (b)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	26
Other (b)	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	10
Other offences	597	566	655	750	979
Appearing as—Uncontrolled	19	35	36	41	33
Neglected	73	70	61	53	80
Breaches of supervision	15	10	4	19	11
Complaints under Child Welfare Act	107	115	101	113	124
Total	1,724	1,671	1,777	1,925	2,424

(a) A child reported twice or more will appear twice or more in the table. Prior to 1969-70, children in police reports were not all necessarily brought before the courts (see paragraph preceding table).

(b) For years 1968-69 to 1971-72, these offences are included in other categories.

In the previous table, a child may appear more than once if more than one report has been made. The following table shows the number of children found guilty of an offence or against whom a complaint has been proven; the basis for inclusion is different from that in the two earlier tables: (i) a child found guilty at two or more appearances is only counted once; and (ii) a child found guilty of more than one offence is classified under the more serious.

Individual (a) Children: Findings of Guilty, or Complaint Proven, 1972-73

Sex	Relatively serious offences (b)	Other offences (b)	Complaints under Child Welfare Act (b)	Total
Boys	872	648	50	1,570
Girls	149	115	65	329
Total	1,021	763	115	1,899

(a) See paragraph before table for definition of 'individual'.

(b) See previous table for classification of offences and complaints.

Wards of the State and Supervised Children

Children are made wards of the State either on application of a parent or relative (e.g. in the case of both parents' death or desertion) or by a court order. Children may remain wards until they reach the age of 18. Wards, while under the supervision of a welfare officer, are often returned to their home and in such cases wardship is frequently terminated, as it is with those who successfully take up employment.

**Wards of the State: Location, Admissions and Discharges
(Number)**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Location at 30 June—					
In homes—					
Departmental	92	103	110	98	106
Other children's homes	196	197	204	199	202
Foster	356	392	349	374	378
With parents or relatives	113	132	163	177	155
In private lodgings	63	28	55	50	61
Other (a)	27	28	39	39	25
Total	847	880	920	937	927
Children made wards during the year—					
By courts—Delinquent					
Neglected	69	78	70	79	66
On parents' or guardians' request—	43	24	40	36	50
Neglected (uncontrolled) (b)	6	4	2	1	5
Deserted, or parents unable to provide (c)	65	68	58	53	45
Total	183	174	170	169	166
Children ceasing to be wards during the year—					
Adopted	35	27	31	33	21
Supervision not needed, age, etc.	128	114	99	119	155
Total	163	141	130	152	176

(a) Children in hospitals, other government institutions, missing, etc.

(b) Neglected—unfit for guardianship.

(c) Destitute and/or homeless.

At 30 June 1973 there were 1,487 children under State control or supervision. Of these children 560 were under legal supervision of child welfare officers as a result of court-imposed supervision orders and 927 were wards of the State.

Wards are placed in: (i) foster homes (mostly ordinary family homes); and (ii) children's homes (private and departmental). The Department makes payments, based on the child's age, for wards in foster homes and contributes to non-departmental institutions for the maintenance of State wards.

Approved children's homes and foster homes are assisted with major items of clothing. The Department accepts responsibility for hospital expenses and cost of dentistry for wards of the State where this treatment is not available from school dental or hospital services. Optical expenses are also met where necessary. Pocket money, varying from 10 to 75 cents per week, is provided for children in foster homes. Assistance at a rate of \$2.05 per week also is available in respect of certain non-wards, who are orphans or abandoned, in the care of the managers of approved children's homes. Contributions are also made to approved children's homes towards the maintenance of children without other means of support admitted at the direct request of other State Government Departments. The maximum rate payable is \$8.25 a week for each child.

The next table shows government expenditure on wards of the State:

Wards of the State: Government Expenditure
($\$'000$)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Expenditure on Departmental homes ..	222	227	240	271	341	384
Maintenance of children—						
In foster homes	103	119	134	149	178	179
In non-departmental homes	78	95	97	94	103	120
Total expenditure	404	441	471	515	622	683

Departmental Homes: The State's 10 receiving homes, which provide temporary accommodation for children, are maintained at Hobart, Launceston, Wynyard and Devonport. Also, in Hobart, a hostel provides accommodation for older boys who have left school and need to be established in employment.

Ashley Home for Boys, Deloraine, provides care and training for older wards who, because of maladjustment or delinquency, require special institutional control.

Wybra Hall, Mangalore, provides care and training for younger wards and boys on remand. Ages range from eight to 15 years and those admitted have problems of maladjustment or delinquency.

Westwinds, Woodbridge, is a home for intellectually and educationally retarded boys who range in age between seven and 17. Boys of school age attend the local area school. On completion of schooling, boys in need of further training are trained on the home farm as a preparation for future employment.

Weeroona Girls' Training Centre (Latrobe) provides for those adolescent girls in the care of the Department who require special institutional supervision and training. Girls of school age receive correspondence school education and older girls are trained in various aspects of domestic work.

Non-departmental Homes: Other children's homes in which wards are placed are: Kennerley Children's Homes at Claremont and Chigwell; Salvation Army Boys' Home, Salvation Army Girls' Home, St Joseph's Child Centre, Bethany Boys' Hostel, Mt St Canice Convent and Hillcrest, all in Hobart; Yalambee Hostel, Glenorchy; Clarendon Home, Kingston; Girls' Home, and Northern Tasmanian Home for Boys, Launceston; and Roland Boys' Home, Sheffield.

REPATRIATION SERVICES AND PENSIONS

General

The Department of Repatriation and compensation was originally established as a Commission under federal legislation in 1920. The term 'repatriation' does not adequately describe the Department which is responsible for: (i) the payment of war and service pensions to eligible ex-servicemen and women and their dependants; (ii) the provision of medical treatment to ex-servicemen and women for injuries and illnesses caused or aggravated by their war service; (iii) the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths were due to war service; (iv) the provision of medical treatment in certain circumstances to ex-servicemen and women who are suffering from injuries and illnesses not caused or aggravated by war service; and (v) medical treatment for ex-servicemen and women of the 1914-18 War and the Boer war.

Benefits are provided in respect of service in the 1914-18 and 1939-45 Wars, in the Korea and Malaya operations, with the British Commonwealth Far East Strategic Reserve, and the Special Overseas Forces including ex-servicemen from the Vietnam operations and certain members of the defence forces serving on or after 7 December 1972.

Repatriation Pensions—General

War pensions are payable, without general application of a means test, for war-caused or war-aggravated disabilities. Service pensions are payable in the main, to certain ex-servicemen 60 years and over (and ex-servicewomen 55 years and over) subject to a means test; no disability need be claimed.

War and dependant's pensions may be granted to persons, or to dependants of persons, who come within the following categories and who suffered death or disability: (i) arising from any occurrence before discharge, or overseas war service or on service in Australia within certain areas; (ii) attributable directly to service where the member served only in Australia; (iii) from pulmonary tuberculosis where the member served in any theatre of war; and (iv) from aggravation of a condition existing at enlistment where camp service exceeded six months.

Those who receive war pensions are also eligible for free medical and hospital treatment for their pensionable disabilities. With certain categories of pensioners, the eligibility for free treatment is widened to cover all disabilities. It is also possible for an ex-serviceman to qualify for free treatment for a disability without necessarily being granted a pension. Details of selected repatriation benefit rates are shown in the next table:

Repatriation Benefits
(\$ Per Week)

Benefit	Rate		
	1973-74 Budget	Amending legislation (a)	Amending legislation (b)
PAYABLE WITHOUT MEANS TEST			
Special rate pensions (c)—			
Member	55.60	60.10	60.10
Wife	4.05	4.05	4.05
Each child	1.38	1.38	1.38
Intermediate rate pensions (d)—			
Member	38.80	41.05	41.05
Wife	4.05	4.05	4.05
Each child	1.38	1.38	1.38
General rate pensions (e)—			
Member	19.00	22.00	22.00
	max.	max.	max.
Wife	4.05	4.05	4.05
	max.	max.	max.
Each child	1.38	1.38	1.38
	max.	max.	max.
Special compensation allowances—			
Members with 75 per cent to 100 per cent assessed incapacity	2.25 to 3.00	phased out	
War widows (f)—			
Pension	23.00	26.00	31.00
Domestic allowance	9.50	9.50	9.50
War orphans' pensions (g)—			
One parent dead—			
Each child	9.25	9.25	9.25
Both parents dead—			
Each child	18.50	18.50	18.50

Repatriation Benefits—continued

(\$ Per Week)

Benefit	Rate		
	1973-74 Budget	Amending legislation (a)	Amending legislation (b)
MAXIMUM RATES PAYABLE SUBJECT TO MEANS TEST			
Service pensions (b)—			
Member—Standard (single person)	23.00	26.00	31.00
Married	20.25	22.75	25.75
Addition for—First child	5.00	5.00	5.00
Each other child	5.00	5.00	5.00
Wife's Pension (if she is not a pensioner) (i)	20.25	22.75	25.75
Guardian's allowances—			
Where there is a child under six years or an invalid child requiring full-time care	6.00	6.00	6.00
Other cases	4.00	4.00	4.00

(a) Assented to in March 1974; effective from 28.3.74.

(b) Assented to in July 1974; effective from 1.8.74.

- (c) Special rate pension (commonly referred to as the T.P.I. pension) is granted where an ex-serviceman, because of incapacity accepted as due to war service, is totally and permanently incapacitated—that is, to such an extent as to be precluded from earning other than a negligible percentage of a living wage—or has been blinded as a result of war service. Where an ex-serviceman is only temporarily totally incapacitated, an amount equal to the special rate pension is payable only for the period he is incapacitated. It may also be granted under certain conditions to an ex-serviceman who is suffering from pulmonary tuberculosis.
- (d) Intermediate rate pension is payable where an ex-serviceman, because of the severity of his war-caused disabilities, can work only part-time or intermittently and therefore is unable to earn a living wage.
- (e) General rate pension is payable to an ex-serviceman whose war-caused disabilities do not prevent him from working, although they may reduce his earning capacity. Pension from 10 per cent to 100 per cent of the maximum general rate is payable according to the degree of incapacity as assessed by a Repatriation Board, the Repatriation Commission or an Assessment Appeal Tribunal.
- (f) Pension is payable to the widow of an ex-serviceman whose death has been accepted as due to his war service or who has died from causes not due to war service but was receiving, at the time of his death, or is later adjudged to have been entitled to receive, the special rate of war pension, one of the rates payable to double amputees or one of the special rates payable in respect of tuberculosis or who served in a theatre of war or who died as a direct result of pulmonary tuberculosis.

Domestic allowance is also payable to a war widow if she has a dependent child or children under 16 years, or is 50 years of age or over, or is permanently unemployed or has a child 16 years or over who is undertaking education or training approved by the Commission and who, in the opinion of the Commission, is not receiving an adequate living wage.

- (g) War orphans' pensions are paid for the children of an ex-serviceman whose death occurred in circumstances similar to those mentioned in (f) above. The pensions continue until the children attain the age of 16 years.
- (h) Service pension, which is broadly the equivalent of the age and invalid pensions payable to civilians, is payable, subject to a means test, to an ex-serviceman who: (i) is suffering from pulmonary tuberculosis; or (ii) has served in a theatre of war (or in the case of a woman, served abroad or embarked for service abroad) and has attained, if a man, the age of 60 years, or if a woman, 55 years; or is permanently unemployable. Ex-servicemen and their wives who have attained 75 years of age are entitled to receive maximum service pension free of the means test.

Where a service pension is granted to an ex-serviceman a service pension may also be paid to his wife and eligible children, but the amount for a child is normally paid as an addition to the ex-serviceman's pension.

Where the ex-serviceman's wife is receiving a social service pension, a tuberculosis allowance or a service pension as a 'member of the forces', the rate payable to him is the married rate unless, because of illness or infirmity of either or both of them, they cannot live together in a matrimonial home, then the rate payable will be the standard rate.

Guardian's allowance may be payable to a service pensioner who is unmarried, widowed, divorced or married but separated and who has the custody, care and control of a child.

Supplementary assistance, at a maximum rate of \$4 per week, is payable to: (i) a single service pensioner subject to the payment of rent (or of board and lodging) and to a means test; or (ii) a married service pensioner on the same basis as a single service pensioner. The total supplementary assistance is divided equally between the husband and the wife, a maximum of \$2 per week being payable to each.

- (i) Wife's service pension of \$25.75 per week is payable, subject to a means test, to a wife who is not in receipt of a pension from the Department of Social Security or a service pension as an ex-servicewoman.

War Pension Payments

The following table shows, for Tasmania, the number of pensions in respect of ex-servicemen and their dependants, together with expenditure on war pensions:

War Pensions: Pensioners and Payments

Year	Number of pensions current at 30 June				Expenditure during year (a)
	Incapacitated ex-servicemen	Dependants of—		Total (c)	
		Incapacitated ex-servicemen	Deceased ex-servicemen (b)		
1968-69	8,644	13,731	2,100	24,485	\$'000 7,622
1969-70	8,635	13,040	2,123	23,798	7,831
1970-71	8,646	12,493	2,106	23,254	8,230
1971-72	8,580	11,874	2,049	22,512	9,094
1972-73	8,503	11,360	2,042	21,905	9,857
1973-74	8,358	11,602	2,027	21,987	11,176

(a) Includes widows' allowances.

(b) Includes war widows' pensions.

(c) Includes miscellaneous pensions not specified under the 'ex-servicemen' details, e.g. Seamen's war pensions and allowances.

At 30 June 1974 the proportion of ex-servicemen in Tasmania receiving war pensions in respect of service in the 1914-18 War was 8.9 per cent; the 1939-45 War, 85.6 per cent; the Korea and Malaya operations, 1.7 per cent, and other operations 3.8 per cent.

Service Pension Payments

The following table shows, for Tasmania, the number of service pensions in respect of ex-servicemen and their dependants, and expenditure on pension payments:

Service Pensions: Pensioners and Payments

Year	Number of pensions current at 30 June				Expenditure during year
	Ex-servicemen	Dependants of—		Total	
		Living pensioners	Deceased pensioners		
1968-69	1,712	791	107	2,610	\$'000 1,093
1969-70	2,039	976	117	3,132	1,404
1970-71	2,074	1,003	118	(a)3,197	1,604
1971-72	2,131	1,049	116	(a)3,298	1,841
1972-73	2,638	1,402	122	4,162	2,827
1973-74	3,093	1,541	129	4,763	4,362

(a) Includes act of grace pensions.

Eligibility and Rates for Service Pensions

Service and dependant's pensions may be granted to persons (or to dependants of persons) who come within the following categories and satisfy a means test: (i) men aged 60 or over who served in a theatre of war or women 55 years and over who served abroad; (ii) men and women with similar service particulars who are totally unemployable; (iii) sufferers from pulmonary tuberculosis not qualifying for a war pension on this ground. The conditions governing the means test are the same as for old age pensions described earlier in this chapter.

Medical Services

To discharge these functions in Tasmania, the Department of Repatriation and Compensation maintains a branch office, a general hospital and an artificial limb and appliance centre in Hobart. Facilities exist at the Repatriation General Hospital for medical treatment of hospitalised patients and specialist services for out-patients. Generally, treatment for out-patients throughout the State is provided by doctors whom the Department has appointed as Local Medical Officers. People entitled to treatment can select a doctor from the panel of L.M.Os and receive treatment at departmental expense. Payment for treatment in hospitals other than the Repatriation General Hospital is met by the Department only in certain circumstances.

Extensions of benefits announced in the 1973 Budget included: (i) Free treatment for all veterans of the Boer War and the 1914-18 War. This includes medical, hospital, dental, ophthalmological and para-medical treatment and, subject to a contribution of \$17.85 per week, treatment in nursing homes. (ii) Ex-servicemen and women, who have served in a theatre of war and who are suffering from malignant cancer, are for that condition eligible for free medical and hospital treatment and, subject to a contribution of \$17.85 per week, to nursing home treatment. (iii) Allowing the facilities of the Repatriation Artificial Limb and Appliances Centres to be used to provide free artificial limbs to the general public.

Soldiers' Children Education Scheme*Eligible Children*

Educational assistance is granted to ex-servicemen's children in particular circumstances: (i) if the parent has died from causes attributed to war service or was receiving war pension for specific serious disabilities at the time of death; (ii) if the parent, as a result of war service, is blinded, totally and permanently incapacitated or receiving the special rate pension for pulmonary tuberculosis.

Benefits

For children under 12 years, the scheme pays the cost of school requisites and fares. At secondary level, fortnightly maximum payments are: under 14 years, \$6.50; 14 and under 16, \$9.80; 16 years and over, \$21.50 if both parents are living and \$28.30 if only one parent is living. At tertiary level, those living at home may receive \$32.70 per fortnight and those living away from home, \$53.85. For tertiary and professional courses, students may receive grants to pay for text books, equipment, fees and fares. The means test used to determine whether the maximum shall be paid does not relate to the parent's income but takes into account grants the student is receiving from scholarships, cadetships, etc.

HEALTH SERVICES**State Health Services***General*

The State Department of Health Services is responsible for the maintenance of the health of the community, the prevention of disease and the provision of government hospital and medical services. The Department is under the jurisdiction of the Minister for Health, with the Director-General of Health Services as its permanent head. The headquarters of the Department controls two divisions, each under a director, namely Public Health and Tuberculosis. Three specialised services are also part of the Department: the State Health Laboratory under

the direction of the Government Pathologist; the Government Analyst and Chemist Laboratory under the control of the Government Analyst; and Cardio-Vascular Services under the control of a Director.

The following table shows expenditure from Consolidated Revenue for a five-year period:

Department of Health Services: Expenditure from Consolidated Revenue
(**\$'000**)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Administration, head office	253	257	325	348	398
Hospital and medical services—					
Administration	211	219	(a)235	(a)295	353
Grants to hospitals	8,087	9,442	10,854	12,085	14,387
Medical services, country districts	146	167	188	198	210
District Nursing Service (b)	22	1	..	..	..
Dental Health Service	490	504	599	698	754
State Laboratory, pathology	4	4	4	4	12
National fitness section	58	66	78	87	100
Nurses' Registration Board	9	7	7	7	7
Government Analyst and Chemist	77	81	110	139	164
St John's Park Hospital	1,261	1,378	1,577	1,763	1,925
Public health—					
Administration and inspectors	213	245	308	369	403
School Medical Service	150	161	185	197	224
Child Health Service	173	192	218	242	281
Mothercraft Home	95	106	116	127	149
Road safety .. .. .	..	4	42	94	111
Tuberculosis Division—					
Administration	184	190	203	209	227
Chest hospitals	210	217	244	246	116
Miscellaneous grants and expenses r ..	(c)404	453	(a)590	(a)651	848
Total	12,048	13,691	15,884	17,758	20,670

(a) Expenditure on the enquiry into the running of the Launceston General Hospital has been included in Miscellaneous grants and expenses: 1970-71, \$12,000; 1971-72, \$46,000.

(b) District nursing centres administered from 1 July 1968 by public hospitals.

(c) Includes Royal Commission on fluoridation of water supplies: 1968-69, \$2,000.

Headquarters

Responsibilities of the headquarters of the Department of Health Services include:

- (i) public hospital management advisory services and the licensing of private hospitals and other medical establishments under the *Hospitals Act 1918*;
- (ii) District Medical Service;
- (iii) School Dental Service;
- (iv) Nurses' Registration Board and Dental Mechanics' Registration Board;
- (v) Tourist Nursing Service;
- (vi) legislation concerned with health and allied matters;
- (vii) certain specialist medical services;
- (viii) State Drug Advisory Committee;
- (ix) liaison with the health departments of other states and the Australian Government (the Director-General of the State Department is a member of the National Health and Medical Research Council and the (National) Hospital and Allied Services Advisory Council); and
- (x) liaison with professional, medical, dental and nursing associations.

The Director-General is the controlling authority under the Hospital Employees' Award, the Medical Officers' Award and the Nurses' (Public Hospitals) Award. Headquarters also controls and maintains Crown property occupied by the various sections of the Department and deals with the appointment and salaries of staff who are not officers of the Public Service.

Division of Road Safety

This Division is primarily concerned with development and implementation of government road safety policy and legislation and co-ordinating government and private facilities to reduce road accidents.

The Division operates a State-wide schools road safety education programme. In addition to school education, the Division is responsible for general road safety publicity and public education and administers activities of the Road Safety Council of Tasmania.

School Dental Health Service

This service, available free to children attending school, aims to examine and treat every child each six months, but continued staff shortages have prevented this from happening. At the end of June 1973, 29 permanent clinics were operating at urban centres throughout the State while 24 mobile units provided services in most country districts.

An orthodontic service is based in Hobart; mobile and permanent clinics give a State-wide therapeutic service.

Dental Nursing: Adopting the New Zealand system, Tasmania became the first Australian State to develop a School of Dental Nursing. Twenty first-year and 20 second-year students are trained, together with 10 students on behalf of the Australian Government (these are employed in the A.C.T. after graduation). Seven classes have graduated since January 1968 after two-year courses, and the graduates have been appointed to clinics. The school, with a residential hostel attached providing accommodation for 30 students, is located in Hobart, and up to 120 patients a day are treated there. It is expected that a total of approximately 100 dental nurses will work in rural and metropolitan areas; a recognised dental nursing certificate is required for a nurse to be appointed to such a field position.

Fluoridation

In 1953 Beaconsfield became the first local government authority to add fluoride to its water supply and Launceston followed in 1961. In 1964 Hobart became the first Australian capital city to add fluoride to its water supply.

A Royal Commission inquired into fluoridation of water supplies in 1968. It reported favourably and recommended its extension throughout the State. The State Government passed the *Fluoridation Act* 1968, setting up a Fluoridation Committee with power to recommend to the Minister for Health the fluoridation of any public water supply and to oversee fluoridation operations. It is required to report annually to the Minister who must lay the report before Parliament.

By July 1973 fluoridation had been extended to the City of Glenorchy, the urban portions of the Clarence and Kingborough Municipalities, the towns of Devonport, Burnie, Bridgewater, Brighton, Kempton, Pontville, New Norfolk, Richmond, Sorell-Midway Point, Campania, Cambridge, Kingston, Blackmans Bay, Huonville, Ranelagh, Margate, Snug, Strathgordon and all towns on the West Tamar and North Esk Regional Water Supplies.

District Medical Service

In 1937 the Government undertook to help the more remote municipalities obtain medical services; at present, participating municipalities levy a rate under the *Local Government Act* 1962, as amended, and meet between one-half and one-third of the cost of the scheme.

The scheme provides a general practitioner service free to all residents of the municipality for consultations and home visits. A surgery is usually attached to the district medical officer's house, and branch surgeries are sometimes located elsewhere within the district. Attention out-of-hours is charged for in accordance with a set scale, as are insurance medical examinations, compensation treatment and attention to visitors to the State.

As well as general practice, activities include the dispensing of drugs if no chemist is available; duties as Medical Officer of Health (under the *Public Health Act*) if a municipal council requests it; in some cases duty as superintendent, if there is a district hospital within the municipality; attention to district nursing hospitals; and post mortem examinations.

Pharmaceutical Services Section

The Pharmaceutical Services Section has numerous advisory, supervisory and regulatory functions under regulations and legislation relating to narcotics, poisons, dangerous and therapeutic drugs.

Alcohol and Drug Dependency Board

This Board was established under the *Alcohol and Drug Dependency Act* 1969: its members are appointed by the Minister for Health from the medical, pharmaceutical, social service, police and legal professions. Its functions are: (i) to keep under review all matters relating to the prevention and treatment of alcohol and drug dependency; (ii) to advise in the declaration and control of substances as drugs under the Act; and (iii) to act as a board of appeal for applications by patients for discharge from treatment centres.

The treatment and rehabilitation of sufferers of alcohol and drug dependency is handled by the Mental Health Services Commission; the Commission's acute psychiatric units (at Wynyard, Devonport and Launceston) the Royal Derwent Hospital, the Royal Hobart Hospital and the John Edis Hospital have been declared treatment centres.

State Drug Advisory Committee

This advises on the nature, strength and variety of drugs to be supplied to public hospitals and institutions by the medical store of the Supply and Tender Department. It is not concerned with administration but helps the store to avoid stocking drugs with different names but similar properties, and stocking drugs not likely to be required.

Nursing

Nursing training is under the control of the Nurses' Registration Board. Of the State's nursing training schools, eight are general, six midwifery, two child health, one psychiatric and one geriatric. There are nine general, one psychiatric and one geriatric training schools for auxiliary nurses (nursing aides).

Tourist Nursing Service

This service is based on the fact that trained nursing sisters from outside Tasmania like to visit the State and have a working holiday. These 'tourist nurses' are employed for short periods in hospitals or district nursing centres. Not more than two months service at any one time is required of a sister in any one place but she may stay longer.

Division of Public Health

General

The Division of Public Health has responsibility for the preventive medical services of the State. The Director is responsible for the operation of the *Public Health Act* 1962 (as amended) and the control of medical officers of health and other health officers employed by the Department of Health Services and municipalities throughout the State. A major responsibility is public immunisation programmes, conducted through the municipalities; preparations distributed include the Sabin anti-poliomyelitis vaccine and the triple antigen vaccine (against whooping cough, tetanus and diphtheria). The Division is responsible for the Nutrition Advisory Service; industrial hygiene; environmental sanitation; pure food and pure drug quality control; and the public health aspects of the building regulations. Other major functions are discussed separately in the following sections.

Notifiable Diseases

Certain diseases, including serum hepatitis, food poisoning in two or more associated cases, ornithosis, salmonella and shigella infections, are notifiable under the *Public Health Act*, the aim being to prevent or check their spread.

Special conditions apply to venereal diseases. Persons suffering from them must not marry until cured, or engage in the manufacture or distribution of foodstuffs, and are liable to arrest and detention if they fail to continue treatment until cured.

Quarantine provisions and tuberculosis are dealt with in later sections.

The following table shows the incidence of notifiable diseases in Tasmania for a five-year period:

**Notifiable Diseases Reported to Department of Health Services
Number of Cases**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Amoebiasis .. .. .	..	1	..	..	..
Brucellosis	2	..	..	..	..
Cholera .. .. .	..	..	..	..	1
Diphtheria	1	1	..	..	..
Food poisoning in two or more associated cases (a) .. .. .	..	..	2	5	..
Gonorrhoea	117	75	116	112	162
Hydatids	8	17	8	9	7
Infectious hepatitis	552	400	319	186	55
Leptospirosis .. .. .	..	3	..	12	..
Malaria .. .. .	..	2	1	1	1
Nephritis .. .. .	..	..	..	..	..
Ornithosis (a) .. .. .	..	..	..	..	..
Poliomyelitis	1	..	..	..	..
Rubella (a) .. .. .	..	..	..	..	..
Salmonella infections (a)	16	10	14	12	33
Serum hepatitis (a) .. .. .	..	..	..	..	..
Shigella infections (a)	27	6	1	1	21
Syphilis	3	7	7	9	2
Tetanus .. .. .	..	1	2	1	1
Tuberculosis	60	48	48	43	54
Typhoid fever (incl. paratyphoid)	3	1	..	2	1
Urethritis .. .. .	..	3	7	2	..
Total	790	575	525	395	338

(a) From November 1967 these diseases became notifiable.

Child Health Service

Child health nurses attached to child health centres advise mothers on the care and upbringing of their babies and younger children. In 1973 there were 98 centres and 15 travelling units. Voluntary child health committees working for the centres raise money for furnishings and equipment and buildings erected by the Department. The functions of the centres include examination of babies, maintenance of individual histories, and advice on diets, feeding techniques and hygiene. Phenistrix tests are carried out for the detection of phenylketonuria, a rare complaint which results in mental deficiency if not treated in infancy. New-born babies are visited in their homes by the sisters; details of births and addresses are supplied by the hospitals.

The Mothercraft Home: This home, located in Hobart, provides training for qualified nursing sisters who want to gain child health nursing certificates and for women who want to become mothercraft nurses. It accommodates children under two years who need care or who cannot be looked after at home, and mothers learning to look after children or having feeding problems. When space is available, children under two years can be boarded in the Home for short periods.

School Health Service

This is available free to children under 16 years at both state and non-government schools. The aim is for an annual inspection at each school by a medical officer, but staff shortages have limited this to examinations at school entry, next at 11, and finally at 15 years. Children requiring review or examination for any condition causing concern are also examined by school doctors who particularly look for conditions likely to affect a child in a school situation. Parents can make appointments for their children to be examined at centres in Hobart, Launceston, Devonport and Burnie.

School nursing sisters visit schools regularly to supervise the health and hygiene of pupils. They maintain medical records, perform cleanliness inspections, test sight and hearing, assist at medical examinations and follow up defects notified. They contribute to health education, research projects and may organise immunisation sessions at their schools.

Health Education

The Health Education Council is composed of representatives of the Division of Public Health, the Education Department, the Mental Health Services Commission, the Adult Education Board and several other interested persons. The Council's aim is public education by distribution of information on health matters.

National Fitness Section

This is concerned with putting into effect the Tasmanian National Fitness Council's policy, which is the promotion of community health and personal fitness; this involves the promotion and extension of physical recreation and amateur sport, fitness and training programmes, co-ordination of youth work, and assistance to existing youth and recreation groups. The main cost is met by the State Government (\$125,690 in 1973-74) and a small grant is made by the Australian Government. Close contact is maintained with local government authorities and community organisations interested in the various aspects of community fitness and recreation. Assistance is given in the development of indoor recreation centres, camping facilities and programmes, amateur sports, outdoor activities such as canoeing, mountain and bush expeditions and adventure activities generally. Executive services are provided for the Duke of Edinburgh Award Scheme and for the Youth Council of Tasmania.

Mental Health Services Commission

Introduction

Significant advances have been made in the field of clinical psychiatry and in the treatment of mental illness during the past three decades. The development of psychotropic drugs, new therapeutic techniques and improved methods of clinical practice have revolutionised the mental hospital from an institution for the incarceration of lunatics to a modern hospital geared to the care and rehabilitation of the sufferers of psychiatric disorders.

Administration

The Mental Health Services Commission was established under the *Mental Health Services Act* 1967, following an interdepartmental investigation into psychiatric services in Tasmania. The Commission comprises three members: a Medical Commissioner, a Clinical Commissioner (being Professor of Psychiatry at the University of Tasmania) and an Administrative Commissioner. Since 1 July 1968, the Commission has operated as a statutory authority, completely separate from the Department of Health Services.

Ultimately, the Mental Health Services Commission aims to provide integrated community services and to this end has established acute psychiatric units at Launceston, Wynyard and Latrobe. These regional units are closely linked to the public hospital complexes.

In September 1972, the Commission formally took over the Tasmanian Chest Hospital at Creek Road, Hobart and re-named the institution the John Edis Hospital. The facilities at this hospital have enabled the services for alcoholism and psychiatric disorders, formerly carried out at Clare House, New Town, to be expanded.

The principal institution under the control of the Commission is the Royal Derwent Hospital.

Royal Derwent Hospital

The Royal Derwent Hospital, at New Norfolk, is the State's principal centre for the treatment of psychiatric disorders and for caring for the mentally retarded. The hospital is divided into six sections and patients are allocated to the sections on the basis of their medical diagnosis. The basic division of patients is into those who are psychiatric patients and those who are suffering from mental subnormality.

The following table shows the diagnosis of mental illness of patients in the Royal Derwent Hospital:

Royal Derwent Hospital (a)
Diagnosis of Mental Disorder of Patients, 1972-73

Mental disorder	Patients admitted (b) 1972-73			Patients at 30 June 1973		
	Males	Females	Total	Males	Females	Total
Senile and pre-senile dementia ..	17	22	39	18	63	81
Alcoholic psychosis	25	6	31	16	6	22
Psychosis with intracranial infection ..	..	..	..	1	1	2
Psychosis with other cerebral condition	7	1	8	11	16	27
Psychosis with other physical condition	1	2	3	2	2	4
Schizophrenia	53	56	109	130	76	206
Affective psychoses	16	46	62	12	21	33
Paranoid states	2	2	4	10	9	19
Other psychoses	2	5	7	1	1	2
Neuroses	26	37	63	6	12	18
Personality disorders	58	36	94	19	7	26
Alcoholism	228	23	251	25	8	33
Drug dependency	7	7	14	1	3	4
Transient situational disturbances ..	11	25	36	4	1	5
Behaviour disorders of childhood ..	..	6	6	2	2	4
Mental disorder not specified as psychotic associated with physical conditions	10	10	20	11	9	20
Mental retardation—Borderline ..	11	7	18	5	8	13
Mild	4	12	16	28	24	52
Moderate	12	8	20	57	55	112
Severe	10	11	21	61	78	139
Profound	1	3	4	25	29	54
Unspecified	1	1	2	14	6	20
Other	16	1	17	4	1	5
Total	518	327	845	463	438	901

(a) Includes Millbrook Rise Hospital.

(b) Excludes those returned from leave.

The following table shows the number of patients who were admitted, discharged or who died:

Royal Derwent Hospital
Number of Patients Admitted, Discharged and Deaths, 1972-73

Particulars	Males	Females	Total
Patients at beginning of year	464	460	924
Patients admitted—			
First time	219	124	343
Re-admitted	299	203	502
Returned from leave	44	25	69
Total	562	352	914
Patients discharged, etc.—			
Discharged from hospital	362	260	622
Proceeded on leave	167	74	241
Died	34	40	74
Total	563	374	937
Patients at end of year	463	438	901

Other Institutions

Hobart: (i) The Combined Children's Centre was opened in February 1968 for the treatment of psychiatrically disturbed children referred to the Centre by private medical practitioners, the Royal Hobart Hospital, Social Welfare Department, School Medical Service and the Guidance Branch of the Education Department. At 30 June 1973 there were 592 children under treatment.

(ii) The Day Minding Centre was opened in September 1968 to care for severely mentally retarded children, many of whom are also physically retarded. At 30 June 1973 29 children were enrolled at the Centre, and 10 were on the waiting list.

Launceston: (i) The Lindsay Miller Clinic at the Launceston General Hospital reported the following attendance figures during 1972-73: out-patient visits, 2,961; day patient visits, 2,967; in-patients, 608. Psychological consultations totalled 416 and social work consultations 1,970.

(ii) The Children's Centre at Launceston was opened on 23 October 1972 and attendance figures in its first year of operation were: new cases, 131; old cases, 183.

North-West: In-patient facilities are provided at the Mersey General Hospital and the Spencer Division of the North-Western General Hospital.

Various centres provide facilities for out-patient treatment on the north-west coast. During 1972-73, the North-Western General Hospital, Spencer Division, treated 805 out-patients; Burnie Division, 1,620; Smithton District Hospital, 235; Devonport and Ulverstone Clinics, 1,614.

Division of Tuberculosis

The Division is concerned with case-finding, diagnosis, treatment and long-term supervision of tuberculosis cases. It also conducts mass B.C.G. vaccination of high school students as a prophylactic measure.

Under a federal arrangement, the Tasmanian Government is reimbursed by the Australian Government for approved capital and maintenance expenditure in the tuberculosis field.

An allowance is paid by the Australian Department of Social Security to those tuberculosis sufferers who need to stop work or to enter hospital. The allowance is subject to a means test on income (but not on property) and provides \$26.00 a week for a single person in hospital and \$29.25 weekly while at home; married sufferers at home or in hospital are paid \$49.00 per week plus \$5.00 for each dependent child.

The Peacock Convalescent Hospital in Hobart is run by a committee of management, most of its patients being referred from the Royal Hobart Hospital.

All district nursing hospitals, formerly administered by the Department of Health Services, have been administered as annexes by various general or district hospitals since 1 July 1968, the parent hospital in each case being selected on a geographical basis.

Fees

The daily general ward fees charged in the State-controlled hospitals are not much lower than those charged in multiple bed wards in private hospitals. However, the former fees are all-inclusive (i.e. covering medical attendance, surgery, although additional charges may be made for radiology, pathology and electroencephalography) while the latter cover only accommodation and general nursing. Under the 'personal patient' scheme, a patient in the Hobart and Launceston general hospitals may have his own doctor, if he is an honorary doctor at the hospital, for the payment of an additional fee. Voluntary insurance with hospital fund organisations plus federal hospital benefits enable most patients to meet the fees charged.

Hospitals for the Aged and Invalid

The State Government administers three hospitals caring for the aged and for invalids. In the table that follows, the distinction is made between 'general' and 'hospital' beds; 'general' refers to beds available for inmates not receiving treatment in the hospital sections of the institutions.

Government Hospitals for the Aged, 1972-73

Institution	Average daily number of inmates			Beds available		
	Males	Females	Total	General	Hospital	Total
Cosgrove Park (a) ..	152	86	238	141	134	275
St John's Park	237	191	428	40	458	498
Spencer (b)	9	21	30	5	25	30
Total	398	298	696	186	617	803

(a) Cosgrove Park is administered as part of the Launceston General Hospital.

(b) This is a geriatric wing of the Wynyard Division of the North-Western General Hospital (previously the Spencer Hospital).

A new rehabilitation centre is presently in the early stages of construction at New Town. This centre will cater for a wide range of services, including in-patient services for children and adults requiring hospitalisation because of all forms of disablement e.g. spastic diseases, mental retardation, crippled children and other handicapped persons and disabled persons generally. Domiciliary and day hospital therapeutic and home help facilities will still be based at St John's Park.

District Hospitals (Public)

These do not provide the diverse range of services available in the general hospitals, and do not have resident medical officers. They are located at Beaconsfield, Campbell Town, Currie, Franklin, Longford, New Norfolk, Ouse, Queenstown, Rosebery, Scottsdale, Smithton, St Marys, Ulverstone, and Whitemark.

Finances of State Controlled Hospitals

The following table gives a financial summary of the operation of State controlled hospitals and hospitals for the aged ('public' hospitals in the table include general and district hospitals):

State Controlled Hospitals and Hospitals for the Aged
Receipts and Payments (a) 1972-73
 (\$'000)

Particulars	Hospitals (excluding mental)			Mental hospitals	Hospitals for the aged
	Public (b)	Maternity (c)	Total		
Receipts—					
Government aid—					
State	13,240	683	13,923	3,775	1,413
Australian Government	1,056	14	1,070	30	940
In-patient fees	5,055	805	5,860	436	449
Out-patient fees	249	..	249	..	..
Other	43	1	44	50	16
Total	19,643	1,503	21,146	4,291	2,818
Payments—					
Salaries and wages	14,161	1,138	15,299	2,937	2,221
Provisions	821	82	903	(d)	211
Domestic supplies	1,183	142	1,325	(d)	206
Dispensary, etc.	1,904	61	1,965	(d)	40
Other	1,349	83	1,432	(d)	140
Total	19,418	1,506	20,924	4,292	2,818

(a) Excludes expenditure from State Loan Fund.

(b) Includes maternity wards in public hospitals.

(c) Excludes maternity wards in public hospitals.

(d) Not available on a comparable basis; included in 'Total'.

Staff and Patients in State Controlled Hospitals

The following table gives a summary of the main statistics relating to staff and patients in State controlled hospitals and hospitals for the aged:

State Controlled Hospitals and Hospitals for the Aged
Staff, Accommodation and In-patients

Particulars	Hospitals (excluding mental)		Mental hospitals		Hospitals for the aged	
	1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
Hospitals and homes	21	20	1	1	3	3
Nursing staff—	42	50	195	189	83	86
.. .. . males	..	..	..	..	..	..
.. .. . females	1,891	1,894	182	188	155	202
Beds available	2,150	2,171	1,028	1,030	812	768
In-patients—						
Total number treated— .. .. .	..	..	..	..	..	..
.. .. . males	20,051	23,307	1,056	1,026	606	632
.. .. . females	31,535	31,632	856	812	496	499
Daily average number of patients						
during year— .. .. .	..	..	..	..	..	..
.. .. . males	579	642	464	449	385	398
.. .. . females	870	837	474	469	324	298
.. .. . persons	1,449	1,479	938	918	709	696
In-patient costs—						
Total \$'000	16,224	17,924	3,230	4,292	2,532	2,818
Daily average per patient \$	30.69	33.20	9.43	12.81	9.78	11.09

Private Medical Establishments

The above establishments, 72 in number, are operated by charitable and church organisations and by private individuals or organisations. Most are concerned with care of the aged but five are hospitals with a more general purpose.

All 72 are registered under Part III of the *State Hospitals Act* but five are also registered under the federal *National Health Act* as hospitals. These are Calvary, St John's and St Helen's in Hobart, and St Luke's and St Vincent's in Launceston, all providing medical and surgical services. Of the remaining 67 establishments, 50 are licensed to provide nursing home care; and 17 to provide accommodation for ambulant patients only.

The largest units in the non-hospital group are: Hobart area, A. A. Lord Homes (111 beds), St Ann's Rest Home (110), Freemasons Homes (93), Lillian Martin Home (92), Mary's Grange (91), Strathaven Lodge (89), Queen Victoria Home for the Aged (80); Launceston area, Nazareth House (98 beds), Ainslie House (95); north-western area, Meercroft Home for the Aged (92), Eliza Purton Home for the Aged (80).

State Health Laboratory

The State Health Laboratory is under the control of the Government Pathologist. Apart from providing certain pathological services to the Royal Hobart Hospital, other hospitals and to doctors, the laboratory provides special bacteriological and cytological services.

The Laboratory is located at the Royal Hobart Hospital; prior to 1965 special tests had to be done in Melbourne, but equipment installed in that year now enables all work to be done in Tasmania. Specimens from suspected T.B. sufferers, discovered in the compulsory chest X-ray programme, are examined and uterine and other cancers can be discovered by the Papanicolaou smear test. Tasmania was the first Australian State to introduce this test on a large scale; early diagnosis by this simple and effective method, particularly in women who show no symptoms, usually makes possible the cure of this type of cancer. Mass screening of new-born babies is done to correct errors of inborn metabolism, especially phenylketonuria. Other work includes analysis of food, water and milk samples.

Government Analyst and Chemist Laboratory

This laboratory analyses a wide variety of foods, drugs and other substances and undertakes work for Government departments and the public. Its work includes food and agricultural chemistry, forensic chemistry and toxicology, analysis for industrial hygiene purposes, water and corrosion problems, and other matters such as blood alcohol examinations for *Road Safety (Alcohol and Drugs) Act* purposes.

Other Health Matters

Child Health Institutions

These are medical institutions run by the State or subsidised by public funds. They provide treatment and supervision along with general education. The Sight Saving School, School for the Blind and Deaf, Talire (for retarded children) and Wingfield (for orthopaedic patients) are government institutions for children with particular defects.

Ambulance Services

The Ambulance Commission of Tasmania co-ordinates services throughout the State and is responsible to the Minister for their effective operation. Ambulance Boards, centred on Hobart, Launceston, Devonport and Burnie, control services in the adjacent local government areas. A few municipalities, however, operate services outside the *Ambulance Act*. The total Government grant to ambulance services, both under Board and independent control, was \$265,000 in 1973-74.

Ambulance services under control of the four Boards provide free transport for ratepayers, occupiers and pensioners. In addition to receiving Government subsidies, their income is derived from fees (payable by visitors) and municipal grants.

The Ambulance Commission has adopted the training standards of the Victorian Ambulance Officer's Training School.

Royal Flying Doctor Service

This was established in Tasmania in 1960 and has as its purpose the provision of medical and dental services to persons in isolated areas. If the illness or injury is serious, a doctor flies to the patient and if necessary brings him back to hospital. The ambulance services receive the calls, make arrangements to charter aircraft and supply medical equipment. The Australian and State Governments make an annual grant towards operational expenses.

Blood Transfusion Service

Prior to 1954, the Australian Red Cross Society, which operates the service, was assisted only by the State Government; since then, a grant equal to 30 per cent of operating expenses has been made by the Australian Government and 60 per cent by the State. The combined grant in 1973-74 was \$119,724.

Municipal Health Functions

Municipal councils and city corporations possess wide powers and responsibilities in public health. They organise triple antigen immunisation campaigns against diphtheria, whooping cough and tetanus, and vaccinations against poliomyelitis and smallpox. (These are available without charge to children under 17 years.) They control the condemnation of sub-standard dwellings, the effective disposal of sewerage and drainage, the provision of garbage and night soil services, the construction of reservoirs and the reticulation of water. A medical officer of health, often appointed by two councils, is responsible, among other things, for inquiring into the causes, origins and distribution of diseases; for investigating influences affecting the public health of the district; for directing and supervising the municipal health inspectors in the execution of the *Public Health Act*; for inspection of local certificates of notification of infectious disease and direction of control of such disease; for reporting the existence of any nuisance; inspection of any animal carcass for sale for human consumption; and for inspecting any premises where milk or milk products are produced or stored and for reporting on health of inmates or animals on the premises.

Australian Department of Health

General

The Department is concerned in Tasmania with the maintenance of a quarantine service involving supervision of persons, animals, plants and goods from overseas; the provision of pharmaceutical benefits; tuberculosis allowances; home nursing, mental institutions and other subsidies; the control and maintenance of Pathology and National Acoustic Laboratories at Hobart and Launceston; co-operation with the State Department of Health Services in planning and taking measures to improve public health, including the anti-tuberculosis and anti-poliomyelitis campaigns, National Fitness and the community Health Programme; the conduct of certain medical examinations; and the supervision of the medical aspects of radio and television advertising and talks on medical matters.

National Acoustic Laboratory

The main function of the laboratory is the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children, and to those whose hearing loss was discovered after leaving school, but who are still under 21 years of age. It also provides and maintains hearing aids on behalf of other Australian Government Departments and assists the Education Department in measuring deafness by providing and maintaining portable audiometers. In addition, the laboratory supplies eligible pensioners with hearing aids and gives the necessary technical services for fitting, re-adjusting, maintaining, etc.

National Health Payments

The following table shows the total National Health payments in Tasmania for various services administered by the Department of Health.

National Health Payments Administered by Australian Department of Health
(\\$'000)

Benefit or service	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
Pharmaceutical Benefits—						
General	1,438	1,722	1,870	2,224	2,271	2,221
For pensioners	850	1,030	1,125	1,231	1,457	1,681
Payments to hospitals	602	706	739	919	796	995
Tuberculosis campaign (a)	401	428	402	412	413	403
Free milk scheme (b)	503	421	466	671	504	383
Miscellaneous	101	112	119	138	176	212
Total	3,895	4,419	4,721	5,595	5,617	5,895

(a) Includes allowances to persons and reimbursements to State Government for approved expenditure.

(b) Free milk scheme abolished in August 1973.

Pathology Laboratories

These laboratories, situated in Hobart and Launceston, provide free diagnostic services for medical practitioners and hospitals. Included in the services available are haematology, histopathology, serology, biochemistry, bacteriology and diagnostic cytology. The laboratories also undertake blood typing and cross-matching services for the Red Cross Blood Transfusion Centres.

Quarantine

Quarantine is administered by the Australian Government and guards against the importation from overseas of human, animal and plant infection. The administration of safeguards against infection from interstate travel and trade is left to the states unless federal action is necessary for the protection of a state.

Under arrangements with the states, the Australian Government arranges to reimburse state marine boards the cost of installing incinerators at first ports of entry for overseas ships. The incinerators are used to dispose of overseas ships' garbage, reducing the possibility of introduction of diseases. Incinerators are installed at all Tasmanian first ports of call.

Pharmaceutical Benefits: Under this scheme, drugs and medicines for patients, who are required to pay a flat charge of \$1, can be prescribed by a medical practitioner or by a hospital. Not all drugs and medicines can be supplied under this scheme, but the Health Department's list of approved pharmaceutical preparations is extensive. Under this scheme basic rate pensioners receive their pharmaceutical requirements free of charge, while persons holding an appropriate entitlement certificate under the Subsidised Health Benefits Plan are only charged 50 cents.

Other Health Organisations*National Heart Foundation of Australia*

This organisation was established to promote research in cardio-vascular disease, to rehabilitate heart sufferers and to foster the dissemination of information about heart diseases. The State Division deals especially with rehabilitation and education. The State Government recognised the importance of this work by creating a Cardio-vascular Services section within its own Department of Health Services in 1967.

HOSPITAL MORBIDITY

In the following tables particulars are given of all in-patients treated in Tasmanian public hospitals, who left hospital during 1973. Patients still in hospital at the end of 1973 will be included in figures for the year in which they leave hospital. Normal maternity patients are included, but babies born in hospital are included only if they receive treatment in excess of that routinely provided for the new-born.

Treatment Statistics

The following table analyses patients by age group and length of stay in hospital:

Patients Treated in Public Hospitals: By Age Group and Average Length of Stay, 1973

Age group	Males			Females		
	Number	Per cent of total	Average length of stay (days)	Number	Per cent of total	Average length of stay (days)
Days—						
Under 28	231	1.08	10	183	0.63	13
28-365	909	4.23	7	653	2.25	8
Years—						
1- 4	1,957	9.11	4	1,503	5.18	4
5- 9	1,415	6.59	4	1,005	3.46	5
10-14	1,203	5.60	6	885	3.05	6
15-19	1,482	6.90	7	2,984	10.29	7
20-24	1,394	6.49	8	4,559	15.72	7
25-29	1,068	4.97	8	3,943	13.59	7
30-34	904	4.21	8	2,157	7.44	8
35-39	802	3.73	10	1,495	5.15	8
40-44	1,006	4.68	10	1,242	4.28	9
45-49	1,121	5.22	10	1,214	4.19	9
50-54	1,238	5.76	12	1,174	4.05	11
55-59	1,440	6.70	11	1,050	3.62	12
60-64	1,424	6.63	13	1,030	3.55	14
65-69	1,284	5.98	13	1,035	3.57	15
70-74	1,096	5.10	16	1,053	3.63	17
75 and over	1,509	7.02	20	1,842	6.35	26
Total	21,483	100.00	10	29,007	100.00	10

Comparable treatment statistics (in total only) for 1972 were:

- (i) Number of in-patients treated in public hospitals—males, 21,091 and females, 29,257.
- (ii) Average stay in hospital—males, 10 days and females, 10 days.

Children aged up to nine years comprised almost 21 per cent of males and 12 per cent of females discharged. The high numbers in this age group were due principally to children receiving treatment for diseases of the respiratory system; this disease group accounted for 2,442 cases, or about one-third, of discharges of children under 10 years.

Accidents were the main cause of hospitalisation of males in the 15-34 years age group. Injuries caused by accidents, poisoning and violence accounted for 1,993 cases or 41 per cent of male patients in the age group 15-34 years but accounted for only 830 cases or 6 per cent of female patients in this age group.

The next table analyses the patients, shown in the previous table, by condition treated and by length of stay:

Patients Treated in Public Hospitals: By Condition Treated and Average Length of Stay, 1973

Principal condition treated	Males			Females		
	Number of patients	Total days in hospital	Average stay (days)	Number of patients	Total days in hospital	Average stay (days)
Infective and parasitic diseases	732	7,775	11	701	6,529	9
Neoplasms	1,107	16,613	15	1,309	18,633	14
Endocrine, nutritional and metabolic diseases	290	4,124	14	399	5,462	14
Mental disorders	993	13,320	13	1,256	17,397	14
Diseases of the—						
Blood and blood forming organs	129	1,285	10	183	2,141	12
Nervous system and sense organs	1,016	11,482	11	886	9,273	10
Circulatory system	2,542	36,281	14	2,046	34,646	17
Respiratory system	2,999	22,165	7	2,178	13,509	6
Digestive system	2,352	18,702	8	1,983	17,723	9
Genito-urinary system	911	9,245	10	2,049	14,319	7
Skin and subcutaneous tissue	456	4,234	9	385	4,454	12
Musculoskeletal system and connective tissue	1,022	13,352	13	911	15,399	17
Congenital anomalies	354	2,808	8	280	2,581	9
Childbirth, complications of pregnancy and the puerperium .. .. .	..	..	..	9,033	67,746	7
Certain causes (a) of perinatal morbidity and mortality	178	2,981	17	181	3,562	20
Symptoms and ill-defined conditions ..	1,608	7,885	5	1,563	10,629	7
Accidents, poisoning and violence ..	4,430	37,672	9	2,552	26,156	10
Other special admissions or consultations	364	2,220	7	1,112	6,600	6
Total	21,483	212,144	10	29,007	276,759	10

(a) Includes toxæmia of pregnancy, conditions of placenta, birth injury, etc.

Total days in hospital for 1972 were: males, 214,877 and females 296,660.

Examination of the above table reveals that the seeming imbalance between total male and total female patients is largely accounted for by one classification: 'childbirth, complications of pregnancy and the puerperium'. If data under this classification were eliminated, then male patients would be nearly equal to female patients; the most significant classification affecting males is 'accidents, poisoning and violence' where males outnumbered females nearly two to one. One underlying cause is the greater exposure of males to industrial and road traffic accidents.

Chapter 16

LAW, ORDER AND PUBLIC SAFETY

LAW IN TASMANIA

Origin and Evolution of Tasmanian Law

Original Charters

By letters patent and Royal instructions issued by King George III in 1787, Captain Arthur Phillip was authorised and empowered to constitute and appoint justices of the peace, coroners, constables, and other necessary officers and ministers for the better administration of justice and for executing the law in the colony of New South Wales (which then included what is now the State of Tasmania). A warrant for a Charter was issued to establish courts of civil and criminal jurisdiction. It provided that 'Our present and all Our future governors and lieutenant-governors and Our judge advocate for the time being shall be justices of the peace within the said place or settlement and that all and every such justice and justices of the peace shall have the same power to keep the peace, arrest, take bail, bind to good behaviour, suppress and punish riots, and do all other matters and things with respect to the inhabitants residing or being in the place or settlement aforesaid as, justices of the peace have within that part of the Kingdom of Great Britain called England within their respective jurisdictions'.

By a subsequent Charter in 1814 the Deputy Judge Advocate was added as a justice of the peace. Meanwhile, within a year of the occupation and settlement of Van Diemen's Land, warrants had been issued in 1804 appointing a justice of the peace for Van Diemen's Land and another justice of the peace at Port Dalrymple.

Supreme Court of Van Diemen's Land

In 1823 the Imperial Government passed, as a temporary measure, an Act empowering King George IV to institute a Court of Judicature to be styled the Supreme Court of Van Diemen's Land. It began its activities in May 1824, with Sir John Lewes Pedder as Chief Justice. The Court superseded the Lieutenant Governor's Court, of Civil jurisdiction only, which had been set up in 1815 under a Deputy Judge Advocate. In 1828 the Imperial Parliament passed the *Australian Courts Act* (usually known as the Huskisson Act). It empowered His Majesty, as a permanent measure, to establish the Supreme Court of Van Diemen's Land as a court of record having cognizance of all pleas, civil, criminal or mixed, and jurisdiction in all cases as fully as His Majesty's Courts at Westminster. The Court was constituted a Court of Oyer and Terminer and Gaol Delivery and was also granted equitable, admiralty and ecclesiastical jurisdiction.

Courts of General Sessions have a similar history in some respects as their creation by the Colonial Legislature was authorised by the Huskisson Act and they too are now regulated by the *Local Courts Act* 1896.

Other Imperial Statutes that need to be mentioned in connection with the origin and evolution of Tasmanian law are the *Australian Constitutions Act* 1850, which empowered the Colonial Legislature to make provisions for the better administration of justice and for defining the constitution of the Courts of Law and Equity and of juries within the Colony; and also the *Colonial Laws Validity Act* 1865 which recognised that a Colonial Legislature at all times had full power within its jurisdiction to establish Courts of Judicature, and to abolish and reconstitute them, to alter their constitution, and to make provision for the administration of justice in them.

The Huskisson Act also empowered the Colonial Legislature to constitute Courts of Quarter Sessions with power and authority to try, in a summary way, all crimes, misdemeanours and other offences or misconduct not punishable by death. The Legislature of Van Diemen's Land accordingly instituted Courts of Quarter Sessions, which were also given jurisdiction to hear appeals from justices of the peace. In 1857 the Colonial Parliament passed a further Act providing for the appointment of Recorders to hold Courts of General Sessions as Courts of Criminal Jurisdiction. Two years earlier it had passed the *Magistrates Summary Procedure Act* and the *Magistrates Criminal Procedure Act*, which defined the duties of Justices of the Peace concerning summary convictions and orders and persons charged with criminal offences. These latter two Acts were subsequently superseded by the *Justices Procedure Act* 1919 and finally by the *Justices Act* 1959. Courts of Quarter Sessions have long ceased to exist in Tasmania.

All persons convicted of offences before the Court were to be liable to suffer the same pains, penalties and forfeitures as persons similarly convicted in England. Offences were to be prosecuted by information in the name of the Attorney-General or other officers duly appointed by the Governor. By leave of the Court, however, a private person could bring a criminal information against another person.

The Huskisson Act also provided that all laws and statutes in force within the realm of England at the time of the passing of the Act should be applied in the administration of justice in the Courts of Van Diemen's Land so far as the same could be applied within the Colony. The Governor was given the power to resolve by ordinance such doubts as might arise as to the applicability of English law and to limit or modify such law. Until any such ordinance might be made, questions of doubt were to be settled by the Supreme Court.

Pursuant to the Huskisson Act, the Charter of Justice was granted by King William IV in 1831. By this Charter, the Supreme Court of Van Diemen's Land was created and constituted a Court of Record consisting of the Chief Justice and the Puisne Judge. The Huskisson Act had given the Judges power to make rules and orders regarding the practice and procedure in proceedings before the Court but, in 1854, the Legislature of Van Diemen's Land passed the *Common Law Procedure Act* which regulated all such matters and this Act was replaced many years later by the present statute, the *Supreme Court Civil Procedure Act* 1932.

Origin of Other Courts

The Huskisson Act empowered the legislature of Van Diemen's Land by laws or ordinances to institute Courts of Requests with power and authority to hear and determine, in a summary way, claims in debt or damages not exceeding \$20, to be held before a Commissioner to be appointed by His Majesty. In the exercise of this power the Colonial Legislature in 1829 passed an Act 'to institute Courts of Requests' and since that date a number of statutes dealing with the subject have been passed. Courts of Requests are now regulated by the *Local Courts Act* 1896.

Juries

Tasmanian legislation regulating juries seems to have been first passed in 1830 although, for many years before that date, the introduction of the British system of trial by jury in civil and criminal cases had been persistently urged in the colony. The *Hobart Town Gazette* shows that juries had been employed in the colony for the trial of criminal cases from the establishment of the Supreme Court in 1824. Juries remain as the tribunal for trying indictable criminal cases and there is a limited right to a jury in civil actions, although in 1935 they were abolished for the purpose of trying motor accident cases.

Although the Tasmanian jury system was based on the English system it has, since 1934, embodied the principle of allowing *majority* decisions in certain circumstances instead of requiring the *unanimous* decisions once characteristic of jury usage in England and most other countries.

Civil cases have a seven-member jury and, if after three hours deliberation a seven-nil decision cannot be reached, a five-two decision is accepted. If the minimum five-two decision cannot be reached after four hours, the jury may be discharged.

In criminal cases, similar principles apply except that a 10-2 decision is accepted in lieu of 12-nil after stipulated periods of deliberation. In the case of murder, 12-nil is necessary to convict, but 10-2 can bring in a verdict of not guilty, or not guilty of murder but guilty of a lesser crime.

Revision of the Criminal Code

The *Criminal Code Act 1924* codified and brought together the criminal law of Tasmania. The Act embodied the State's criminal law in the form of a code which was made a schedule to the 1924 legislation.

As a result of a review of the State's criminal law the *Criminal Code Act 1973* was passed by Parliament. This statute embodied many important amendments to the Criminal Code; most of the changes stemmed from recommendations made by the Law Reform Committee of Tasmania. Among the more important changes were:

- (i) Repeal of the distinction between burglary and housebreaking. Prior to the 1973 Act the Criminal Code had perpetuated an archaic distinction between burglary which was committed at night and housebreaking which was committed by day.
- (ii) The more serious offence of aggravated burglary (i.e. where a person uses or carries a firearm or offensive weapon or uses force in the commission of a burglary) was incorporated in the code.
- (iii) A new offence of kidnapping was included.
- (iv) A section covering bomb threats was written into the legislation.
- (v) The infanticide provisions were extended to cover mothers of children up to 12 months of age.

Since passage of the *Criminal Code Act 1973* further amendments have been made. The more important follow:

- (i) The provisions of the code relating to nuisance were revised and expanded to complement the *Environment Protection Act 1973*.
- (ii) The power of a judge to order whipping as a punishment for violent crimes was abolished.
- (iii) Section 124 was amended to make it a crime to have unlawful carnal knowledge of a girl under 17 years of age; i.e. the 'age of consent' was lowered from 18 years to 17 years. Consequently, amendments were also made to a number of other sections of the code.

The Present Law Court System

Courts of Petty Sessions

For particular municipalities in the State, there is a Court of Petty Sessions. The Court is constituted by a stipendiary magistrate (who must be a legal practitioner or barrister for not less than five years) or by two or more lay justices. In major centres of population, a Court sits regularly and, in smaller centres, a Court sits less frequently or is convened as occasion requires.

A Court of Petty Sessions has jurisdiction over all summary offences and also over certain indictable offences at the option of the defendant. Under the *Justices Act 1959*, a defendant may choose summary trial in the Court of Petty Sessions when charged with the following crimes: (i) Escape or rescue; facilitating escape of a prisoner or harbouring an offender; assisting escape of a criminal lunatic; rescuing goods legally seized; making a false declaration (or statement), (ii) Stealing; killing an animal with intent to steal; unlawfully branding an animal; obtaining goods by a false pretence; cheating; fraud in respect of payment for work; receiving

stolen property. (In all these cases the value of the property concerned must exceed \$20 but not \$400. If the value does not exceed \$20 the defendant will be tried summarily. If it exceeds \$400 he will be committed for trial in the Supreme Court.) (iii) Breaking a building other than a dwelling-house. (It is necessary for the defendant to be committed to the Supreme Court for trial where it is alleged that in the commission of the offence, property to the value of more than \$400 has been stolen; violence has been used or offered to any person in or about the building; the person had in his possession a gun, pistol, dagger, cosh, or other offensive weapon; explosives were used; or the defendant intended to commit a crime other than stealing.) (iv) Forgery; uttering. (The complaint must be for an offence in respect of a cheque for not more than \$400.)

The following table shows the number of cases tried in the lower courts over a five-year period. (Minor traffic offences settled without court appearance are excluded.)

Cases Tried in Lower Courts

Offence			1969	1970	1971	1972	1973
Offences against—The person	Males	891	953	1,021	1,181	1,198	
		Females	32	34	36	43	51
Property	Males	3,987	4,095	5,692	6,238	4,513	
		Females	335	397	469	538	523
The currency	Males	179	340	229	165	397	
		Females	21	31	79	68	266
Good order	Males	2,082	1,962	2,319	2,638	2,835	
		Females	107	70	148	167	205
Traffic regulations	Males	18,717	19,935	20,833	24,097	23,811	
		Females	1,130	1,097	1,269	1,613	1,611
All other offences (a)	Males	8,551	7,185	9,241	10,905	8,610	
		Females	411	520	878	1,010	870
Total offences	Males	34,407	34,470	39,335	45,224	41,364	
		Females	2,036	2,149	2,879	3,439	3,526

(a) Includes offences mainly against liquor, education, neglected children, revenue, gambling suppression laws, desertion of wives and children, perjury and subornation and conspiracy.

The following table shows cases tried and their results (minor traffic offences settled without court appearance are excluded):

Lower Courts, 1973

Offence	Cases tried	Results of trials				
		Convictions	Committed to higher courts	Adjourned sine die	Dismissed or withdrawn (a)	Remanded
MALES						
Offences against—The person	1,198	699	160	132	157	50
Property	4,513	3,277	469	368	292	107
The currency	397	243	78	49	27	..
Good order	2,835	2,102	1	500	218	14
Traffic regulations	23,811	17,410	24	2,081	4,191	105
All other offences (b)	8,610	6,764	5	884	951	6
Total	41,364	30,495	737	4,014	5,836	282

Lower Courts, 1973—continued

Offence	Cases tried	Results of trials					Remanded
		Convictions	Committed to higher courts	Adjourned sine die	Dismissed or withdrawn (a)		
FEMALES							
Offences against—The person	51	33	4	2	10	2	
Property	523	340	64	71	48	..	
The currency	266	53	203	8	2	..	
Good order	205	138	..	48	16	3	
Traffic regulations	1,611	1,017	..	150	444	..	
All other offences (b)	870	664	..	100	105	1	
Total	3,526	2,245	271	379	625	6	
PERSONS							
Total	44,890	32,740	1,008	4,393	6,461	288	

(a) 'Dismissed' is equivalent to 'not guilty' in higher courts.

(b) Includes offences mainly related to liquor, education, neglected children, revenue, gambling, desertion of wives and children, perjury and subornation and conspiracy.

Courts of Request

These are constituted as courts with civil jurisdiction for particular municipalities in accordance with the authority given by the *Local Courts Act* 1896. Courts are held before a commissioner who is usually a stipendiary magistrate. The Attorney-General fixes the dates on which these courts sit.

Every Court has jurisdiction throughout the State but a plaintiff may lose costs if he brings his action in a Court other than the Court nearest to which the cause of action arose.

The jurisdiction of a Court of Requests, which is a court of record, covers all personal actions where the debt or damage claimed does not exceed the maximum amount fixed under the Act. Since 1 November 1966, the sum of \$1,500 has been fixed as the maximum jurisdiction for a Court of Requests in respect of a debt or liquidated sum, and \$1,000 in any other case.

The commissioner alone determines all questions of fact as well as of law and his decision is the judgment of the Court, unless a jury is required. In any action either party may require a jury as of right and there is power for the commissioner to order that an action be tried by a jury, even though neither party has required it.

Law and equity are administered concurrently in the Court and the general principles of practice in the Supreme Court are adopted and applied in cases not expressly provided for in the Act or Rules.

Courts of General Sessions

A Court of General Sessions with civil jurisdiction is constituted under the *Local Courts Act* 1896 for particular municipalities of the State. The cities are excluded, civil actions there being dealt with by Courts of Requests. A Court of General Sessions is constituted by a chairman (elected by the justices for the municipality) and at least one other justice. All questions are decided by a majority of the justices present and, if they are equally divided in opinion, the chairman has both a deliberative and a casting vote. If there is business requiring its attention, the Court sits at times fixed by the Attorney-General.

A Court of General Sessions has jurisdiction to deal with civil proceedings of a minor nature and the limit of the Court's jurisdiction has been fixed at the sum of \$100.

The Supreme Court of Tasmania

The following table shows the number of convictions in the Supreme Court:

Supreme Court Convictions

Offences	1972		1973	
	Males	Females	Males	Females
Offences against the person—				
Murder	1	..	2	..
Attempted murder	2	1	1	..
Manslaughter—Other than while driving	1	..	3	..
While driving	5	..	..	..
Culpable driving, incl. causing death by dangerous driving (other than manslaughter)	11	..	17	..
Rape	4	..	4	..
Other unlawful carnal knowledge	22	..	..	..
Incest	4	1	2	..
Other offences against females	7	..	48	..
Indecent practices between males	4	..	5	..
Unnatural carnal knowledge	1	..	2	..
Robbery	12	..	27	3
Malicious wounding	9	1	2	4
Aggravated assault	6	2	7	..
Common assault	6	..	5	..
Other offences against the person	2	3	2	..
Offences against property—				
Burglary; break and enter; break, enter and steal ..	118	4	116	9
Receiving, incl. possession of stolen goods	4	..	9	1
Fraud and false pretences	13	..	11	..
Arson, n.e.i.	14	1	1	1
Stealing	37	..	37	1
Other offences against property	18	1	2	..
Forgery and offences against the currency	5	..	..	3
All other offences	4	..	14	1
Total (a)	310	14	317	23

(a) There are fewer Supreme Court cases tried than the number committed from the lower courts would lead one to expect. This is because: (i) *complaints* often embrace several *offences* in the lower courts; (ii) some cases are not proceeded with. Higher court cases often proceed under different offences titles from those under which the lower court committals were made.

The following table shows the number of convictions in the higher courts over a five-year period:

Supreme Court Cases: Convictions

Offences	1969	1970	1971	1972	1973
Offences against—The person	92	108	90	105	134
Property	177	212	290	210	188
Forgery & offences against the currency	11	8	6	5	3
All other offences	12	9	17	4	15
Total	292	337	403	324	340

The Supreme Court of Tasmania is constituted by the Chief Justice and four Puisne Judges. Regular sittings of the Court are held at Hobart, Launceston and Burnie, although the Court is empowered to sit and act at any time and at any place for the exercise of any part of the jurisdiction and business of the Court.

The Court has jurisdiction over all causes, both civil and criminal, except those reserved for the High Court of Australia under the Commonwealth Constitution. It also exercises federal jurisdiction in matters such as matrimonial causes, bankruptcy, etc. Its civil jurisdiction extends to all causes of action, whatever the amount involved may be, and its criminal jurisdiction includes the trial of all indictable offences. In civil cases, the Court has power to call in the aid of one or more assessors specially qualified to assist in the trial of the actions, but it is not bound by the opinion or advice of any such assessor.

There is an appeal to the Supreme Court of Tasmania from all inferior courts and from many statutory tribunals.

Law and equity are administered concurrently in the Court which is enjoined to grant, either absolutely or on such terms and conditions as seem just, all such remedies to which any of the parties may be entitled so that, as far as possible, all matters in controversy between the parties may be completely and finally determined, and a multiplicity of legal proceedings avoided. The Judges, on the recommendation of the Rules Committee, are empowered to make rules regulating the practice and procedure of all proceedings in the Court.

The jurisdiction of the Court is usually exercised by a Judge of the Court and from his decision there is an appeal to the Full Court of the Supreme Court of Tasmania. A Full Court consists of two or more Judges of the Court. The Full Court is also a Court of Criminal Appeal under the Criminal Code. The latter is a Court to which appeals may be brought by the Crown or by an accused person where an indictable offence is involved. In some cases, there is an appeal as of right but, in other cases, special leave is required.

The High Court of Australia

This Court was created by the Commonwealth Constitution and it has both original and appellate jurisdiction. It is constituted by the Chief Justice of Australia and six other Justices.

There is an appeal as of right to the High Court from the Supreme Court of the State in any civil matter where the sum involved amounts to at least \$3,000 or where the decision under appeal affects the status of any person under the laws relating to aliens, marriage, divorce, bankruptcy or insolvency. In other cases (including criminal cases) there is an appeal to the High Court if leave or special leave is granted.

Sittings of the High Court of Australia are held in each capital city and one sitting is held in Hobart each year if the volume of business warrants it. Otherwise, Tasmanian cases are usually heard either in Melbourne or Sydney.

Privy Council

An appeal lies direct from the Supreme Court to the Privy Council in a civil action where the amount involved is not less than \$2,000 and in other cases an appeal may be heard by special leave. Special leave may also be obtained to appeal to the Privy Council from a decision of the High Court of Australia. However, as from 1 September 1968 the High Court of Australia became the final court of appeal in all cases involving Australian Government law (i.e. in litigation involving laws of the Australian Government, which was instituted after 31 August 1968, there is no right of appeal to the Privy Council).

Tribunals

There are many tribunals which are not true courts and the powers and functions of these depend upon the detailed provisions of the particular statute under which they operate. Certain specialised courts have been created by statute. For example, there is the Wardens' Court constituted under the *Mining Act* 1929 and the Licensing Court constituted under the *Licensing Act* 1932.

Coroners' Courts

Coroners are appointed by the Governor and have jurisdiction throughout the State. Under the *Coroners Act 1957*, a coroner may hold an inquest: (i) Concerning the manner of death of any person who has died a violent or unnatural death, who died suddenly without the cause being known, or who died in a prison, or mental institution; at the direction of the Attorney-General, he may also be required to hold an inquest concerning any death. (ii) Concerning the cause of any fire if the Attorney-General has directed, or has approved a request by the owner or insurer of the property; or at the request of the Fire Brigades Commission or the Rural Fires Board.

The coroner usually acts alone in holding an inquest, but either the Attorney-General or the relatives of the deceased may request that a four or six-man jury be empanelled. After considering a post-mortem report the coroner may dispense with an inquest, unless the circumstances of death make an inquest mandatory under the Act.

The duty of the court is to determine who the deceased was, and the circumstances by which he came to his death. Medical practitioners and other persons may be summoned to give evidence. In the case of the death of an infant in a nursing home, the coroner may also inquire generally into the conditions and running of the institution. On the evidence submitted at the inquest, the coroner can order a person to be committed to the Supreme Court and can grant bail. In the case of murder, a coroner can issue a warrant for apprehension.

Children's Courts

A 'child' in this jurisdiction is one under the age of 17 years. The Court, before finally disposing of the case, must receive a report from a child welfare officer (the representative of the Director of Social Welfare), unless the Court considers the offence trivial or the Director decides not to provide one. A child's parent has the right to be heard and to examine and cross-examine witnesses, or to be represented by counsel; also a parent can be compelled to attend the hearing if this imposes no unreasonable inconvenience.

In summary proceedings, the Court is compelled not to enter a conviction against a child unless it imposes a sentence of imprisonment or there are special circumstances which indicate that a conviction should be recorded.

Children under 16 years cannot be sentenced to imprisonment and children of 16 years cannot be sentenced for more than two years, in aggregate. Minimum penalties imposed by statute do not apply to children; for those under 14 years the maximum fine is \$20, and for those over 14 years, \$50. The Court may impose a supervision order to bring the child under the guidance of a child welfare officer or, if over 15 years, of a probation officer. Alternatively, the Court may declare the child a ward of the State, placing him under the control of the Director of Social Welfare until his eighteenth birthday, unless released sooner; it may also direct that a ward be committed to an institution. In cases where further investigation appears necessary the court may issue a remand for an observation order before it makes a final decision. Remands for observation orders are for short periods and usually provide for intensive supervision. (In the case of delinquency the maximum period for such an order is three months.)

Neglected or uncontrolled children are in the Court's jurisdiction; it may make a supervision order; an interim order (similar to a remand for observation order, the effect being to defer the transfer of guardianship until it is apparent that there is no suitable alternative); or impose wardship or bind the parents over to provide proper care and control, and comply with other directions. If parents have contributed to a child's offence, by failing to control the child, they may also be charged, convicted, fined, ordered to pay for damage and obliged to enter into a recognizance for the good behaviour of the child for up to 12 months.

Unlike a Children's Court, the Supreme Court is in no way inhibited in imposing a penalty on a child. In addition to its ordinary sentencing powers, it may make supervision or wardship orders, and commit a child to an institution. If a child is sentenced to imprisonment, the responsible Minister may direct that the sentence be served in a place other than a gaol.

Statistics of offences for which children were reported appear in Chapter 15 under 'Department of Social Welfare'.

Bankruptcy

On 4 March 1968, the Federal *Bankruptcy Act* 1966 (repealing the Act of 1924-1965) came into operation. The Federal Court of Bankruptcy generally exercises jurisdiction in N.S.W., A.C.T. and Victoria while the Supreme Court of Tasmania exercises federal jurisdiction in Tasmania.

Under the 1968 legislation, a person unable to meet his debts may voluntarily present to the Registrar in Bankruptcy a petition against himself and become a bankrupt under section 55; if the Registrar does not accept the petition and refers it to the Court, he may be directed to accept it. A creditor may apply to the court for compulsory sequestration of a debtor's estate where the debt is not less than \$500. Where a debtor becomes bankrupt:

- (i) his property, not being after-acquired property, vests immediately in The Official Receiver in Bankruptcy; and
- (ii) his after-acquired property vests in The Official Receiver in Bankruptcy, or if a private trustee has subsequently been appointed, then in that trustee.

A debtor may avoid sequestration, in some circumstances, by authorising a registered trustee to call a meeting of his creditors and take over control of his property; or by authorising a solicitor to call a meeting of his creditors (Part X). The debtor's property is controlled by the trustee until the creditors resolve otherwise, or the Court orders otherwise, or a deed of assignment or arrangement is executed, or a composition is accepted, or the debtor dies or becomes bankrupt.

A person becoming bankrupt under the Act may be automatically discharged from bankruptcy after the expiration of five years (section 149) unless discharged earlier by the Court. Undischarged bankrupts at 4 March 1968 were discharged three years later (4 March 1971) or five years from the date of the sequestration order, whichever was the later (unless discharged earlier by the Court). The Registrar, trustee or a creditor may lodge an objection to this type of discharge, and if it is not withdrawn the debtor must apply to the Court under section 150 if he desires to be discharged.

The following table shows the number of bankruptcies and private arrangements together with the assets and liabilities of debtors:

Tasmania: Bankruptcy Proceedings

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Bankruptcies and orders for administration of deceased debtors' estates—					
Number	121	123	156	151	69
Liabilities \$'000	589	839	1,090	470	660
Assets \$'000	359	227	438	189	154
Deeds of assignment, arrangement, compositions and schemes—					
Number	13	17	12	12	12
Liabilities \$'000	269	198	47	416	311
Assets \$'000	209	247	42	574	315
Total—					
Number	134	140	168	163	81
Liabilities \$'000	858	1,037	1,137	886	971
Assets \$'000	568	474	480	763	469

The Licensing Court

The State Licensing Court was set up under the *Licensing Act 1932* and consists of a stipendiary magistrate (who is the chairman) and two Government nominees. The Court is empowered to hear and determine: (i) applications for the granting of hotel and other liquor licences; (ii) applications for the registration or renewal of registration of clubs; and (iii) objections to (i) and (ii).

Since 1952 the *Licensing Act* has empowered the Court to determine the minimum standards of service, management, accommodation, structure and equipment which should apply to hotels and licensed restaurants, and also the qualifications required by persons holding or applying for licences.

The following table shows the total hotel bedroom accommodation available to the public during recent years:

Standard of Accommodation: Hotels

At 30 June	Total number of bedrooms	Number of bedrooms furnished with—	
		Private bath, showers, toilets and hand-basins	Handbasins with hot and cold running water
1968	3,552	955	2,142
1969	3,525	1,073	2,020
1970	3,564	1,117	2,020
1971	3,566	1,228	1,950
1972	3,640	1,333	1,924
1973	3,928	1,751	1,797

Every hotel in Tasmania is visited annually by a member of the Court and the Court's inspectors and the public health inspector make a thorough examination of each hotel prior to the annual sittings at which renewals of licences are considered. Reports are furnished for the information of the Court and the Tourist Department. An officer of the Fire Brigades Commission also carries out an annual inspection to ensure that each hotel complies with the requirements of the Commission.

The following table shows the licences and club registrations operative:

Licensed Hotels, Restaurants, Clubs and Wholesale Licences

At 30 June	Hotels (a)	Restaurants (b)	Registered clubs	Wholesale licences	Total
1969	263	11	145	29	448
1970	264	16	146	30	456
1971	269	23	153	29	474
1972	269	22	156	29	476
1973	269	27	162	31	489
1974	274	42	164	45	525

(a) Includes a small number of premises not providing accommodation and known as 'taverns'.

(b) Includes motels which have a licence for dining rooms only.

The Ogilvie ministry introduced 10 a.m. to 10 p.m. bar trading hours before World War II and, in the post-war period, Tasmania's 10 p.m. closing contrasted with 6 p.m. closing in S.A., Victoria and N.S.W. However, these States progressively liberalised their drinking laws, and by 1967 all had adopted late closing.

In 1967 the Tasmanian *Licensing Act* 1932 was amended to allow 11.30 p.m. closing on Friday and Saturday nights for those hotels which desire to observe these hours and which obtain the necessary permits; 10 p.m. closing is now the rule for other nights (excluding Sunday) with provision nevertheless to obtain extension permits for special functions. The permitted age for drinking on licensed premises has been lowered from 20 to 18 years. Restaurants complying with defined conditions can now obtain licences to sell liquor (previously diners could take their own liquor to certain restaurants, but not buy it on the premises); licensed restaurants can open till 11.30 p.m. six nights a week. Dining accommodation, kitchen specifications, etc. for licensed restaurants are strictly supervised.

The Wrest Point Casino Licence (granted by the Treasurer) permits certain categories of gaming until 3 a.m. seven days per week. As long as entertainment and dining facilities are provided the sale of liquor is allowed on the same basis under an *entertainment permit*. The entertainment permits are, in fact, available to any hotel or licensed restaurant which is able to provide the required entertainment. Other permits are: (i) *occasional permits*—for clubs or societies which are not registered; and (ii) *motel permits* which allow the extension of liquor services to lodgers' rooms if the motel has a restaurant licence.

PRISONS

General

The establishment, regulation and conduct of prisons and the custody of prisoners in Tasmania are provided for under the *Prison Act* 1868 and 1908. Provision is made for the appointment, by the Governor, of a Controller of Prisons who is responsible for the supervision of gaols, including the initiation and implementation of correctional programmes for prisoners and staff training schemes.

Two justices of the peace are appointed for each institution each year to act as Visiting Justices. They visit the prison at least once per month to examine the treatment, behaviour and condition of prisoners, and the condition of the prison. They hear complaints with regard to offences committed in the gaol, and have power to punish offenders either by solitary confinement or by extending the term of imprisonment.

The main prison in Tasmania is at Risdon near Hobart, which has, as an outstation, the Farm Gaol at Hayes in the Derwent Valley. The prison at Launceston is limited in function, receiving only persons on remand or sentenced for periods not exceeding seven days. The Launceston Prison also functions as a holding centre for prisoners from the northern districts of the State prior to their transfer to Risdon.

The following table shows Prisons Department expenditure from Consolidated Revenue:

Prisons Department: Expenditure From Consolidated Revenue
(\$'000)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Total expenditure	816	858	986	1,096	1,216
Net receipts (a)	4	42	25	33	75
Net expenditure	812	816	961	1,063	1,141

(a) From prison industry and gaol farm activities described later in the text.

Prisoners' Offences

The following table shows the offences for which convicted prisoners were received:

Offences for Which Convicted Prisoners Were Admitted to Risdon Gaol During 1972-73

Offence for which convicted	Males	Females	Persons	
			Number	Proportion of total
Stealing	431	17	448	per cent 22.29
False pretences	222	3	225	11.19
Breaking a building other than a dwelling house	195	..	195	9.70
Unlawful use of a motor vehicle	175	..	175	8.71
Driving offences—				
Driving whilst licence suspended	55	..	55	2.74
Unlicensed to drive	43	..	43	2.14
Dangerous driving	23	..	23	1.14
Breach of traffic regulations	21	..	21	1.04
Drunken driving	17	..	17	0.85
Common assault	92	..	92	4.58
Failure to pay fines and costs	70	..	70	3.48
Forgery	46	9	55	2.74
Drunk and disorderly	31	10	41	2.04
Housebreaking	40	..	40	1.99
Uttering	37	..	37	1.84
Assault of police	33	..	33	1.64
Drunk and incapable	25	5	30	1.49
Receiving	24	2	26	1.29
Injury to property	21	..	21	1.04
Insufficient means	19	2	21	1.04
Indecent language	18	3	21	1.04
Resist arrest	20	..	20	1.00
Indecent assault.. .. .	19	..	19	0.95
Other	277	5	282	14.03
Total (a)	1,954	56	2,010	100.00

(a) The number of offences exceeds the number of prisoners received since some prisoners were convicted of multiple offences.

The next table classifies convicted prisoners according to the number of their previous convictions:

Convicted Prisoners Admitted to Risdon Gaol During 1972-73, According to Number of Previous Convictions (a)

Prisoners	Number of previous convictions				Total
	Nil	One	Two	Three or more	
Number received	82	47	38	542	709
Percentage of total	11.6	6.6	5.4	76.4	100.0

(a) Previous convictions may not necessarily have involved imprisonment.

Prisoners Received and Discharged

In the following table giving details of prisoners received into and discharged from Tasmanian prisons, no distinction is made between those on remand and those convicted and sentenced to imprisonment. (Figures for H.M. Prison, Risdon, include those held in custody at the Hayes Farm Gaol.)

Prisoners Received and Discharged (a), 1972-73

Particulars	Risdon Gaol		Launceston Gaol		Total	
	Males	Females	Males	Females	Males	Females
In custody at 30/6/1972 ..	381	6	6	..	387	6
1972-73—						
Received	667	43	442	23	1,109	66
Transferred (b) ..	+330	+13	-330	-13	..	..
Discharged	1,012	56	118	10	1,130	66
In custody at 30/6/73 ..	366	6	..	..	366	6

(a) Includes persons on remand.

(b) Transfers from Launceston to Risdon.

Age of Prisoners

Young offenders account for a high proportion of receivals. The proportion of convicted male prisoners under 25 years was: 59 per cent in 1968-69; 61 per cent in 1969-70; 62 per cent in 1970-71; 60 per cent in 1971-72; and 61 per cent in 1972-73. The following table shows the age of convicted prisoners admitted to goal.

Ages of Convicted Prisoners Admitted to Risdon Gaol, 1972-73

Sex	Age group (in years)								Total
	Under 18	18 and 19	20-24	25-29	30-39	40-49	50-59	60 and over	
Males	87	141	196	88	82	56	25	11	686
Females	3	3	2	..	3	2	9	1	23
Total	90	144	198	88	85	58	34	12	709

Parole and Remission of Sentences

Good conduct remissions of up to one-third of sentence for prisoners sentenced to over three months may be granted by the Governor of the State on the Controller's recommendation. Prisoners may also be paroled on licence for the balance of their sentences.

The Indeterminate Sentences Board is appointed by the Governor of the State to review cases of prisoners serving indeterminate sentences (i.e. those where no fixed sentence is specified and the duration is dependent on the prisoner's conduct, etc.). Such prisoners may be released on a two-year licence and are subject to any conditions the Board may recommend, e.g. the supervision of a probation officer.

The following summary table shows the number of prisoners under the supervision of the Indeterminate Sentences Board:

Prisoners Serving Indeterminate Sentences at Risdon Gaol

Prisoners	1968-69	1969-70	1970-71	1971-72	1972-73
Received during year	9	16	12	17	12
Discharged during year	11	7	20	14	12
In custody at 30 June	6	15	7	10	10

Capital Punishment

The death sentence has not been carried out in Tasmania since 1946, but judges pronounced the sentence from time to time until 1968; in October 1968, the Attorney-General introduced a bill to abolish capital punishment and this was passed by the Parliament in December of that year.

Risdon Gaol

The Risdon Gaol, with provision for 333 prisoners, was opened in November 1960. Male prisoners were then transferred from the old Hobart Gaol and in June 1963, the Female Prison, the first entirely separate gaol for women to be built in the State, was opened on the Risdon site. The following table shows the daily average and highest number of prisoners at Risdon Gaol over a five-year period:

Number of Prisoners, Risdon Gaol (a)

Prisoners	1968-69	1969-70	1970-71	1971-72	1972-73
Maximum number	362	405	414	406	398
Daily average	333	359	386	373	371

(a) Includes Hayes Farm Gaol.

The Risdon Gaol incorporates workshops which serve as a basis for vocational and trade training in such subjects as woodworking, tailoring, sheet metal working, bootmaking, laundry and breadmaking. Educational services include instruction during working hours for illiterate and semi-literate prisoners; tuition, during evenings, in general academic subjects to Secondary Schools Certificate standard; correspondence courses in University, School Certificate, Higher School Certificate and various technical and commercial subjects; tuition in English for migrants; and training in art and allied subjects. A classification committee interviews all prisoners on admission and decides on each individual's training programme.

Groups meet regularly for wood carving, art, pottery, toy making, chess and dramatics. Feature and documentary films are screened monthly, and concert parties visit the prison regularly. A comprehensive sports programme is conducted, including athletics, gymnastics, and competitions in cricket, volley ball and basketball.

The State Library of Tasmania helps with the prison library and library officers advise the prisoners on book selection each weekend; 5,000 volumes are immediately available; prisoners may request other books. Over 650 books are borrowed from the library weekly.

Prison industries produce articles for government departments and institutions. The following table shows the receipts for prison industries over a five-year period. A laundry installed in 1963 contributes to receipts from sales and services but the amounts are not a true indication of value to the government, as laundry is processed at a nominal figure for hospitals and other government institutions.

Gaol Suspense Account (Prison Industries)
(\$)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Receipts (a)	99,852	82,901	101,895	134,000	143,783
Paid to Consolidated Revenue	1,203	28,328	9,309	28,415	50,209

(a) Maintenance, material and capital charges are met from receipts, the balance being paid to Consolidated Revenue.

Hayes Farm Gaol

The Farm Gaol at Hayes ('Kilderry') is an outstation of the Risdon Prison. It is used to prepare men for a normal way of life through operation of the honour system. Up to 90 prisoners who are regarded as being worthy of trust, regardless of their age, length of sentence or type of offence, are held there.

The following table shows the receipts from sale of farm produce and the amounts paid to Consolidated Revenue over a five-year period:

Gaol Farm Suspense Account
(\$)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Receipts (a)	73,687	80,622	84,016	109,318	131,440
Paid to Consolidated Revenue	2,564	13,267	15,825	4,734	24,612

(a) Maintenance, material and capital charges are met from receipts, the balance being paid to Consolidated Revenue.

The 567 hectare property has been developed into a model farm with a great diversity of farming activities. These include 26 hectares for vegetables; a registered stud of friesian cattle and herefords; about 2,000 sheep for wool and fat lambs; a registered herd of berkshire pigs; poultry; cropping [of wheat, oats, lucerne and hay; breeding of children's ponies; hot house cultivation; and an experimental shrub and tree nursery, etc. An additional 125 hectares of land was purchased near New Norfolk in May 1969. This property, about two kilometres north of the Hayes prison farm functions as an annexe to the Hayes property. During 1970-71 a sawmill was established on the property. The Royal Derwent Hospital farm of 297 hectares, including the dairy herd and poultry section, was transferred to the Prisons Department during 1971. All prison requirements of milk and butter are met and the surplus is supplied to the Royal Derwent Hospital. Building construction activities and machinery maintenance workshops also provide employment, but this range of prison industries is more limited than at Risdon. Similar educational and recreational facilities to those at Risdon are provided.

Adult Probation Service

The service deals with the problems of resettlement and re-employment of discharged prisoners. There is a counselling and guidance service so that ex-prisoners may be placed in occupations suited to their talents.

The Hobart and District Civic Rehabilitation Council, the Prisoners Aid Society, the City Mission, the Society of St Vincent de Paul, chaplains of the various churches, and other voluntary aid organisations, give material and moral assistance to serving and discharged prisoners.

THE TASMANIAN POLICE FORCE

History

The development of an organised Police Force in Tasmania commenced when Governor Collins arrived, bringing with him a body of civilians known as the 'Night Watch' which had been formed at the settlement on Port Phillip Bay. On 5 July 1804, Collins instructed that at least two of the Night Watch were to be on duty at night because of the number of robberies being committed. Collins disbanded the Watch two years later, recognising that it was necessary to have police able to carry out their duty in a proper manner. At Port Dalrymple, now Launceston, which was then separately administered, Lieutenant-Governor Paterson on 19 November 1804, appointed Thomas Massey as Chief Constable, with three subordinate constables.

Because allowances, which consisted only of rations, clothing and spirits, were not sufficient for the proper support of the first policemen, they were forced to find other means of supplementing their incomes. This led to the force being mediocre at best. Free settlers were not inclined to join the force because of the poor remuneration; recruits were mostly convicts on 'ticket of leave'.

In 1828, Governor Arthur, who had commented that 'there was no Branch of the Public Service more deficient than the Police', divided the State into nine districts, each with a police magistrate who was responsible to a chief police magistrate in Hobart. Writing about the 1820s in Hobart Town, J. E. Calder in an 1879 newspaper article said '... drunkenness was 10 times more prevalent than now, and street robbery, burglary and even murder were not rare ...'

Arthur's organisation remained until soon after the State graduated to responsible government in 1856. In 1857, the *Hobart Town and Launceston Police Act* made the two towns responsible for their police forces. Some other municipalities took control of their own police following the passing of the *Rural Municipalities Act* 1858, and, where there was no municipal police force, the government provided police from a territorial force.

The nucleus of the present force was not created until 1898 when the first commissioner was appointed, all police forces were amalgamated and municipal control terminated.

The Present Force

Organisation: The Police Department is headed by the Commissioner who is responsible to the Minister for Police. There are four administrative districts, each under the control of a superintendent with district headquarters located at Hobart, Glenorchy, Launceston and Burnie. Overall control of the four districts is vested in a chief superintendent. (This position was created in 1972, and is the highest *uniform* rank in the police force.) The police force has three specialist branches, the Criminal Investigation Branch, the Training Branch and the Traffic Branch, each with a superintendent in charge.

Recruitment and Training: The Police Department operates two recruit training schemes. Adult males from 19 years, and females from 22 years receive 19 to 20 weeks intensive training. Since 1971 youths from 16 years have been accepted as police cadets and undertake a specially designed two year (minimum) course. Preference is given to matriculants, with special consideration to those holding Higher School Certificates, or with outstanding Schools Certificate results. In 1971 work started on the Department's new training academy at Rokeby, about 16 kilometres from Hobart. The Academy, to cost an estimated \$3.5m is scheduled for completion in 1975. Planned to house 120 cadets, the project comprises an instruction block, a residential block and four houses to accommodate senior staff. Among facilities, which will be provided at the academy, are a shooting range, armoury, drill square, library, theatre and cafeteria.

Officers must qualify by examination before promotion to each rank up to inspector. The Department has sponsored some officers' university courses and men are also sent to police colleges in Sydney and Melbourne.

Criminal Investigation: The Criminal Investigation Branch comprises approximately 150 police officers of whom about 110 are engaged in the active investigation of crime. The recently formed drug squad is part of this Branch. The Branch also controls the information bureau (see *Fingerprinting* and *Laboratory* below) and communications.

Traffic Duties: The Department enforces the traffic regulations for the Transport Commission. Traffic control occupies a large part of police time.

Search and Rescue: A well equipped volunteer search and rescue squad is based at Hobart. Training for squad members includes techniques of resuscitation, rescue in bush, mountains, cliffs, and at sea, or underwater. The squad receives active support from walking, climbing, and sailing clubs. The Department maintains on permanent stand-by a powerful 15.8 metre motor launch *Vigilant* suitable for shallow or deep water work, with a sea range of 1,300 kilometres. Other smaller police craft are stationed at points around the State coastline.

Other Duties: Inspection of licensed premises, supervision of gaming, conducting special interviews and inquiries for government departments, and the service of notices and summonses are important police functions.

Communications: Radio is used extensively; since 1954 there has been a direct link-up with the mainland states. An intrastate system operates between Hobart, Launceston, Burnie, Queens-town, Oatlands and Deloraine. Mobile radio is installed in all police vehicles and boats. 'Walkie-talkie' units were issued to policemen on the beat in Hobart and Launceston in 1971. A teleprinter allows direct contact with Interpol, the international police agency, and other states.

Fingerprinting: A high proportion of criminal investigations would become ineffective without the aid of fingerprinting. In 1973-74 nearly 13,000 prints were received by the Hobart headquarters, checked with the Central Fingerprint Bureau in Sydney and classified. Currently some 360,000 prints are on file with the Tasmania Police.

Laboratory: A modern laboratory equipped with a comparison microscope and other investigation facilities is used by Information Bureau experts for ballistic examination, inspection of documents, file marks, etc. and other evidence of criminal activity. Extensive use is made of photography.

Strength of Force

The following table shows the number of police and expenditure:

Police Force: Number and Cost

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Police officers (a) no.	721	749	796	879	892
Persons per police officer (a) no.	534	518	490	446	444
Cost (total expenditure of Police Department) \$'000	3,680	4,055	4,869	6,220	7,954
Cost per head of mean population \$	9.62	10.49	12.51	15.85	20.14

(a) At 30 June.

EMERGENCY SERVICES

Civil Defence

Introduction

Following a series of discussions at federal and state level the Tasmanian Government, in 1962, decided, in common with other states, to establish a Civil Defence and Emergency Services Organisation for Tasmania. The Government considered that in addition to its intended role in time of war the Organisation should be organised and trained to assist in combating natural emergency situations. A Director of Civil Defence and Emergency Services was appointed to plan the new organisation and exercise overall control of volunteer units.

By agreement between the Australian Government and states the responsibility for developing a civil defence organisation was undertaken by the three tiers of government—federal, state and local. At the federal level the Australian Government established the Commonwealth Directorate of Civil Defence to implement federal policies, to conduct the Australian Civil Defence School, to provide training and co-ordinate development. In 1974 the Commonwealth Directorate of Civil Defence was replaced by the Natural Disasters Organisation; the new body took over the functions of the Directorate of Civil Defence. The Natural Disasters Organisation is headed by a director-general and is to co-ordinate natural disaster and civil defence activities through state directors.

State Organisation

Ministerial responsibility for Civil Defence and Emergency Services in Tasmania is vested in the Chief Secretary. The Director of Civil Defence and Emergency Services is responsible to him for implementing Government policies and the administration and control of the organisation.

Local government authorities have the responsibility of sponsoring a volunteer unit for their municipality and appointing a local controller to raise, train and control it. Participation by councils is voluntary and as at 1 July, 1973, some 40 municipalities had joined the organisation.

The responsibility for co-ordinating disaster emergency measures is vested in the Commissioner of Police as the authority responsible for preservation of life and property. The State Disaster Plan stipulates that the Civil Defence and Emergency Services carry out all co-ordinating functions under his direction.

Administrative Structure

Civil Defence administration in Tasmania is organised on a four-level basis: (i) municipal divisions; (ii) regions; (iii) areas; and (iv) State. Each municipality constitutes a municipal division of which 40 are currently operational in varying degrees. The 'municipal divisions' are allocated on a geographical basis between nine 'regions' which in turn are attached to one of three 'areas'. At the apex of the structure is the State headquarters located at Hobart.

At present, regional commands are bypassed and a direct link exists between the 'area' and the 'municipal division'.

Each area is administered by a full-time area co-ordinating officer who assists volunteer municipal controllers in raising and training divisions.

Recruitment and Training

By July 1974, 1,350 males and 358 females had volunteered for service in the 40 municipal divisions. On enlistment all volunteers are insured against death or injury while engaged in training or participating in emergency operations.

Training is undertaken at State and Area Headquarters and at the municipal level, while instruction courses for controllers, staff officers, and heads of services are conducted at the Australian Civil Defence School at Mt Macedon, Victoria. During 1973-74, 85 members of the State Civil Defence attended courses in Victoria. Annual seminars for local controllers of municipal divisions are also conducted at alternative centres within the State.

Equipment and Finance

Protective clothing and operational equipment for the units of the various services up to the value of \$28,000 per annum are provided by the federal Directorate of Civil Defence. State appropriation for civil defence expenditure during 1973-74 was \$66,850.

Fire Prevention and Fire Fighting

Fire Brigades Commission of Tasmania

The Commission, established under the *Fire Brigades Act 1945* (as amended) is composed of two representatives of the Minister (the Chief Secretary), three representatives of insurance companies, one representative of city and municipal councils and one representative appointed by the Rural Fires Board. All urban brigades are under the control of a Chief Officer. The system of financing the fire brigades is shown below:

Fire Brigades: Principal Sources of Revenue, 1972-73
(\$'000)

Contributions received by Fire Brigades Commission	Receipts	Distribution made by Fire Brigades Commission	Payments
From—		To—	
State Government	417	Fire brigades boards	1,854
City and municipal councils	417		
Insurance companies	1,020		
Total	1,854	Total	1,854

The number of contributing local government authorities in 1972-73 was 32, although the number of fire brigade boards was only 23 (some boards take responsibility for areas lying in more than one municipality, e.g. the Hobart Board with sub-stations in Glenorchy, Clarence, Kingborough and Sorell). The present contribution formula requires 55 per cent from the insurance companies, and 22½ per cent each from the Government and local government authorities; the Commission prepares an annual estimate of expenditure so that the level of contributions may be fixed in advance. The loan debt of all fire brigade boards at 30 June 1973 was \$625,000.

At 30 June 1973, the 23 fire brigade boards maintained 40 stations (including sub-stations) and employed 247 permanent firemen (Hobart 137, Launceston 86, Burnie 12, Devonport 12); other firemen, numbering 412, were paid on a part-time basis. In addition, one Hobart sub-station, Fern Tree, situated in forested mountain country, had a volunteer strength of 40. Including the Fern Tree volunteers, the total firemen (officers and men) in the Brigades numbered 699.

Rural Fires Board

Following the fire disaster of February 1967, the Rural Fires Board was reorganised under the *Rural Fires Act 1967* and became fully operative in July 1968.

The Act brought the separate urban and rural fire services and the State Civil Defence and Emergency Services together under the Chief Secretary. The Rural Fires Board operates under a chairman appointed by the Governor and consists of 16 members representing: Forestry Commission (two members); Police; Fire Brigades Commission; pulp and paper making industry management; sawmilling industry management; Hydro-Electric Commission; Fire and Accident Underwriters' Association; Tasmanian Farmers' Federation; Tasmanian Farmers', Stockowners' and Orchardists' Association; Australian Workers' Union; Timber Workers' Union; and Rural Fire Brigades.

Under the Act, the municipal councils, through fire permit officers approved by the Board, are made responsible for the control and issue of permits for fire used for clearing vegetation during restricted periods. Permit officers are not necessarily employees of the councils. Fire use is controlled during only two periods, that is, during *fire danger periods*, when permits are required, and on days of *acute fire danger* when no fires are permitted. These periods are introduced and re-

moved as the seasonal conditions dictate in various parts of the State. The Act requires each municipal council to form a municipal fire committee for the purpose of promoting the formation of rural fire brigades and advising the Board and the council on matters of fire restriction, hazard reduction, the provision of funds for purchase of equipment to be used by rural fire brigades and any other fire control matters. For approved equipment purchases for use by rural fire brigades, the Government may contribute a subsidy equal to the sum provided by the municipal council. Areas with particular fire problems and sparse population may be declared as *special fire areas* and be the subject of separate schemes sponsored entirely from Government finance.

The Board's paid staff is headed by the State Fire Control Officer and includes five Regional Fire Officers. There were 326 rural fire brigades at 30 June 1974. These brigades are composed entirely of registered volunteers, involving 7,531 people. The Board's budget in 1973-74 was \$720,000 comprising: \$308,000 for administrative and field operational expenditure; \$161,000 for fire fighting vehicles, radio communications and other equipment; \$185,000 for development of *special fire areas*; and \$66,000 for fire fighting equipment, hazard clearing and other work in Hobart special fire area. Half the administrative expenditure of the Board is met by insurance companies insuring rural properties, and half by the Government. Special fire area expenditure is borne by the Government, with remaining expenditure being shared proportionately between the Government and municipalities.

Urban Fire Brigades Inquiry

In January 1974 Tasmania's Chief Secretary announced a Government-commissioned inquiry into the State's urban fire brigade network. The objective of the inquiry is to examine the problems facing urban fire brigades and suggest improvements for the organisational, administrative and financial structures of the brigades. (Technical aspects of fire fighting are outside the scope of the inquiry.) Matters to be examined by the inquiry include:

- (i) The need for uniform municipal fire service rating throughout the State.
- (ii) Exchange of personnel and equipment between brigades.
- (iii) Education in fire prevention and procedures in public buildings e.g. hospitals.
- (iv) Deficiencies in the current system and the necessity for amending legislation.

Forestry Commission

The Commission is responsible for the protection of the State Forests (1.2m hectares) and of other forested Crown land. Close liaison is maintained with the Rural Fires Board as two members of the 16-man Board are representatives from the Forestry Commission.

The following table gives details, for 10 years, of the areas burnt within fire perimeters, the number of fires fought and the cost of suppression.

Comparisons of Seasonal Fire Damage

Year	Area burnt (a)	Fires	Suppression cost	Year	Area burnt (a)	Fires	Suppression cost
	hectares	no.	\$		hectares	no.	\$
1963-64 ..	26,919	252	74,012	1968-69 ..	4,535	87	18,722
1964-65 ..	4,781	146	33,930	1969-70 ..	6,221	118	21,963
1965-66 ..	52,264	317	54,968	1970-71 ..	8,663	114	22,493
1966-67 ..	172,485	264	108,018	1971-72 ..	1,826	95	13,841
1967-68 ..	38,730	230	61,032	1972-73 ..	140,900	305	262,531

(a) Including private property inside the perimeter of fires on which suppressive action was taken.

During 1972-73, 115,040 hectares of State forest and Crown land were burnt. Of this area 59,134 hectares were scrub wasteland, and 55,906 hectares were forested land.

Chapter 17

LABOUR, PRICES AND WAGES

EMPLOYMENT

Historical

Tasmanian records for the first 90 years give no dissection of the population such that the total number of wage and salary earners can be accurately ascertained. The first census to provide the necessary analysis was that of 1891, the categories used on that occasion and in subsequent censuses being broadly comparable. The composition of the labour force is shown in the following table for each census from 1901 to 1961:

Elements of Labour Force: Censuses of 1901-1961

Year and sex	Employer	Self-employed	Employee	Helper not receiving wage or salary	'Not at work' (a)	Total in labour force	Total population
1901—Males	6,213	9,100	36,063	4,098	1,810	57,284	89,624
Females	462	2,434	10,229	2,071	356	15,552	82,851
Persons	6,675	11,534	46,292	6,169	2,166	72,836	172,475
1911—Males	8,477	6,742	40,555	3,916	1,492	61,182	97,591
Females	642	1,249	10,715	411	326	13,343	93,620
Persons	9,119	7,991	51,270	4,327	1,818	74,525	191,211
1921—Males	4,445	13,309	42,763	1,875	3,606	65,998	107,743
Females	347	1,593	11,484	67	510	14,001	106,037
Persons	4,792	14,902	54,247	1,942	4,116	79,999	213,780
1933—Males	7,277	11,887	38,084	1,752	10,226	69,226	115,097
Females	798	1,423	13,082	116	1,442	16,861	112,502
Persons	8,075	13,310	51,166	1,868	11,668	86,087	227,599
1947—Males	6,718	12,522	58,097	997	1,867	80,201	129,244
Females	659	1,198	17,693	86	481	20,117	127,834
Persons	7,377	13,720	75,790	1,083	2,348	100,318	257,078
1954—Males	6,886	12,616	72,481	778	1,215	93,976	157,129
Females	788	1,329	21,590	246	279	24,232	151,623
Persons	7,674	13,945	94,071	1,024	1,494	118,208	308,752
1961—Males	7,108	11,619	78,863	505	3,194	101,289	177,628
Females	1,113	1,572	25,853	194	896	29,628	172,712
Persons	8,221	13,191	104,716	699	4,090	130,917	350,340

(a) Includes those who stated 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, temporarily laid off, etc. It also includes persons able and willing to work, but unable to secure employment, as well as casual and seasonal workers not actively engaged in a job at the time of a census.

Labour Force and Employment

It is essential to distinguish between 'labour force' and 'employees' since *employment* statistics in this chapter relate mainly to wage and salary earners, who are, however, *only one component of the labour force* which also comprises employers, self-employed persons, unpaid helpers and unemployed persons. The category 'not at work' shown in the preceding table was first established in the 1947 Census and the comparison with earlier years is only approximate. For further details, see subsequent section headed 'Unemployment'. Data from the 1966 and 1971 Censuses (shown in the next section) could not be included in the previous table because of a changed method of collecting information.

Labour Force

From the 1966 Census, a new set of questions (based on activity in the week before the Census) was asked to establish who should be included in the labour force. The composition was as follows:

Elements of Labour Force: Censuses, 1966 and 1971

Year and sex	Employer	Self-employed	Employee	Unpaid helper	Un-employed	Total in labour force	Total population
1966—Males	8,245	9,162	87,572	432	1,146	106,557	187,390
Females	1,759	1,644	35,451	940	971	40,765	184,045
Persons	10,004	10,806	123,023	1,372	2,117	147,322	371,435
1971—Males	6,841	8,442	90,627	277	1,786	107,973	196,442
Females	1,727	1,892	39,649	760	1,261	45,289	193,971
Persons	8,568	10,334	130,276	1,037	3,047	153,262	390,413

The new approach to labour force classification was as follows: in pre-1966 censuses people had been invited to classify themselves (e.g. as unemployed, employee, etc.) but in 1966 and 1971, people were invited to describe their *activity* in a specific week and the Statistician, using pre-determined definitions, classified them on the basis of their answers.

Briefly, the new questions asked whether the person: (i) had a job or business of any kind last week (even if temporarily absent from it); (ii) did any work at all last week for payment or profit. (Unpaid helpers who worked were to answer *yes.*); (iii) was temporarily laid off by his employer without pay for the whole of last week; and (iv) looked for work last week. (Ways of 'looking for work' were specified on the Census form.)

The 1966 and 1971 labour force included all persons answering *yes* to any one of these four questions. The effect of the new definition was to include additional persons in the labour force. This applied particularly to those working part-time (sometimes for only a few hours a week), some of whom in 1961 may not have considered themselves as '... engaged in an industry, business, profession, trade or service'. The main difference in classification between the 1901-1961 table and the 1966-1971 table is the substitution of the category 'unemployed' for the former category 'not at work'.

The total of persons recorded as unemployed in 1966 and 1971 was compiled from persons answering *no* to questions (i), (ii) and (iii) and *yes* to question (iv).

Monthly Series of Employment Statistics

The employment series shown in this chapter is based on comprehensive data (referred to as 'benchmarks') derived from the Census of June 1966. Figures for the period subsequent to the Census of 1966 are estimated from three main sources, namely: (i) current pay-roll tax returns; (ii) current returns from government bodies; and (iii) some other direct current records of employment (e.g. for hospitals), supplemented by estimates of the change in the number of wage and salary earners not covered by the foregoing collections.

The benchmark figures are derived from particulars recorded for individuals on population census schedules, whereas the estimated monthly figures are derived from reports supplied by employers relating to enterprises or establishments. These two sources differ, in some cases, in scope and in reporting of industry; however, the industry dissection of the benchmark total has been adjusted, as far as possible, to an enterprise or establishment reporting basis. The industry classification used throughout the series is that of the Census of June 1966.

Pay-roll tax returns are lodged at present by all employers paying more than \$400 a week in wages (other than certain Australian Government bodies, religious and benevolent institutions, public hospitals and organisations specifically exempted). The \$400 exemption limit dates from 1 September 1957 (the previous limit had been \$240). The passing of control of pay-roll tax in 1971 from the Australian Government to the states did not affect the production of the wage and salary earners employment series.

It should be noted that employees in rural industry and in private domestic service are not included in the estimates because of the inadequacy of current data. The terms 'employment', 'number employed', 'employees' and 'wage earners' used throughout are synonymous with, and relate to, 'wage and salary earners' on pay-rolls or in employment in the latter part of each month, as distinct from numbers of employees actually working on a specific date. They include some persons working part-time.

Figures for recent periods are subject to revision. As they become available, particulars of employment obtained from other Bureau collections are used to check and, where necessary, to revise estimates in relevant sections.

The table below gives estimated totals for employees in Tasmania at June and December of each year:

Wage and Salary Earners in Civilian Employment, June and December (Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(*000)

Year	June			December		
	Males	Females	Persons	Males	Females	Persons
1968	84.7	37.1	121.8	86.4	37.8	124.2
1969	86.5	38.1	124.6	88.0	39.4	127.4
1970	88.5	39.3	127.8	88.9	40.8	129.7
1971 (a)	89.1	40.5	129.6	88.8	40.6	129.4
1972	89.4	40.2	129.6	89.8	41.4	131.2
1973	90.2	41.9	132.1	92.2	44.0	136.2
1974	92.5	44.9	137.4			

(a) From July 1971 trainee teachers are excluded; some were previously classified as employees.

The detailed study of employment trends requires examination of monthly figures, so the next table has been compiled to show totals of employees for each month:

**Wage and Salary Earners in Civilian Employment, Monthly Estimates (Excluding Employees in
Agriculture and Private Domestic Service, and Defence Forces)**
(*000)

Month	1972			1973			1974		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
January	89.2	39.8	129.0	90.3	41.0	131.3	92.4	43.3	135.7
February	89.3	39.8	129.1	90.4	40.9	131.3	92.9	44.1	137.0
March	89.8	40.1	129.9	90.9	41.6	132.5	93.1	45.0	138.1
April	89.9	40.2	130.0	90.6	42.0	132.6	92.8	45.2	138.0
May	89.7	40.5	130.2	90.8	42.3	133.1	93.0	44.8	137.8
June	89.4	40.2	129.6	90.2	41.9	132.1	92.5	44.9	137.4
July	88.9	40.3	129.2	90.4	42.0	132.4			
August	88.9	40.5	129.4	90.2	42.0	132.2			
September	88.6	40.3	128.9	90.1	42.1	132.2			
October	88.1	40.2	128.3	90.6	42.3	132.9			
November	89.1	40.5	129.6	91.2	43.2	134.4			
December	89.8	41.4	131.2	92.2	44.0	136.2			

Civilian Employees of Government Bodies

In Tasmania, as in other Australian states, a relatively high proportion of wage and salary earners is employed by government bodies operating at four levels: Federal, State, local and semi-government (with the complication that semi-government authorities may have been created by either Federal or State legislation). For the purpose of these statistics, government employees include persons working on government services such as railways, bus services, banks, post offices, power and light, air transport, education (including universities), radio, television, police, public works, government factories, departmental hospitals and institutions, etc., as well as those engaged in administrative services.

The following table shows the number of government employees in Tasmania according to the level of government:

Civilian Employees of Government Bodies at 30 June
(*000)

Year and sex	Level of government			Total
	Federal (a)	State (a)	Local	
1972—Males	5.3	18.7	3.0	26.9
Females	1.7	6.3	0.4	8.4
Persons	7.0	25.0	3.3	35.3
1973—Males	5.4	18.6	2.7	26.7
Females	1.7	6.8	0.4	8.9
Persons	7.2	25.4	3.1	35.7
1974—Males	5.7	18.8	2.5	27.0
Females	1.9	7.4	0.4	9.7
Persons	7.6	26.1	2.9	36.6

(a) Includes semi-government authorities.

The next table shows employees according to private and government sectors:

**Total Civilian Employees of Private Employers and Government Authorities at 30 June
(*000)**

Year	Private employers			Government authorities		
	Males	Females	Persons	Males	Females	Persons
1970	62.2	30.6	92.8	26.3	8.7	35.0
1971	63.0	31.5	94.5	26.1	9.0	35.1
1972 (a)	62.5	31.8	94.3	26.9	8.4	35.3
1973	63.5	33.0	96.4	26.7	8.9	35.7
1974	65.5	35.2	100.8	27.0	9.7	36.6

(a) From 1 July 1971 trainee teachers are excluded; some were previously classified as employees.

Industrial Classification of Employees

In the following table, wage and salary earners in civilian employment are classified according to industry:

**Wage and Salary Earners in Civilian Employment: Industry Groups and Sub-Groups, June 1974
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(*000)**

Industry group and sub-group	Males	Females	Persons
Forestry, fishing and hunting	1.2	0.1	1.3
Mining and quarrying	4.5	0.3	4.8
Manufacturing	28.0	6.8	34.8
Electricity, gas, water and sanitary services	3.6	0.3	3.9
Building and construction	11.2	0.3	11.4
Transport and storage—			
Road transport and storage	3.5	0.3	3.9
Shipping and stevedoring	2.1	0.1	2.2
Rail and air transport	1.9	0.2	2.1
Total	7.6	0.6	8.2
Communication	3.0	0.9	3.9
Finance and property—			
Banking	1.5	1.1	2.6
Other	1.8	1.3	3.1
Total	3.3	2.4	5.7
Commerce—			
Retail trade	6.6	7.7	14.4
Wholesale and other commerce	5.7	1.6	7.3
Total	12.4	9.3	21.7
Public authority activities (n.e.i.)	4.8	2.3	7.1
Other industries—			
Health, hospitals, etc.	1.9	7.3	9.2
Education	3.5	4.8	8.2
Amusement, hotels, personal service, etc.	4.5	7.2	11.7
Other (a)	3.3	2.2	5.6
Total	13.2	21.6	34.7
Grand total	92.5	44.9	137.4

(a) Comprises: law, order and public safety; religion and social welfare; other community and business services.

The analysis of wage and salary earners by industry groups clearly indicates 'manufacturing' as the predominant activity. As employees in agriculture are excluded from the series, it is not possible to compare employment in primary, secondary and tertiary industries on the basis of the data appearing in the table. ('Employment on Agricultural Holdings' is described in chapter 7 but the seasonal character of this work makes it difficult to estimate the level of rural employment in any given month.) Attention is drawn to the relatively minor level of employment in 'public authority activities (n.e.i.)'; the civilian employees of government bodies shown in a previous table have been classified according to their appropriate industry group (e.g. transport, communication, health, education, etc.) and only those not included in a specified group appear in this item.

Industrial Classification of the Labour Force and of Employees

The Census of 30 June 1971 provides an analysis of the total labour force (including those engaged in rural industry); the percentage in each broad category was as follows: *primary production* (fishing, hunting, rural industries, forestry), 9.17; *mining and quarrying*, 3.05; *manufacturing*, 20.99; *electricity, gas, water and sanitary services*, 2.45; *building and construction*, 8.60; *transport and storage*, 5.06; *communication*, 2.15; *finance and property*, 5.21; *commerce* (wholesale and retail), 18.05; *public authority (n.e.i.) and defence services*, 4.80; *community and business services (including professional)* (e.g. schools, hospitals, etc.), 11.82; *amusement, hotels and other accommodation, cafes, personal service, etc.*, 5.07; *industry not stated*, 3.58; *total*, 100.00.

If the primary group is combined with *mining and quarrying*, only 12 per cent of the labour force was engaged in taking food and other materials direct from the land and the sea; a further 21 per cent was engaged in manufacturing. In other words only 33 per cent of the labour force was engaged in primary and manufacturing industries as defined for statistical purposes.

The next table specifies the main industrial groups and shows the industrial classification of *civilian employees* at annual intervals:

Wage and Salary Earners in Civilian Employment: Main Industry Groups
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)
(*000)

At 30 June	Mining and quarrying	Manufacturing (a)	Building and construction	Transport, storage and communication	Retail trade	Wholesale trade, etc.; finance, property	Public authority (n.e.i.); community services, etc. (b)	Amusement, hotels, personal service, etc.
MALES								
1970	4.4	28.3	12.2	9.8	6.0	8.4	11.3	3.1
1971	4.8	28.2	11.4	9.8	6.0	8.8	11.9	3.4
1972 (c) ..	4.9	27.3	11.6	9.7	6.2	8.8	12.4	3.6
1973	4.7	27.5	11.0	9.9	6.3	8.9	12.9	4.1
1974	4.5	28.0	11.2	10.6	6.6	9.0	13.5	4.5
FEMALES								
1970	0.2	7.3	0.3	1.5	6.7	3.4	14.5	5.0
1971	0.2	6.9	0.3	1.4	6.9	3.7	15.1	5.4
1972 (c) ..	0.2	6.7	0.3	1.4	7.1	3.7	14.9	5.6
1973	0.2	6.8	0.3	1.5	7.2	3.8	15.7	6.1
1974	0.3	6.8	0.3	1.5	7.7	4.0	16.7	7.2

Wage and Salary Earners in Civilian Employment: Main Industry Groups
(Excluding Employees in Agriculture and Private Domestic Service, and Defence Forces)—continued
(’000)

At 30 June	Mining and quarrying	Manufacturing (a)	Building and construction	Transport, storage and communication	Retail trade	Wholesale trade, etc.; finance, property	Public authority (n.e.i.); community services, etc. (b)	Amusement, hotels, personal service, etc.
PERSONS								
1970	4.6	35.6	12.5	11.2	12.7	12.0	25.9	8.0
1971	5.0	35.2	11.7	11.2	13.0	12.4	26.9	8.8
1972 (c) ..	5.1	34.0	11.9	11.2	13.3	12.5	27.2	9.2
1973	4.9	34.3	11.3	11.4	13.6	12.7	28.6	10.2
1974	4.8	34.8	11.4	12.1	14.4	13.0	30.1	11.7

(a) Based on employment of enterprises predominantly engaged in manufacturing.

(b) Includes: law, order and public safety; religion and social welfare; health services; education and other community and business services.

(c) From 1 July 1971 trainee teachers are excluded; some were previously classified as employees.

UNEMPLOYMENT

Historical

General

The total of persons 'unemployed' has been recorded by the Australian Bureau of Statistics at the dates of successive population censuses. The measurement of unemployment is complicated by definitional problems since persons normally in the labour force, but not having a job at the time of a census, may be in this position for reasons other than those associated with scarcity of employment. The classifications used in the 1921 and 1933 population censuses are shown in the *Year Book* 1972. At the 1933 Census, the unemployed were recorded as constituting 13.6 per cent of the labour force.

'Not at Work'

In the next table, a summary is made of data from the Censuses of 1947, 1954 and 1961, the principal comparison being the respective levels of the labour force and of those classified as 'not at work'.

'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 but unable to obtain it.

The term 'not at work' does not apply to those who had a job but happened to be absent from it at census date due to sickness or leave.

Labour Force and Persons 'Not at Work'
Censuses of 30 June 1947, 1954 and 1961

Year and sex	Labour force (a)	Persons 'not at work'	
		Number	Proportion of labour force (per cent)
1947—Males	80,201	1,867	2.3
Females	20,117	481	2.4
Persons	100,318	2,348	2.3
1954—Males	93,976	1,215	1.3
Females	24,232	279	1.2
Persons	118,208	1,494	1.3
1961—Males	101,289	3,194	3.2
Females	29,628	896	3.0
Persons	130,917	4,090	3.1

(a) Comprises employers, self-employed, employees, helpers and those 'not at work'.

The interpretation of 'not at work' is made clear by an analysis of the 1961 figures: temporarily laid off, 457 persons; illness, 554; accident, 116; industrial dispute, 5; other causes, 366; *unable to secure employment*, 2,592; total not at work, 4,090 (as shown in table). Obviously this last category, *unable to secure employment*, is the key to measuring unemployment.

'Unemployed'

In the 1966 Census, the following new question was asked: did the person look for work last week? Answer *yes* or *no*. (Note: 'Looking for work' means: (i) being registered with the Commonwealth Employment Service; or (ii) approaching prospective employers; or (iii) placing or answering advertisements; or (iv) writing letters of application; or (v) awaiting the result of recent applications.) In the 1971 Census this question was asked again with one refinement: was the person seeking a job for the first time or had the person had other jobs before?

After the exclusion of persons who were already employed, but who were seeking alternative employment, the following data were obtained from this approach:

Labour Force and Unemployed Persons, 1966 and 1971 Censuses

Year and sex	Labour force	Unemployed	
		Number	Proportion of labour force (per cent)
1966—Males	106,557	1,146	1.1
Females	40,765	971	2.4
Persons	147,322	2,117	1.4
1971—Males	107,973	1,786	1.7
Females	45,289	1,261	2.8
Persons	153,262	(a) 3,047	2.0

(a) Includes 226 males and 277 females 'looking for first job'.

It should be noted that 'not at work' in the 1947-1961 table is different in concept from the 'unemployed' category in the 1966-1971 table.

Registrations With Commonwealth Employment Service

The Commonwealth Employment Service (C.E.S.) was established by federal legislation under Section 47 of the *Re-establishment and Employment Act 1945*, and under the *Social Services Legislation Declaratory Act 1947*. The principal function of this service is to provide facilities in relation to employment for the benefit of persons seeking to change or obtain employment, or seeking to engage labour, and to provide facilities to assist in bringing about a high and stable level of employment throughout Australia.

The C.E.S. functions within the Employment Division of the Department of Labour and Immigration on a decentralised basis. The central office is in Melbourne; there is a regional office in Hobart with district employment offices in Hobart, Launceston, Glenorchy, Devonport and Burnie, and agencies at Smithton and Huonville.

All applicants for unemployment benefits provided under the federal *Social Services Act 1947-1969* must register at a district employment office or agency of the C.E.S. which is responsible for certifying whether or not suitable employment is available. Claims for unemployment benefits are paid by the Department of Social Security; country residents remote from a Social Security employment office or agency may claim by mail.

The establishment of the C.E.S. created two new methods of measuring fluctuations in unemployment:

- (i) the number of persons registered for employment with the C.E.S. at the end of each month; and
- (ii) the number of persons receiving unemployment benefit from the Department of Social Security at the end of each month.

'Registered for Employment'

In the following table the persons shown are those who claimed, when registering with the C.E.S., that they were not employed and who were recorded on the last Friday in the month as unplaced. The count includes those referred to employers and those who may have obtained employment without notifying the C.E.S.; persons receiving unemployment benefit are included.

Persons Registered for Employment With Commonwealth Employment Service At June and December of Each Year (a)

Year	June			December		
	Males	Females	Persons	Males	Females	Persons
1964	1,812	1,156	2,968	1,860	1,598	3,458
1965	1,260	975	2,235	1,426	1,350	2,776
1966	849	846	1,695	1,447	1,260	2,707
1967	1,157	959	2,116	1,716	1,348	3,064
1968	1,145	943	2,088	1,786	1,314	3,100
1969	1,305	815	2,120	1,863	1,612	3,475
1970	1,160	728	1,888	1,791	1,376	3,167
1971	1,726	956	2,682	2,786	1,746	4,532
1972	2,113	1,385	3,498	3,349	2,304	5,653
1973	2,201	1,517	3,718	2,560	1,911	4,471
1974	1,968	1,342	3,310			

(a) Recorded as unplaced on the Friday nearest the last day of the month.

In interpreting the level of registration, account should be taken of the fact that registration is a *voluntary act*. Thus, while an increase in registrations may normally be taken to indicate an increase in unemployment, theoretically at least, it could merely indicate wider use of the facilities offered by the Commonwealth Employment Service.

The table that follows has been compiled to show the number registered for employment at the end of each month. The monthly figures are subject to pronounced seasonal influences, the most obvious being the effect of school-leavers on registrations in December and January.

**Persons Registered for Employment With Commonwealth Employment Service
At End of Each Month (a)**

Month	1972			1973			1974		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
January	2,893	1,757	4,650	3,261	2,048	5,309	2,827	1,955	4,782
February	2,211	1,433	3,644	2,634	1,841	4,475	2,237	1,790	4,027
March	1,619	1,313	2,932	1,825	1,494	3,319	1,759	1,502	3,261
April	1,689	1,361	3,050	1,784	1,422	3,206	1,586	1,451	3,037
May	1,901	1,367	3,268	1,892	1,449	3,341	1,715	1,408	3,123
June	2,113	1,385	3,498	2,201	1,517	3,718	1,968	1,342	3,310
July	2,368	1,336	3,704	2,092	1,394	3,486			
August	2,468	1,226	3,694	2,067	1,325	3,392			
September	2,319	1,171	3,490	2,060	1,360	3,420			
October	2,232	1,098	3,330	1,716	1,232	2,948			
November	3,139	2,222	5,361	1,676	1,302	2,978			
December	3,349	2,304	5,653	2,560	1,911	4,471			

(a) At Friday nearest last day of month.

Persons Receiving Unemployment Benefit

It is possible for a person to register as unemployed but make no claim for unemployment benefit. On the other hand, a person claiming unemployment benefit is required to register for employment. The next table gives details of persons receiving unemployment benefit each month:

Number of Persons Receiving Unemployment Benefit By Month (a)

Month	1967	1968	1969	1970	1971	1972	1973	1974
January ..	452	536	648	634	518	1,125	2,572	2,706
February ..	388	474	543	568	502	1,144	2,439	2,538
March ..	334	361	332	404	347	1,113	1,881	1,630
April ..	315	396	410	349	405	1,191	1,862	1,748
May ..	380	456	499	348	574	1,278	2,242	1,655
June ..	526	635	600	437	782	1,697	2,330	1,769
July ..	597	642	714	544	957	1,922	2,279	
August ..	620	667	681	561	1,062	1,854	2,200	
September ..	533	615	628	540	1,165	1,813	2,067	
October ..	419	565	481	473	1,215	1,698	1,692	
November ..	432	575	544	410	1,148	1,879	1,782	
December ..	536	658	621	517	1,399	2,214	2,029	

(a) Number at the last Saturday of month. Source: Department of Social Security.

The number of males and females in receipt of unemployment benefit is shown for June of each year:

Persons Receiving Unemployment Benefit at June (a)

Particulars	1967	1968	1969	1970	1971	1972	1973	1974
Males ..	325	334	381	290	531	1,087	1,306	1,034
Females ..	201	301	219	147	251	610	1,024	735
Persons ..	526	635	600	437	782	1,697	2,330	1,769

(a) Number at the last Saturday of June in each year. Source: Department of Social Security.

Comparison of Unemployment Data

The following table shows unemployment recorded at the 1961, 1966 and 1971 Censuses and also other measures of unemployment covering approximately the same points in time. In 1966 and 1971 more persons were recorded as unemployed in the census than the number registered with the Department of Labour; however, in 1961 the position was reversed.

Unemployed Persons, Persons Registered for Employment and Persons Receiving Unemployment Benefit at 30 June

Particulars	1961	1966			1971		
	Persons	Males	Females	Persons	Males	Females	Persons
CENSUS OF 30 JUNE							
Unable to secure employment (a)	2,592	1,146	971	2,117	1,786	1,261	3,047
Temporarily laid off	457	} n.a.	} n.a.	} n.a.	} n.a.	} n.a.	} n.a.
Illness	554						
Accident	116						
Industrial dispute	5						
Other	366						
Total 'not at work'	4,090	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DEPARTMENT OF LABOUR							
Registered for employment (b)	3,213	849	846	1,695	1,726	956	2,682
DEPARTMENT OF SOCIAL SECURITY							
Receiving unemployment benefit (c)	1,336	224	209	433	531	251	782

(a) Figures for 1966 and 1971 are for category 'unemployed'.

(b) At Friday nearest last day of June.

(c) At last Saturday of June.

INDUSTRIAL LEGISLATION AND CONDITIONS

Apprenticeship

Apprenticeship Commission

The Apprenticeship Commission was set up under the *Apprentices Act 1942* to: (i) encourage, regulate and control training in proclaimed trades; (ii) assist youths towards successful trade courses; and (iii) provide properly trained craftsmen for industry. The Commission, which meets each month, consists of three representatives of trade unions, three of employers' organisations, a nominee of the Minister for Education and the President, all members being appointed for a three-year term. To keep the Commission up-to-date with the latest developments, Trade Advisory Committees have been formed for particular industries, with both employers and employees represented.

Apprentices are trained at work and at technical classes, and supervisors report on the effectiveness of the training; supervisors also give on-the-spot advice to employers and apprentices where their mutual obligations are concerned and refer matters, that cannot be settled in this way, to the Commission for decision.

Apprenticeships

An apprenticeship may not be commenced without the consent of the Commission which also determines the suitability of employers for training apprentices and the educational qualifications required for entry to a particular trade.

The apprentice serves a probationary period before a contract (indentures) is made with the employer and registered with the Commission. The Commission determines disputes about the contracting parties' rights, duties and liabilities and no apprenticeship may be terminated, suspended or assigned other than by its authority; when an apprenticeship has been completed, the employer and the Commission certify to this effect. Where apprentices are required to undertake technical training, either at technical classes or by correspondence, instruction is mandatory. Apprentices attend technical classes for eight hours per week during working hours without loss of pay. (Country apprentices in remote areas attend three fortnightly training periods each year.) The progress apprentices make is reported to the Commission and unsatisfactory reports are investigated.

Apprentices are encouraged in the following ways: (i) by payment of *efficiency allowances* for annual examinations passed successfully in the allotted time; (ii) by *certificate of proficiency* for apprentices successfully completing the mandatory trade course of technical instruction; (iii) by reducing the apprenticeship term by one year in some cases, where the qualifying trade course is completed in the allotted time; and (iv) by the award of bursaries.

Four bursaries (two \$500, two \$300) are awarded each year to outstanding apprentices, and a fifth bursary (\$800) is awarded to 'The Apprentice of the Year'. These bursaries are given to assist the most promising apprentices to secure wider trade experience with another employer as part of the apprenticeship training, either in Tasmania or another state. Arrangements are made by the Commission to suit the bursary holders' wishes.

Number of Apprentices

The following table shows the number of apprentices in Tasmania and also details of new apprenticeships registered and apprenticeships completed:

Number of Apprentices; Apprenticeships Registered and Completed

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Number at 30 June (a)—					
Indentured apprentices	3,585	3,592	3,583	3,281	4,035
Apprentices on probation	295	320	235	322	180
Total	3,880	3,912	3,818	3,603	4,215
During year—					
New apprenticeships registered ..	1,034	990	998	1,117	1,404
Apprenticeships completed	713	763	778	882	750

(a) Distributed in proclaimed trades; approximately 130 had been proclaimed at 30 June 1974.

Industrial Accidents

Industrial accident statistics in Tasmania are compiled from returns of workers' compensation claims submitted by insurance companies, self-insurers and State Government departments. The returns are submitted for cases finalised and the statistics do not represent the number of accidents occurring in a particular year. The statistics first published by the Bureau for 1969-70 replaced those formerly published by the Department of Labour and Industry. Because of the number of minor definitional, conceptual and classification changes adopted for the new series, the statistics shown in the following tables are not strictly comparable with those published for earlier years by the Department of Labour and Industry.

The collection is limited to those employees covered by the Tasmanian *Workers' Compensation Act* and therefore excludes self-employed persons, Australian Government employees and the police. Exclusion of self-employed persons is likely to reduce coverage in industries where self-employment is prevalent (e.g. retail trade, rural industries). Because of the exclusion of Australian Government employees, some industries are not covered at all, while coverage is considerably reduced in other industries (e.g. communications).

In compiling the statistics the following definitions have been adopted:

Industrial Accident: A compensated work injury causing death or absence of the injured person from work for one day or more. Disease cases and accidents occurring during journeys or recess periods are included. The number of accidents is based on claims finalised during each year ended 30 June. The accidents to which the claims refer may have occurred in the year the claim was finalised or during any earlier year.

Time Lost: The actual time lost from work of persons reported to be temporarily incapacitated or permanently partially-incapacitated as a result of a compensated work injury.

Cost of Claims: Includes compensation for wages lost, hospital and medical expenses and lump sum settlements of cases finalised during the year ended 30 June.

Industry Groups: Classified in accordance with the Australian Standard Industrial Classification.

The table that follows shows the number of industrial accidents reported during 1972-73 and the time lost through those accidents which caused temporary and permanent partial-disability.

Fatal and Non-fatal Industrial Accidents: Industry Group and Time Lost, 1972-73

Industry group	Accidents		Time lost—temporary disability only (a)	
	Fatal	Non-fatal	Total	Average per accident
	no.	no.	weeks	weeks
Primary, mining, etc.—				
Primary production	4	443	1,795	4.1
Mining	1	383	1,729	4.5
Total	5	826	3,524	4.3
Manufacturing—				
Food, drink, etc. .. .. .	..	678	1,167	1.7
Wood and wood products, etc.	3	776	1,446	1.9
Glass and clay products, etc.	1	81	195	2.4
Metal and metal products, etc.	2	472	910	1.9
Transport equipment .. .. .	..	41	106	2.6
Other manufacturing .. .. .	..	683	2,276	3.3
Total	6	2,731	6,100	2.2
Other industries—				
Electricity, gas, etc. .. .. .	..	166	254	1.5
Construction	2	1,536	3,268	2.1
Wholesale and retail trade	2	660	1,561	2.4
Transport, storage, etc.	4	483	1,625	3.4
Finance and property .. .. .	..	36	81	2.3
Public administration .. .. .	..	55	215	3.9
Community services .. .. .	..	249	749	3.0
Amusements, hotels, etc. .. .. .	..	115	258	2.2
Total	8	3,300	8,011	2.4
Grand total	19	6,857	17,635	2.6

(a) Includes permanent partial-disability cases.

The cost of industrial accidents, as applicable to each industrial group, is shown in the next table:

Industrial Accidents: Industry Group and Cost of Claims, 1972-73
(\$)

Industry group	Cost of claims			
	Fatal accidents	Non-fatal accidents	Total accidents	Average per non-fatal accident
Primary, mining, etc.—				
Primary production	31,683	112,446	144,129	254
Mining	34,405	230,106	264,511	601
Total	66,088	342,552	408,640	415
Manufacturing—				
Food, drink, etc. .. .. .	..	112,843	112,843	166
Wood, and wood products, etc.	15,518	127,495	143,013	164
Glass and clay products, etc.	21,406	20,136	41,542	249
Metal and metal products, etc.	50,844	117,599	168,443	249
Transport equipment .. .. .	..	9,121	9,121	222
Other manufacturing .. .. .	..	145,673	145,673	213
Total	87,768	532,867	620,635	195
Other industries—				
Electricity, gas, etc. .. .. .	..	23,643	23,643	142
Construction	1,999	280,620	282,619	183
Wholesale and retail trade	20,302	125,104	145,406	190
Transport, storage, etc.	14,460	129,845	144,305	269
Finance and property .. .. .	..	5,452	5,452	151
Public administration .. .. .	..	13,568	13,568	247
Community services .. .. .	..	64,215	64,215	258
Amusements, hotels, etc. .. .. .	..	15,543	15,543	135
Total	36,761	657,990	694,751	199
Grand total	190,617	1,533,409	1,724,026	224

Industrial Safety and Accident Prevention

Responsibility: The Department of Labour and Industry is concerned with industrial safety and accident prevention, and discharges this function with the knowledge that there are approximately 7,000 accidents involving lost time each year among the population covered by the *Workers' Compensation Act*.

Prevention: Prevention obviously has a two-fold aspect: (i) inspection programmes aimed at pin-pointing unsafe working conditions; and (ii) education and training designed to eliminate unsafe actions.

Training: The problem of training is basically one of educating supervisors and foremen, since an attitude of 'safety consciousness' has to start with management. Formal training in industrial safety and accident prevention is available at Hobart and Launceston Technical Colleges in two-year courses. Informal training is arranged by the Department of Labour and Industry, the two-day courses available being based on the concept of 'training within industry'. Single lectures on industrial and farm safety are also available and the Department makes arrangements to provide lecturers on request.

Safety Officers: It is expected that large undertakings will have their own specialists concerned with safety matters. However, government safety officers are available to industries which may use their services for short periods. Their function is purely advisory and they assist organisations which wish to stress safety or to reduce their accident rates.

Research Facilities: The Department carries out a safety research programme. A comprehensive classification of safety data and information is maintained from local, interstate and overseas sources.

Workers' Compensation

Legislation: Workers' compensation legislation in Tasmania was first introduced in 1910 but it was not until 1927 that the principle of compulsory insurance was embodied in the *Workers' Compensation Act 1927*, as amended.

Purpose and Limitations: The principle of the Act is provision for compensation on the death or disablement of a worker, if occasioned by personal injury arising out of and during the course of employment. In 1970 the Act was amended to extend compensation cover for injuries sustained by a worker travelling in either direction between his residence and place of employment. The Act provides that this cover to and from work applies only for reasonably direct journeys, except for breaks or deviations connected with the worker's employment. Amendments in 1970 extended coverage to workers who are temporarily absent from work during meal breaks. Self-inflicted injuries are excluded and certain limitations are applied where serious or wilful misconduct is involved. Monetary benefits have fixed limits. All reasonable costs of medical, hospital, nursing and ambulance services, and in the event of death, the reasonable costs of burial or cremation are paid. In addition weekly payments are made during incapacity and there is a lump sum entitlement for scheduled injuries.

Non-contributory Basis: The Act is non-contributory, i.e. the worker does not pay into any fund for the provision of benefits. The employer is obliged to insure with an approved insurance company against the liability to compensation, except in certain cases where he is allowed to carry his own risk.

In any case where an employer has no paid-up insurance policy, where the employer cannot be found or where the employer or his insurance company has become insolvent, the worker may claim against a 'nominal insurer', as if he were the employer.

Amounts paid by the 'nominal insurer' are provided by all insurance companies carrying on workers' compensation business. Each company is required to contribute to these types of claims in proportion to the premium income derived from policies effected during the preceding year.

Compensation on Death: Where death results from an injury, the compensation payable to dependants wholly dependent on the worker's earnings is 284 times the current Hobart base rate, plus seven times the current Hobart base rate for each worker's child under sixteen years at the date of injury. Partial dependants are entitled to proportionate amounts.

Base Rate means the minimum weekly wage payable to the lowest paid adult male employed at Hobart under the federal Metal Trades Award (in June 1974 the minimum was \$68.70 per week).

Weekly Payments During Incapacity: When the worker is *totally incapacitated* he is entitled to receive weekly compensation payments at whichever of the following alternatives is greater: (i) the rate of his average weekly earnings over the period of twelve months immediately preceding the period of incapacity; or (ii) the ordinary time rate of pay for the work on which he was engaged immediately prior to the period of incapacity. When the worker is *partially incapacitated* the weekly payments are reduced by any amount that he is able to earn in some other suitable employment.

Maximum Limit of Weekly Payments: In cases of partial or total incapacity of any worker, the total liability of an employer in making weekly compensation payments is limited to 284 times the current Hobart base rate.

Lump Sum Payments: In addition to weekly incapacity payments, lump sum payments are made in respect of the loss of members of the body or of bodily powers of function. In the Act, specific injuries are listed and the single amount payable is related to the current Hobart base rate (specified as B in the following examples): (i) loss of both feet, $B \times 284$; (ii) loss of leg, $B \times 138$; (iii) loss of thumb, $B \times 51$; and (iv) loss of great toe, $B \times 35$, etc. Where more than one of these injuries are suffered in the same accident, a maximum payment equal to $B \times 532$ may be paid.

Factory Legislation and Inspection

Legislation: Working conditions in factories in Tasmania are covered under the *Factories, Shops and Offices Act 1965*, as amended, which makes provisions with respect to the health, welfare, safety, and working conditions of persons employed in factories, shops and offices and the sanitation of factories, shops and offices.

Registration Fees: All factories are required to register with the Department of Labour and Industry; fees date from 1 January each year. Fees for registration range from \$3 for small factories (where less than four persons are employed), up to \$345 for factories employing more than 800 persons.

New Factories: The *Local Government Act 1962* requires that plans and specifications for proposed new factory buildings be submitted to the Department of Labour and Industry before being approved by the local government authority. This ensures compliance of the proposed factory buildings with regulations in regard to natural lighting, ventilation, fire exits, fire protection, stairs, access ladders, platforms, change and meal rooms, etc.

Application for Registration: Following application for registration of premises to be used as a factory, an inspection is made. If the premises are suitable without alteration, a certificate of registration is issued. If alterations are required, a permit to occupy may be issued for a limited time while renovations, to comply with the Act's requirements, are made. Once the factory is operating, a further inspection is made to study processes and working conditions. Any unsafe situations and practices are drawn to the attention of management.

Inspection: After the initial registration, routine inspections are made by officers of the Department to remedy or prevent unsafe conditions or unsafe practices which may have developed. Particular attention is given to overcrowding, ventilation, natural and artificial lighting, conditions of floors, etc. Access ladders and platforms are checked for compliance with prescribed standards. If contamination of the atmosphere by dust or toxic fumes is present, means of removal are studied. Safe handling and storage of dangerous substances; the provision of fire protection, fire exits and escapes; adequacy of sanitary conveniences, washing, change and meal rooms; the provision of safety equipment, etc. are periodically checked.

Accident Reports: Factory management is required to notify the Department of Labour and Industry when an accident occurs which results in death, permanent disability, or the inability of an employee to work where the period of inability is in excess of one full day or shift. These accidents are investigated in an endeavour to eliminate recurrences. See 'Industrial Safety and Accident Prevention' in this chapter.

Construction Sites: Regulations also apply to working conditions on construction works and provide for suitable sanitary, washing and general amenities, in addition to general safety precautions. Where persons are required to work on any construction works at a height of not less than 6.096 metres (20 feet) above the ground or at a depth of not less than 1.524 metres (five feet) below ground level, the provision of safety helmets is compulsory.

The Inspection of Machinery

Legislation: Generally, the *Inspection of Machinery Act* 1960, as amended, applies to all machinery of one or more horsepower used in manufacturing or industrial processes and specifically includes boilers, pressure vessels, lifts and cranes. By proclamation, machines not ordinarily covered by the Act may be made subject to its provisions. The Department of Labour and Industry is responsible for application of the Act which is administered by a chief inspector and district inspectors at Hobart, Launceston, Burnie and Devonport.

Machinery Inspection: An owner (defined as a person who has the control of or is in charge of machinery) acquiring machinery as defined in the Act is required to notify the nearest district inspector to obtain a certificate of safety. Inspection may reveal the need for additional safeguards before permission can be given to operate the machine; alternatively the owner may be given a set period in which to comply.

Certificates of safety are renewed annually providing the machinery satisfies current efficiency and safety standards.

Lifts Inspection: Lifts, cranes and hoists are subject to the same inspections as other machinery. In addition, design approval must be obtained before construction; tests, including beam deflections under load, are made on completion.

Boilers Inspection: Before boilers or pressure vessels are installed, the design must be approved by the Chief Inspector and conform with Australian or specified overseas standards. Inspections are made on installation and thereafter annually, unless a special investigation is required arising from plant modification, accidents or from employers' or employees' requests.

Long Service Leave for Casual Employees

Coverage

The *Long Service Leave (Casual Employment) Act* 1971, which came into force on 23 March 1972, extended long service leave entitlements to casual workers in the building and construction industry. Building and construction, for purposes of the Act, embraces a wide range of activities (construction, reconstruction, alterations, demolition, maintenance or repair of): (i) buildings; (ii) roads, bridges and railways; (iii) port, harbour and navigation facilities; (iv) water, irrigation and sewerage works; (v) pipelines; (vi) drilling rigs; (vii) structures (e.g. scaffolding or cranes) and site preparation associated with any of the forementioned purposes; and (viii) work on ships, boats or other vessels. Dunnaging of ships' holds also comes within the Act's ambit.

Calculation of Reckonable Service

Reckonable service is employment which counts towards the calculation of long service leave entitlements. The qualifying units to be accrued are periods of at least one full day's employment with each employer. If a person ceases work after at least seven days or more the employer is required to furnish a certificate, showing duration of employment of the employee, to the Secretary for Labour and Industry and is also required to make a payment into the Long Service Leave (Casual Employment) Fund.

Certain interruptions to employment are counted as a part of the working period for calculation of reckonable service. Included are: (i) annual leave; (ii) leave from work caused by illness or injury and certified by a medical practitioner; (iii) leave, with consent of the employer, to attend a meeting of the Apprenticeship Commission of Tasmania or any committee appointed under the *Apprentices Act* 1942; (iv) leave resulting from on-the-job injury; (v) absence from work resulting from a summons to serve as a juror or give evidence before a court; (vi) leave to attend to his duties as a member of a Wages Board; and (vii) absence from work on a public holiday in accordance with the terms and conditions of employment. Absences from work caused by industrial disputes are not counted as part of service for purposes of calculating reckonable service.

When an employee has accumulated the equivalent of 15 years service he becomes entitled to a long service leave payment. In certain circumstances (e.g. employment terminated through incapacity of the employee to continue work or at any time after retiring age has been reached) long service leave may be paid after seven years work on a pro-rata basis.

Administration

The Secretary for Labour and Industry is required to maintain records showing service of each employee covered by the Act. These records are the basis for paying long service leave entitlements. Departmental inspectors are responsible for policing provisions of the Act and regulations made under it. It is the inspector's responsibility to ensure that employers maintain the necessary employment records and furnish correct certificates to the Secretary for Labour and Industry. They are permitted to carry out enquiries to ascertain whether an employee is working on a job deemed as counting towards the calculation of reckonable service. To assist inspectors carry out these duties, the Act gives them the right of access to employers' premises.

The legislation established a special trust fund, the Long Service Leave (Casual Employment) Fund, which is administered by Treasury Department officials. The main receipts into the fund are long service leave contributions paid by employers. The fund is also credited with any other receipts which may be required under the Act. From the fund are paid long service leave entitlements, costs incurred by Treasury in administering the fund and any other amount as required by the Act.

Shop Trading Hours

Legislation: Before 1967 shop trading hours were regulated by the *Factories, Shops and Offices Act 1958*, as amended. A deadlock between the two houses of the Tasmanian Parliament in 1967 resulted in the removal of all legislative restrictions on shop trading hours as from 1 January 1968.

However, a limiting factor was introduced with the adoption by Wages Boards of increased penalty rates for retail trade employees. As a result few shopkeepers have varied their trading hours from those which applied under the relevant section of the *Factories, Shops and Offices Act*.

Petrol Filling Stations: Although restrictions on shop trading hours were removed following the 1967 Parliamentary deadlock, legislation covering petrol filling station trading hours was retained. Ordinary permitted hours are 6.30 a.m. to 7.30 p.m. on week days (with an extra two hours on Friday evening) and 12.30 p.m. closing on Saturdays and public holidays. However, a system operates to give the public an opportunity to buy petrol outside these hours and on Sundays at rostered filling stations.

TRADE UNIONS

Details of membership of trade unions are collected at 31 December each year. The following table shows details of the number of unions and the number of members in Tasmania:

Trade Unions: Numbers and Membership

Year ended 31 December	Number of separate unions	Number of members ('000)	Increase in membership (a) (per cent)
1939	79	22.1	..
1968	112	68.2	0.1
1969	112	69.9	2.4
1970	114	73.9	5.7
1971	111	75.2	1.8
1972	112	80.5	7.1
1973	118	84.1	4.5

(a) On preceding year.

PRICES

Retail Prices and Price Indexes

General

The description of price indexes that follows is mainly an abridgement of the text appearing in the *Labour Report* of the Australian Bureau of Statistics; this report is a basic document in any serious study of official price indexes.

Retail Price Index Numbers from 1901

Retail prices of food and groceries and average rentals of houses for periods extending back to the year 1901 were collected by the Commonwealth Statistician. A continuous price series from 1901 to the present day (shown below) has been constructed from the various indexes in use during this period to provide a broad indication of long-term trends in retail price levels. The index numbers are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: 1901-1914, the 'A' Series; from 1914 to 1946-47, the 'C' Series; from 1946-47 to 1948-49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series excluding rent; and from 1948-49, the Consumer Price Index. It should be noted that this long-term series is for the six capital cities combined, *not for Hobart alone*.

Retail Price Index Numbers from 1901
Six State Capital Cities Combined
(Base: Year 1911 = 100)

Year	Index number	Year	Index number	Year	Index number
1901	88	1941.. .. .	167	1968.. .. .	548
1911	100	1946.. .. .	190	1969.. .. .	564
1921 (a)	168	1951.. .. .	313	1970.. .. .	586
1926	168	1956.. .. .	419	1971.. .. .	621
1931	145	1961.. .. .	471	1972.. .. .	658
1936	141	1966.. .. .	517	1973.. .. .	720

(a) November; remaining figures are averages for the respective years.

Consumer Price Index

The index currently in use is the Consumer Price Index. A comprehensive view of the present composition and weighting of the Consumer Price Index is given in the following table. The weights shown are those comprising the index for the six state capital cities combined. Broadly they are based on the estimated pattern of consumption at or about 1971-72 valued at relevant prices of December quarter 1973. The weighting indicates the relative influence given to the various components in measuring the degree of price change in the index from December quarter 1973 (i.e. from the beginning of the current linked series).

Consumer Price Index
Composition and Weighting Pattern at December Quarter 1973:
Six State Capital Cities Combined

Group, section, etc.	Percentage weight	
	Section, etc.	Group
Food—		
Cereal products	3.0	} 28.3
Dairy produce	4.6	
Potatoes, onions, preserved fruit and vegetables	2.7	
Soft drink, ice cream and confectionary	4.0	
Meat—Butcher's	7.7	
Processed	3.0	
Snacks, take-away food	0.9	
Other food	2.4	

Consumer Price Index
Composition and Weighting Pattern at December Quarter 1973:
Six State Capital Cities Combined—continued

Group, section, etc.	Percentage weight	
	Section, etc.	Group
Clothing and drapery—		
Men's clothing	3.2	} 12.1
Women's clothing	4.0	
Boys' clothing	0.5	
Girls' clothing	0.4	
Piecegoods, etc.	0.8	
Footwear	2.3	
Household drapery	0.9	
Housing—		
Rent—Privately owned houses	2.8	} 14.4
Government-owned houses	0.6	
Privately-owned flats	3.4	
Home ownership—House price	3.6	
Rates	2.3	
Repairs and maintenance	1.7	
Household supplies and equipment—		
Fuel and light—Electricity	1.9	} 11.3
Gas	0.7	
Other (firewood, heating oil, briquettes and kerosene)	0.3	
Household appliances	2.2	
Furniture and floor coverings	2.0	
Household utensils	0.7	
Household sundries	1.2	
Personal requisites	1.3	
Proprietary medicines	1.0	
Miscellaneous—		
Fares—Train	0.7	} 33.9
Tram and bus	1.0	
Private motoring—Car purchase	4.4	
Car operation	8.6	
Tobacco and cigarettes	3.6	
Beer	4.5	
Wine and spirits	1.2	
Postal and telephone services	1.3	
Recreational goods and services	2.0	
Newspapers and magazines	1.1	
Health services	4.0	
Other services (hairdressing, dry cleaning, shoe repairs)	1.5	
Total	100.0		100.0

Six Capital Cities: A consumer price index series is constructed for each state capital city. These indexes measure price movements in each city individually (but do not provide a basis for the comparison of the retail price level in one city with that in any other city). The six capital cities Consumer Price Index is derived as the weighted average of the indexes for the individual cities, the basis of weighting being their populations as recorded at successive censuses.

Comparison of the Six Linked Series: The Consumer Price Index is a chain of 'fixed weight aggregative' indexes, with significant changes in composition and weighting made at the linking dates; the principal changes were:

- (i) June quarter 1952—introduction of private motoring; changed proportions for modes of house occupancy; change in weights of fuel and fares.
- (ii) June quarter 1956—changed proportions in modes of house occupancy; changed weights for fuel, fares and private motoring.
- (iii) March quarter 1960—introduction of television.
- (iv) December quarter 1963—changed weights for fuel, light, fares and motoring; revised housing weights.
- (v) December quarter 1968—changed weights for all items; introduction of poultry, rented privately-owned flats, heating oil, briquettes and health services (by dentists, doctors, hospitals and health insurance funds).
- (vi) December quarter 1973—changed weights for all items; items fried chicken, meat pies, hamburgers and sandwiches added to the 'Food group' forming a new sub-group ('Snacks, take away food'). A new sub-group added to the 'Miscellaneous group' ('Recreational goods and services') which, in addition to including radio and television operation and cinema admission, also covered new items: camera, film, film processing and phonograph records. Weights for the motoring section took account of data from the 1971 Survey of Motor Vehicle Usage and local weights for individual cities were used for hairdressing, dry cleaning, cinema admission and health services.

The next table has been compiled to show the percentage contribution to the total index of each of the major groups, first at the beginning of each series, and then at the quarter in which the linking transition was made.

Consumer Price Index: Analysis of Weighting in Seven Linked Series

Linked series	Percentage contribution to total index (weighted average, six capital cities)					
	Food group	Clothing and drapery group	Housing group	Household supplies and equipment group	Miscellaneous group	Total
First—						
June quarter 1949	31.3	22.8	11.4	13.1	21.4	100.0
June quarter 1952 (a)	35.7	23.0	9.2	12.2	19.9	100.0
Second—						
June quarter 1952 (b)	33.6	21.6	9.4	11.7	23.7	100.0
June quarter 1956 (a)	34.3	20.0	10.5	10.9	24.3	100.0
Third—						
June quarter 1956 (b)	33.7	19.7	10.5	11.6	24.5	100.0
March quarter 1960 (a)	33.0	19.5	11.0	11.5	25.0	100.0
Fourth—						
March quarter 1960 (b)	32.1	19.0	10.7	13.2	25.0	100.0
Dec. quarter 1963 (a)	31.6	18.8	12.0	12.6	25.0	100.0
Fifth—						
Dec. quarter 1963 (b)	32.1	16.9	12.6	14.5	23.9	100.0
Dec. quarter 1968 (a)	32.8	15.8	13.2	13.1	25.1	100.0
Sixth—						
Dec. quarter 1968 (b)	31.3	14.1	14.2	12.5	27.9	100.0
Seventh—						
Dec. quarter 1973 (b)	28.3	12.1	14.4	11.3	33.9	100.0

(a) Change in proportions due to disparate price movements during short period shown.

(b) Change in proportions due to deliberate changes in composition or weighting.

Consumer Price Index, Hobart

The Consumer Price Index for Hobart is compiled to the base 1966-67 = 100.0, the number 100.0 being the base value for each of the five major groups and also for the 'All groups' index.

The following table has been compiled to show group index movements for Hobart on a quarterly basis:

Consumer Price Index: Quarterly Group Index Numbers, Hobart (a)
(Base of Each Index: Year 1966-67 = 100.0)

Quarter	Food	Clothing and drapery	Housing	Household supplies and equipment	Miscellaneous	All groups
1969-70—September ..	105.6	106.2	110.6	105.5	110.0	107.4
December ..	106.0	107.6	112.3	105.8	110.4	108.1
March ..	106.9	108.2	113.2	106.3	111.2	108.9
June ..	106.9	109.4	114.1	106.9	112.5	109.6
1970-71—September ..	108.4	109.5	115.0	107.6	112.2	110.2
December ..	110.1	111.0	117.0	108.4	116.3	112.4
March ..	109.5	112.0	118.2	109.1	118.3	113.2
June ..	110.2	115.0	119.2	111.6	119.4	114.6
1971-72—September ..	111.3	115.9	120.4	112.4	123.8	116.5
December ..	113.0	118.2	124.1	117.4	130.3	120.3
March ..	113.5	118.7	125.3	117.7	130.8	120.9
June ..	113.9	121.1	126.8	118.1	132.1	122.0
1972-73—September ..	115.9	121.8	128.3	118.9	133.5	123.4
December ..	117.9	124.6	131.6	119.6	134.0	125.1
March ..	121.4	125.5	132.7	120.3	137.7	127.5
June ..	124.9	130.4	134.4	122.5	141.0	130.8
1973-74—September ..	131.9	134.2	137.1	125.5	144.2	135.2
December ..	139.7	139.8	146.8	126.7	148.6	141.1
March ..	144.2	142.7	149.8	128.4	150.7	144.0
June ..	149.7	152.9	153.9	132.5	156.6	149.9

(a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

The following table shows the 'All groups' index numbers for Hobart, quarter by quarter, and also as averages for financial years:

Consumer Price Index: All Groups Index Numbers, Hobart (a)
(Base of Index: Year 1966-67 = 100.0)

Year	Quarter ending—				Average for year
	September	December	March	June	
1961-62	91.4	90.9	90.3	90.3	90.7
1962-63	90.4	90.8	90.7	90.8	90.7
1963-64	91.2	91.4	91.9	92.2	91.7
1964-65	93.3	94.5	94.9	95.8	94.6
1965-66	97.0	98.3	97.8	98.7	98.0
1966-67	98.6	99.2	100.6	101.5	100.0
1967-68	104.3	105.0	104.6	104.6	104.6
1968-69	105.0	105.8	106.5	107.0	106.1
1969-70	107.4	108.1	108.9	109.6	108.5
1970-71	110.2	112.4	113.2	114.6	112.6
1971-72	116.5	120.3	120.9	122.0	119.9
1972-73	123.4	125.1	127.5	130.8	126.7
1973-74	135.2	141.1	144.0	149.9	142.6

(a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

The next table shows, as averages for financial years, the group indexes for Hobart:

Consumer Price Index: Annual Group Index Numbers, Hobart, (a)
(Base of Each Index: Year 1966-67 = 100.0)

Year	Food	Clothing and drapery	Housing	Household supplies and equipment	Miscellaneous	All groups
1963-64	90.1	95.7	90.9	97.1	88.4	91.7
1964-65	94.0	97.0	94.5	97.6	92.0	94.6
1965-66	98.9	98.0	97.1	98.6	96.7	98.0
1966-67	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	106.8	102.4	103.6	102.9	104.5	104.6
1968-69	105.3	104.5	108.4	104.5	108.0	106.1
1969-70	106.4	107.9	112.6	106.1	111.0	108.5
1970-71	109.6	111.9	117.4	109.2	116.6	112.6
1971-72	112.9	118.5	124.2	116.4	129.3	119.9
1972-73	120.0	125.6	131.8	120.3	136.6	126.7
1973-74	141.4	142.4	146.9	128.3	150.0	142.6

(a) Figures after decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

Capital City Comparison

The following table shows consumer price index figures for recent years for each state capital city and for the six state capitals combined:

Consumer Price Index
All Groups—Six State Capital Cities and Weighted Average
(Base of Index for Each City and for Six State Capital Cities Combined: Year 1966-67 = 100.0) (a)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six Capitals (b)
1962-63	90.4	89.7	88.7	89.1	88.7	90.7	89.8
1963-64	91.4	90.4	89.6	90.2	89.8	91.7	90.6
1964-65	94.5	94.0	93.0	93.9	92.6	94.6	94.0
1965-66	97.7	97.5	97.5	97.0	96.1	98.0	97.4
1966-67	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	103.2	103.7	103.3	102.9	102.9	104.6	103.3
1968-69	106.2	106.2	105.5	105.3	105.5	106.1	106.0
1969-70	110.6	108.7	108.4	108.2	109.4	108.5	109.4
1970-71	116.8	113.1	114.2	112.5	114.1	112.6	114.6
1971-72	126.3	119.7	121.6	119.2	120.7	119.9	122.4
1972-73	133.9	127.2	128.6	126.5	127.3	126.7	129.8
1973-74	151.3	144.0	146.1	143.9	140.6	142.6	146.6

(a) Figures after the decimal point have limited significance. They are inserted to avoid the distortions that would occur in rounding.

(b) Weighted average of six state capital cities.

Average Prices of Foodstuffs, Hobart

The average retail prices of selected foodstuffs in Hobart since 1955 are shown in the next table. The list, while representative of foodstuffs commonly consumed, is not exhaustive; for a description of foodstuffs in the Consumer Price Index regimen, see the earlier table 'Consumer Price Index, Composition and Weighting Pattern'.

Average Retail Prices (a): Hobart
Selected Items of Foodstuffs
(Cents)

Article	Unit (a)	1955	1960	1965	1970	1972	1973
Bread (delivered)	2 lb	12.0	14.2	15.8	21.3	24.9	27.0
Flour (plain)	"	9.5	11.8	13.7	17.5	18.0	18.8
Tea	$\frac{1}{2}$ lb	36.6	34.2	32.9	30.7	33.3	32.3
Sugar (b)	2 kg	33.0	41.0	41.8	49.0	48.4	47.9
Potatoes	7 lb	41.2	34.5	69.2	44.9	52.1	65.2
Butter (factory)	1 lb	43.4	46.9	49.6	55.0	58.0	58.0
Eggs (c)	doz	55.8	56.7	61.0	67.7	67.4	79.6
Bacon (rashers) (d)	1 lb	57.4	68.3	89.2	100.9	103.4	104.6
Milk, bottled, delivered	qt	16.5	17.3	17.8	20.2	22.0	23.8
Beef—							
Rump steak	1 lb	47.4	65.9	79.4	93.9	104.6	123.1
Corned silverside	"	34.0	44.2	51.6	63.0	68.0	79.4
Mutton—							
Leg	"	23.8	24.9	29.8	26.9	29.3	42.5
Loin chops	"	18.9	19.0	25.2	23.8	27.6	41.6
Pork, leg	"	41.8	53.9	61.8	66.8	68.9	77.7

- (a) The table units are not necessarily those for which the original price data were obtained (see notes (b) and (d)). In such cases, prices have been calculated for the table unit.
- (b) Prices obtained for one pound prior to 1966; for four pound packets from 1966; for 2 kg packets from October 1972.
- (c) 'Large' prior to 1964; 'two ounce' eggs from 1964; combinations of 60, 55 and 50 grams weight from July 1972; 60 grams from January 1973.
- (d) Prices obtained for one pound prior to 1966; for half a pound from 1966.

Wholesale Price Indexes

General

The Bureau compiles two wholesale price indexes of basic materials. These are the 'Wholesale Price Index of Materials used in House Building' and the 'Wholesale Price Index of Materials used in Building other than House Building'. Two other indexes, the 'Melbourne Wholesale Price Index' and the 'Wholesale Prices (Basic Materials and Foodstuffs) Index', were compiled for a number of years but have been discontinued.

Wholesale Price Index of Materials Used in House Building

General: This index is complementary to the 'Other than House Building' index and measures the change in prices of selected materials used in house construction.

Scope and Composition: The materials selected and weights given to the items were in accordance with the usage of materials in a sample of representative house types constructed in or about 1968-69. The house types included in the sample were those using brick, brick veneer, timber or asbestos-cement sheeting for the outer-walls. Within the four major construction types account was taken of a range of characteristics, e.g. material used for internal partitions, window frames, roofs, etc. The number of items included in the index range from 49 (Brisbane) to 51 (Perth). The items are combined into 11 groups; an 'all groups' index is also published. Standards are fixed for items and price movements are for items of a constant quality.

Derivation of Items and Weights: The index is a fixed weight index and is calculated by the method known as the 'weighted arithmetic mean of price relatives'. The items and weights used are based on the reported values of materials used in the selected houses in each state capital city urban area. Information about materials used and their value was obtained for a total of 114 houses. The material values derived for each state capital city were then used to develop weighting patterns for the individual cities and aggregated to give a weighting pattern for the six state capital cities combined. The next table gives the weighting pattern for the Hobart index.

Wholesale Price Index of Materials Used in House Building
Composition and Weighting Pattern: Hobart

Group	Percentage weight of group
Concrete mix, cement and sand	7.25
Cement products	7.01
Clay bricks, tiles, etc.	10.14
Timber, board and joinery	38.15
Steel products	7.49
Other metal products	7.93
Plumbing fixtures, etc.	2.74
Electrical installation materials	1.61
Installed appliances	6.98
Plaster and plaster products	4.99
Miscellaneous materials	5.71
Total	100.00

Base Period: The index has a base year 1966-67 = 100.0 but the weighting pattern is more appropriate to material usage during 1968-69.

Prices: Prices relate to specified standards for each commodity and are obtained in all state capital city urban areas from representative suppliers of materials used in house building. The prices are collected as at the mid-point of the month to which the index refers.

Index Numbers: The index has been compiled for each month from July 1966 and for financial years from 1966-67. Index numbers are published for each group and combined into an all groups number for each state capital city and the six state capital cities combined.

The following table compares movements in the index numbers for each of the six capital cities and six capitals combined for recent years. (The separate city indexes allow comparisons to be drawn between capital city areas as to differences in the degree of price movement from period to period, but not as to differences in price levels.)

Wholesale Price Index of Materials Used in House Building
All Groups Index Numbers: Six State Capital Cities
(Base of Each Index: Year 1966-67 = 100.0)

Period	State capital cities						Weighted average of six state capital cities
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	
1969-70	115.2	107.2	109.4	112.4	110.3	107.7	110.9
1970-71	119.8	112.3	115.2	116.7	113.9	114.3	115.7
1971-72	126.1	118.9	124.8	124.8	121.1	120.7	122.7
1972-73	135.6	126.5	133.8	134.8	126.9	130.8	131.1
1973-74	158.0	147.8	152.2	157.2	141.8	145.5	151.3
1973-74—							
September	152.3	140.2	146.0	149.4	136.5	139.6	144.9
December	157.0	145.0	150.1	155.2	139.7	144.4	149.4
March	160.5	150.4	154.0	160.5	145.3	147.2	154.0
June	171.6	167.4	166.0	177.2	155.0	160.3	167.3

Index numbers for the Hobart capital city urban area for each group of items are given in the next table:

Wholesale Price Index of Materials Used in House Building
Group Index Numbers: Hobart
(Base of Each Index: Year 1966-67 = 100.0)

Period	Concrete mix, cement and sand	Cement products	Clay bricks, tiles, etc.	Timber, board and joinery	Steel products	Other metal products
1969-70	109.1	110.4	111.7	105.4	110.4	108.3
1970-71	116.0	114.6	120.6	113.9	116.5	113.7
1971-72	123.6	124.2	123.8	120.3	129.2	117.1
1972-73	130.7	137.2	140.2	134.6	135.9	118.1
1973-74	139.8	147.3	159.2	154.2	150.8	130.8
1972-73—						
September	129.5	137.3	131.1	129.3	133.8	116.7
December	129.5	137.3	141.5	129.4	134.7	117.5
March	130.8	137.3	147.2	139.9	136.6	118.2
June	138.8	137.4	149.9	141.6	141.5	r 121.2
1973-74—						
September	139.4	145.7	155.5	143.5	144.6	127.0
December	139.4	145.7	157.4	154.2	146.3	128.1
March	139.7	146.0	159.3	157.9	153.8	130.1
June	142.7	155.9	170.7	175.7	167.1	144.8

Wholesale Price Index of Materials Used in House Building
Group Index Numbers: Hobart—continued
(Base of Each Index: Year 1966-67 = 100.0)

Period	Plumbing fixtures, etc.	Electrical installation materials	Installed appliances	Plaster and plaster products	Miscellaneous materials	All groups
1969-70	115.8	118.2	100.9	105.3	110.0	107.7
1970-71	123.8	115.9	102.5	108.1	115.5	114.3
1971-72	132.8	120.9	105.8	113.5	123.3	120.7
1972-73	136.8	126.0	107.6	114.2	132.5	130.8
1973-74	145.5	146.9	115.3	119.2	141.9	145.5
1972-73—						
September	133.1	124.5	107.2	114.2	130.0	127.2
December	136.6	124.5	107.2	114.2	131.1	128.5
March	137.2	124.5	107.9	114.2	135.7	133.8
June	138.0	131.3	108.4	114.5	135.7	r 136.0
1973-74—						
September	142.5	142.7	113.4	115.2	139.3	139.6
December	142.5	145.0	114.9	119.4	140.0	144.4
March	143.5	146.4	115.3	124.1	142.6	147.2
June	160.9	167.0	123.0	124.7	153.6	160.3

Wholesale Price Index of Materials Used in Building Other Than House Building

General: This was the first of a series of indexes designed to replace the obsolete Wholesale Price (Basic Materials and Foodstuffs) Index. The index measures changes in the prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (in general, those up to three storeys).

Scope and Composition: Composition of the index is in accordance with actual material usage in building projects which were selected as being representative for purposes of determining weighting patterns. Completed values of the types of buildings selected constituted 86 per cent of all completed new buildings other than houses and low-rise flats in the period 1964-65 to 1966-67. Buildings for entertainment, recreation and religious purposes together with buildings in the building statistics category 'miscellaneous buildings' are not directly represented.

The index comprises 72 items combined into 11 groups. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. The group weighting pattern is given in the next table:

Wholesale Price Index of Materials Used in Building Other Than House Building
Composition and Weighting Pattern

Group	Percentage weight of group
Concrete mix, cement, sand, etc.	10.41
Cement products	3.64
Bricks, stone, etc.	5.28
Timber, board and joinery	11.90
Steel and iron products	30.58
Aluminium products	6.01
Other metal products	2.59
Plumbing fixtures	1.19
Miscellaneous materials	7.09
Electrical installation materials	8.61
Mechanical services components	12.70
Total	100.00

Base Period: The reference base of the index is the year 1966-67 = 100.0. The index is a fixed-weights index and is calculated by the method known as the 'weighted arithmetic mean of price relatives'.

Prices: Price series used relate to specified standards of each commodity and are obtained in all state capital city urban areas from representative suppliers of materials used in building. In the main they are collected as at the mid-point of the month to which the index refers, or as near thereto as practicable. There are some exceptions to the use of local prices in the indexes for each capital city area. In a few cases where suitable price series are not currently available for an item in a given city, imputation is necessary. For each capital city area, the whole of the group 'electrical installation materials' and the majority of the items in the group 'mechanical services components' are based on Sydney and Melbourne price series.

Index Numbers: The index has been compiled for each month from July 1966, and for financial years from 1966-67.

The separate city indexes measure price movements within each metropolitan area individually. They enable comparisons to be drawn between metropolitan areas as to differences in degree of price movement from period to period, but not as to differences in price level. The six state capitals combined index is a weighted average of the individual indexes for each city, weighted on the basis of estimated value on completion of building other than house building in the separate states over a fixed period.

The following table compares movements in the index numbers for each of the six capital cities and the six capitals combined:

Wholesale Price Index of Materials Used in Building Other Than House Building
All Groups Index Numbers: Six State Capital Cities
(Base of Each Index: Year 1966-67 = 100.0)

Period	State capital cities						Weighted average of six state capital cities
	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	
1969-70	111.7	109.8	110.3	109.4	108.9	109.7	110.5
1970-71	116.4	115.1	116.4	113.9	113.3	115.0	115.5
1971-72	122.4	123.9	124.4	122.7	121.3	122.6	123.0
1972-73	127.2	131.2	130.4	129.8	126.3	129.7	128.9
1973-74	144.1	148.0	149.0	145.8	142.9	143.8	145.9
1972-73—							
September	124.1	128.6	127.9	126.9	124.1	127.4	126.1
December	126.1	130.2	128.7	128.7	124.9	128.2	127.8
March	129.3	132.6	132.8	131.6	128.1	130.6	130.8
June	r 133.4	r 137.4	r 136.5	r 135.4	r 131.1	134.9	134.9
1973-74—							
September	137.7	141.3	141.1	139.3	136.4	138.8	139.2
December	141.3	144.3	146.9	142.6	139.6	140.9	142.8
March	145.1	149.2	151.0	147.7	145.6	143.8	147.2
June	159.6	165.1	166.8	162.1	158.0	158.8	162.1

Index numbers for the Hobart urban area for each group of items are given in the following table:

Wholesale Price Index of Materials Used in Building Other Than House Building
Group Index Numbers: Hobart
(Base of Each Index: Year 1966-67 = 100.0)

Period	Concrete mix, cement, sand, etc.	Cement products	Bricks, stone, etc.	Timber, board and joinery	Steel and iron products	Aluminium products
1969-70	109.1	107.1	111.3	108.9	109.8	100.9
1970-71	116.0	112.8	118.3	116.6	114.6	106.6
1971-72	123.4	123.7	118.3	122.2	126.4	110.8
1972-73	130.3	138.4	130.1	134.3	133.6	111.8
1973-74	139.3	149.3	150.0	154.6	148.7	117.3
1972-73—						
September	129.2	138.4	125.0	129.7	131.6	111.4
December	129.2	138.4	126.6	130.2	131.9	111.4
March	130.2	138.4	134.1	138.1	133.8	111.9
June	r 137.8	138.6	139.1	140.8	139.7	112.9
1973-74—						
September	138.7	146.0	144.0	145.9	143.2	113.1
December	138.7	147.9	146.4	154.6	144.3	114.0
March	139.0	148.6	149.9	157.8	147.8	118.1
June	142.8	159.9	169.6	173.5	166.5	128.8

Wholesale Price Index of Materials Used in Building Other Than House Building
Group Index Numbers: Hobart—continued
(Base of Each Index: Year 1966-67 = 100.0)

Period	Other metal products	Plumbing fixtures	Miscellaneous materials	Electrical installation materials (a)	Mechanical services components (a)	All groups
1969-70	122.3	114.0	107.5	112.2	111.8	109.7
1970-71	125.3	122.7	111.6	110.9	118.9	115.0
1971-72	126.0	135.1	115.8	114.7	127.5	122.6
1972-73	126.7	142.9	120.2	120.5	132.1	129.7
1973-74	150.0	154.0	129.1	138.3	143.4	143.8
1972-73—						
September	124.3	140.7	117.8	117.8	130.7	127.4
December	124.3	142.3	119.9	119.4	132.3	128.2
March	126.3	143.1	122.4	121.0	132.0	130.6
June	r 134.0	144.8	123.3	125.7	134.7	134.9
1973-74—						
September	148.3	149.1	127.5	133.6	136.7	138.8
December	149.1	149.1	128.0	136.5	138.1	140.9
March	149.0	152.2	129.3	139.2	142.9	143.8
June	161.7	174.1	137.2	153.4	162.4	158.8

(a) The whole of the group 'Electrical installation materials' and the majority of items in the group 'Mechanical services components' are based on Melbourne and Sydney price series.

Australian Export Price Index

This index has fixed-weights, its purpose being to provide monthly comparisons 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 specific 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 realisations 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.

At present a comprehensive review of the composition and weighting of the index is being undertaken. An interim series, using weights based on the values of 1969-70 exports has been published from June 1969. The interim series contains four new items (iron ore, bauxite, alumina and mineral sands) which have been incorporated in the all groups index.

Export Price Index Numbers: Australia
(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 (a)	Gold	All groups (b)
1969-70	87	148	73	96	99	93	94	143	109	103
1970-71	67	152	88	100	102	113	94	139	109	101
1971-72	72	147	135	99	103	127	96	138	126	104
1972-73	179	178	119	102	106	136	139	142	180	134
1973-74	172	201	109	184	152	176	161	196	289	160
1973-74—										
September	193	225	109	138	135	139	163	167	224	152
December	186	213	105	144	131	142	144	182	230	153
March	152	195	108	222	168	217	157	218	368	168
June	140	160	114	250	170	239	171	238	341	171

(a) Does not include iron ore, bauxite, alumina and mineral sands.

(b) In addition to the specified groups, 'All groups index' includes iron ore, bauxite, alumina and mineral sands.

WAGES

Basic Wage in Tasmania

General

The present position is as follows: wages fixed by Tasmanian State Wages Boards still consist of two parts, namely a *basic wage* and a *margin*; wages fixed by the Commonwealth Conciliation and Arbitration Commission are expressed as a *total wage*, the basic wage concept having been abolished in federal awards in 1967. All state industrial authorities with the exception of Victoria's have also retained the basic wage concept. A more detailed history of the basic wage can be found in the 1970 *Year Book*.

Male Basic Wage Rates from 1953

The following table has been compiled to show the federal basic wage rate operating in Australian capital cities before the decision of 5 June 1967 (when the basic wage concept was eliminated from federal awards):

Federal Basic Wage: Weekly Rates, Adult Males

(\$)

Date operative (a)	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Six capital cities
August 1953	24.30	23.50	21.80	23.10	23.60	24.20	23.60
June 1956	25.30	24.50	22.80	24.10	24.60	25.20	24.60
15 May 1957	26.30	25.50	23.80	25.10	25.60	26.20	25.60
21 May 1958	26.80	26.00	24.30	25.60	26.10	26.70	26.10
11 June 1959	28.30	27.50	25.80	27.10	27.60	28.20	27.60
7 July 1961	29.50	28.70	27.00	28.30	28.80	29.40	28.80
19 June 1964	31.50	30.70	29.00	30.30	30.80	31.40	30.80
11 July 1966	33.50	32.70	31.00	32.30	32.80	33.40	32.80

(a) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown.

Female Basic Wage Rates from 1953

The following table summarises the federal basic wage applicable to females from 1953. Prior to 1950, female basic wage rates had been approximately 54 to 56 per cent of male rates but the Court of Conciliation and Arbitration in its judgment in December of that year fixed the relativity at 75 per cent which was maintained until the elimination of the federal basic wage in 1967.

Commonwealth Basic Wage Rate, Hobart: Adult Females

(\$)

Date operative (a)	Weekly rate	Date operative (a)	Weekly rate	Date operative (a)	Weekly rate
August 1953	18.15	21 May 1958	20.00	19 June 1964	23.55
June 1956	18.90	11 June 1959	21.15	11 July 1966	25.05
15 May 1957	19.65	7 July 1961	22.05	5 June 1967	(b)

(a) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown.

(b) Abolition of federal basic wage; see later section headed 'Equal Pay Legislation'.

State Basic Wage Rates

The following table shows the awards and determinations made by state industrial authorities after the basic wage was abolished in federal awards in June 1967:

**State Basic Wages Rates Prior To and After Abolition of Federal Basic Wage
(\$)**

Date of operation (a)	Adult males	Adult females	Date of operation (a)	Adult males	Adult females
TASMANIAN BASIC WAGE: HOBART					
1966 11 July	33.40	25.05	1971 1 January ..	39.00	29.90
1967 1 July	34.40	26.05	1972 19 May	41.00	31.90
1968 25 October ..	35.75	27.40	1973 29 May	43.50	34.40
1969 19 December ..	36.80	28.20	1974 23 May	46.00	36.90
NEW SOUTH WALES BASIC WAGE: SYDNEY					
1966 11 July	33.50	25.10	1971 1 January ..	39.10	30.00
1967 1 July	(b)	(b)	1972 19 May	41.10	32.00
1968 1 January ..	34.50	26.10	1973 29 May	44.40	35.10
1968 25 October ..	35.85	27.45	1974 23 May	47.80	38.50
1969 19 December ..	36.90	28.30			
QUEENSLAND BASIC WAGE: BRISBANE					
1966 23 May	32.70	24.55	1973 19 February ..	42.30	32.85
1967 10 April	33.20	24.90	1973 29 May	44.20	34.90
1967 3 July	(b)	(b)	1973 27 August ..	44.80	35.35
1968 28 October ..	35.55	27.25	1973 26 November	46.60	36.70
1969 22 December ..	36.65	28.05	1974 11 March ..	48.20	37.90
1971 4 January ..	38.85	29.75	1974 27 May	49.40	38.80
1972 29 May	41.00	31.85			
SOUTH AUSTRALIAN LIVING WAGE: ADELAIDE					
1966 11 July	32.30	24.20	1971 4 January ..	37.85	29.00
1967 3 July	33.30	25.20	1972 19 May	39.85	31.00
1968 28 October ..	34.65	26.55	1973 29 May	43.15	34.10
1969 22 December ..	(b)	(b)	1974 23 May	46.50	37.30
WESTERN AUSTRALIAN BASIC WAGE: PERTH					
1966 2 August	33.26	24.95	1970 26 October ..	38.45	29.40
1966 24 October ..	33.50	25.13	1972 26 June	40.45	32.40
1967 1 July	(b)	(b)	1973 8 June	44.00	36.00
1968 25 October ..	(b)	(b)	1973 17 September	44.00	39.00
1968 22 November ..	35.45	27.08	1974 31 May	48.50	43.50
1969 24 November ..	36.45	27.88			
VICTORIAN BASIC WAGE: MELBOURNE					
1966 11 July	32.70	24.50	1967 1 July	(c)	(c)

(a) Rates operative from the first pay-period commencing on or after the date shown.

(b) Special loadings (N.S.W., \$1; Qld, \$1; S.A., 3 per cent; W.A., \$0.60 from 1.7.67 and a further \$1.35 from 25.10.68) were added to award rates but later absorbed into the basic wage.

(c) Basic wage and margins deleted from determinations; subsequently rates expressed as total wages.

Minimum Wages

The Commonwealth Conciliation and Arbitration Commission announced in its decision of 8 July 1966 that it intended to grant relief to low wage earners by inserting a provision prescribing a minimum wage. It ordered that the minimum male wage paid under the Metal Trades Award should be the appropriate basic wage plus \$3.75 a week (e.g. in Tasmania a basic wage of \$33.40 plus \$3.75 giving a minimum wage of \$37.15).

Tasmanian Wages Boards introduced the concept of the minimum wage into their determinations in June 1967. Weekly minimum wage rates prescribed in federal and State awards are shown in the following table:

Minimum Wages, Adult Males: Federal and State Awards
(**\$**)

Date operative (a)	Federal awards	Tasmanian State Wages Boards determinations
11 July 1966.. .. .	37.15	..
1 July 1967.. .. .	38.15	38.15
25 October 1968	39.50	40.45
19 December 1969	43.00	43.00
1 January 1971	47.00	47.00
19 May 1972	51.70	51.70
29 May 1973	60.70	60.70
23 May 1974	68.70	68.70

(a) Rates operative from the first pay-period commencing on or after the date shown.

Recent State Wages Boards Margin Reviews

Review of Margins 1973

Employee representatives at the 1973 'test case' based their claims for an increase on the continuing erosion of margins and the fact that tradesmen were seeking alternative jobs with higher remuneration. The chairman agreed that substantial wage increases had been granted to employees in a wide range of industries and that the incidence of over award payments was lower in Tasmania than in any other state; a possible cause of industrial unrest. An increase of 20 per cent was awarded to all tradesmen classified under the Building Trades' Wages Board Determination which was also applied to margins in determinations of other Wages Boards. The increases became effective from the first pay period commencing on or after 20 June 1973.

Review of Margins 1974

Test Case: A conference of representatives of both employers and employees was held on 8 May 1974 to hear arguments for and against an increase in tradesmen's margins. A claim for an increase of \$20.00 per week was made by representatives of the tradesmen.

Argument: Employee representatives on behalf of the Building Trades' Wages Board claimed that an increase was necessary because the building trades in Tasmania, who had been campaigning for a \$20.00 per week increase, were solely dependent on the State Wages Board for wage adjustments and desired to remain in that position. It was also stated that most labourers in the building industry were subject to federal awards and had recently received a flat increase of \$15.00 per week. It was also argued that there had been a deterioration in relativities between tradesmen and builders' labourers. The employers, in their submissions, referred to the high level of industrial disputes which had occurred during the preceding twelve months and said that many wage increases granted during this period had been as a result of duress and were not wholly justified. The employers also pointed out that it was less than twelve months since the last adjustment of tradesmen's margins and this factor should be taken into account before new awards were handed down.

Determination: The chairman of the State Wages Board said in his decision that he based his award largely on that of the Metal Industries, handed down earlier in the year. The Chairman, in commenting on erosion of relativities, very strongly attacked the system of flat rate wage increases and again awarded a percentage increase. However, he stated that the previous calculation of tradesmen's margins based on declining relativities, due to substantial movements in the margins of semi-skilled workers, would not be used. Instead an approximation of the amount of \$15.00, which had flowed to many employees under federal awards, was expressed as a percentage of the current standard margin for a base tradesman.

An increase of 36 per cent was awarded to all tradesmen engaged in trades which came under the jurisdiction of the State Wages Board. The increase became effective from the first pay period commencing on or after 8 May 1974.

Total Wage Concept

For a full account of events leading to the adoption of a 'total wage' concept see the 1970 *Year Book*. The decision, abolishing the basic wage in awards of the Commonwealth Conciliation and Arbitration Commission, was handed down in June 1967 when a \$1.00 increase was awarded, to be added to the *total wage*. Results of recent national wage cases follow:

- 1970 The Commission granted a uniform six per cent increase in the total wage and increased the minimum wage by \$4.00 per week, operative from first pay-period commencing on or after 1 January 1971.
- 1972 The Commission increased the total wage by \$2.00 per week and raised the minimum wage by \$4.70 per week.
- 1973 The total wage was increased by a combination of a two per cent increase to which was added a flat increase of \$2.50. The minimum wage was increased by \$9.00 per week.
- 1974 The Arbitration Commission's 1974 award is described in the following section.

National Wage Case 1974

The Commonwealth Conciliation and Arbitration Commission began hearing the national wage case in February 1974. Claims for a flat increase were submitted by the A.C.T.U. while 'white collar' organisations claimed a combination of a percentage increase and a flat rate increase. The Commission handed its decision down on 2 May 1974.

The Claims: Five separate claims were submitted by the unions representing both 'blue' and 'white collar' employees; all five were heard together by the Commission. The 'blue collar' unions sought: (i) an increase of \$11.00 per week in the total wage for all adults; (ii) an increase of the same amount in the minimum wage; (iii) the minimum wage made applicable to all adult females; and (iv) the introduction of quarterly adjustment of all wages according to changes in the Consumer Price Index. One 'white collar' union sought an 11 per cent increase in rates combined with a flat rate increase of \$2.00 per week while two others made application for a percentage increase and automatic quarterly adjustments according to changes in the Consumer Price Index.

Employees' Case: The trade unions' claims were based on the movement in prices and productivity since the previous national wage case. The unions maintained that wage increases, especially those resulting from national wage cases, were not initiating factors in inflation. For the first time union claims were based on changes in prices and productivity since 1973 and not 1953 when quarterly adjustments to the basic wage had ceased. The Arbitration Commission had previously stated that claims based on rates fixed twenty years ago tended to raise false expectations and lead to industrial unrest and it was presumably because of this that the unions used 1973 as base point for their claims.

Employers' Case: The Australian Government expressed its desire for a flat increase of \$6.54 in the minimum wage, a common minimum wage for male and female workers and the introduction of quarterly adjustments to the national wage based on movements in the Consumer Price Index. As in the 1973 National Wage Case the Australian Government again stated it assumed full responsibility for the management of the economy and accepted any consequences which could arise if its submissions were adopted. Private employers, as in the past, opposed all union claims asserting that increases in wages granted to various trades throughout the past year negated the need for any further increase in the total wage. Inflation, according to the employers, was principally due to excessive wage increases.

The Commission in its findings dealt with the National Wage Case under three headings:

(i) *Minimum Wage*: The Commission stated the minimum wage had always received special consideration because workers dependent on the minimum wage could only expect some economic relief once yearly. As a result the Commission in recent years, had tended to award larger increases in the minimum wage than total wages because the minimum wage was entirely within the control of the Arbitration Commission. The Commission decided to discard the family component from the minimum wage concept on the grounds that the care of family needs was a government matter. It was also decided to extend the principle of equal pay with regard to the minimum wage. Adult females would be entitled to 85 per cent of the new male minimum wage from the date of its operation, 90 per cent by 30 September 1974 and 100 per cent by 30 June 1975.

(ii) *Total Wage*: The Commission took into account the fact that inflation was at a high level and also noted observations by the Prices Justification Tribunal on the part played by wage costs in its recommendations for price increases and the likelihood of adding further to inflation. However, the Commission decided '... in the present conflict between doing justice to groups of wage earners and adding to inflation, we believe that our duty, is to the former'. It was also held by the Commission that there exists an '... inbuilt historical expectation that some increase will emanate from national wage cases'. The Commission did indicate, however, that in view of the current industry increases this expectation could not be considered to automatically apply in future wage case hearings.

(iii) *Automatic Cost of Living Adjustments*: The Commission indicated that price movements reported in the Consumer Price Index had played a significant role in previous National Wage Case decisions. The principal reason for rejection of automatic quarterly adjustments to the minimum wage was the Commission's desire to keep wage adjustments under its direct control so that the size and form of increases could be kept flexible according to the current economic conditions at the time of the hearing. Due to the magnitude and pace of recent price increases, however, the Commission decided to review the minimum wage after six months. It was also decided to call a conference later in the year, of all parties appearing before the Commission in the current wage case, to discuss wage fixation methods and wage indexation and possible implementation of any agreement reached on these matters.

The Award: Total award rates consisted of a two per cent increase to which was added \$2.50 as a flat increase, applying to both males and females. The minimum wage was increased by \$8.00. These increases became effective from the first pay period commencing on or after 23 May 1974. Quarterly adjustment of the minimum wage was rejected.

Total Wage Concept in Tasmania

The federal award of June 1967 was followed by a test case argued before the Chairman of the State Wages Boards. The employers asked for adoption of the total wage concept. The unions opposed this and argued for a \$7.30 increase in the basic wage; if a lesser amount was determined, then a *minimum total wage* of \$40.70 should nevertheless be fixed.

The decision in the test case (Electrical Trades) was that both male and female rates should be increased by \$1; the increase, however, should be regarded as *raising the basic wage* which would be retained for the present in State determinations. The State Wages Boards have retained the basic wage and margins concepts in awards handed down following subsequent national wage case determinations of the Commonwealth Conciliation and Arbitration Commission.

State Wages Boards Decision, 1974: A meeting of all wages boards was convened to determine variations to the State basic wage and minimum wage following the May 1974 National Wage Case. Representatives from the Tasmanian Employers' Federation and Tasmanian Trades and Labour Council appeared at the hearing, which was held under the 'common rule' provisions of the *Wages Boards Act*. The determination increased: (i) the basic wage for adult males and females by \$2.50 to \$46.00 (males) and \$36.90 (females); (ii) the minimum wage for adult males by \$8.00 to \$68.70.

Equal Pay Legislation*Introduction*

The concept of 'equal pay' achieved partial recognition in some Australian states because there exist occupations in which men and women perform work which is identical (e.g. teaching, medical practice, etc.); such identity has given rise to industrial claims based on the principle of 'equal pay for equal work'. The logic of such occupational situations was ignored in the past and it was not until 1950 that the Commonwealth Court of Conciliation and Arbitration fixed the female basic wage at 75 per cent of the male rate (it had previously been as low as 54 or 56 per cent). With regard to margins, there was no universal rule but, in the Australian Government Public Service, for example, certain female employees received the same margin as males, but only the female basic wage.

N.S.W. Legislation (1959)

The first acceptance of the principle of equal pay for equal work came in N.S.W. in 1959 when the Industrial Arbitration Act was amended to provide equal pay for males and females under certain circumstances. If the Industrial Commission or a Conciliation Committee was satisfied that male and female employees under an award were performing identical work, it was to prescribe the same margin for males and females. The basic wage was to be adjusted to equal the male rate in annual five per cent increments spread over the period 1959-1963.

Tasmanian Legislation (1966)

In Tasmania the approach to the problem was different in that the Parliament in 1966 passed legislation affecting only employees in the public sector. The *Public Service (Equal Pay) Act 1966* applied to those employed by the State Government or employed by state authorities, e.g. the teaching service, the police force, the railway service, etc. The Act required that wage-fixing authorities had to be satisfied in any application, that certain female employees were performing 'work of the same or a like nature and of equal value'. If this was established, then the authority was required to fix the same margins for all employees, irrespective of sex. This still did not give equal pay, due to the lower female basic wage. Accordingly the Act provided for annual five per cent increments in the female basic wage which would effect equality with the male rate by 1972.

National Wage Cases

In awarding the \$1 increase to both males and females in 1967, the Commonwealth Conciliation and Arbitration Commission departed from the principle of maintaining a 75 per cent ratio between the male and female basic wage. This was done deliberately and the Commission's pronouncement in June 1967 referred to the eventual possibility of equal pay for equal work. In all subsequent national wage cases the Commission has granted uniform quantum or percentage increases to males and females.

Teachers' Case, 1968

In June 1968 the Public Service Tribunal ruled that Tasmanian women teachers employed by the State were performing work of the same or a like nature and of equal value. Generally women teachers were already receiving the same margins as men so the effect of the Tribunal's decision was to increase the base rate component of their salary to 80 per cent of the male base rate, with effect from 23 May 1968. (The female base rate, \$25.05, was 75 per cent of the male base rate, \$33.40.) In accordance with the Act, the base rate for females was steadily advanced until it equalled the male rate in 1972.

State Employees Receiving Equal Pay

Since the June 1968 Teachers' determination, equal pay has been extended to all areas where the work performed by male and female employees is of the same or similar nature and of equal value.

National Equal Pay Case 1969

Two benches of the Conciliation and Arbitration Commission handed down a joint decision on the National Equal Pay Case on 19 June 1969. The decision was important as, for the first time, the Commission accepted in principle the concept of 'equal pay for equal work'. However, equal pay was not to be granted automatically; equality of work had to be proved before an increase was granted to female workers.

Conclusions: Acceptance of the concept of 'equal pay for equal work', implied the elimination of discrimination based on sex alone. However, before equal pay was granted equality of work had to be established.

Principles to be Applied: The Commission stated that it would be necessary for a separate examination to be made of each determination and award in respect of the awarding of equal pay, and suggested that certain clearly defined principles should be applied in deciding these applications.

Where the Arbitrator or the Commissioner was satisfied that equal pay should be awarded, the Commission considered that the implementation of such a decision should be on a progressive basis over four years as follows (provided that no female rates should be reduced by operation of this formula):

Equal Pay Case Decision, 19 June 1969

Date of operation	Amount of female rate
Beginning of first pay-period to commence on or after—	
1 October 1969	85%
1 January 1970	90%
1 January 1971	95%
1 January 1972	100%

} of the male rate at that date

Equal Pay: Metal Trades Award

In February 1970 the Commonwealth Conciliation and Arbitration Commission granted equal pay to adult female process workers employed under the federal Metal Trades Award. The determination was that rates for adult females were set at: (i) from first pay-period commencing on or after 23 February 1970, 90 per cent of male rates; (ii) from 1 January 1971, 95 per cent of male rates; (iii) from 1 January 1972, the same as male rates. On 25 March 1970 the equal pay provisions were extended to include junior females.

National Wage and Equal Pay Case 1972

On 15 December 1972 the Commonwealth Conciliation and Arbitration Commission enunciated a new principle in its National Wage and Equal Pay Case decision, of 'equal pay for work of equal value' to be used when determining female wage rates. The adoption of the new principle, to be applied to both adult and junior female wage awards, requires that female rates be determined by work value comparisons without regard to the sex of the employees concerned. The principle may be applied by either agreement or arbitration.

National Wage Case 1974

In the 1974 National Wage Case the Commonwealth Conciliation and Arbitration Commission decided to extend the minimum wage provisions to adult females. Adult females were awarded 85 per cent of the minimum adult male rate; the proportion increased to 90 per cent by 30 September 1974 and to 100 per cent by 30 June 1975.

Weekly Wage Rates in Tasmania

Definitions

In this section, 'weekly wage rates' is used as a short title for '*weighted average minimum weekly wage rates*'. The rates are those applicable to adult males and adult females, and are those fixed in *awards*.

The minimum wage is the lowest rate payable for a particular occupation. This minimum rate may be expressed as: (i) a total wage (e.g. in awards of the Commonwealth Conciliation and Arbitration Commission; (ii) a basic wage plus secondary wage payments, i.e. additional amounts for skills, loadings, etc. (e.g. in awards of state wage-fixing authorities except Victoria); or (iii) in agreements registered with federal or state wage-fixing authorities. The introduction of varying federal and state practices relating to 'total' and 'basic' wages from time to time has not affected the continuity of the statistical series.

Weighting: To arrive at a weighted average rate for a particular field (e.g. rate for occupations in Tasmania covered by federal awards) certain data are required. The basic initial information is the award rate applying to each occupation and its relative significance (broadly, the numbers in each occupation). The calculation of average minimum rates is based on the occupational structure existing in 1954.

The individual minimum wage rates, combined to give the averages shown in the tables, are those for representative occupations within each industry.

Since the aim is 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.

Weighted averages of the components of the total minimum weekly wage rate, i.e. basic wage, margin and loading, are calculated separately for adult male employees covered by federal awards, etc. and for those covered by state awards, etc.

'Federal Awards, etc.': These include awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission, and determinations of the Australian Government Public Service Arbitrator.

'State Awards, etc.': These include 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. (In Tasmania the principal tribunals are the State Wages Boards.)

'Basic Wage Rates': These are weighted averages of the weekly rates prescribed in awards, etc. for the occupations included in the calculation. 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. In all such cases, the basic wage rate actually paid is used in the tables. As a result, the weighted average basic wage shown in this section differs from the Hobart basic wage appearing elsewhere.

'Margins': These are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for special features such as skill, experience, arduousness or other like factors.

'Loadings': These include industry loadings and other general loadings prescribed in awards, etc. for the occupations included in the calculation. Loadings that are not applicable to all workers in a specified award occupation (for example, those payable because of length of service; working in wet, dirty or confined spaces, etc.) are not included in the calculation.

Male and Female Rates

The following table summarises weekly wage rates for adult males and adult females in Tasmania from 1958 onwards. The averages include federal and State awards, etc. and are for all industry groups combined.

Weighted Average Minimum Weekly Wage Rates (a)
Adult Males and Adult Females: All Groups
 (\$)

End of December—	Adult rate		End of December—	Adult rate	
	Male	Female		Male	Female
1958	32.36	22.12	1966.. .. .	43.27	29.80
1959	34.71	23.42	1967.. .. .	45.31	31.62
1960	35.15	23.88	1968.. .. .	48.98	33.46
1961	36.27	24.82	1969.. .. .	52.00	36.94
1962	36.48	24.83	1970.. .. .	r 54.20	38.17
1963	37.29	25.21	1971.. .. .	r 60.86	44.35
1964	39.69	27.04	1972.. .. .	r 66.51	r 49.07
1965	40.73	27.94	1973.. .. .	75.43	60.55

(a) Weighted average minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations, etc.

Limitation: The wage rates shown in the tables in this section should not be regarded as actual current averages, but rather as indexes expressed in money terms, indicative of trends. The wage rates do not measure the relative level of minimum wages as between states.

Minimum weekly wage rates for adult males are not comparable with 'average weekly earnings per employed male unit' appearing in a later section of this chapter; the latter includes not only the earnings of adult wage-earners but also those of salaried employees, junior wage-earners and part-time and casual employees; included also are over-award payments and over-time earnings.

Rates in Industry Groups

Tasmanian details by industry group are given in the next table:

Weighted Average Minimum Weekly Wage Rates and Index Numbers
Adult Males and Adult Females: Industry Groups, 31 December 1973

Industry group	Adult males		Adult females	
	Rates of wage (\$)	Index numbers (a)	Rates of wage (\$)	Index numbers (a)
Mining and quarrying	78.33	277.3	..	..
Manufacturing—				
Engineering, metals, vehicles, etc.	74.22	262.8	60.97	306.3
Textiles, clothing and footwear	69.73	246.9	56.83	285.5
Food, drink and tobacco	71.85	254.4	55.93	280.9
Sawmilling, furniture, etc.	70.05	248.0	50.33	252.8
Paper, printing, etc.	73.15	259.0	58.03	291.5
Other manufacturing	68.68	243.2	..	..
All manufacturing groups	72.06	255.2	56.85	285.5
Building and construction	75.80	268.4	..	..
Railway services	72.42	256.4	72.79	365.6
Road and air transport	75.60	267.7	..	..
Shipping and stevedoring	60.53	285.1	..	..
Communication	99.72	353.1	84.43	424.1
Wholesale and retail trade	76.98	272.6	61.36	308.2
Public authority (n.e.i.) and community and business services	83.28	294.9	67.01	336.6
Amusement, hotels, personal service, etc.	69.07	244.6	58.07	291.7
All industry groups	75.43	267.1	60.55	304.2

(a) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Index Numbers

The following table shows, in summary form, the index numbers for adult male and adult female weighted average minimum weekly wage rates in Tasmania from 1967:

Weighted Average Minimum Weekly Wage Rates: Index Numbers, All Groups, Adult Males and Adult Females

End of December—	Index numbers (a)		End of—	Index numbers (a)	
	Male	Female		Male	Female
1967	160.4	158.8	December 1972 ..	235.5	246.5
1968	173.4	168.1	March 1973	238.5	248.5
1969	184.1	185.6	June 1973	262.2	290.8
1970	192.9	191.7	September 1973 ..	265.2	294.1
1971	215.5	222.8	December 1973 ..	267.1	304.2

(a) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Components of Weekly Wage Rates (Male)

The next table shows the adult male weighted average minimum weekly rate, according to its federal and State award elements, for Tasmania. The State award element is shown in its component parts (basic wage, margin and loading). However, adoption of the total wage concept in June 1967 precludes a similar dissection of federal awards.

**Weighted Average Minimum Weekly Wage Rates, End of December (a)
Components of Wage Rates, All Groups: Adult Males
(\$)**

Particulars	1968	1969	1970	1971	1972	1973
Commonwealth awards ..	48.46	51.48	r53.78	r60.46	r66.09	74.78
State awards, etc.—						
Basic wage	35.75	36.80	r39.98	39.00	40.86	43.50
Margin	12.05	13.93	r13.17	r19.74	r23.35	29.93
Loading	1.97	2.07	r1.50	2.75	r2.95	3.00
Total	49.77	52.80	r54.65	r61.49	r67.17	76.43
All awards	48.98	52.00	r54.20	r60.86	r66.51	75.43

(a) For a full week's work (excluding overtime) as prescribed in awards, determinations, etc.

Australian Rates

In the next table, rates and index numbers are shown for each Australian state:

Australia: Weighted Average Minimum Weekly Wage Rates (a): All Groups, Adult Males

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
RATES OF WAGES (\$)							
1968	49.46	48.86	49.01	48.23	47.72	48.98	48.98
1969	52.38	51.74	51.91	50.76	50.69	52.00	51.86
1970	54.40	53.68	55.07	52.12	55.99	r54.20	54.20
1971 ^r	61.70	61.40	62.91	59.38	61.98	60.86	61.56
1972 ^r	67.65	67.48	68.19	65.57	65.75	66.51	67.32
1973	76.76	76.71	79.46	74.39	75.12	75.43	76.74

Australia: Weighted Average Minimum Weekly Wage Rates (a): All Groups, Adult Males—*continued*

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
INDEX NUMBERS (b)							
1968	175.1	173.0	173.5	170.8	169.0	173.4	173.4
1969	185.5	183.2	183.8	179.7	179.5	184.1	183.6
1970	192.6	190.1	195.0	184.6	198.2	192.9	191.9
1971 ^r	218.5	217.4	222.8	210.3	219.5	215.5	218.0
1972 ^r	239.5	238.9	241.4	232.2	232.8	235.5	238.4
1973	271.8	271.6	281.3	263.4	266.0	267.1	271.7

(a) For a full week's work (excluding overtime), as prescribed in awards, determinations, etc.

(b) Base of index numbers: weighted average minimum weekly wage rate, Australia, 1954 = 100.0.

Hourly Wage Rates in Tasmania

General

Hourly wage rates is the short title for 'weighted average minimum hourly rates payable'. The concept is completely analogous to that embodied in weighted average minimum weekly wage rates and the calculation is similarly based on rates prescribed in awards or determinations of federal and state industrial authorities or in agreements registered with them.

Definitions

Hours of Work: 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 of hourly rates.

Rural industry is excluded from the calculation of weighted average minimum weekly wage rates and also from the calculation of weighted average minimum hourly wage rates. In addition the shipping and stevedoring group is also excluded from the latter calculation since definite particulars for the computation of hourly wage rates are not available.

The 40-hour week has operated in Australia generally from 1 January 1948 (N.S.W., from 1 July 1947). Nevertheless the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or 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 industry groups except rural, and shipping and stevedoring, at 30 June 1973, were: N.S.W., 39.78; Victoria, 39.97; Queensland, 39.89; S.A., 39.96; W.A., 39.85; Tasmania, 39.93; Australia, 39.87. Corresponding figures for adult female workers at 30 June 1973, were: N.S.W., 39.53; Victoria, 39.81; Queensland, 39.70; S.A., 39.77; W.A., 39.78; Tasmania, 39.63; Australia, 39.67.

Weekly Wage Rate Definitions: Apart from exclusion of the shipping and stevedoring industry, the definitions in the section headed 'weekly wage rates' apply with equal force to the calculation of hourly wage rates.

Summary of Details

The following table shows, for Tasmania, weighted average minimum hourly wage rates for adult male and adult female workers in all industries (except rural, and shipping and stevedoring) since 1939:

**Weighted Average Minimum Hourly Wage Rates, All Groups
Adult Males and Adult Females**

End of—	Rates of wage		Index numbers (a)	
	Males (b)	Females (c)	Males (b)	Females (c)
	\$	\$		
December—1939	0.2095	<i>n.a.</i>	29.6	<i>n.a.</i>
1945	0.2642	<i>n.a.</i>	37.3	<i>n.a.</i>
1950	0.4952	<i>n.a.</i>	70.0	<i>n.a.</i>
1955	0.7371	0.5056	104.2	100.8
1960	0.8808	0.6037	124.5	120.3
1965	1.0211	0.7052	144.3	140.6
1966	1.0842	0.7520	153.2	149.9
1967	1.1365	0.7979	160.6	159.0
1968	1.2288	0.8444	173.7	168.3
1969	1.2955	0.9323	183.1	185.8
1970	1.3550	0.9632	191.5	192.0
1971	1.5192	1.1191	214.7	223.1
September—1972	1.6214	1.2071	229.2	240.6
December—1972	1.6571	1.2383	234.2	246.8
March—1973	1.6795	1.2486	237.4	248.9
June—1973	1.8452	1.4611	260.8	291.2
September—1973	1.8674	1.4775	263.9	294.5
December—1973	1.8815	1.5282	265.9	304.6

(a) Base of index numbers: weighted average hourly wage rate, Australia, 1954 = 100.0.

(b) All industry groups except rural and shipping and stevedoring.

(c) All industry groups except rural, mining and quarrying, and building and construction.

Average Weekly Earnings in Tasmania

Source of Data

The figures in the following section are derived from particulars of employment and of wages and salaries recorded on pay-roll tax returns, from other direct collections and from estimates of the unrecorded balance. (In general, businesses with pay-rolls of less than \$1,734 per month are exempt from pay-roll tax and do not need to supply monthly details of employment and of wages and salaries.) Pay of members of the defence forces is not included.

Definitions

'*Employed Male Unit*': This is a special unit devised to overcome the difficulty that particulars of wages and salaries are not available separately for males and females. (The basic data available are the number of males, the number of females and the total pay-roll only.) The number of females is converted to a *lesser equivalent number* of males by taking into account the approximate ratio of female to male earnings; a divisor for deriving average 'male' earnings is then obtained by adding the actual number of males to the calculated number of 'male equivalents'. The divisor so obtained is called 'employed male units'.

From 1 September 1966, the series has been revised using separate ratios of male to female earnings for each state. (The ratio used for Tasmania is 58 per cent; for calculating Australian figures a weighted average of the six states of approximately 60.0 is used.)

Components of Pay-roll: Pay-roll includes, in addition to wages at award rates, the earnings of salaried employees, overtime earnings, over-award and bonus payments, and payments made in advance or retrospectively (e.g. advances of annual leave pay). Included also are the wages and salaries, not only of adults, but also of juniors; the earnings may relate to full-time, part-time or casual workers.

Invalid Comparison: Average earnings per employed male unit cannot be compared with male weighted average minimum weekly wage rates shown in the previous section. Weighted average minimum weekly wage rates relate to award rates for adult male wage earners in non-rural industry for a full week's work, at the end of each month or year; the average weekly earnings per employed male unit are derived from the pay-roll concept outlined in the previous paragraph, and obviously cover a wider field of earnings and of wage and salary earners.

Seasonal Influence: Quarterly figures are affected by seasonal influences. Comparisons as to trends are generally best made by relating complete years or corresponding periods of incomplete years.

Annual and Quarterly Details

The following table shows, for Tasmania, average weekly earnings per employed male unit; the figures are arranged both as quarterly and annual averages:

Average Weekly Earnings Per Employed Male Unit (a)
(**\$**)

Year	Average for quarter ending—				Average for year
	September	December	March	June	
1969-70 <i>r</i> ..	69.00	74.10	66.30	74.30	70.90
1970-71 <i>r</i> ..	74.40	80.40	74.60	84.70	78.50
1971-72 ..	82.10	90.00	83.70	91.30	<i>r</i> 86.80
1972-73 ..	90.30	98.80	87.60	100.90	<i>r</i> 94.40
1973-74 ..	101.70	116.10	101.50	121.80	110.30

(a) For definitions, see earlier section headed 'Definitions'.

Australian Details

The next table shows average weekly earnings per employed male unit for each Australian State:

Australia: Average Weekly Earnings Per Employed Male Unit (a) *r*
(**\$**)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia (b)
1968-69	72.30	72.40	64.50	64.80	69.00	65.70	70.40
1969-70	78.50	78.40	69.40	70.30	75.70	70.90	76.30
1970-71	87.30	86.40	78.00	77.20	84.90	78.50	84.80
1971-72	95.90	93.60	87.00	85.30	93.70	86.80	93.00
1972-73	104.30	102.50	97.00	93.00	99.00	94.40	101.50
1973-74	120.80	118.40	112.60	110.80	115.40	110.30	118.00
1971—June quarter ..	92.40	91.50	82.70	80.90	90.00	84.70	89.80
December quarter ..	99.20	96.60	89.30	87.20	96.30	90.00	96.00
1972—June quarter ..	99.70	97.40	91.40	88.20	94.40	91.30	96.70
December quarter ..	107.40	105.50	98.70	94.70	99.30	98.80	104.10
1973—June quarter ..	110.90	107.90	103.50	99.10	104.90	100.90	107.80
December quarter ..	123.00	120.90	114.10	110.90	115.00	116.10	119.90
1974—June quarter ..	131.60	127.80	123.70	121.90	126.10	121.80	128.50

(a) For definitions, see section headed 'Definitions'.

(b) Includes the Northern Territory and the Australian Capital Territory.

Survey of Weekly Earnings, May 1971*General*

The survey, in respect of adult male employees for the pay-period which included 12 May 1971, was conducted by means of stratified random samples of: (i) private employers subject to pay-roll tax; (ii) public hospitals; (iii) local government authorities; and in addition a complete coverage of federal and state government departments, government authorities and semi-government bodies.

The object of the survey was to obtain estimates of the number and proportions of full-time adult male employees (paid for a full week) in various total weekly earnings groups, average weekly total earnings for these employees, and a dissection of average weekly total earnings into average weekly overtime earnings and average weekly ordinary time earnings. The average weekly earnings for private employees in this survey are not directly comparable with the average earnings for full-time adult males obtained from the October surveys of weekly earnings and hours because this survey was confined to full-time adult male employees paid for a full working week.

For Australia as a whole the survey was based on returns from a sample of 4,995 private employers plus returns from public hospitals and government employers. The results are representative of 2,212,600 full-time adult male employees made up of 1,500,600 full-time adult males in private employment and 712,000 in government employment.

Definitions

Total Gross Weekly Earnings: Gross earnings of adult male employees before taxation and other deductions have been made. Includes overtime earnings, ordinary time earnings, shift allowances, penalty rates, commission and similar payments and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly. Retrospective payments are excluded.

Full-time Adult Male Employees: Those adult male employees whose normal hours of work were 30 or more a week and who were paid for their full normal hours of work.

Private Employees: Employees of private employers subject to pay-roll tax and employees of all public hospitals.

Government Employees: Civilian employees of Australian and state government departments, government authorities and semi-government bodies, and of local government authorities.

Managerial, Executive, Professional and Higher Supervisory Staff: In the case of private employers the allocation of employees between these categories depended on the judgment of the individual employers completing the returns. In the case of government employers 'managerial, etc., staff' were generally defined as: (i) those employees who did not receive payment for overtime; and (ii) those employees who, although subject to payment for overtime, were in charge of a significant number of employees in a separate establishment (or establishments).

Results of Survey

The following table classifies full-time adult male employees by total weekly earnings groups, for Tasmania, in May 1971:

Full-time Adult Male Employees, May 1971 (a)
Total Weekly Earnings: All Industry Groups (b) (Private and Government Employees)

Total weekly earnings	Full-time adult male employees	Proportion of total number of full-time adult male employees		
		Each group	Cumulative	
\$	'000	per cent	per cent	
Up to 43.99	}			
44.00- 44.99				
45.00- 45.99			0.1	0.1
46.00- 46.99				
47.00- 47.99				
48.00- 48.99	1.1	1.7	1.8	
49.00- 49.99				
50.00- 51.99	1.0	1.4	3.2	
52.00- 53.99	1.4	2.1	5.3	
54.00- 55.99	1.7	2.6	7.9	
56.00- 57.99	1.7	2.6	10.5	
58.00- 59.99	1.9	2.9	13.4	
60.00- 64.99	5.4	8.1	21.5	
65.00- 69.99	6.0	9.1	30.6	
70.00- 74.99	5.9	9.0	39.6	
75.00- 79.99 (c)	5.9	8.9	48.5	
80.00- 99.99	15.8	23.9	72.3	
100.00-119.99	7.9	12.0	84.4	
120.00 and Over	10.3	15.6	100.0	
Total	66.1	100.0	..	

(a) Pay-period which included 12 May 1971.

(b) Excludes rural industry and private domestic service.

(c) Includes managerial, etc., staff earning up to \$79.99.

Surveys of Weekly Earnings and Hours

General

Sample surveys in respect of most employers *in the private sector* subject to pay-roll tax have been conducted annually during recent years by the Bureau as at the last pay-period in October. In 1972, for the first time, government employees were included in the survey. The result of the surveys are based on returns from stratified random samples of private employers subject to pay-roll tax; non-government hospitals not subject to pay-roll tax; local government authorities; and for all Australian and state government departments, authorities and semi-government bodies. For Australia as a whole the 1972 survey covered approximately, 2,733,000 male and 1,305,000 female wage and salary earners, comprising 1,877,000 males and 1,010,000 females in private employment and 856,000 males and 295,000 females in government employment. Because of the changes in scope of the 1972 survey the results are not directly comparable with those obtained from 1971 and earlier surveys. For a more detailed account of the surveys reference should be made to the bulletin: 'Survey of Weekly Earnings and Hours—October 1972'.

Definitions

Weekly Earnings: Gross earnings before taxation and other deductions have been made; includes overtime earnings, ordinary time earnings, shift allowances, penalty rates, commission and similar payments; and that part of paid annual leave, paid sick leave, long service leave and paid holidays taken during the specified pay-period. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly. Retrospective payments are excluded.

Juniors: Those under 21 years of age not paid adult rates (but 'adults' may include those under 21 years receiving adult rates).

Full-time Employees: Employees who ordinarily work 30 hours or more a week and who received pay for the last pay-period in October.

Results of Surveys

The next table shows for Tasmania for the private and government sectors: (i) average weekly earnings; (ii) average weekly hours paid for; and (iii) average hourly earnings.

Average Earnings and Hours, Private Employment (a): All Industry Groups (b)

Particulars	October 1972 (c)	
	Private employment	Government employment
AVERAGE WEEKLY EARNINGS (\$)		
Adult males	88.50	96.40
Junior males	44.10	50.00
Adult females	55.60	76.50
Junior females	35.50	44.20
AVERAGE WEEKLY HOURS PAID FOR		
Adult males	41.7	40.1
Junior males	40.0	39.0
Adult females	39.1	37.1
Junior females	39.3	38.1
AVERAGE HOURLY EARNINGS (\$)		
Adult males	2.12	2.41
Junior males	1.10	1.28
Adult females	1.43	2.03
Junior females	0.91	1.17

(a) Excludes managerial, executive, professional and higher supervisory staff. Full-time employees only included.

(b) Excludes rural industry and private domestic services.

(c) Last pay-period in October.

Average Weekly Overtime and Ordinary Time Earnings, Private and Government Employment, (a) October 1972 (\$)

Particulars	Average weekly overtime earnings		Average weekly ordinary time earnings		Average weekly total earnings	
	Private	Government	Private	Government	Private	Government
Adult males—						
Manufacturing—						
Founding, engineering, vehicles, etc.	11.80	n.a.	88.30	n.a.	100.20	n.a.
Other	9.00	n.a.	74.90	n.a.	83.90	n.a.
Total manufacturing ..	9.70	2.30	78.50	78.80	88.30	81.10
Non-manufacturing	7.40	4.50	81.20	92.50	88.70	97.00
All industry groups ..	8.50	4.40	80.00	92.00	88.50	96.40
Junior males, all industry groups	2.10	1.10	42.00	48.80	44.10	50.00
Females, all industry groups—						
Adult	1.80	1.30	53.80	75.20	55.60	76.50
Junior	0.80	0.70	34.60	43.50	35.50	44.20

(a) Average for all employees represented in industry groups but excluding managerial, executive, professional and higher supervisory staff. Full-time employees only included.

Minimum Wage Rates, Selected Occupations, Hobart

The following table shows minimum wage rates for selected occupations as prescribed by Federal and State awards, agreements and various determinations (both registered and un-registered) operative at 31 December in recent years. Unless specified, rates shown in the following table are for a 40-hour week. Increases reflect various margin adjustments.

Selected Minimum Wage Rates, Adult Males and Females: Hobart
(\$)

Industry and occupation	31 December		
	1971	1972	1973
ADULT MALES			
Primary production—			
Farming (general), general hand (a)	47.00	51.70	60.70
Grazing, shearer (per 100 flock sheep) (b)	21.94	22.63	31.36
Mining and quarrying—			
Coal mining (c), miner (machine) (d)	68.60	70.60	78.60
Quarrying, labourer	50.90	52.90	66.50
Engineering, metals, vehicles, etc.—			
Engineering—Fitter or turner	66.50	71.50	78.40
Toolmaker	71.90	76.90	83.90
Textiles, clothing and footwear—			
Clothing trades (readymade), tailor	63.40	65.40	75.30
Footwear, maker	53.20	57.90	66.60
Textiles—Knitting, knitter	55.40	57.40	67.10
Woollen, weaver	49.00	54.70	63.80
Food, drink and tobacco—			
Aerated water and cordials, general hand	47.00	53.70	63.30
Bacon curing, boner	68.80	77.50	89.20
Bread baking, doughmaker	70.00	79.00	91.00
Brewing, general hand	52.04	54.15	63.25
Butter, cheese and milk processing, butter maker ..	57.60	59.60	73.20
Confectionery, confectioner (group 1)	61.70	65.70	75.60
Jam, fruit and vegetable preserving, general hand ..	51.00	55.00	66.80
Meat industry—Labourer (beef, mutton)	53.30	56.90	71.10
Slaughterman (mutton)	71.90	81.30	93.80
Sawmilling, furniture, etc.—			
Sawmilling and timber yards—Machinist (A grade)	64.70	68.60	79.60
Sawyer (circular)	54.00	57.60	67.90
Paper, printing, etc.—			
Printing (general)—Bookbinder	66.50	74.50	82.50
Machine compositor	71.90	79.90	88.00
Printing (newspapers)—Machine compositor (day			
work)	85.90	98.90	104.90
Machine compositor (night			
work) (e)	93.10	107.90	113.90
Other manufacturing—			
Brickmaking, drawer	51.00	58.10	61.80
Electricity generation and supply, electrical fitter ..	65.40	76.40	83.30
Building and construction—			
Building (f)—Bricklayer, roof tiler	80.60	90.30	106.53
Builder's labourer, skilled	65.84	74.56	89.10
Builder's labourer, unskilled	59.38	65.89	79.90
Carpenter	81.43	91.12	107.66
Electrician (installation) (g)	69.90	79.10	90.10
Plasterer	80.60	90.30	106.53
Painter	80.49	90.19	106.37
Plumber (g)	72.90	74.90	92.10
Railway services—			
Traffic—Locomotive engine driver	78.55	83.55	90.65
Porter	51.45	57.25	63.85
Road and air transport—			
Road transport, motor truck driver (over 1.27 tonnes			
to 3.05 tonnes)	59.50	70.50	78.40
Tramways and buses, bus driver (one-man operator)	63.00	72.50	82.50
Shipping and stevedoring—			
Shipping (cargo vessels), able seaman (h) (i)	<i>n.a.</i>	<i>n.a.</i>	153.37
Stevedoring, wharf labourer (per hour) (j)	1.91	2.24	2.51

Selected Minimum Wage Rates, Adult Males and Females: Hobart—continued

(\$)

Industry and occupation	31 December		
	1971	1972	1973
ADULT MALES—continued			
Communication—			
Post Office, postman	62.38	69.05	81.66
Wholesale and retail trade—			
Butchers, general butcher	66.40	74.60	85.60
Petrol service stations, attendant	47.00	51.70	60.70
Retail stores, shop assistant (grocery)	50.10	52.10	62.20
Wool stores, wool classer	64.30	71.30	87.20
Public authority (n.e.c.), community and business services—			
Hospitals, orderly	53.54	55.54	68.06
Other services—Graduate engineer	94.71	96.71	104.15
Graduate scientist	78.83	89.02	103.65
Amusement, hotels, personal service, etc.—			
Hairdressing, hairdresser (men's)	59.90	66.50	82.20
Hotels (k), barman	55.60	57.60	71.50
Restaurants (k) cook (one cook only employed)	57.00	59.00	71.70
Watchmen, cleaners, etc., office cleaner (day)	49.20	56.90	60.70
ADULT FEMALES			
Textiles, clothing and footwear—			
Dry cleaning, presser	60.20	62.20	72.00
Order dressmaking, machinist	44.50	46.50	60.00
Readymade dressmaking, table hand or coat machinist	44.50	46.50	58.90
Textiles—Knitting, machinist	38.20	44.10	57.50
Woollen, weaver	38.60	43.80	58.00
Food, drink and tobacco—			
Confectionery, general hand	39.00	41.00	54.30
Jam, fruit and vegetable preserving, general hand	37.10	42.00	57.90
Transport and communication—			
Post office, telephonist (l)	52.89	59.48	79.92
Wholesale and retail trade—			
Retail stores—Shop assistant (confectionery)	39.90	43.00	53.10
Shop assistant (drapery)	49.00	51.00	62.20
Public administration and community and business services—			
Australian Government Public Service, typist (m)	54.52	64.70	80.99
Hospital nurses (qualified), first year	58.10	69.80	77.40
Amusement, hotels, personal service, etc.—			
Cleaners, office cleaner (day)	40.10	47.80	51.40
Hairdressing, hairdresser	46.25	51.85	70.05
Hotels (k), barmaid	55.60	57.60	70.40
Restaurants (k), waitress	41.20	43.20	55.60
Theatres, usherette, ticket-taker, etc. (l)	42.40	46.10	52.50

(a) 44-hour week. (b) Rates shown are 'not found rates'. Shearers' hours of work are 40 per week. (c) In addition to the rate shown, an attendance allowance is payable for each full fortnightly pay-period worked. (d) 35-hour week. (e) 38-hour week. (f) Rates shown are weekly equivalents of hourly rates. They include allowances for excess fares, travelling time, sick leave, statutory holidays, following the job, etc. (g) Actual weekly rates. (h) Includes an allowance valued at \$6.50 per week for keep and accommodation. (i) Rates shown are for 40 hours of work; seamen are required to work eight hours per day. (j) Rates shown are for casual wharf labourers on other than special cargo work. (k) Weekly cash payments where board and lodging are not provided. (l) 36-hour week. (m) 36½-hour week.

WAGE-FIXING AUTHORITIES**Tasmanian State Wages Boards***History*

The evolution of the Tasmanian Wages Boards system is described in the 1968 *Year Book*. The following sections describe the present wages boards situation.

Constitution

A wages board is set up for the common trade, industry or profession of each employers' group (e.g. Building Trades, including employers of painters, glaziers, signwriters, etc.). On each board, of which there are about 70, the employers and the employees have equal representation; one board (Electrolytic Zinc) has eight representatives for each, while the smallest have only two representatives for each. The *Wages Boards Act* 1920 was amended in 1961 to provide for a full-time government-appointed chairman.

Members of Boards

Qualification for Board Membership: Following the 1970 amendments a person may be appointed to membership of a State wages board if: (i) he is an employer, manager or employee engaged in the particular trade; (ii) he has had twelve months' experience, gained within five years immediately preceding appointment, of managing a corporate body engaged in the industry and is authorised by the particular body to accept appointment; (iii) he is an officer of an association which includes members engaged in the relevant trade; or (iv) he is an officer of the Tasmanian Trades and Labour Council. The provisions of the 1970 amending Act: (i) permit an officer of an association connected with more than one trade to be appointed to a board; and (ii) recognise service in associations connected with the trade as experience in the trade. Not more than half of the employer or employee representatives on a board are to be specialists, i.e. representatives from employers' associations or trade unions. (If the number of representatives is an odd number the next even number is used to determine the maximum number of specialists who may sit on the board.) The Crown, as an employer, is not represented on the wages boards. Any member who either: (i) ceases to be engaged in the trade covered by the wages board; or (ii) ceases to be an officer of an association connected with the trade and is not otherwise qualified for membership, is required to vacate his seat on the wages board.

Nomination and Appointment of Board Members: The 1970 amendments make provision for nomination of board members by: (i) employer and employee organisations; and (ii) individual employers and employees. Special provisions apply to officials of the Tasmanian Trades and Labour Council. If the number of nominees falls short of the positions to be filled, the Minister may select and appoint the necessary additional persons. When the number of nominees exceeds the number of vacant positions, the Minister selects the representatives from the nominees received. The Minister's decision is final. (Previous provisions for elections in the above two cases were repealed.)

Board Meetings and Proceedings

When a quorum is not present the Chairman is required to adjourn proceedings for not less than half an hour, and if at the end of this interval a quorum is not present, the powers of the board can be exercised by a majority of the members (including the Chairman) present.

Role of Chairman

The Chairman's chief power at meetings of boards derives from the fact that he has a casting vote; he wields no arbitral power but is enjoined, when there is equal division between the representative members, to do all things ('... whether by adjourning ... by making suggestions, consulting with members ... or otherwise ...') needed to obtain agreement of the board, before deciding the matter at issue on his casting vote. From the meeting's recorded decisions, the Chairman drafts a statement of the amended wage-rates, allowances and conditions; this is known as a determination and upon gazettal becomes law.

The Chairman may also determine any matter placed before him by a majority of the board members. In such cases his determination is regarded as a decision of the Board. Further powers were given to the Chairman under the common rule amendments contained in the 1970 Act.

Common Rule Determinations

Section 11 of the *Wages Boards Act 1970* contains the following important amendment to the principal Act:

'25B—(1) On application being made to the Minister by—

- (a) an organisation of employers; or
- (b) the body known as the Tasmanian Trades and Labour Council,

for making of a determination under this section in relation to a matter referred to in the application, the Minister may refer the application to the Chairman for determination.'

The Chairman may only make common rule determinations in respect to the following matters: (i) basic wage; (ii) minimum wage; (iii) standard hours of work; (iv) paid leave of absence; and (v) a matter, determined in an award under a federal Act, which affects or relates to 10 or more trades for which State wages boards have been appointed. Determinations under this provision apply to all boards affected by the particular matter.

Before making a 'common rule determination' the Chairman is required to: (i) confer with persons engaged in the relevant trades as he thinks necessary; and (ii) in his determination give due consideration to these persons' opinions.

When the common rule determination provisions are not or cannot be applied, the matter may be heard as a test case.

Test Cases

On occasion, issues are raised which do not fall within the scope of a common rule determination but which obviously have wide implications, e.g. general margins claims. The meeting of the particular wages board raising the issue may be adjourned and a wider conference convened at which all major employer and employee groups are represented. The question can then be argued as one affecting a number of boards, or often all boards, but the final outcome is a determination affecting the particular wages board which raised the issue. This determination then sets the pattern for the variation of determinations of other wages boards. An amendment to the Act in 1966 provides for the variation of a wages board determination by written application of all representative members, if the Chairman approves; this obviates the need for many formal meetings and also allows the outcome of test cases to be speedily adopted in the determinations of all boards.

Powers and Functions of the Boards

A board may determine any industrial matter in relation to the trade for which it has been appointed. Included in the matters which it may determine are: wage rates; hours of work; leave (other than long service leave); the date from which any determination becomes effective; privileges, rights and duties of employers and employees; the mode, terms and conditions of employment. The boards may not determine matters relating to: (i) opening and closing hours; (ii) bonus payments; (iii) superannuation schemes; and (iv) engagement, dismissal or reinstatement of any particular class of employees.

Wages boards' determinations are now binding upon the Crown.

Industrial Disputes

Under the Act, the Minister may call a compulsory conference for the purpose of settling or preventing industrial disputes. Industrial disputes are defined in Section 16 of the 1970 Act as:

- (a) a matter in respect of which a board is authorised by this Act to make a determination;
or
- (b) the engagement, dismissal, or reinstatement of any particular employee or particular class of employees.'

Those summoned may include not only the direct participants, but also other persons connected in industrial matters which bear on the dispute or, even more broadly, any persons at all whose attendance may help a settlement. By an amendment of the Act in 1960 the conference Chairman has the power to make a written order directing certain action to be taken if he considers it will prevent or settle the dispute; recipients of such orders are bound to comply, the penalty for ignoring an order being \$200.

The compulsory conference is presided over by a person appointed by the Minister but, in practice, the Chairman of Wages Boards is generally given this conciliatory role.

Tasmanian Public Service Board

General

Legislation passed in 1973 established two new industrial authorities, the Public Service Board and Public Service Arbitrator (for details see the next section) to deal with awards, working conditions, etc. for employees of the State Government and certain State authorities. The Public Service Board comprises three Commissioners appointed by the Governor for terms not exceeding five years. One of the three Commissioners is appointed Chairman of the Board. In addition to members of the State Public Service the Board's jurisdiction includes persons employed in the teaching service, police force, parliamentary staff positions, public hospitals, non-academic staff of the College of Advanced Education, the railway service and various State authorities.

Industrial Functions

The Public Service Board may make awards covering wages, salaries and conditions of work for employees falling within its jurisdiction. A main function of the Board is determining 'principal awards' i.e. an award which covers all employees within the scope of a particular group such as administrative and clerical officers. The determining of a principal award involves a complete review of the wages and salaries and other work conditions of all positions within the scope of the particular award. The Board, under the *Public Service Act 1973*, when determining a principal award may cover any or all of the following:

- (a) Determining the scales of salaries for grades, divisions, and occupational groups of employees, and for sub-divisions of those grades, divisions, and occupational groups;
- (b) Determining the ordinary hours of work, and the period to be worked before overtime rates become payable, and the rates of remuneration and conditions in respect of minimum earnings, overtime, travelling time, shiftwork, night-work, and special duty, and in respect of work on Saturdays, Sundays and holidays and at any other time outside the ordinary hours of duty;
- (c) Determining minimum rates of pay for adult employees and for married employees;
- (d) Determining the rates of relieving, travelling, mileage, proficiency, lodging, and meal allowances and expenses and the terms and conditions on which they may be granted and paid;
- (e) Determining tool allowances, clothing allowances, and other allowances in the nature of additional pay for classes or conditions of work warranting the payment thereof;
- (f) Determining the terms and conditions on which industrial clothing shall or may be issued;
- (g) Determining the basis and method of adjustment of salaries in order to meet variations in the cost of living, and prescribing the tables, scales or figures with reference to which those adjustments shall be made;

- (b) Determining the cases in which and conditions on which deductions shall be made from salaries on account of quarters, fuel, light, power, board, and other facilities and amenities provided for employees and the rates of those deductions and the basis on which they shall be calculated; and
- (i) Determining and regulating the qualifications (including educational qualifications) required for advancement from a grade or division to a higher grade or division.'

Unless revoked, a principal award is effective for three years, however, during the currency of the principal award it may be amended by the Board to eliminate anomalies, errors or defects contained in the award, or to incorporate determinations of the Commonwealth Conciliation and Arbitration Commission (e.g. national wage case decisions, etc.).

The Tasmanian Public Service Arbitrator

The *Public Service Act 1973*, in addition to creating the Public Service Board, also established the position of Public Service Arbitrator. The Public Service Arbitrator, appointed by the Governor for a term not exceeding five years, has the same area of jurisdiction as the Public Service Board. Applications to the Arbitrator for arbitration on awards may be made where the Public Service Board has: (i) refused an application for an award; (ii) made an award (including an award to supplement a consent award); (iii) allowed three months or longer to elapse after an application has been made for an award without (a) refusing the application or (b) making an award (including a consent award). Such applications are lodged with the registrar and the Arbitrator, after he has been satisfied that the applicant is entitled to apply for arbitration, arranges to hear the applicant and others affected by the award. After hearing and considering an application the Arbitrator may: (i) refuse the application; (ii) confirm the award or any of its provisions; (iii) direct the Board to vary the award by omitting, altering or adding to the award's provisions; or (iv) where it has refused or failed to make an award, to make an award in specified terms.

The Public Service Arbitrator has an additional function of reviewing individual salary classifications made by any controlling authority following the handing down of any new principal award. Applications for consideration of particular salary classifications may be made by any registered employee organisation in respect of any office or position held by any of its members.

Industrial Disputes

Statistics of industrial disputes refer only to those involving a stoppage of work of 10 man-days or more. The information is compiled from the following sources: (i) direct from employers and trade unions; (ii) reports from government departments and authorities; (iii) reports from state and federal industrial authorities; and (iv) information contained in trade journals, newspapers, etc. Particulars of some stoppages are estimated and the following statistics should be regarded as giving only a broad measure of industrial stoppages.

Industrial Disputes (a)

Year	Disputes	Workers involved	Working days lost	Estimated loss in wages
	no.	'000	'000	\$'000
1966	14	2.5	3.1	34.8
1967	29	6.2	7.3	82.3
1968	28	7.8	13.0	149.0
1969	44	8.7	9.9	115.3
1970	66	14.8	32.2	451.1
1971	46	14.7	20.6	317.3
1972	48	15.2	19.2	305.1
1973	63	17.5	140.1	(b) 2,322.4

(a) Involving a stoppage of 10 man-days or more.

(b) The estimated Tasmanian loss was 5.1 per cent of the Australian total in 1973.

The following table analyses industrial disputes according to the industry of the labour force involved:

Industrial Disputes by Industries

Period	Mining	Manufacturing						Construction	
		Metal products, machinery and equipment	Textiles, clothing, footwear	Food, beverages, tobacco	Paper and paper products, printing and publishing	Other	Total		
NUMBER OF DISPUTES									
1970	11	13	1	4	2	3	23	18	
1971	14	5	6	2	..	2	15	9	
1972	6	7	3	2	6	r3	r21	7	
1973	16	6	2	7	2	2	19	3	
1973—									
March qtr ..	7	1	1	..	1	..	3	..	
June qtr ..	2	4	..	1	..	..	5	2
Sept. qtr ..	7	1	..	1	..	..	2	..
Dec. qtr ..	..	..	1	5	1	2	9	1
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)									
1970	3.5	1.5	..	1.2	0.5	1.6	4.9	2.8	
1971	2.4	2.8	5.0	0.4	..	..	8.2	2.5
1972	2.2	7.8	0.8	0.2	1.1	r0.1	r10.0	0.5	
1973	2.8	1.8	1.4	4.2	2.7	..	10.1	0.2	
1973—									
March qtr ..	1.9	0.1	1.3	..	2.4	..	3.8	..	
June qtr ..	0.5	1.7	..	1.0	..	..	2.7	0.1
Sept. qtr ..	0.4	0.1	..	0.2	..	..	0.3	..
Dec. qtr ..	..	..	0.1	3.0	0.3	..	3.3	..
WORKING DAYS LOST ('000)									
1970	11.2	2.1	..	0.3	0.2	3.0	5.6	9.0	
1971	5.0	4.3	5.2	0.4	..	0.2	10.0	4.2	
1972	4.0	5.9	1.9	0.8	1.5	0.3	r10.4	2.0	
1973	35.4	20.1	16.4	5.5	39.7	0.3	81.9	0.7	
1973—									
March qtr ..	26.6	1.0	16.3	..	37.2	..	54.5	..	
June qtr ..	6.2	18.7	..	2.0	..	..	20.7	0.6
Sept. qtr ..	2.6	0.4	..	0.6	..	..	0.9	..
Dec. qtr ..	..	..	0.1	2.9	2.5	0.3	5.7	0.2
ESTIMATED LOSS IN WAGES (\$'000)									
1970	194.8	25.4	0.3	3.3	1.8	40.0	70.8	116.5	
1971	102.3	59.7	56.0	4.8	..	2.4	122.9	73.3	
1972	72.9	88.0	24.8	11.2	24.3	r3.1	r151.4	39.5	
1973	726.7	357.8	174.0	69.3	640.7	3.4	1,245.1	12.2	
1973—									
March qtr ..	528.3	16.6	173.3	..	597.9	..	787.7	..	
June qtr ..	151.1	334.5	..	19.6	..	..	354.1	9.5
Sept. qtr ..	47.3	6.7	..	8.0	..	..	14.7	..
Dec. qtr ..	..	..	0.7	41.7	42.9	3.4	88.6	2.8

Industrial Disputes By Industries—continued

Period	Railway transport, air transport	Road transport, other transport and storage, communication	Water transport		Entertainment, recreation, hotels, personal service, etc.	Other industries (a)	Total
			Stevedoring services	Other water transport			
NUMBER OF DISPUTES							
1970 .. .. .	..	5	6	2	..	1	66
1971	1	..	4	2	..	1	46
1972	3	4	3	1	..	3	48
1973	3	4	2	3	1	12	63
1973—							
March quarter	1	1	..	..	..	..	12
June quarter .. .. .	..	..	1	..	..	2	12
September quarter .. .. .	..	2	..	..	1	4	16
December quarter	2	1	1	3	..	6	23
WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)							
1970 .. .. .	..	1.1	2.3	..	..	0.2	14.8
1971	0.2	..	1.3	0.1	..	..	14.7
1972	0.4	0.4	1.3	0.1	..	0.2	15.2
1973	0.3	0.2	0.2	0.2	0.1	3.5	17.5
1973—							
March quarter .. .. .	..	..	..	..	..	..	5.8
June quarter .. .. .	..	..	..	..	..	1.0	4.3
September quarter .. .. .	..	0.2	..	..	0.1	1.0	2.0
December quarter	0.2	..	0.1	0.2	..	1.5	5.5
WORKING DAYS LOST ('000)							
1970 .. .. .	..	3.6	2.7	..	..	..	32.2
1971	0.2	..	0.9	0.2	..	..	20.6
1972	1.0	0.5	0.9	0.1	..	0.4	19.2
1973	0.3	0.1	..	0.5	..	21.1	140.1
1973—							
March quarter .. .. .	..	..	..	..	..	..	81.2
June quarter .. .. .	..	..	..	..	..	13.2	40.7
September quarter .. .. .	..	..	..	..	..	0.8	4.3
December quarter	0.2	..	..	0.5	..	7.2	13.9
ESTIMATED LOSS IN WAGES (\$'000)							
1970 .. .. .	..	37.8	30.7	0.5	..	..	451.1
1971	2.9	..	11.9	3.8	..	0.3	317.3
1972	15.9	6.2	12.7	1.1	..	5.4	305.1
1973	5.1	1.5	0.5	9.4	..	321.8	2,322.4
1973—							
March quarter	0.1	0.5	..	..	..	..	1,316.7
June quarter .. .. .	..	..	0.2	..	..	208.0	722.9
September quarter .. .. .	..	0.7	..	..	..	12.3	75.0
December quarter	4.9	0.3	0.3	9.4	..	101.5	207.9

(a) Includes: agriculture, grazing etc.; finance and insurance; wholesale and retail trade; real estate and business services; electricity, gas and water; public administration and defence; and community services.

Appendix A

CHRONOLOGY AND LATER INFORMATION

CHRONOLOGY TO 30 SEPTEMBER 1974

Sydney-Hobart yacht race—line honours taken by *Helsal*; handicap winner *Ceil III*. Government inquiry into State's urban fire brigade service announced by the Chief Secretary. Work postponed on Launceston's \$6m sewage treatment plant. Headquarters of Australian Government Antarctic Research Division to be transferred to Hobart. Tioxide (Aust.) Pty Ltd announced \$3m expenditure programme—part of expenditure to be on reduction of sea discoloration by effluents. Fees for technical education courses abolished for all students. B.H.P. announced \$28.5m expansion project for the Temco ferro-alloy plant at Bell Bay. Workers under State Wages Boards' awards granted four weeks annual leave. Work commenced on sealing last section of Lyell Highway. Cressy-Longford irrigation scheme officially opened. Tasmanian metal trade unionists participated in 24-hour national stoppage. Anti-pollution regulations under *Environment Protection Act* gazetted. Renison Ltd began work on \$3m expansion programme at the Renison Bell mine—output to be increased from 450,000 to 750,000 tonnes of ore per annum. Royal Commission's report on urban transport released—advocated cessation of suburban rail services. Transport Commission's ship *Straitsman* sank in Yarra River—two lives lost. E.Z. Co. resumed production after 21 day strike. High Court ruled Tasmanian tobacco tax valid, but method of collection invalid. T.A.B. legislation passed by State Parliament. New \$1.3m passenger terminal announced for Hobart airport. Australian Government announced \$1.08m grant to Tasmania for pre-school construction. Double dissolution of Australian Parliament. Country Party fielded Senate candidates in Tasmania. Form filling procedure invoked for collection of State tobacco tax. Major changes made to traffic flows in inner Launceston—changes in accordance with recommendations of transportation study. Water to be pumped from old 'Tasmania Gold Mine' at Beaconsfield to permit further testing. Severe floods in eastern part of Tasmania. Municipal Commission Report released—recommended some amalgamations and boundary redistributions. National wage case—total wage increased by two per cent plus \$2.50. New \$2m timber-using industry proposed for near Scottsdale. State Government extended retiring age for State female public servants to 65. House of Assembly moved to disallow use of snares to catch brush possums; regulation later disallowed by the Legislative Council. Federal Labour Government re-elected; Tasmanian representation: House of Representatives, five A.L.P.; Senate, five A.L.P., four Liberal, one independent. Hobart City Council announced plans for \$3.5m multi-storey car park near the city centre. Transport Commission to purchase Finnish vessel *Ra* for King Island service. Tobacco tax withdrawn but legislation not repealed. Tasmania withdrew as a claimant state for Special Grants. Tasmanian Parliament allowed maximum interest rates on loans to be increased from 10 to 15 per cent. Premier announced proposal to transfer State rail system to Australian Government. Tasmanian members of Parliament received 23 per cent increase in pay rates. Road signs changed to metric. Ships engineers' strike caused serious disruption to the Tasmanian economy. Premier received deputation of bookmakers protesting against the introduction of T.A.B.; Premier agreed to resubmit question to Caucus where the bookmakers' case was rejected. Mr Fagan and Dr Foster resigned from Cabinet—replaced by Mr Farquhar and Mr Frost. A \$100,000 41.6 tonne underground shovel for use by Mt Lyell Mining and Railway Co. arrived in Tasmania. Hobart chosen as T.A.B. headquarters. *Straitsman* to be refitted by Port of Launceston Authority. T.W.U. workers returned to work after participating in national stoppage. Tasmanian Government announced \$2m expenditure on improvements to the Midlands Highway during 1974-75. New A.N.L. vessel to be introduced on Tas-

manian Shipping Service. Temco expansion programme commenced; project includes installation of two new furnaces for manufacture of manganese alloys and ferro-silicon. Government decided against implementation of the Municipal Commission's proposals. North-west and northern Tasmania faced with serious petrol shortage—result of failure by tanker drivers (members of T.W.U.) to return to work. Textile industries (particularly in Launceston area) retrenched workers. Five-man police task force created to deal with emergency situations. Federal Government announced new wool selling support scheme—guaranteed up to \$200m to enable Wool Corporation to operate scheme to maintain minimum price of 250 cents per kg (clean) for 21 micron wool. C.S.R. applied for mineral exploration licence for 88 square kilometre area north-west of Tullah. Tarooma pre-school seriously damaged by arsonist. Boiler explosion at Mt St Canice Convent run laundry—8 persons killed and many injured. Australian Forest Holdings took delivery of mobile chipper—to allow utilisation of small diameter branches and waste previously burnt. Gordon power scheme cost risen from estimated \$95m to \$151m. T.A.B. to be operational by 22 January 1975. A.N.L. announced 25 per cent increase in freight rates for Tasmanian run. Women under State Wages Boards awarded equal pay—parity with male rates by April 1975. 1 December 1974 set as starting date for no-fault motor insurance. Rural Fires Board re-organised into six regions. Seventh Day Adventist Church announced \$250,000 school. Scallop bed discovered near Scamander on the east coast. Australian Government agreed to provide finance for north-west regional water supply scheme. Only one of Tasmania's State parliamentarians voted to reject their 25 per cent pay increase. A.N.L. freight rate increases to be reviewed. Launceston factory commenced production of liquid fertiliser from bull kelp—kelp shipped in bales from King Island. Devonport and Launceston to receive funds under Australian Government Regional Employment Development Scheme. Legislative Council reduced MTT budget vote by \$47,000—forced conference of managers. Australian Government announced \$2m subsidy for A.N.L. Tasmanian freight routes.

LATER INFORMATION

Chapter 3

Resignations from the House of Assembly

In July 1974 two members of the State Labor Government Cabinet resigned. The members were:

- (i) The Hon. A. J. Foster—Minister for Health, Social Welfare and Road Safety.
- (ii) The Hon. R. F. Fagan—Minister for Industrial Development, Forests and the Hydro-Electric Commission.

Approximately three weeks later, in early August, Mr K. P. Corby, a Labor member for Denison, announced his retirement from Parliament. The replacement members, elected by a re-count of the vacating members' votes, were:

New Members

Name of new member	Electorate	Party affiliation
Batt, Charles Leo	Bass	A.L.P.
Holgate, Harold Norman	Bass	A.L.P.
Green, John Edward	Denison	A.L.P.

Ministry Changes

As a result of the resignation of Dr A. J. Foster and Mr R. F. Fagan, two new members, the Hon. H. D. Farquhar and the Hon. S. C. H. Frost, were elected to the ministry. The following table shows ministers and responsibilities as at 31 August 1974:

Ministry at 31 August 1974

Name	House	Responsibility
The Hon. E. E. Reece	Assembly	Premier, Treasurer, Mines
The Hon. W. A. Neilson	Assembly	Deputy Premier, Attorney-General, Police, Licensing, Environment
The Hon. M. T. C. Barnard	Assembly	Lands and Works, Local Government
The Hon. N. L. C. Batt	Assembly	Education, Recreation and the Arts
The Hon. G. D. Chisholm	Assembly	Transport, Racing and Gaming
The Hon. L. E. A. Costello	Assembly	Agriculture
The Hon. H. D. Farquhar	Assembly	Health, Social Welfare, Road Safety
The Hon. S. C. H. Frost	Assembly	Industrial Development, Hydro-Electric Commission, Forests
The Hon. D. A. Lowe	Assembly	Housing, Chief Secretary
The Hon. B. K. Miller	Legislative Council	Tourism, National Parks and Wildlife

Chapter 4

The Municipal Commission

Release of the recommendations of the Municipal Commission caused an immediate reaction in most of the affected municipalities. Meetings of ratepayers were organised to protest against the amalgamation proposals and petitions against adoption of the report were forwarded to Parliament. The arguments put forward against the recommendations were: (i) the proposals would result in increased costs to ratepayers because of greater distances involved; (ii) larger municipalities would 'take the local out of local government'; (iii) amalgamation would have a detrimental effect upon the quality of services provided; (iv) the Commission had failed to adequately examine the problems confronting local government and its conclusions were not supported by sufficient detailed evidence.

On 21 August 1974 the State's Parliamentary Labor Party met to consider the Report of the Municipal Commission and it was decided that the Commission's report should not be acted upon. The Premier stated, that in reaching the decision, members had been influenced by: (i) the strong opposition expressed to the major amalgamation proposals; and (ii) the claims of the councils that little or no benefit would accrue to ratepayers from the amalgamations.

It was decided that the Report would not be placed before Parliament for consideration; however, if councils and ratepayers wished to proceed with any amalgamation or transfers of areas there was no reason why such schemes should not be processed.

Chapter 5

Grants Commission—Withdrawal of Tasmania as a Claimant State

On 11 June 1974 the Premier announced to the House of Assembly Tasmania's withdrawal as a claimant state for a Special Grant under Section 96 of the Commonwealth Constitution. The announcement was of historic significance for the State for two reasons:

- (i) In 1912-13 Tasmania first obtained a Special Grant under Section 96 of the Commonwealth Constitution and from that time until 1973-74 had received a special grant each year.
- (ii) In 1933 the Grants Commission was established to examine the claims of states requesting special grants to assist their revenues. From 1933 until 1973-74 Tasmania had had a continuous association with the Grants Commission and its determinations had considerably influenced the State Government's financial policies.

Tasmania's withdrawal from the Grants Commission's Special Grants procedures became operative for the 1974-75 financial year. The withdrawal gives the State Treasurer greater freedom in planning the State's finances, however, some of the protection afforded by the special grant against any sudden unexpected deterioration of the State's financial position was forsaken.

The financial arrangement for the withdrawal was that \$15m would be added to the State's Financial Assistance Grant for 1974-75 and that the total receipt, including the \$15m, would become the base for calculating the 1975-76 Financial Assistance Grant. Also, as part of the withdrawal arrangement, Tasmania's 1972-73 and 1973-74 advance special grants will not be subject to final adjustment.

Tobacco Tax

The tax imposed on the consumption of tobacco was suspended from 1 May 1974 and tobacco retailers were not required to be licensed after 30 June 1974. The legislation was not repealed and the State Government, may, if necessary, re-impose the tax and licences.

Chapter 17

Equal Pay—State Awards

In a determination, handed down by the Chairman of the State Wages Boards on 11 September 1974, equal pay was granted to all female employees not receiving equal pay and who were within the jurisdiction of the State Wages Boards. Female clerks received 93 per cent of the male basic wage from 1 November 1974 and the full male basic wage from April 1975. For other female employees the award was 90 per cent of the male basic wage from 1 November 1974 and 100 per cent of the male basic wage from April 1975.

Appendix B

ECONOMIC CENSUSES

CONCEPTS AND DEFINITIONS

Commencing with the year 1968-69 integrated economic censuses were introduced for the following sectors of the economy: mining; manufacturing; electricity and gas; retail trade; and wholesale trade. For the 1968-69 and subsequent economic censuses uniform definitions and concepts have been used. This allows inter-sector comparisons and increases the usefulness of the data derived from censuses for economic analysis and market research. The following summarises the definitions and concepts used in the censuses:

Establishment: Generally the establishment is the whole of each physical location operated by one enterprise, given that the main activity of the establishment is within scope of the census. Usually only one return is submitted for each establishment *classified to the industry of its main activity*. Principal exception to the 'one return one establishment' rule is where a secondary activity at a location creates gross receipts of \$1m or more. In such cases the secondary activity may have to be reported on a second return appropriate to its industry or its sector. Details for *administrative offices and ancillary units* (such as head offices, storage depots, garages, laboratories, etc.) which serve or administer establishments within the same enterprise but which are located away from them are treated as follows: (i) if only one establishment is served or administered then details are included in the establishment return; or (ii) if more than one establishment is served or administered details are included on the enterprise return. *Manufacturers' sales branches* located away from the parent manufacturing establishment are treated as ancillary units provided they do not distribute goods to customers from their own holdings of stocks. If the unit does distribute from stocks in this manner then it is treated as an establishment and included in the wholesale sector.

Electricity and Gas Industries—the Exception: The single operating location is not suitable as a basis for enterprises engaged in producing or distributing electricity or gas. Therefore for electricity and gas industries, a special treatment was devised—the establishment unit for these industries consists of all locations operated by the enterprise in the one state.

Enterprise: This is broadly the operating legal entity and is the key unit for the collection of information. Where a number of legal entities operate as a group, owned or controlled by a single company, the enterprise is not the group as a whole, but each individual operating legal entity in the group.

Enterprise Group: Comprises a group of operating legal entities owned or controlled by a single company.

Value Added: Common to all sectors covered by integrated economic censuses is the following definition: value added *equals* turnover *plus* increase in stocks *minus* purchases, transfers in and selected expenses. The value added measure can then be aggregated for all establishments and sectors covered by the censuses *without duplication*. In broad terms value added is the surplus from which establishments pay wages and salaries, interest, depreciation, rents and overheads. The residue is available for appropriation as profits.

Turnover: The definition of turnover is as follows: (a) In manufacturing and mining censuses: (i) sales of goods produced by the establishment; (ii) sales of goods not produced by the establishment; (iii) transfers out of goods to other establishments of the same enterprise; (iv) bounties and subsidies on production; (v) all other operating income but excluding revenue from rent and leasing, interest other than hire purchase interest, dividends and sales of fixed tangible assets; and (vi) capital work done for own use or for rental or lease. (b) In retail and wholesale trade censuses: (i) sales of goods (owned by the enterprise); (ii) transfers out of goods to other establishments of the same enterprise (applies only to wholesale); (iii) selling and purchasing commissions received (applies only to wholesale); (iv) all other operating income but excluding items specified in (a) (v) above; and (v) goods withdrawn from stock for own use (as fixed tangible assets, or for rental or lease).

Purchases and Selected Expenses: Are defined as follows: (a) In manufacturing and mining censuses: (i) the value of purchases of materials, fuels, electricity and gas, and wrapping and packaging materials is supplemented by the value of transfers in from other establishments of the enterprise; (ii) purchases of goods for resale are included as well as purchases for own use in production; and (iii) selected expenses comprise repair and maintenance expenses, charges for sub-contract and commission work, outward freight and cartage, motor vehicle running expenses and sales commission payments. (b) In retail and wholesale trade censuses: (i) the value of purchases of goods for resale is widened to include purchases for both wholesale and retail trade, no matter whether the establishment is primarily a retailer or a wholesaler; (ii) the value of purchases also includes purchases of materials for manufacturing to cover cases where the retail or wholesale establishment has this secondary activity; and (iii) selected expenses comprise those specified in (a) (iii) above plus purchases of wrapping and packaging materials, and electricity and gas (see item (a) (i) in preceding manufacturing and mining group for the reason for this addition).

Stocks: Are the total held by the establishment and may therefore include some stocks held for secondary activities, e.g. a manufacturing establishment may have in its stocks figure merchanted goods held or a retail establishment may include in its return stocks held for wholesaling and manufacturing.

Transfer Values: Transfers, both in and out, are confined to transfers of goods; the term is further narrowed to mean transfers between establishments of the same enterprise. Provision exists for recording transfers in all census sectors except retail trade and here the instruction requires purchases to be reported inclusive of transfers in, but net of transfers out. Thus, transfers are taken into account in arriving at value added since transfers out, as just defined, are a part of turnover and transfers in are a part of purchases and selected expenses.

Employment, Salaries and Wages: In accordance with the new concept of treating the establishment as a whole, all employees are entered, including those working in administrative offices and ancillary units which serve only the one associated establishment.

Fixed Capital Expenditure: The general basis for collection is: purchases of new and secondhand assets less sales of secondhand assets. (For establishments of multi-establishment enterprises transfers from other establishments of the enterprise are treated as purchases and transfers to such establishments are treated as sales.) The dissection of fixed capital expenditure comprises expenditure on: (i) motor vehicles; (ii) land and buildings; and (iii) plant and machinery. A further distinction is made between new assets and secondhand assets.

Industrial Classification

The Australian Standard Industrial Classification (ASIC) was adopted for use in the 1968-69 and for subsequent economic censuses. ASIC defines the industries for which statistics are collected in the censuses and allows the scope of the individual censuses to be marked out without gaps or duplications between them. It also identifies the statistical units (establishments, enterprises, etc.) and lays down standard rules for identifying and coding them to industries of the classification. A detailed description of ASIC may be found in the Bureau publication 'Australian Standard Industrial Classification (Preliminary Edition) 1969, Vol. 1.'

PUBLICATION OF TASMANIAN STATISTICS

HOW TO OBTAIN CURRENT PUBLICATIONS

General

The Tasmanian Office of the Australian Bureau of Statistics is located in the *Australian Government Centre at 188 Collins St, Hobart*. Requests for statistical publications can be made by calling at this address; by phoning, *Hobart 20 5011*; or by writing to the *Deputy Commonwealth Statistician, G.P.O. Box 66A, Hobart, 7001*.

Service to the public is not restricted to the distribution of publications. If no publication adequately covers the subject matter of the enquiry, then a special extraction of the data required may be undertaken if they are readily available from the basic records held in the office.

Historical

Before the appointment of the first Government Statistician in Tasmania in 1867, statistics had been published in the official 'Blue Books' compiled by the Colonial Secretary during the period 1822-1855, and in volumes entitled *Statistics of Tasmania* after self-government was granted.

By the *Commonwealth and State Statistical Agreement Act 1924*, the Tasmanian Parliament ratified an agreement for the establishment of an office in Tasmania of the Australian Bureau of Statistics, such office to meet the statistical needs of the State Government; provision was made for the Deputy Commonwealth Statistician, an Australian Government officer, to hold at the discretion of the State Government, the title of (State) Government Statistician. The first officer appointed in this way was L. F. Giblin, M.C., D.S.O., who had previously been the State Government Statistician. (It was not until the late 1950s that similar arrangements were made in the other Australian states.)

Statistics from 1804

In the Archives Office of Tasmania, the following series are available:

- (i) *Statistical Account of Van Diemen's Land or Tasmania, 1804 to 1854* compiled by Hugh M. Hull (Office of the Colonial Secretary).
- (ii) Official 'Blue Books' for period 1822-1855.
- (iii) *Statistics of Tasmania*—annual publications from 1856 to 1922-23.
- (iv) *Statistics of the State of Tasmania*—annual publications commencing 1923-24 and continuing to 1967-68. (Copies of these volumes are held at the University Library, the State Library in Hobart, the Public Library in Launceston and the Tasmanian Office of the Australian Bureau of Statistics.) Although the bound volume entitled *Statistics of the State of Tasmania* has been discontinued as from the 1967-68 issue, the component parts are still published as separate bulletins.

Copies of publications listed under (i), (iii) and (iv) above, are available for inspection at the Tasmanian Office of the Bureau.

Current Publications of the Tasmanian Office

The Tasmanian Office of the Australian Bureau of Statistics is engaged in a continuous publication programme, the statistics appearing in either for sale or not for sale publications.

The not for sale publications (publications available free of charge) can be further dissected into annual bulletins and press releases. The press releases are issued with a view to making the statistical information available as soon as possible after compilation. Bulletins, which may be for sale or not for sale publications, contain greater detail than press releases, but because of time taken to compile and print are issued a considerable time after the period to which they refer. The two principal for sale publications issued by the Tasmanian Office of the Bureau are the Year Book and Pocket Year Book.

The following table lists the for sale and not for sale publications issued by the Tasmanian Office:

Publications of the Australian Bureau of Statistics, Tasmanian Office

Title	Frequency
FOR SALE	
Demography (\$0.60 plus postage)	Annual
Labour, Wages and Prices (\$0.60 plus postage)	Annual
Pocket Year Book of Tasmania (\$0.40 plus postage)	Annual
Primary Industries (\$0.70 plus postage)	Annual
Statistical Summary (\$0.40 plus postage)	Irregular
Tasmanian Year Book (\$4.00 plus postage)	Annual
NOT FOR SALE	
Agricultural statistics (preliminary)	Annual
Apples and pears held in cool stores	Monthly
Bee-farming statistics	Annual
Building approvals	Monthly
Building construction statistics	Quarterly
Building industry	Annual
Compendium of municipal statistics	Irregular
Crop statistics	Annual
Dairy industry statistics	Annual
Education	Annual
Fire, marine and general insurance	Annual
Friendly societies report	Annual
Fruit packing sheds	Irregular
Fruit statistics	Annual
Hop production	Annual
Hospital morbidity statistics	Annual
Index of Tasmanian towns	Irregular
Industrial accident statistics	Annual
Industrial disputes	Annual
Livestock statistics (preliminary and final)	Annual
Local government finance	Annual
Manufacturing census (preliminary) results analysed by statistical divisions	Annual
Manufacturing establishments: details of operations and small area statistics	Annual
Meat production	Annual
Mining industry	Annual
Monthly summary of statistics	Monthly
Motor vehicle registrations	Monthly
Number of farms, employment, machinery, irrigation and fertiliser used	Annual
Population and vital statistics	Quarterly
Population in local government areas	Annual
Potato statistics	Annual
Poultry statistics	Annual
Private finance	Annual
Productive activity: miscellaneous indicators	Monthly
Public justice	Annual
Retail and selected service establishments (parts I, II and IV)	Irregular
Road traffic accidents involving casualties	Quarterly
Road traffic accidents involving casualties	Annual
Sawmilling, woodchipping, etc. statistics	Monthly
Tractors on rural holdings	Triennial
Trade (overseas)	Annual
Trade and shipping	Annual
Trade (overseas and interstate) by sea and air	Annual
Value of primary production	Annual
Wholesale establishments (economic census)	Irregular
Wholesale sales and stocks of wines and spirits	Irregular
Wool production statistics	Annual

TASMANIAN STATISTICS IN CENTRAL OFFICE PUBLICATIONS

General

Although publications of the Tasmanian Office of the Australian Bureau of Statistics make available statistics on many aspects of the State, there are some fields in which additional or more frequent information is available in publications of the Central Office.

How to Obtain Central Office Publications

Central Office printed publications may be *bought* direct from the Australian Government Publishing Service (Canberra), the Australian Government Publications and Inquiry Centre at 162 Macquarie Street, Hobart or from the Tasmanian Office of the Australian Bureau of Statistics; they may also be ordered from leading booksellers in the principal centres. A standing order may be placed with the Australian Government Publishing Service, Canberra, with whom a credit account may be arranged.

In addition to printed publications for which a charge is made, there are other Central Office publications (mimeographed, etc.) which may be obtained free of charge from the Commonwealth Statistician, Canberra.

Subject Matter of Central Office Publications

The fields of statistical enquiry covered in Central Office publications are very wide and the best way to obtain a guide to the material available is to write to: *The Commonwealth Statistician, Canberra* and ask for the booklet *Publications of the Australian Bureau of Statistics*. Copies of this guide are also available at the Tasmanian Office of the Bureau. This free, comprehensive guide lists the publications of the Central Office and of the state offices; in addition, it contains a subject index.

Readers with interest in a particular field are invited to call at, or write to, the Tasmanian Office which is in a position to give advice on what publications are available.

INDEX OF SPECIAL ARTICLES

The articles are indexed to broad subject areas rather than to detailed items. Articles which appear in several editions have been indexed to the year, edition number and pages on which the main articles were first published.

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