

CHAPTER 5

MANUFACTURING INDUSTRY

Further detail on the subjects dealt with in this chapter is contained in the annual printed bulletins *Manufacturing Industry* and *Manufacturing Commodities*, formerly *Secondary Industries*, Parts I and II. Information is also published, as soon as the data can be prepared, in a series of thirty-five annual mimeographed bulletins, *Manufacturing Industries*, each relating to a particular industry or group of industries. Details of the industries covered are contained in Statistical Publications of Australia of the Miscellaneous chapter. Advance annual information is published in mimeographed form in *A Summary of Principal Statistics of Factories* and in *Principal Factory Products*. Current information on factory products is available in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*. Preliminary annual statements (*Factory Statistics*) and *Principal Statistics of Factories, by Class of Industry* and a monthly statement (*Production Statistics*) are also issued.

In addition to the above-mentioned publications, there is also a series of forty-eight *Monthly Production Summaries*, each relating to the production of a particular commodity or group of commodities (see reference above to Statistical Publications).

Introduction

A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906, and figures on this basis were prepared for 1907 and subsequent years.

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (see No. 51, pages 143-4).

The decentralization of secondary industries, and the steps taken by Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book (see No. 51, page 144).

The Commonwealth Scientific and Industrial Research Organization, the Standards Association of Australia and the National Association of Testing Authorities are organizations which have functions concerned with the improvement of efficiency in industrial operations. For further particulars see the chapter Education, Cultural Activities and Research of this Year Book.

The Industrial Design Council of Australia was established in June 1958 for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. It has a membership fully representative of industry, commerce and government, together with designers and educationists and is financed by donations from industry and by Commonwealth grants. The Council is responsible for the Australian Design Index which provides a detailed, illustrated record of well-designed Australian products. A Record of Designers has been set up to register information about industrial designers and their work. The Council is also concerned, in co-operation with education authorities, with raising the standard of training in industrial design. For further particulars see Year Book No. 51, page 145.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (See the chapter Public Finance for products on which bounties are paid.)

Definitions in factory statistics

The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the statistical Acts of the States and the Commonwealth. A return must be supplied in respect of every *factory*, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries), but does not cover smallgoods makers, laundries, photography studios, florists and seedsmen, or most abattoirs. Details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age etc., of their employees, salaries and wages paid, the value of premises and equipment, the horsepower of machinery, the value of raw materials (including containers), tools replaced, etc., the values and in most cases the quantities of fuel used, and quantities and values of principal materials used and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

All *persons employed* in the manufacturing activities of a factory are counted as factory employees including working proprietors and 'out-workers'.

The *average number of persons employed* is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

Value of materials used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of fuel, etc., used includes also the cost of power and light used, of lubricants and of water.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article. In the special case of government factories and workshops, the value of output is, in most cases, estimated by adding ten per cent to the value of materials and fuel used and other factory costs, including salaries and wages paid.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges). In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw material of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, timber from the sawmills used in furniture factories and in joinery, and synthetic resins from chemical works used to make plastic products. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

The *rated horse-power of engines used* for factories other than central electric stations relates to the rated horse-power of engines ordinarily in use.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are not included in the figures contained in this chapter.

A standard classification of manufacturing industries is used in compiling statistical data relating to factories in Australia. It is designed in accordance with decisions of the 1945 Conference of Statisticians, and represents a revision and extension of a new classification which was introduced in 1930-31, replacing the revised versions of the original classification formulated in 1902.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Some particulars of certain of the sub-classes shown below are published in the latter portion of this chapter, and full details for all sub-classes may be found in the bulletin *Manufacturing Industry* (previously entitled *Secondary Industries, Part I—Factory and Building Operations*).

The classes and sub-classes in the current classification of factories are as follows.

CLASSIFICATION OF FACTORIES

CLASS 1. TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS

1. Coke works
2. Briquetting and pulverized coal
3. Carbide
4. Lime, plaster of paris, asphalt
5. Fibrous plaster and products
6. Marble, slate, etc.
7. Cement, portland
8. Asbestos cement sheets and mouldings
9. Other cement goods
10. Other

CLASS 2. BRICKS, POTTERY, GLASS, ETC.

1. Bricks and tiles
2. Earthenware, china, porcelain and terracotta
3. Glass (other than bottles)
4. Glass bottles
5. Other

CLASS 3. CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE

1. Industrial and heavy chemicals and acids
2. Pharmaceutical and toilet preparations
3. Explosives (including fireworks)
4. White lead, paints and varnish
5. Oils, vegetable
6. Oils, mineral
7. Oils, animal
8. Boiling-down, tallow-refining
9. Soap and candles
10. Chemical fertilizers
11. Inks, polishes, etc.
12. Matches
13. Other

CLASS 4. INDUSTRIAL METALS, MACHINES, CONVEYANCES

1. Smelting, converting, refining, rolling of iron and steel
2. Foundries (ferrous)
3. Plant, equipment and machinery, including machine tools
4. Other engineering
5. Extracting and refining of other metals; alloys
6. Electrical machinery, cables and apparatus
- 7-16. Construction and repair of vehicles (10 groups)
- 17, 18. Ship and boat building and repairing, marine engineering (government and other)
19. Cutlery and small hand tools
20. Agricultural machines and implements
- Non-ferrous metals—
21. Rolling and extrusion
22. Founding, casting, etc.
24. Sheet metal working, pressing, and stamping
25. Pipes, tubes and fittings—ferrous
26. Wire and wire working (including nails)
27. Stoves, ovens and ranges
28. Gas fittings and meters
29. Lead mills
30. Sewing machines
31. Arms, ammunition (excluding explosives)
32. Wireless and amplifying apparatus
33. Other metal works

CLASS 5. PRECIOUS METALS, JEWELLERY, PLATE

1. Jewellery
2. Watches and clocks (including repairs)
3. Electroplating (gold, silver, chromium, etc.)

CLASS 6. TEXTILES AND TEXTILE GOODS (NOT DRESS)

1. Cotton ginning
2. Cotton spinning and weaving
3. Wool—carding, spinning, weaving
4. Hosiery and other knitted goods
5. Silk, natural
6. Rayon, nylon and other synthetic fibres
7. Flax mills
8. Rope and cordage
9. Canvas goods, tents, tarpaulins, etc.
10. Bags and sacks
11. Textile dyeing, printing and finishing
12. Other

CLASS 7. SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR)

1. Furriers and fur-dressing
2. Woolscouring and fellmongery
3. Tanning, currying and leather-dressing
4. Saddlery, harness and whips
5. Machine belting (leather or other)
6. Bags, trunks and other goods of leather and leather substitutes

CLASS 8. CLOTHING (EXCEPT KNITTED)

1. Tailoring and ready-made clothing
2. Waterproof and oilskin clothing
3. Dressmaking, hemstitching
4. Millinery
5. Shirts, collars, underclothing
6. Foundation garments
7. Handkerchiefs, ties and scarves
8. Hats and caps
9. Gloves
10. Boots and shoes (not rubber)
11. Boot and shoe repairing
12. Boot and shoe accessories
13. Umbrellas and walking sticks
14. Dyeworks and cleaning, etc.
15. Other

CLASS 9. FOOD, DRINK AND TOBACCO

1. Flour-milling
2. Cereal foods and starch
3. Animal and bird foods
4. Chaffcutting and corncrushing
5. Bakeries (including cakes and pastry)
6. Biscuits
7. Sugar-mills
8. Sugar-refining
9. Confectionery (including chocolate and icing sugar)
10. Jam, fruit and vegetable canning
11. Pickles, sauces, vinegar
12. Bacon curing
13. Butter factories
14. Cheese factories

CLASS 9. FOOD, DRINK AND TOBACCO—*continued*

15. Condensed and dried milk factories
16. Margarine
17. Meat and fish preserving
18. Condiments, coffee, spices
19. Ice and refrigerating
20. Salt
21. Aerated waters, cordials, etc.
22. Breweries
23. Distilleries
24. Wine-making
25. Cider and perry
26. Malting
27. Bottling
28. Tobacco, cigars, cigarettes, snuff
29. Dehydrated fruit and vegetables
30. Ice cream
31. Sausage casings
32. Arrowroot
33. Other

CLASS 10. SAWMILLS, JOINERY, BOXES, ETC., WOOD TURNING AND CARVING

1. Sawmills
2. Plywood mills (including veneers)
3. Bark mills
4. Joinery
5. Cooperage
6. Boxes and cases
7. Woodturning, woodcarving, etc.
8. Basketware and wickerware (including sea-grass and bamboo furniture)
9. Perambulators (including pushers and strollers)
10. Wall and ceiling boards (not plaster or cement)
11. Other

CLASS 11. FURNITURE OF WOOD, BEDDING, ETC.

1. Cabinet and furniture making (including billiard tables and upholstery)
2. Bedding and mattresses (not wire)
3. Furnishing drapery
4. Picture frames
5. Blinds

CLASS 12. PAPER, STATIONERY, PRINTING, BOOKBINDING, ETC.

1. Newspapers and periodicals
- Printing—
2. Government
3. General, including bookbinding
4. Manufactured stationery
5. Stereotyping, electrotyping
6. Process and photo engraving
7. Cardboard boxes, cartons and containers
8. Paper bags
9. Paper-making
10. Pencils, penholders, chalks, crayons
11. Other

CLASS 13. RUBBER

1. Rubber goods (including tyres made)
2. Tyre retreading and repairing

CLASS 14. MUSICAL INSTRUMENTS

1. Gramophones and gramophone records
2. Pianos, piano-players, organs
3. Other

CLASS 15. MISCELLANEOUS PRODUCTS

1. Linoleum, leather-cloth, oil-cloth, etc.
2. Bone, horn, ivory and shell
3. Plastic moulding and products
4. Brooms and brushes
5. Optical instruments and appliances
6. Surgical and other scientific instruments and appliances
7. Photographic material (including developing and printing)
8. Toys, games and sports requisites
9. Artificial flowers
10. Other

CLASS 16. HEAT, LIGHT, AND POWER

- 1-3. Electric light and power
- 4-6. Gas works

Factory development since 1901, Australia

The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table.

FACTORIES: AUSTRALIA, 1901 TO 1964-65

Year	Factories	Employment(a)	Salaries and wages paid(b)	Value of				
				Materials and fuel used	Output	Production (c)	Land and buildings	Plant and machinery
	No.	'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1901	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1911	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032
1920-21	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310
1930-31	21,751	339	124,910	344,978	581,598	236,620	224,422	248,996
1940-41	27,300	650	275,838	773,762	1,289,590	515,828	288,188	322,712
1950-51	43,147	969	983,436	2,613,926	4,301,670	1,687,744	605,570	673,230
1959-60	56,657	1,132	2,173,390	5,918,432	10,079,530	4,161,098	2,129,156	2,443,208
1960-61	57,782	1,145	2,289,230	6,115,930	10,465,766	4,349,836	2,389,140	2,785,566
1961-62	58,450	1,121	2,286,550	6,113,466	10,508,102	4,394,636	2,809,640	3,052,080
1962-63	59,146	1,168	2,446,632	6,687,886	11,483,076	4,795,190	3,006,492	3,286,462
1963-64	59,375	1,210	2,651,620	7,370,622	12,641,328	5,270,706	3,204,035	3,480,673
1964-65p	60,650	1,264	2,979,976	8,118,147	13,990,211	5,872,063	3,476,759	3,748,510

(a) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value added in process of manufacture (i.e., value of output less value of materials and fuel, etc., used).

Number of factories

Number in each State

FACTORIES: NUMBER, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60 . . .	23,274	16,979	5,758	4,684	4,279	1,683	56,657
1960-61 . . .	23,585	17,173	5,882	5,042	4,334	1,766	57,782
1961-62 . . .	23,629	17,300	5,824	5,519	4,418	1,760	58,450
1962-63 . . .	23,729	17,500	5,895	5,766	4,492	1,764	59,146
1963-64 . . .	23,642	17,597	5,955	5,826	4,609	1,746	59,375

Number by class of industry

The next table shows the number of factories in Australia classified to the industrial classes agreed upon by the Conference of Statisticians in 1930.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, AUSTRALIA
1959-60 TO 1963-64

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	1,374	1,434	1,454	1,493	1,517
2. Bricks, pottery, glass, etc.	682	694	694	692	692
3. Chemicals, dyes, explosives, paints, oils, grease	1,248	1,258	1,285	1,288	1,303
4. Industrial metals, machines, conveyances	22,622	23,532	24,193	24,914	25,415
5. Precious metals, jewellery, plate	823	859	911	918	927
6. Textiles and textile goods (not dress)	1,435	1,421	1,386	1,368	1,358
7. Skins and leather (not clothing or footwear)	727	703	671	656	645
8. Clothing (except knitted)	7,267	7,493	7,561	7,614	7,447
9. Food, drink and tobacco	7,449	7,331	7,251	7,161	7,034
10. Sawmills, joinery, boxes, etc., wood turning and carving	5,771	5,732	5,634	5,521	5,422
11. Furniture of wood, bedding, etc.	2,211	2,176	2,157	2,154	2,181
12. Paper, stationery, printing, bookbinding, etc.	2,619	2,688	2,739	2,774	2,828
13. Rubber	620	629	650	659	674
14. Musical instruments	87	88	85	86	82
15. Miscellaneous products	1,330	1,370	1,409	1,486	1,494
<i>Total, classes 1 to 15</i>	<i>56,265</i>	<i>57,408</i>	<i>58,080</i>	<i>58,784</i>	<i>59,019</i>
16. Heat, light and power	392	374	370	362	356
Grand total	56,657	57,782	58,450	59,146	59,375

The following table shows the number of factories in each State classified by nature of industry.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	520	480	118	192	149	58	1,517
2. Bricks, pottery, glass, etc.	309	189	50	76	49	19	692
3. Chemicals, dyes, explosives, paints, oils, grease	614	395	90	100	76	28	1,303
4. Industrial metals, machines, conveyances	10,255	7,041	2,500	2,841	2,160	618	25,415
5. Precious metals, jewellery, plate	353	251	44	174	86	19	927
6. Textiles and textile goods (not dress)	433	773	33	57	42	20	1,358
7. Skins and leather (not clothing or footwear)	291	246	42	38	23	5	645
8. Clothing (except knitted)	3,356	2,506	557	573	368	87	7,447
9. Food, drink and tobacco	2,467	1,957	967	737	621	285	7,034
10. Sawmills, joinery, boxes, etc., wood turning and carving	2,008	1,323	784	413	454	440	5,422
11. Furniture of wood, bedding, etc.	789	644	276	221	181	70	2,181
12. Paper, stationery, printing, book-binding, etc.	1,182	1,038	221	193	148	46	2,828
13. Rubber	234	183	120	59	58	20	674
14. Musical instruments	36	21	7	11	7	..	82
15. Miscellaneous products	710	494	78	108	90	14	1,494
<i>Total, classes 1 to 15</i>	<i>23,557</i>	<i>17,541</i>	<i>5,887</i>	<i>5,793</i>	<i>4,512</i>	<i>1,729</i>	<i>59,019</i>
16. Heat, light and power	85	56	68	33	97	17	356
Grand total	23,642	17,597	5,955	5,826	4,609	1,746	59,375

Classification of factories by number of persons employed

The classification of factories in the tables on pages 96-8 is based on the average weekly number of persons employed during the period of operation (including working proprietors).

States

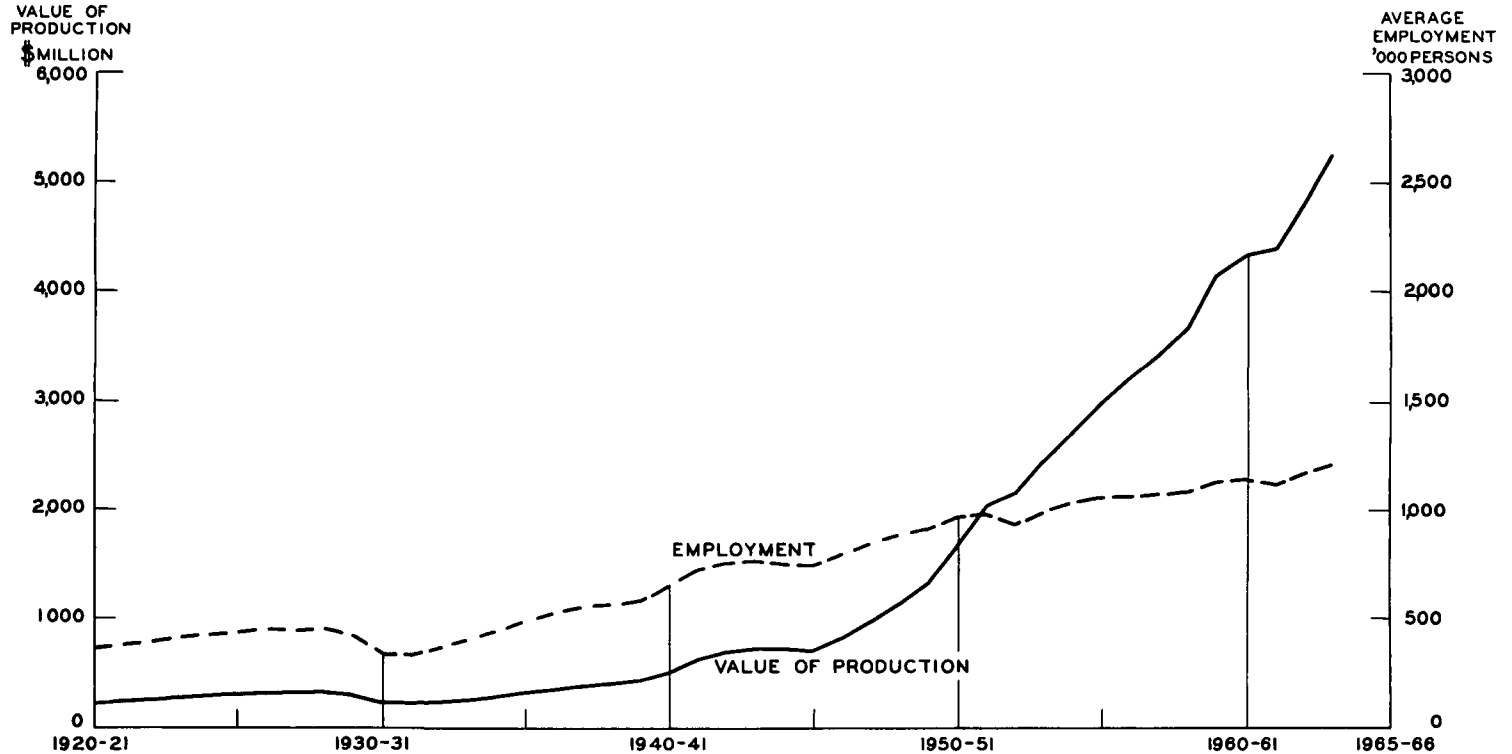
The following table shows, for each State, the number of factories and the average number of persons employed therein, classified by the average number of persons employed.

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, STATES, 1963-64

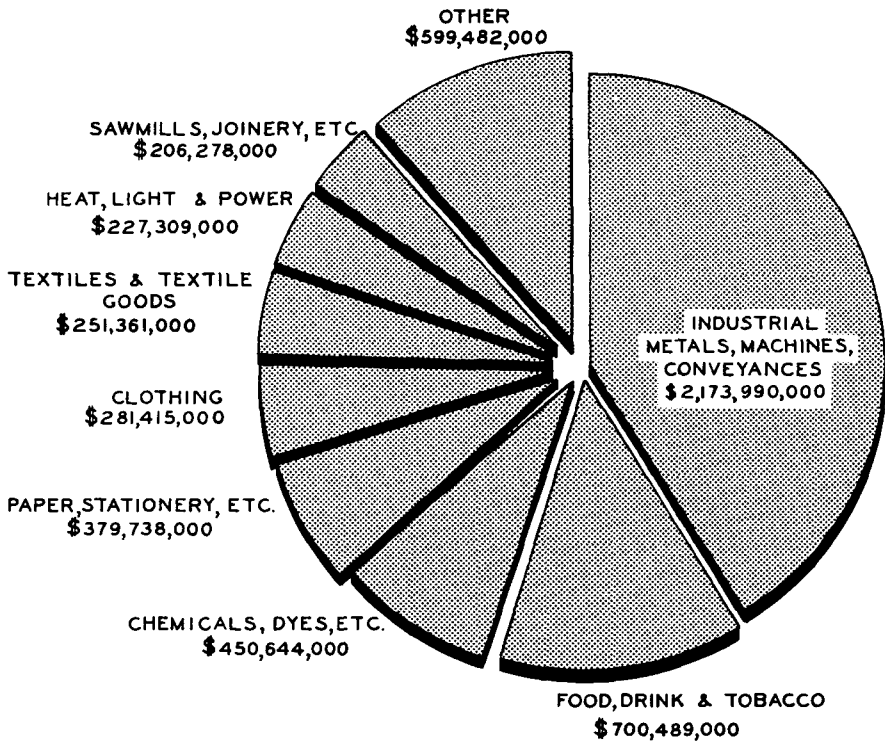
Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
NUMBER OF FACTORIES							
Under 4	10,169	6,256	2,147	2,678	2,298	751	24,299
4	1,865	1,361	523	465	391	155	4,760
5 to 10	5,270	4,154	1,593	1,259	934	414	13,624
11 to 20	2,795	2,437	756	636	447	198	7,269
21 to 50	2,012	1,919	555	446	342	140	5,414
51 to 100	802	735	183	184	115	44	2,063
101 to 200	388	401	106	82	51	26	1,054
201 to 300	118	147	45	30	21	5	366
301 to 400	67	55	19	15	4	4	164
401 to 500	47	33	11	3	3	1	98
501 to 750	44	62	9	12	..	2	129
751 to 1,000	29	13	4	6	1	1	54
Over 1,000	36	24	4	10	2	5	81
Total	23,642	17,597	5,955	5,826	4,609	1,746	59,375

VALUE OF PRODUCTION AND AVERAGE EMPLOYMENT IN AUSTRALIAN FACTORIES, 1920-21 TO 1963-64

PLATE 16



VALUE OF PRODUCTION*
OF AUSTRALIAN FACTORIES
BY INDUSTRY, 1963-64



* "VALUE OF PRODUCTION" IS THE VALUE ADDED IN THE PROCESS OF MANUFACTURE

TOTAL - \$5,270,706,000

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, STATES, 1963-64—*continued*

Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED							
Under 4	18,593	12,217	4,439	4,912	4,222	1,448	45,831
4	7,460	5,444	2,092	1,860	1,564	620	19,040
5 to 10	36,732	29,181	10,955	8,693	6,437	2,922	94,920
11 to 20	40,823	35,854	11,002	9,338	6,473	2,872	106,362
21 to 50	63,105	61,022	17,641	14,062	10,737	4,560	171,127
51 to 100	55,928	51,945	12,863	12,692	7,968	3,132	144,528
101 to 200	54,113	56,335	15,175	11,642	7,106	3,435	147,806
201 to 300	28,587	36,104	11,019	7,199	4,915	1,262	89,086
301 to 400	23,226	19,366	6,411	5,347	1,350	1,388	57,088
401 to 500	21,250	14,771	4,975	1,324	1,435	482	44,237
501 to 750	26,563	37,269	5,432	7,191	..	1,260	77,715
751 to 1,000	24,925	11,240	3,516	5,120	790	800	46,391
Over 1,000	89,585	44,161	5,952	21,768	3,866	8,057	173,389
Total	490,890	414,909	111,472	111,148	56,863	32,238	1,217,520
Average per factory	20.76	23.58	18.72	19.08	12.34	18.46	20.51

Australia

The following table gives details for Australia according to broad groups.

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, AUSTRALIA, 1959-60 TO 1963-64

Year	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed
1959-60—								
Number	47,791	258,162	7,078	293,400	1,788	587,832	56,657	1,139,394
Average per establishment . . . . .	..	5.40	..	41.45	..	328.77	..	20.11
1960-61—								
Number	48,728	260,276	7,241	301,251	1,813	591,808	57,782	1,153,335
Average per establishment . . . . .	..	5.34	..	41.60	..	326.42	..	19.96
1961-62—								
Number	49,546	261,679	7,111	296,907	1,793	569,976	58,450	1,128,562
Average per establishment . . . . .	..	5.28	..	41.75	..	317.89	..	19.31
1962-63—								
Number	50,057	265,802	7,217	304,694	1,872	603,896	59,146	1,174,392
Average per establishment . . . . .	..	5.31	..	42.22	..	322.59	..	19.86
1963-64—								
Number	49,952	266,153	7,477	315,655	1,946	635,712	59,375	1,217,520
Average per establishment . . . . .	..	5.33	..	42.22	..	326.68	..	20.51

Classes of industry

In the following table factories are classified by industrial classes in the same broad groups.

**FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE
NUMBER EMPLOYED AND CLASS OF INDUSTRY, AUSTRALIA, 1963-64**

Class of industry	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed
1. Treatment of non-metal- liferous mine and quarry products	1,318	7,141	156	6,556	43	11,129	1,517	24,826
2. Bricks, pottery, glass, etc.	431	3,215	214	9,854	47	12,788	692	25,857
3. Chemicals, dyes, explos- ives, paints, oils, grease	916	5,961	278	13,129	109	30,439	1,303	49,529
4. Industrial metals, mach- ines, conveyances	21,991	110,548	2,622	110,080	802	333,791	25,415	554,419
5. Precious metals, jewellery, plate	881	3,799	44	1,522	2	244	927	5,565
6. Textiles and textile goods (not dress)	810	5,894	373	16,699	175	50,892	1,358	73,485
7. Skins and leather (not clothing or footwear)	494	3,107	132	5,391	19	3,774	645	12,272
8. Clothing (except knitted)	6,202	31,056	1,068	44,304	177	34,628	7,447	109,988
9. Food, drink and tobacco	5,922	30,502	864	38,106	248	67,758	7,034	136,366
10. Sawmills, joinery, boxes, etc., wood turning and carving	4,803	28,065	559	21,340	60	9,277	5,422	58,682
11. Furniture of wood, bed- ding, etc.	1,911	9,849	250	9,654	20	3,218	2,181	22,721
12. Paper, stationery, printing, bookbinding, etc.	2,089	14,697	608	25,541	131	39,166	2,828	79,404
13. Rubber	591	2,973	53	2,288	30	15,121	674	20,382
14. Musical instruments	73	334	9	450	..	..	82	784
15. Miscellaneous products	1,252	7,639	195	8,444	47	11,481	1,494	27,564
<i>Total, classes 1 to 15</i>	<i>49,684</i>	<i>264,780</i>	<i>7,425</i>	<i>313,358</i>	<i>1,910</i>	<i>623,706</i>	<i>59,019</i>	<i>1,201,844</i>
16. Heat, light and power	268	1,373	52	2,297	36	12,006	356	15,676
Grand total	49,952	266,153	7,477	315,655	1,946	635,712	59,375	1,217,520

Employment in factories

Number employed

All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and 'out-workers' (see page 101), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods, and retailing storemen, are excluded. From 1960-61 the occupational groupings collected have been—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, craftsmen and other laboratory and research staff; and (iv) foremen and overseers, workers in factory and others, in which were amalgamated the three former groups—(iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers, and persons working regularly at home.

Statistics of factory employment represent the equivalent average number employed over a full year of fifty-two weeks except for the classification of factories according to the number of persons employed (see page 96), which is based on the average number employed over the period worked.

Particulars of the numbers employed in Australia, the increase in employment, and the rate per cent. of such increase are given in the following table.

FACTORIES: EMPLOYMENT, AUSTRALIA, 1959-60 TO 1963-64

Year	Males			Females			Persons		
	Number employed	Increase on preceding year		Number employed	Increase on preceding year		Number employed	Increase on preceding year	
		Number	Per cent		Number	Per cent		Number	Per cent
1959-60.	862,515	27,575	3.30	269,492	16,176	6.39	1,132,007	43,751	4.02
1960-61.	872,632	10,117	1.17	272,720	3,228	1.20	1,145,352	13,345	1.18
1961-62.	857,971	-14,661	-1.68	263,299	-9,421	-3.45	1,121,270	-24,082	-2.10
1962-63.	888,697	30,726	3.58	278,832	15,533	5.90	1,167,529	46,259	4.13
1963-64.	918,130	29,433	3.31	291,790	12,958	4.65	1,209,920	42,391	3.63

Minus sign (-) indicates decrease.

The following table shows the average number of persons employed in manufacturing industries in each State; the percentage for each State of the total number employed in factories in Australia; and the number so employed per thousand of mean population in each State and Australia.

FACTORIES: EMPLOYMENT, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average number employed during full year (fifty-two weeks)—							
1959-60.	467,139	381,844	104,693	99,018	49,651	29,662	1,132,007
1960-61.	472,061	388,050	104,462	99,955	50,666	30,158	1,145,352
1961-62.	461,087	378,349	101,637	99,094	51,033	30,070	1,121,270
1962-63.	475,249	397,827	104,998	105,265	53,435	30,755	1,167,529
1963-64.	487,753	413,120	110,696	110,813	55,705	31,833	1,209,920
Percentage of Australian total							
1959-60.	41.27	33.73	9.25	8.75	4.39	2.62	100
1960-61.	41.22	33.88	9.12	8.73	4.42	2.63	100
1961-62.	41.12	33.74	9.07	8.84	4.55	2.68	100
1962-63.	40.71	34.07	8.99	9.02	4.58	2.63	100
1963-64.	40.31	34.14	9.15	9.16	4.60	2.63	100
Per 1,000 of population—							
1959-60.	123	135	71	106	69	86	111
1960-61.	122	134	70	104	69	86	111
1961-62.	117	128	67	101	68	84	107
1962-63.	118	132	68	105	70	85	109
1963-64.	119	134	70	109	71	87	111

Rates of increase in employment

The percentage increase on the average number of persons employed in the preceding year is shown below for each State.

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	3.92	5.20	-0.06	5.15	2.55	4.36	4.02
1960-61	1.05	1.63	-0.22	0.95	2.04	1.67	1.18
1961-62	-2.32	-2.50	-2.70	-0.86	0.72	-0.29	-2.10
1962-63	3.07	5.15	3.31	6.23	4.71	2.28	4.13
1963-64	2.63	3.84	5.43	5.27	4.25	3.51	3.63

Minus sign (-) indicates decrease.

Persons employed, by class of industry

The following table shows the average number of persons employed in factories in each industrial class in Australia.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	21,778	23,363	23,182	23,889	24,704
2. Bricks, pottery, glass, etc.	24,308	24,612	24,108	25,152	25,656
3. Chemicals, dyes, explosives, paints, oils, grease	47,617	46,833	46,830	47,535	49,023
4. Industrial metals, machines, conveyances	498,522	510,559	497,579	525,312	552,795
5. Precious metals, jewellery, plate	5,308	5,342	5,226	5,308	5,543
6. Textiles and textile goods (not dress)	72,263	71,092	67,949	72,022	73,076
7. Skins and leather (not clothing or footwear)	12,952	12,310	11,955	12,264	12,209
8. Clothing (except knitted)	106,830	107,158	104,655	107,932	108,939
9. Food, drink and tobacco	126,154	126,477	128,590	131,301	134,487
10. Sawmills, joinery, boxes, etc., wood turning and carving	61,651	60,810	57,279	57,114	57,650
11. Furniture of wood, bedding, etc.	22,902	22,219	21,374	21,815	22,545
12. Paper, stationery, printing, bookbinding, etc.	71,672	74,582	73,839	76,263	79,250
13. Rubber	18,663	18,395	17,174	18,916	20,261
14. Musical instruments	936	812	733	749	779
15. Miscellaneous products	23,851	24,757	24,682	26,124	27,422
<i>Total, classes 1 to 15</i>	<i>1,115,407</i>	<i>1,129,321</i>	<i>1,105,155</i>	<i>1,151,696</i>	<i>1,194,309</i>
16. Heat, light and power	16,600	16,031	16,115	15,833	15,611
Grand total	1,132,007	1,145,352	1,121,270	1,167,529	1,209,920

Particulars of the numbers employed in each industrial class are shown for each State in the following table.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	9,837	7,496	2,441	2,325	1,786	819	24,704
2. Bricks, pottery, glass, etc.	12,542	7,299	1,665	2,203	1,580	367	25,656
3. Chemicals, dyes, explosives, paints, oils, grease	23,994	16,396	1,714	3,215	2,761	943	49,023
4. Industrial metals, machines, conveyances	239,533	171,748	41,392	64,479	24,924	10,719	552,795
5. Precious metals, jewellery, plate	2,254	2,113	331	571	229	45	5,543
6. Textiles and textile goods (not dress)	21,275	42,674	2,297	2,522	882	3,426	73,076
7. Skins and leather (not clothing or footwear)	5,171	3,969	1,229	1,203	590	47	12,209
8. Clothing (except knitted)	44,852	47,168	7,883	5,312	2,984	710	108,909
9. Food, drink and tobacco	41,337	40,832	27,858	11,614	7,793	5,053	134,487
10. Sawmills, joinery, boxes, etc., wood turning and carving	18,944	14,521	9,439	5,457	5,403	3,886	57,650
11. Furniture of wood, bedding, etc.	8,818	6,605	2,877	2,332	1,386	527	22,545
12. Paper, stationery, printing, bookbinding, etc.	32,639	27,075	6,762	4,986	3,105	4,683	79,250
13. Rubber	7,941	8,506	2,024	1,248	413	129	20,261
14. Musical instruments	493	192	28	32	34	..	779
15. Miscellaneous products	12,718	11,791	751	1,381	670	111	27,422
<i>Total, classes 1 to 15</i>	<i>482,348</i>	<i>408,385</i>	<i>108,691</i>	<i>108,880</i>	<i>54,540</i>	<i>31,465</i>	<i>1,194,309</i>
16. Heat, light and power	5,405	4,735	2,005	1,933	1,165	368	15,611
Grand total	487,753	413,120	110,696	110,813	55,705	31,833	1,209,920

Persons employed, by occupational grouping

In the following table, the average number of persons employed in each State is classified according to occupational grouping.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY OCCUPATIONAL GROUPING, STATES, 1963-1964

State	Average number of persons employed				
	Working proprietors	Managerial and clerical staff, etc. (a)	Chemists, draftsmen, etc.	Foremen and overseers, workers in factory and others (b)	Total
New South Wales	13,730	65,075	9,483	399,465	487,753
Victoria	12,641	53,637	8,291	338,551	413,120
Queensland	4,684	12,610	1,419	91,983	110,696
South Australia	4,050	14,079	2,087	90,597	110,813
Western Australia	2,940	5,581	705	46,479	55,705
Tasmania	1,001	3,580	622	26,630	31,833
<i>Total males</i>	<i>33,224</i>	<i>94,936</i>	<i>20,319</i>	<i>769,651</i>	<i>918,130</i>
<i>Total females</i>	<i>5,822</i>	<i>59,626</i>	<i>2,288</i>	<i>224,054</i>	<i>291,790</i>
Total persons	39,046	154,562	22,607	993,705	1,209,920

(a) Includes salaried managers and working directors (b) Includes persons working regularly at home.

The term 'outworker' or 'homeworker' has acquired a special meaning in connection with manufacturing industries, and includes only persons to whom work is given out by factories to be done at home. Persons working regularly at home for factories are included in the group foremen, overseers, workers in factory and others, and separate details are not available.

Monthly employment

The following table shows the number of persons (excluding working proprietors) employed in factories in Australia on the last pay-day of each month.

**FACTORIES: MONTHLY EMPLOYMENT, BY SEX, AUSTRALIA, 1959-60 TO 1963-64
(EXCLUDING WORKING PROPRIETORS)**

Month	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
July	811,912	845,121	809,905	843,123	867,166
August	814,297	846,811	811,299	845,760	869,030
September	817,277	849,102	806,999	847,798	872,381
October	820,178	849,728	816,821	849,866	875,318
November	821,316	849,822	820,987	852,304	879,265
December	817,217	843,597	817,113	847,041	875,159
January	825,444	844,572	822,723	852,999	884,788
February	831,572	839,035	831,156	859,665	893,400
March	835,946	830,339	835,457	862,830	894,393
April	835,836	824,056	832,975	861,107	897,783
May	839,709	818,629	837,562	861,180	898,809
June	841,482	810,778	839,752	863,067	901,507

MANUFACTURING INDUSTRY

 FACTORIES: MONTHLY EMPLOYMENT
 BY SEX, AUSTRALIA, 1959-60 TO 1963-64—continued

Month	1959-60	1960-61	1961-62	1962-63	1963-64
FEMALES					
July	251,512	270,378	243,925	266,207	274,312
August	253,864	272,564	245,968	267,761	277,063
September	257,906	274,774	248,775	270,536	279,713
October	260,105	275,729	253,573	272,789	283,778
November	262,514	276,314	256,349	273,845	285,296
December	259,753	271,485	255,869	270,355	282,296
January	260,749	267,480	257,832	270,810	283,279
February	267,234	269,105	264,011	276,901	291,966
March	270,364	263,719	267,065	280,285	293,424
April	267,916	256,579	261,611	274,379	290,823
May	269,200	250,238	264,132	273,326	290,301
June	270,402	245,176	264,473	272,074	290,833
PERSONS					
July	1,063,424	1,115,499	1,053,830	1,109,330	1,141,478
August	1,068,161	1,119,375	1,057,267	1,113,521	1,146,093
September	1,075,183	1,123,876	1,055,774	1,118,334	1,152,094
October	1,080,283	1,125,457	1,070,394	1,122,655	1,159,096
November	1,083,830	1,126,136	1,077,336	1,126,149	1,164,561
December	1,076,970	1,115,082	1,072,982	1,117,396	1,157,455
January	1,086,193	1,112,052	1,080,555	1,123,809	1,168,067
February	1,098,806	1,108,140	1,095,167	1,136,566	1,185,366
March	1,106,310	1,094,058	1,102,522	1,143,115	1,187,817
April	1,103,752	1,080,635	1,094,586	1,135,486	1,188,606
May	1,108,909	1,068,867	1,101,694	1,134,506	1,189,110
June	1,111,884	1,055,954	1,104,225	1,135,141	1,192,340

Particulars of the numbers employed in each State on the last pay-day of each month are shown in the following table.

 FACTORIES: MONTHLY EMPLOYMENT, BY SEX, STATES, 1963-64
 (EXCLUDING WORKING PROPRIETORS)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
MALES							
July	347,549	277,844	87,739	85,403	43,988	24,643	867,166
August	348,563	278,450	87,702	85,556	44,000	24,759	869,030
September	349,911	279,848	87,750	85,922	44,106	24,844	872,381
October	351,630	280,976	86,860	86,178	44,694	24,980	875,318
November	353,365	282,777	86,299	86,505	45,176	25,143	879,265
December	352,529	283,282	81,592	86,646	45,511	25,599	875,159
January	355,309	285,877	84,272	87,879	45,807	25,644	884,788
February	357,865	288,484	86,728	88,446	46,161	25,716	893,400
March	358,411	288,964	86,448	88,810	46,115	25,645	894,393
April	359,330	289,126	88,610	89,032	45,975	25,710	897,783
May	359,029	289,058	89,906	89,300	45,933	25,583	898,809
June	360,327	290,058	90,489	89,528	45,713	25,392	901,507

FACTORIES: MONTHLY EMPLOYMENT, BY SEX, STATES, 1963-64—*continued*

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
FEMALES							
July	115,236	110,455	18,710	17,976	6,991	4,944	274,312
August	116,457	111,433	19,042	18,029	7,072	5,030	277,063
September	117,903	112,510	18,980	18,302	7,024	4,994	279,713
October	119,919	114,400	18,713	18,495	7,181	5,070	283,778
November	120,696	114,776	18,628	18,726	7,243	5,227	285,296
December	118,309	113,796	18,226	19,319	7,255	5,391	282,296
January	117,691	115,246	18,147	19,599	7,156	5,440	283,279
February	120,649	118,673	19,261	20,324	7,398	5,661	291,966
March	121,271	119,386	19,075	19,984	7,562	6,146	293,424
April	120,921	117,548	18,623	19,774	7,690	6,267	290,823
May	121,075	116,874	19,076	19,657	7,513	6,106	290,301
June	121,707	117,036	19,248	19,554	7,387	5,901	290,833
PERSONS							
July	462,785	388,299	106,449	103,379	50,979	29,587	1,141,478
August	465,020	389,883	106,744	103,585	51,072	29,789	1,146,093
September	467,814	392,358	106,730	104,224	51,130	29,838	1,152,094
October	471,549	395,376	105,573	104,673	51,875	30,050	1,159,096
November	474,061	397,553	104,927	105,231	52,419	30,370	1,164,561
December	470,838	397,078	99,818	105,965	52,766	30,990	1,157,455
January	473,000	401,123	102,419	107,478	52,963	31,084	1,168,067
February	478,514	407,157	105,989	108,770	53,559	31,377	1,185,366
March	479,682	408,350	105,523	108,794	53,677	31,791	1,187,817
April	480,251	406,674	107,233	108,806	53,665	31,977	1,188,606
May	480,104	405,932	108,982	108,957	53,446	31,689	1,189,110
June	482,034	407,094	109,737	109,082	53,100	31,293	1,192,340

Distribution of employees according to age

The following table shows the number of each sex employed in Australia in each age group on the last pay day in June.

**FACTORIES: DISTRIBUTION OF EMPLOYEES, BY AGE AND SEX, AUSTRALIA
JUNE, 1960 TO JUNE, 1964
(EXCLUDING WORKING PROPRIETORS)**

June—	Males			Females			Persons		
	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over
1960	8,627	82,066	750,789	7,457	48,845	214,100	16,084	130,911	964,889
1961	8,849	79,981	721,948	7,162	44,457	193,557	16,011	124,438	915,505
1962	9,176	86,548	744,028	8,764	48,847	206,862	17,940	135,395	950,890
1963	8,736	92,211	762,120	7,852	51,803	212,419	16,588	144,014	974,539
1964	8,632	100,164	792,711	7,130	55,533	228,170	15,762	155,697	1,020,881

Distribution of sexes in factories**Average number of males and females employed**

The following table shows the average number of males and females employed in factories in each State.

FACTORIES: MALES AND FEMALES EMPLOYED, STATES, 1959-60 TO 1963-64

State	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
New South Wales	351,208	355,392	349,154	358,116	366,250
Victoria	275,645	280,207	273,949	285,685	295,440
Queensland	86,985	86,488	84,130	86,536	91,123
South Australia	81,312	81,898	81,803	86,655	90,933
Western Australia . . .	42,957	43,836	44,193	46,252	48,163
Tasmania	24,408	24,811	24,742	25,453	26,221
Australia	862,515	872,632	857,971	888,697	918,130
FEMALES					
New South Wales	115,931	116,669	111,933	117,133	121,503
Victoria	106,199	107,843	104,400	112,142	117,680
Queensland	17,708	17,974	17,507	18,462	19,573
South Australia	17,706	18,057	17,291	18,610	19,880
Western Australia . . .	6,694	6,830	6,840	7,183	7,542
Tasmania	5,254	5,347	5,328	5,302	5,612
Australia	269,492	272,720	263,299	278,832	291,790

Rate of annual variation for each sex

The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown in the following table.

FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED, STATES, 1959-60 TO 1963-64

State	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
New South Wales	3.07	1.19	-1.76	2.57	2.27
Victoria	4.47	1.66	-2.23	4.28	3.41
Queensland	-0.54	-0.57	-2.73	2.86	5.30
South Australia	5.02	0.72	-0.12	5.93	4.94
Western Australia . . .	2.40	2.05	0.81	4.66	4.13
Tasmania	3.85	1.65	-0.28	2.87	3.02
Australia	3.30	1.17	-1.68	3.58	3.31
FEMALES					
New South Wales	6.59	0.64	-4.06	4.65	3.73
Victoria	7.13	1.55	-3.19	7.42	4.94
Queensland	2.36	1.50	-2.66	5.45	6.02
South Australia	5.78	1.98	-4.24	7.63	6.82
Western Australia . . .	3.53	2.03	0.15	5.01	5.00
Tasmania	6.79	1.74	-0.36	-0.49	5.85
Australia	6.39	1.20	-3.45	5.90	4.65

Minus sign (-) indicates decrease.

Masculinity of persons employed

The following table shows the proportion of males to females employed in factories in each State.

**FACTORIES: MASCULINITY^(a) OF PERSONS EMPLOYED
STATES, 1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60.	303	259	491	459	642	465	320
1960-61.	305	260	481	454	642	464	320
1961-62.	312	262	481	473	646	464	326
1962-63.	306	254	469	466	644	480	319
1963-64.	301	251	466	457	639	467	315

(a) Number of males per 100 females.

Employment of females in particular industries

The majority of females in manufacturing industries are employed in four classes, namely: 4., Industrial metals, machines, etc.; 6., Textiles; 8., Clothing; and 9., Food, drink and tobacco. In 1963-64 these industries accounted for 78.02 per cent of all females in factories. In two classes only did the number of females exceed the number of males—in Class 6. Textiles, where there were 142 females to every 100 males, and in Class 8., Clothing, with 260 females to every 100 males. The following table shows the average number of male and females employed in each of the four classes.

**MALES AND FEMALES EMPLOYED IN
PARTICULAR INDUSTRIES, STATES, 1963-64**

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Males—							
4. Industrial metals, etc.	207,684	148,493	38,430	57,032	23,637	10,125	485,401
6. Textiles and textile goods (not dress)	8,703	17,374	869	1,237	471	1,565	30,219
8. Clothing (except knitted)	11,501	13,723	2,007	1,812	881	305	30,229
9. Food, drink and tobacco	27,978	27,541	22,890	7,936	5,933	3,473	95,751
All other classes	110,384	88,309	26,927	22,916	17,241	10,753	276,530
<i>Total males</i>	<i>366,250</i>	<i>295,440</i>	<i>91,123</i>	<i>90,933</i>	<i>48,163</i>	<i>26,221</i>	<i>918,130</i>
Females—							
4. Industrial metals, etc.	31,849	23,255	2,962	7,447	1,287	594	67,394
6. Textiles and textile goods (not dress)	12,572	25,300	1,428	1,285	411	1,861	42,857
8. Clothing (except knitted)	33,351	33,445	5,876	3,500	2,103	405	78,680
9. Food, drink and tobacco	13,359	13,291	4,968	3,678	1,860	1,580	38,736
All other classes	30,372	22,389	4,339	3,970	1,881	1,172	64,123
<i>Total females</i>	<i>121,503</i>	<i>117,680</i>	<i>19,573</i>	<i>19,880</i>	<i>7,542</i>	<i>5,612</i>	<i>291,790</i>

Children employed in factories**Number of children employed**

In the returns for the various States the term 'child' denotes any person under sixteen years of age. The following table shows the number of children of each sex employed in manufacturing industries in June of each year.

FACTORIES: CHILDREN^(a) EMPLOYED, STATES, JUNE 1962 TO JUNE 1964

State	June 1962			June 1963			June 1964		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	2,955	2,646	5,601	2,623	2,196	4,819	2,854	2,215	5,069
Victoria	2,625	3,049	5,674	2,444	2,653	5,097	2,072	2,207	4,279
Queensland	1,521	1,564	3,085	1,665	1,630	3,295	1,987	1,494	3,481
South Australia	953	993	1,946	893	872	1,765	677	721	1,398
Western Australia	1,031	411	1,442	1,016	432	1,448	919	397	1,316
Tasmania	91	101	192	95	69	164	123	96	219
Australia	9,176	8,764	17,940	8,736	7,852	16,588	8,632	7,130	15,762

(a) Under sixteen years of age.

Industries employing children

The distribution of children employed in factories and the proportion of children employed to total employees, by the main classes of industry employing persons under sixteen years of age, are shown in the following table.

**FACTORIES: CHILDREN^(a) EMPLOYED, BY SEX, AND CLASS OF INDUSTRY
AUSTRALIA, JUNE 1964**

Class of industry	Children employed (a)		Total employees (b)		Proportion (per cent) of children employed to total employees (b)	
	Males	Females	Males	Females	Males	Females
Industrial metals, machines, conveyances	4,144	628	483,129	70,106	0.86	0.90
Textiles and textile goods (not dress)	368	1,203	29,964	42,846	1.23	2.81
Clothing (except knitted)	478	3,225	25,317	76,705	1.89	4.20
Food, drink and tobacco	1,112	819	92,312	36,638	1.20	2.24
Sawmills, joinery, boxes, etc.	840	74	51,051	3,528	1.65	2.10
Furniture of wood, bedding, etc.	412	102	16,210	4,828	2.54	2.11
Paper, stationery, printing, bookbinding etc.	507	594	57,431	21,004	0.88	2.83
All other industries	771	485	146,093	35,178	0.53	1.38
Total	8,632	7,130	901,507	290,833	0.96	2.45

(a) Under sixteen years of age. (b) Excludes working proprietors.

Apprenticeship

Acts are in force in all States for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

Power equipment in factories

Since 1936-37 statistics of power equipment in factories relate to the 'rated horse-power' of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of central electric stations are collected in greater detail. To avoid duplication it is essential that some distinction should be made between central electric stations and other classes of industries. In the following tables central electric stations have been treated separately from other factories.

Rated horse-power of engines in factories other than central electric stations

The following table shows the total number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1963-64.

**FACTORIES^(a): TOTAL RATED HORSE-POWER OF ENGINES
AND ELECTRIC MOTORS, STATES, 1963-64**

State	Factories ^(a)	Rated horse-power of engines and motors	
		Ordinarily in use ^(b)	In reserve or idle (omitting obsolete)
New South Wales	23,592	2,900,288	391,525
Victoria	17,568	1,781,362	240,169
Queensland	5,903	637,514	93,429
South Australia	5,797	560,601	63,452
Western Australia	4,515	327,425	49,386
Tasmania	1,731	314,636	46,830
Australia	59,106	6,521,826	884,791

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9. (b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

Rated horse-power of engines and electric motors ordinarily in use, by type

Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE, STATES, 1963-64

State	Steam		Internal combustion			Water	Motors driven by electricity		Total (b)(c)
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		Purchased	Own generation (d)	
New South Wales . . .	51,642	230,519	5,868	37,894	17,982	..	2,556,383	123,458	2,900,288
Victoria . . .	17,081	98,724	2,665	48,651	1,980	840	1,611,421	60,992	1,781,362
Queensland . . .	72,788	79,744	1,771	20,080	7,278	..	455,853	121,707	637,514
South Australia . . .	2,771	16,575	393	10,113	1,487	..	529,262	21,672	560,601
Western Australia . . .	9,734	13,559	3,395	23,088	4,205	..	273,444	7,470	327,425
Tasmania . . .	612	..	..	11,547	200	..	302,277	281	314,636
Australia . . .	154,628	439,121	14,092	151,373	33,132	840	5,728,640	335,580	6,521,826

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

(c) Excludes particulars in column (d).

In the following table details of the total rated horse-power of the various types of engines in use are given for Australia.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE, AUSTRALIA, 1959-60 TO 1963-64

Year	Steam		Internal combustion			Water	Motors driven by electricity		Total (b)(c)
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		Purchased	Own generation (d)	
1959-60 . . .	188,892	328,116	9,484	137,835	48,441	1,092	4,558,175	302,091	5,272,035
1960-61 . . .	177,892	334,908	9,045	140,384	42,238	1,092	4,843,868	293,051	5,549,427
1961-62 . . .	169,287	359,631	11,687	137,820	40,142	1,092	5,025,141	308,740	5,744,800
1962-63 . . .	165,312	397,213	13,618	142,785	36,906	900	5,376,052	322,828	6,132,786
1963-64 . . .	154,628	439,121	14,092	151,373	33,132	840	5,728,640	335,580	6,521,826

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

(c) Excludes particulars in column (d).

Rated horse-power of engines and electric motors ordinarily in use, by class of industry

The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(b), BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	112,415	99,735	29,474	39,928	22,699	21,292	325,543
2. Bricks, pottery, glass, etc.	72,801	52,295	12,580	14,144	14,220	3,341	169,381
3. Chemicals, dyes, explosives, paints, oils, grease	292,477	201,651	13,271	39,174	56,344	17,200	620,117
4. Industrial metals, machines, conveyances	1,602,430	609,022	131,766	267,095	99,737	67,663	2,777,713
5. Precious metals, jewellery, plate	4,699	3,972	533	1,185	769	96	11,254
6. Textiles and textile goods (not dress)	63,664	113,140	8,036	8,592	3,595	10,350	207,377
7. Skins and leather (not clothing or footwear)	19,237	16,667	6,399	6,360	3,059	507	52,229
8. Clothing (except knitted)	28,369	29,761	5,370	4,438	2,615	812	71,365
9. Food, drink and tobacco	244,900	238,119	260,846	69,548	49,584	28,573	891,570
10. Sawmills, joinery, boxes, etc., wood turning and carving	195,527	133,933	118,619	55,149	56,441	53,284	612,953
11. Furniture of wood, bedding, etc.	20,037	14,769	7,941	7,590	4,290	1,589	56,216
12. Paper, stationery, printing, book-binding, etc.	114,528	122,074	26,529	27,485	6,636	109,113	406,365
13. Rubber	62,965	77,013	11,870	9,646	4,320	510	166,324
14. Musical instruments	1,244	307	52	14	13	..	1,630
15. Miscellaneous products	45,633	42,613	1,158	3,681	1,671	230	94,986
<i>Total, classes 1 to 15</i>	<i>2,880,926</i>	<i>1,755,071</i>	<i>634,444</i>	<i>554,029</i>	<i>325,993</i>	<i>314,560</i>	<i>5,465,023</i>
16. Gas works	19,362	26,291	3,070	6,572	1,432	76	56,803
Grand total	2,900,288	1,781,362	637,514	560,601	327,425	314,636	5,521,826

(a) Excludes central electric stations, details of which are shown below. (b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

Capacity of engines and generators installed in central electric stations, by type

Particulars of the type and the capacity of engines and generators installed in central electric stations in Australia in 1963-64 are given in the following table.

**CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, BY TYPE
AUSTRALIA, 1963-64**

Equipment	Capacity of engines and generators						Total
	Steam		Internal combustion			Water	
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		
Engines installed rated H.P.	1,150	7,662,423	10,133	44,349	277,150	2,843,695	10,838,900
Generators installed—							
Kilowatt capacity—							
Total installed kW	760	5,708,472	7,035	30,059	187,043	2,049,810	7,983,179
Effective capacity "	700	5,513,231	4,584	25,641	168,747	2,014,301	7,727,204
Horse-power equivalent—							
Total installed H.P.	1,019	7,652,092	9,430	40,293	250,728	2,747,729	10,701,291
Effective capacity "	938	7,390,376	6,145	34,371	226,202	2,700,130	10,358,162

Details of the capacity of engines and generators installed in central electric stations in each State are given in the next table.

**CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT
STATES, 1963-64**

Equipment	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Central electric stations . . . No.	50	29	52	29	94	15	269
Engines installed . . . rated H.P.	4,726,267	2,213,474	1,380,746	895,731	544,648	1,078,034	10,838,900
Generators installed— Kilowatt capacity— Total installed . . . kW	3,495,053	1,660,828	1,007,984	668,907	382,417	767,990	7,983,179
Effective capacity . . . ,,	3,418,063	1,640,697	869,386	657,858	376,040	765,160	7,727,204
Horse-power equivalent— Total installed . . . H.P.	4,685,049	2,226,307	1,351,182	896,656	512,622	1,029,475	10,701,291
Effective capacity . . . ,,	4,581,845	2,199,321	1,165,395	881,845	504,074	1,025,682	10,358,162

Value of production, materials used, salaries and wages

In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

The gross value of factory output for 1963-64 was \$12,641 million, of which \$6,933 million was the value of the materials used, including containers, etc., tools replaced, and repairs to plant and buildings, and \$437 million the value of the power, fuel, light, water and lubricating oil used. The difference between the sum of the last two amounts and the gross value of output, namely, \$5,271 million, represents the net value of factory production, defined as 'the value of consumable commodities produced during the year deducting, so far as possible, the value of goods consumed in process of production'. Depreciation, however, is not deducted (see p. 114). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories.

Salaries and wages paid

By class of industry. The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table.

**FACTORIES: SALARIES AND WAGES PAID, BY CLASS OF INDUSTRY
STATES, 1963-64
(\$'000)**

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products . . .	25,380	19,378	5,729	5,637	3,966	1,941	62,031
2. Bricks, pottery, glass, etc. . .	30,094	17,803	3,655	5,221	3,460	810	61,043
3. Chemicals, dyes, explosives, paints, oils, grease . . .	61,333	43,892	3,854	8,044	6,824	2,680	126,627
4. Industrial metals, machines, conveyances . . .	578,057	409,154	83,917	147,695	49,141	25,513	1,293,477
5. Precious metals, jewellery, plate . . .	4,225	4,242	551	886	310	66	10,280
6. Textiles and textile goods (not dress) . . .	39,465	79,140	3,458	4,757	1,468	6,156	134,444
7. Skins and leather (not clothing or footwear) . . .	10,470	7,889	2,390	2,454	1,128	100	24,431
8. Clothing (except knitted) . . .	66,792	75,232	9,405	7,197	3,369	975	162,970
9. Food, drink and tobacco . . .	87,378	86,952	60,150	22,098	15,065	10,174	281,817
10. Sawmills, joinery, boxes, etc. wood turning and carving . . .	40,032	30,716	16,893	10,366	10,267	7,660	115,934
11. Furniture of wood, bedding, etc. . .	17,720	12,489	4,927	3,943	2,212	839	42,130
12. Paper, stationery, printing, bookbinding, etc. . .	78,249	65,204	13,967	11,095	6,412	12,096	187,023
13. Rubber . . .	19,720	20,262	3,778	3,227	767	249	48,003
14. Musical instruments . . .	1,053	403	41	56	53		1,606
15. Miscellaneous products . . .	26,931	25,655	1,201	2,403	1,039	183	57,412
<i>Total, classes 1 to 15</i> . . .	<i>1,086,899</i>	<i>898,411</i>	<i>213,916</i>	<i>235,079</i>	<i>105,481</i>	<i>69,442</i>	<i>2,609,228</i>
16. Heat, light and power . . .	14,122	14,013	4,846	5,237	3,034	1,140	42,392
Grand total . . .	1,101,021	912,424	218,762	240,316	108,515	70,582	2,651,620

Totals and averages. The following table shows the total amount of salaries and wages paid, and the average amount paid per employee in each State. The figures exclude working proprietors and the amounts drawn by them.

In comparing the figures in the following table regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class 8., Clothing, comprising a relatively high percentage of women and children.

**FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID, STATES
1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Total amount paid (\$'000)—							
1959-60	922,288	741,034	178,734	190,476	83,286	57,572	2,173,390
1960-61	980,032	776,000	184,318	197,966	90,254	60,660	2,289,230
1961-62	976,138	770,378	186,692	199,062	92,840	61,440	2,286,550
1962-63	1,027,216	838,800	195,832	220,066	99,880	64,838	2,446,632
1963-64	1,101,021	912,424	218,762	240,316	108,515	70,582	2,651,620
Average per employee (\$)—							
1959-60	2,042.06	2,011.26	1,792.18	1,991.92	1,780.86	2,008.54	1,992.34
1960-61	2,144.30	2,070.28	1,854.40	2,056.66	1,884.08	2,082.14	2,072.54
1961-62	2,184.76	2,107.30	1,927.68	2,095.12	1,925.14	2,114.58	2,114.22
1962-63	2,228.48	2,178.46	1,952.82	2,175.40	1,975.24	2,184.92	2,169.64
1963-64	2,322.72	2,278.33	2,063.50	2,250.91	2,056.55	2,289.28	2,264.65

The following table shows the total and average salaries and wages paid to males and females.

**FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID—
MALES AND FEMALES, STATES, 1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
MALES							
Total amount paid (\$'000)—							
1959-60	774,332	606,028	160,690	170,666	76,552	51,236	1,839,504
1960-61	825,120	637,230	165,338	177,244	82,950	53,904	1,941,786
1961-62	823,670	631,282	167,526	178,770	85,406	54,496	1,941,150
1962-63	864,504	685,514	175,488	197,820	91,916	57,836	2,073,078
1963-64	927,807	747,177	196,484	215,127	99,978	63,007	2,249,580
Average per male employee (\$)—							
1959-60	2,291.30	2,291.28	1,943.90	2,176.42	1,901.70	2,182.84	2,223.60
1960-61	2,408.40	2,366.92	2,012.76	2,250.42	2,010.12	2,261.78	2,317.64
1961-62	2,444.90	2,396.72	2,093.00	2,280.66	2,052.76	2,293.02	2,355.60
1962-63	2,499.42	2,491.20	2,126.94	2,376.84	2,109.30	2,367.00	2,425.18
1963-64	2,618.05	2,621.00	2,254.33	2,456.73	2,200.83	2,491.24	2,542.17

FEMALES

Total amount paid (\$'000)—							
1959-60	147,956	135,006	18,044	19,810	6,734	6,336	333,886
1960-61	154,912	138,770	18,980	20,722	7,304	6,756	347,444
1961-62	152,468	139,096	19,166	20,292	7,434	6,944	345,400
1962-63	162,712	153,286	20,344	22,246	7,964	7,002	373,554
1963-64	173,214	165,247	22,278	25,189	8,537	7,575	402,040
Average per female employee (\$)—							
1959-60	1,301.64	1,298.76	1,057.30	1,151.16	1,033.90	1,220.50	1,266.50
1960-61	1,353.66	1,314.08	1,100.26	1,184.36	1,100.50	1,274.52	1,302.62
1961-62	1,387.30	1,360.94	1,140.36	1,220.58	1,122.96	1,312.92	1,341.62
1962-63	1,414.04	1,395.16	1,145.24	1,240.48	1,141.10	1,335.98	1,369.06
1963-64	1,447.87	1,431.88	1,181.78	1,312.08	1,163.40	1,367.14	1,405.89

The following table shows, by class of industry, the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. Amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF ETC., AND OTHER EMPLOYEES, BY CLASS OF INDUSTRY, AUSTRALIA, 1963-64

Class of industry	Managers, clerical staff, chemists, draftsmen, etc.		All other employees	
	Males	Females	Males	Females
	\$'000	\$'000	\$'000	\$'000
1. Treatment of non-metalliferous mine and quarry products	9,636	1,625	50,479	291
2. Bricks, pottery, glass, etc.	6,219	1,426	51,345	2,054
3. Chemicals, dyes, explosives, paints, oils, grease	32,857	7,332	77,241	9,197
4. Industrial metals, machines, conveyances	209,331	41,226	986,162	56,758
5. Precious metals, jewellery, plate	1,291	451	7,529	1,008
6. Textiles and textile goods (not dress)	14,033	5,544	60,749	54,118
7. Skins and leather (not clothing or footwear)	2,933	669	16,753	4,076
8. Clothing (except knitted)	12,936	6,701	47,196	96,137
9. Food, drink and tobacco	42,857	12,898	186,128	39,934
10. Sawmills, joinery, boxes, etc., wood turning and carving	13,741	2,942	97,578	1,673
11. Furniture of wood, bedding, etc.	4,863	1,798	30,754	4,715
12. Paper, stationery, printing, bookbinding, etc.	27,879	8,649	130,355	20,140
13. Rubber	7,344	1,609	34,488	4,562
14. Musical instruments	206	49	1,134	217
15. Miscellaneous products	9,422	2,989	33,948	11,053
<i>Total, classes 1 to 15</i>	<i>395,548</i>	<i>95,908</i>	<i>1,811,839</i>	<i>305,933</i>
16. Heat, light and power	4,623	147	37,570	52
Grand total	400,171	96,055	1,849,409	305,985
Average paid per employee	\$ 3,472.05	\$ 1,551.42	\$ 2,402.92	\$ 1,365.68

Power, fuel and light used

By class of industry. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is shown in the following table for each State.

**FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a)
BY CLASS OF INDUSTRY, STATES, 1963-64
(\$'000)**

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	11,339	6,100	2,292	2,364	1,220	931	24,246
2. Bricks, pottery, glass, etc.	9,192	5,904	1,301	1,658	1,358	349	19,762
3. Chemicals, dyes, explosives, paints, oils, grease	19,913	15,169	621	3,324	5,190	1,283	45,500
4. Industrial metals, machines, conveyances	103,153	25,828	6,532	11,921	3,764	7,645	158,843
5. Precious metals, jewellery, plate	340	347	39	95	25	4	850
6. Textiles and textile goods (not dress)	3,572	5,935	200	460	109	564	10,840
7. Skins and leather (not clothing or footwear)	895	878	210	294	139	12	2,428
8. Clothing (except knitted)	2,168	2,093	402	316	167	81	5,227
9. Food, drink and tobacco	13,875	13,639	7,257	3,027	2,448	1,331	41,577
10. Sawmills, joinery, boxes, etc. wood turning and carving	3,182	1,872	1,362	687	671	780	8,554
11. Furniture of wood, bedding, etc.	493	302	115	109	55	22	1,096
12. Paper, stationery, printing, bookbinding, etc.	4,550	5,406	1,003	1,320	277	3,287	15,843
13. Rubber	2,373	2,983	426	379	86	37	6,284
14. Musical instruments	74	19	1	1	1	6	96
15. Miscellaneous products	1,962	2,467	43	131	63	6	4,672
<i>Total, classes 1 to 15</i>	<i>177,081</i>	<i>88,942</i>	<i>21,804</i>	<i>26,086</i>	<i>15,573</i>	<i>16,332</i>	<i>345,818</i>
16. Heat, light and power	33,076	25,706	15,659	8,686	8,176	32	91,335
Grand total	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water.

Value of items. The following table shows the value of the various items of power, fuel and light used in factories in each State.

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED^(a)
STATES, 1963-64
 (\$'000)

Item of power, fuel, etc.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Coal, black	37,859	3,338	19,305	(b) 7,193	5,172	1,368	74,235
" brown . . . . .	..	14,736	..	..	..	..	14,736
Brown coal briquettes . . . . .	..	12,543	..	..	..	..	12,543
Coke	39,395	1,499	867	4,570	359	645	47,335
Wood	777	820	613	747	745	158	3,860
Fuel oil	23,426	22,662	3,642	7,320	9,060	3,251	69,361
Tar (fuel)	2,770	196	36	203	18	26	3,249
Electricity	64,201	45,455	10,056	11,212	5,658	9,697	146,279
Gas	21,250	4,059	504	650	196	73	26,732
Other (charcoal, etc.)	8,112	1,505	223	906	1,238	550	12,534
Water	8,808	5,427	1,267	1,295	747	403	17,947
Lubricating oils	3,558	2,409	950	676	556	193	8,342
Total	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water. (b) Includes \$5,196,458, the value of 1,556,986 tons of sub-bituminous Leigh Creek coal.

Quantity of fuel used. The following table shows the quantity of fuel used in factories in each State.

FACTORIES: QUANTITIES OF FUEL USED, STATES, 1963-64

Fuel	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Coal, black '000 tons	6,976	316	2,109	(a) 1,744	670	145	11,960
" brown " "	..	13,461	..	..	..	..	13,461
Brown coal briquettes " "	..	1,095	..	..	..	..	1,095
Coke " "	2,783	60	24	258	13	19	3,157
Wood " "	184	232	151	273	226	38	1,104
Fuel oil '000 gals.	287,274	293,639	29,338	97,992	118,139	38,858	865,240
Tar (fuel) " "	183	9	2	15	1	2	212

(a) Includes 1,556,986 tons of Leigh Creek coal.

Total value. The next table shows the total amounts expended on power, fuel and light during the last five years.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED^(a)
STATES, 1959-60 TO 1963-64
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	174,216	94,280	30,366	30,186	20,142	12,440	361,630
1960-61	184,524	98,430	31,086	30,368	21,232	12,874	378,514
1961-62	187,820	99,088	32,130	30,646	20,736	13,140	383,560
1962-63	197,510	103,550	35,198	32,072	21,720	14,436	404,486
1963-64	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water.

Value of materials used

By class of industry. The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced, and repairs to plant) in factories in Australia in 1963-64 reached \$6,933 million, or 54.8 per cent of the value of the final output (see page 114). The following table shows the value of the materials used in various classes of industry in each State.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY
STATES, 1963-64
 (\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	98,998	50,007	14,374	16,605	8,740	4,879	193,603
2. Bricks, pottery, glass, etc.	30,596	17,243	2,824	6,312	2,086	479	59,540
3. Chemicals, dyes, explosives, paints, oils, grease	326,089	253,005	23,134	41,064	75,509	6,465	725,266
4. Industrial metals, machines, conveyances	1,332,849	694,787	214,262	331,906	85,677	53,761	2,713,242
5. Precious metals, jewellery, plate	5,300	4,693	375	863	194	34	11,459
6. Textiles and textile goods (not dress)	97,002	211,476	9,864	10,914	7,724	17,634	354,614
7. Skins and leather (not clothing or footwear)	31,452	21,129	6,189	14,691	1,543	637	75,641
8. Clothing (except knitted)	120,842	120,078	11,340	8,552	4,119	874	265,805
9. Food, drink and tobacco	421,877	473,307	443,432	101,343	76,138	44,750	1,560,847
10. Sawmills, joinery, boxes, etc., wood turning and carving	94,845	65,472	32,844	26,261	18,572	17,942	255,936
11. Furniture of wood, bedding, etc.	39,104	26,989	12,260	8,696	5,479	1,754	94,282
12. Paper, stationery, printing, book-binding, etc.	150,953	139,993	26,177	18,466	10,031	21,408	367,028
13. Rubber	47,319	46,545	8,593	4,943	1,447	508	109,355
14. Musical instruments	2,503	437	50	23	18	..	3,031
15. Miscellaneous products	44,830	52,664	1,545	4,866	1,725	112	105,742
<i>Total, classes 1 to 15</i>	<i>2,844,559</i>	<i>2,177,825</i>	<i>807,263</i>	<i>595,505</i>	<i>299,002</i>	<i>171,237</i>	<i>6,895,391</i>
16. Heat, light and power	15,063	10,512	5,661	4,153	1,796	893	38,078
Grand total	2,859,622	2,188,337	812,924	599,658	300,798	172,130	6,933,469

Total amount. The following table shows the total value of materials used in factories for the last five years.

FACTORIES: VALUE OF MATERIALS USED, STATES, 1959-60 TO 1963-64
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	2,412,510	1,772,750	582,776	415,272	238,276	135,218	5,556,802
1960-61	2,472,968	1,815,548	611,354	432,764	266,646	138,136	5,737,416
1961-62	2,447,332	1,834,742	610,006	425,122	270,170	142,534	5,729,906
1962-63	2,629,648	2,001,332	713,728	502,860	279,756	156,076	6,283,400
1963-64	2,859,622	2,188,337	812,924	599,658	300,798	172,130	6,933,469

Value of output

By classes of industry. The value of the output of factories in the various classes in each State in 1963-64 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done, such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (see p. 114).

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY, STATES, 1963-64
 (\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products . . .	167,645	100,887	31,657	35,734	20,188	10,584	366,695
2. Bricks, pottery, glass, etc. . .	93,777	56,654	11,538	18,620	10,181	2,261	193,031
3. Chemicals, dyes, explosives, paints, oils, grease . . .	563,765	421,160	36,952	70,808	113,829	14,896	1,221,410
4. Industrial metals, machines, conveyances . . .	2,455,895	1,375,608	359,600	570,409	173,906	110,657	5,046,075
5. Precious metals, jewellery, plate . . .	13,351	12,614	1,345	2,648	934	170	31,062
6. Textiles and textile goods (not dress) . . .	181,114	360,374	16,025	19,812	10,292	28,698	616,815
7. Skins and leather (not clothing or footwear) . . .	49,212	35,770	11,124	18,580	3,545	806	119,037
8. Clothing (except knitted) . . .	242,106	249,189	27,710	20,617	10,044	2,781	552,447
9. Food, drink and tobacco . . .	671,974	703,267	594,577	151,229	113,316	68,550	2,302,913
10. Sawmills, joinery, boxes, etc., wood turning and carving . . .	169,534	121,305	63,884	46,027	37,714	32,304	470,768
11. Furniture of wood, bedding, etc. . .	71,344	49,826	21,151	15,957	9,768	3,243	171,289
12. Paper, stationery, printing, book-binding, etc.	316,836	276,944	53,258	41,495	23,664	50,412	762,609
13. Rubber	80,276	87,646	17,057	11,969	3,214	1,181	201,343
14. Musical instruments	6,613	1,063	143	114	95	..	8,028
15. Miscellaneous products	97,724	105,127	3,718	10,421	3,701	393	221,084
<i>Total, classes 1 to 15</i>	<i>5,181,166</i>	<i>3,957,934</i>	<i>1,249,739</i>	<i>1,034,440</i>	<i>534,391</i>	<i>326,936</i>	<i>12,284,606</i>
16. Heat, light and power	156,529	95,530	42,521	27,346	20,667	14,129	356,722
Grand total	5,337,695	4,053,464	1,292,260	1,061,786	555,058	341,065	12,641,328

Total value. The following table shows the value of output in each State during the last five years.

FACTORIES: VALUE OF OUTPUT, STATES, 1959-60 TO 1963-64
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	4,419,618	3,251,366	937,926	771,404	431,166	268,050	10,079,530
1960-61	4,590,250	3,331,524	983,696	803,256	481,138	275,902	10,465,766
1961-62	4,566,766	3,374,472	992,734	803,594	486,988	283,548	10,508,102
1962-63	4,902,044	3,706,624	1,129,892	914,074	517,898	312,544	11,483,076
1963-64	5,337,695	4,053,464	1,292,260	1,061,786	555,058	341,065	12,641,328

Value of production

By class of industry. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'.

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the 'value of output'. Because of the difficulty experienced in securing accurate figures for depreciation, however, it was subsequently decided that no deduction should be made on this account. All the deductions mentioned above, with the exception of depreciation, are included in the items 'value of materials used' and 'value of fuel used' as defined above. The net value of production as given in the following tables is obtained, therefore, by deducting only 'value of materials used' and 'value of fuel used' from the 'value of output'. The value of factory production, therefore, approximates 'net value added' in the manufacturing process.

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that when wages and salaries are deducted from the value of production the whole of the 'surplus' is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other overhead charges, as well as depreciation, also have to be taken into account.

The following table shows the value of production in each State for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY, STATES

1963-64

(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	57,308	44,780	14,991	16,765	10,228	4,774	148,846
2. Bricks, pottery, glass, etc.	53,989	33,507	7,413	10,650	6,737	1,433	113,729
3. Chemicals, dyes, explosives, paints, oils, grease	217,763	152,986	13,197	26,420	33,130	7,148	450,644
4. Industrial metals, machines, conveyances	1,019,893	654,993	138,806	226,582	84,465	49,251	2,173,990
5. Precious metals, jewellery, plate	7,711	7,574	931	1,690	715	132	18,753
6. Textiles and textile goods (not dress)	80,540	143,463	5,961	8,438	2,459	10,500	251,361
7. Skins and leather (not clothing or footwear)	16,865	13,763	4,725	3,595	1,863	157	40,968
8. Clothing (except knitted)	119,096	127,018	15,968	11,749	5,758	1,826	281,415
9. Food drink and tobacco	236,222	216,321	143,888	46,859	34,730	22,469	700,489
10. Sawmills, joinery, boxes, etc., wood turning and carving	71,507	53,961	29,678	19,079	18,471	13,582	206,278
11. Furniture of wood, bedding, etc.	31,747	22,535	8,776	7,152	4,234	1,467	75,911
12. Paper, stationery, printing, book-binding, etc.	161,333	131,545	26,078	21,709	13,355	25,718	379,738
13. Rubber	30,584	38,118	8,038	6,647	1,681	636	85,704
14. Musical instruments	4,036	607	92	90	76	..	4,901
15. Miscellaneous products	50,932	49,996	2,130	5,424	1,913	275	110,670
<i>Total, classes 1 to 15</i>	<i>2,159,526</i>	<i>1,691,167</i>	<i>420,672</i>	<i>412,849</i>	<i>219,816</i>	<i>139,367</i>	<i>5,043,397</i>
16. Heat, light and power	108,390	59,312	21,201	14,507	10,695	13,204	227,309
Grand total	2,267,916	1,750,479	441,873	427,356	230,511	152,571	5,270,706

Total and average values. The value of production and the amount per person employed and per head of population are shown in the following table.

FACTORIES: VALUE OF PRODUCTION, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Total value (\$'000)—							
1959-60	1,832,892	1,384,336	324,784	325,946	172,748	120,392	4,161,098
1960-61	1,932,758	1,417,546	341,256	340,124	193,260	124,892	4,349,836
1961-62	1,931,614	1,440,642	350,595	347,828	196,083	127,874	4,394,636
1962-63	2,074,886	1,601,742	380,966	379,142	216,422	142,032	4,795,190
1963-64	2,267,916	1,750,479	441,873	427,356	230,511	152,571	5,270,706
Average per person employed (\$)—							
1959-60	3,924	3,626	3,102	3,292	3,480	4,058	3,676
1960-61	4,094	3,652	3,266	3,402	3,814	4,142	3,798
1961-62	4,189	3,880	3,449	3,510	3,842	4,252	3,920
1962-63	4,366	4,026	3,628	3,602	4,050	4,618	4,108
1963-64	4,650	4,237	3,992	3,857	4,138	4,793	4,356
Average per head of population (\$)—							
1959-60	483.28	490.96	224.28	349.14	238.24	346.60	412.42
1960-61	498.86	489.92	226.94	355.36	264.82	356.76	421.98
1961-62	489.22	486.84	229.60	354.89	262.91	358.51	417.86
1962-63	516.72	530.06	245.58	379.54	283.12	392.24	447.56
1963-64	554.98	566.32	280.84	415.27	294.69	416.65	482.69

Value of land, buildings, plant and machinery

The following table shows the value of land and buildings and of plant and machinery used in each State in connection with manufacturing industries.

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1963-64
(\$'000)

Value of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Land and buildings	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035
Plant and machinery	1,504,196	1,040,724	308,307	330,281	155,514	141,651	3,480,673
Total	2,958,073	2,061,518	519,827	560,909	274,327	310,054	6,684,708

(a) At end of year. Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

Value of land and buildings, by class of industry

The following table shows, by class of industry for Australia, the approximate value of land and buildings occupied in connection with manufacturing industries.

FACTORIES: VALUE OF LAND AND BUILDINGS(a) BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64 (\$'000)

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	44,650	54,660	62,264	65,682	72,615
2. Bricks, pottery, glass, etc.	39,232	44,498	52,200	63,060	68,470
3. Chemicals, dyes, explosives, paints, oils, grease	160,954	174,104	191,750	201,028	219,212
4. Industrial metals, machines, conveyances	777,320	912,844	1,013,520	1,102,872	1,188,289
5. Precious metals, jewellery, plate	7,910	9,032	9,968	10,788	11,657
6. Textiles and textile goods (not dress)	96,758	106,626	115,582	122,954	130,425
7. Skins and leather (not clothing or footwear)	18,332	18,666	20,000	21,590	23,322
8. Clothing (except knitted)	95,524	107,552	115,928	126,808	135,960
9. Food, drink and tobacco	298,682	321,432	344,714	370,014	392,089
10. Sawmills, joinery, boxes, etc., wood turning and carving	69,806	80,566	82,176	85,632	90,956
11. Furniture of wood, bedding, etc.	32,502	35,768	37,762	41,082	44,142
12. Paper, stationery, printing, bookbinding, etc.	137,994	154,996	170,438	182,792	198,860
13. Rubber	26,878	31,064	33,750	37,408	50,595
14. Musical instruments	1,860	1,844	1,592	1,594	1,550
15. Miscellaneous products	36,690	41,440	52,184	58,214	63,440
<i>Total, classes 1 to 15</i>	<i>1,845,092</i>	<i>2,095,092</i>	<i>2,303,828</i>	<i>2,491,518</i>	<i>2,691,582</i>
16. Heat, light and power	284,064	294,048	505,812	514,974	512,453
Grand total	2,129,156	2,389,140	2,809,640	3,006,492	3,204,035

(a) At end of year. Includes estimated value of rented premises.

The following table gives particulars for each State by class of industry.

FACTORIES: VALUE OF LAND AND BUILDINGS(a) BY CLASS OF INDUSTRY, STATES, 1963-64 (\$'000)

Class of industry	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	26,049	28,123	4,628	7,117	5,057	1,641	72,615
2. Bricks, pottery, glass, etc.	34,222	21,952	3,942	4,437	2,887	1,030	68,470
3. Chemicals, dyes, explosives, paints, oils, grease	112,200	75,812	4,704	9,909	13,575	3,012	219,212
4. Industrial metals, machines, conveyances	543,486	393,476	66,074	112,390	43,918	28,945	1,188,289
5. Precious metals, jewellery, plate	4,750	4,349	458	1,443	517	140	11,657
6. Textiles and textile goods (not dress)	41,693	77,675	2,085	4,165	1,292	3,515	130,425
7. Skins and leather (not clothing or footwear)	10,603	9,382	935	1,524	800	78	23,322
8. Clothing (except knitted)	58,528	58,300	7,034	6,534	3,860	1,704	135,960
9. Food, drink and tobacco	123,119	138,268	59,177	33,229	21,713	16,583	392,089
10. Sawmills, joinery, boxes, etc., wood turning and carving	34,752	29,103	9,233	8,479	4,768	4,621	90,956
11. Furniture of wood, bedding, etc.	18,099	14,104	5,287	3,721	1,943	988	44,142
12. Paper, stationery, printing, bookbinding, etc.	88,226	64,062	14,224	13,066	6,298	12,984	198,860
13. Rubber	19,292	20,150	5,107	3,498	1,678	870	50,595
14. Musical instruments	942	331	71	104	102	..	1,550
15. Miscellaneous products	26,438	32,078	988	2,433	1,251	252	63,440
<i>Total, classes 1 to 15</i>	<i>1,142,399</i>	<i>967,165</i>	<i>183,947</i>	<i>212,049</i>	<i>109,659</i>	<i>76,363</i>	<i>2,691,582</i>
16. Heat, light and power	311,478	53,629	27,573	18,579	9,154	92,040	512,453
Grand total	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035

(a) At end of year. Includes estimated value of rented premises.

Total value. The following table shows the value of land and buildings in each State.

FACTORIES: VALUE OF LAND AND BUILDINGS(a), STATES, 1959-60 TO 1963-64
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	881,096	708,922	152,704	155,264	87,146	144,024	2,129,156
1960-61	1,003,586	803,462	168,316	175,458	91,220	147,098	2,389,140
1961-62	1,286,966	889,332	179,264	196,594	98,336	159,148	2,809,640
1962-63	1,379,534	953,736	193,484	212,964	102,856	163,918	3,006,492
1963-64	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035

(a) At end of year. Includes estimated value of rented premises.

Value of plant and machinery

By class of industry. The following table shows, by class of industry for Australia, the approximate value of plant and machinery used in factories.

FACTORIES: VALUE OF PLANT AND MACHINERY(a)
BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64
(\$'000)

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	99,316	136,852	148,862	153,586	155,387
2. Bricks, pottery, glass, etc.	32,572	40,152	47,888	63,408	70,476
3. Chemicals, dyes, explosives, paints, oils, grease	315,462	325,390	398,422	424,982	459,429
4. Industrial metals, machines, conveyances	719,158	900,236	1,005,970	1,100,596	1,187,576
5. Precious metals, jewellery, plate	3,082	3,144	2,896	3,018	3,454
6. Textiles and textile goods (not dress)	85,550	91,498	96,630	104,032	106,160
7. Skins and leather (not clothing or footwear)	8,432	8,982	9,032	9,214	9,472
8. Clothing (except knitted)	34,488	37,318	38,336	43,006	46,489
9. Food, drink and tobacco	294,524	319,200	337,240	362,542	383,922
10. Sawmills, joinery, boxes, etc., wood turning and carving	61,682	66,528	68,394	68,924	71,548
11. Furniture of wood, bedding, etc.	8,738	9,088	9,546	9,964	11,137
12. Paper, stationery, printing, bookbinding, etc.	149,552	173,976	183,724	199,086	209,705
13. Rubber	24,480	25,980	26,148	28,556	36,532
14. Musical instruments	772	708	698	644	603
15. Miscellaneous products	26,910	31,808	35,532	42,278	46,137
<i>Total, classes 1 to 15</i>	<i>1,864,718</i>	<i>2,170,860</i>	<i>2,409,318</i>	<i>2,613,836</i>	<i>2,798,027</i>
16. Heat, light and power	578,490	614,706	642,762	672,626	682,646
Grand total	2,443,208	2,785,566	3,052,080	3,286,462	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

The following table shows the value of plant and machinery used in factories in each State according to class of industry.

FACTORIES: VALUE OF PLANT AND MACHINERY(a)
BY CLASS OF INDUSTRY, STATES, 1963-64
(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	74,798	50,683	8,272	14,346	4,796	2,492	155,387
2. Bricks, pottery, glass, etc.	33,792	23,766	4,416	4,766	3,128	608	70,476
3. Chemicals, dyes, explosives, paints, oils grease	217,537	146,856	5,685	35,572	47,120	6,659	459,429
4. Industrial metals, machines, conveyances	646,085	282,304	46,053	139,662	33,589	39,883	1,187,576
5. Precious metals, jewellery, plate	1,461	1,350	141	352	118	32	3,454
6. Textiles and textile goods (not dress)	32,379	59,224	2,001	4,656	1,248	6,652	106,160
7. Skins and leather (not clothing or footwear)	4,071	3,172	867	982	336	44	9,472
8. Clothing (except knitted)	18,522	20,133	2,848	2,897	1,266	823	46,489
9. Food, drink and tobacco	103,088	123,087	101,674	25,375	16,097	14,600	383,922
10. Sawmills, joinery, boxes, etc., wood turning and carving	24,612	17,063	10,663	8,324	4,914	5,972	71,548
11. Furniture of wood, bedding, etc.	4,420	3,096	1,516	1,320	558	227	11,137
12. Paper, stationery, printing, book-binding, etc.	78,918	62,370	20,074	17,948	4,325	26,070	209,705
13. Rubber	14,432	15,849	1,957	2,037	1,977	280	36,532
14. Musical instruments	431	119	6	41	6	..	603
15. Miscellaneous products	18,386	25,032	547	1,413	699	60	46,137
<i>Total, classes 1 to 15</i>	<i>1,272,932</i>	<i>834,104</i>	<i>206,720</i>	<i>259,692</i>	<i>120,177</i>	<i>104,402</i>	<i>2,798,027</i>
16. Heat, light and power	231,263	206,620	101,587	70,589	35,338	37,249	682,646
Grand total	1,504,195	1,040,724	308,307	330,281	155,514	141,651	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

Total value. The following table shows the value of plant and machinery in each State.

FACTORIES: VALUE OF PLANT AND MACHINERY(a), STATES, 1959-60 TO 1963-64
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	1,013,276	757,264	240,422	196,480	128,450	107,316	2,443,208
1960-61	1,214,562	838,422	265,138	226,200	128,612	112,632	2,785,566
1961-62	1,341,272	938,278	274,502	253,006	123,432	121,590	3,052,080
1962-63	1,438,382	1,003,320	280,584	293,608	132,636	137,932	3,286,462
1963-64	1,504,195	1,040,724	308,307	330,281	155,514	141,651	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

Depreciation of land and buildings and plant and machinery

The following table shows, by class of industry, the allowance made for the depreciation of land and buildings and plant and machinery used in connection with the manufacturing industries in each State as recorded by factory proprietors at the annual census of factory production.

FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND PLANT AND MACHINERY, BY CLASS OF INDUSTRY, STATES, 1963-64
(S'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	8,928	4,344	1,362	1,816	620	296	17,366
2. Bricks, pottery, glass, etc.	3,154	3,000	454	531	346	103	7,588
3. Chemicals, dyes, explosives, paints, oils, grease	24,423	20,999	737	2,860	6,588	1,043	56,650
4. Industrial metals, machines, conveyances	70,036	37,003	5,063	18,869	3,233	4,009	138,263
5. Precious metals, jewellery, plate	130	120	14	31	10	2	307
6. Textiles and textile goods (not dress)	4,049	8,350	291	428	129	602	13,849
7. Skins and leather (not clothing or footwear)	423	322	125	136	48	4	1,058
8. Clothing (except knitted)	1,681	1,824	273	196	127	74	4,175
9. Food, drink and tobacco	12,514	13,810	10,251	2,974	2,371	1,690	43,610
10. Sawmills, joinery, boxes, etc. wood turning and carving	2,791	1,695	1,407	798	538	897	8,126
11. Furniture of wood, bedding, etc.	511	324	170	115	72	21	1,213
12. Paper, stationery, printing, bookbinding, etc.	8,466	9,439	2,275	1,626	676	3,320	25,802
13. Rubber	1,755	2,993	375	470	234	60	5,887
14. Musical instruments	82	13	1	2	(a)	..	98
15. Miscellaneous products	2,533	3,565	54	180	83	7	6,422
<i>Total, classes 1 to 15</i>	<i>141,476</i>	<i>107,801</i>	<i>22,852</i>	<i>31,032</i>	<i>15,125</i>	<i>12,128</i>	<i>330,414</i>
16. Heat, light and power	22,765	9,762	6,196	2,931	2,893	1,679	46,226
Grand total	164,241	117,563	29,048	33,963	18,018	13,807	376,640

(a) Less than \$500.

Land and buildings, plant and machinery—values, additions and replacements, depreciation

The following table summarizes the recorded totals for Australia and also includes particulars of additions and replacements.

FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY AUSTRALIA, 1959-60 TO 1963-64
(S'000)

Year	Book values at 30 June(a)		Additions and replacements during year(a)		Depreciation allowed during year	
	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery
1959-60	2,129,156	2,443,208	203,942	462,324	26,606	216,972
1960-61	2,389,140	2,785,566	180,036	488,096	33,804	250,538
1961-62	2,809,640	3,052,080	359,728	561,186	36,892	279,860
1962-63	3,006,492	3,286,462	191,470	565,994	38,797	304,152
1963-64	3,204,035	3,480,673	192,419	564,958	39,711	336,929

(a) Includes estimated value of rented premises, plant and machinery.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, in the series *Manufacturing Industries*, and in the bulletin *Manufacturing Commodities*, formerly *Secondary Industries, Part II.—Materials Used and Articles Produced in Factories* (see page 91).

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, together with values, where available, is published in the aforementioned bulletin and in the mimeographed statement *Principal Factory Products*.

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65**

Article	1961-62	1962-63	1963-64	1964-65 (a) (b)	
Abrasive cleansers and/or scourers—					
Household	cwt	55,805	57,797	51,593	50,860
Industrial	"	5,482	3,772	4,302	4,143
Acid—					
Hydrochloric	tons	3 779	4,295	4,304	4,786
Nitric	"	17,885	19,836	19,782	24,810
Sulphuric	'000 tons	1,136	1,256	1,447	1,613
Aerated and carbonated waters	'000 gals	83,224	87,365	93,304	97,373
Air conditioning equipment—					
Room air conditioners (refrigerated)	no.	11,151	5,918	4,511	5,134
Room air coolers (evaporative coolers)	"	15,231	3,620	1,896	3,015
Package unit air conditioners	"	2,313	1,835	1,830	2,302
Asbestos cement building sheets	'000 sq. yds	26,795	27,743	29,778	33,048
Bacon and ham (cured weight)	'000 lb.	77,743	73,507	74,684	95,561
Bags, leather, fibre, etc.—					
Handbags—					
Leather	no.	643,991	534,486	509,569	
Plastic	'000	1,752	2,109	2,065	
Other	no.	158,133	250,858	278,359	
Hessian and calico bags	'000 doz.	2,488	2,846	3,000	
Suitcases, kitbags and trunks	'000	1,218	1,420	1,567	
All other(c)	"	2,085	2,108	2,037	
Baking powder	lb.	761,969	754,159	780,053	
Bath heaters—					
Electric	no.	14,828	11,783	14,498	14,079
Gas	"	18,006	14,143	11,943	11,396
Solid fuel	"	20,987	19,967	17,606	15,132
Bathing suits	doz.	191,698	209,753	205,945	240,064
Baths—					
C.I.P.E.	no.	78,351	76,034	77,868	85,676
Pressed steel, enamel	"	30,893	32,099	48,789	64,293
Batteries, wet cell type—					
Auto (S.L.I.) 6 volts	no.	555,334	599,751	579,014	502,136
12 volts	"	887,512	1,115,569	1,191,782	1,247,258
Radio, homelighter, fencer	no. of 2 Volt cells	185,884	192,146	190,608	162,646
Traction	"	36,646	40,623	39,540	42,865
Beer (excluding waste beer)	'000 gals	241,636	249,454	262,343	(d)283,357
Biscuits	'000 lb.	179,959	185,245	197,970	208,321
Blankets	'000	1,689	1,845	2,176	2,084
Boots and shoes (see Footwear)					
Bran (wheaten)	tons (2,000 lb.)	236,272	225,185	252,746	228,098
Brandy	'000 proof gals	1,178	1,129	1,220	
Brassieres	doz.	571,465	609,575	681,846	674,535
Bread (2 lb. loaf equivalent)	'000	759,010	762,673	779,458	
Breakfast food, cereal (ready to eat)	cwt	796,565	812,725	833,726	870,024
Bricks, clay	'000	992,410	1,058,675	1,237,843	1,344,401
Brooms	gross	23,411	21,867	21,584	
Brushes(e)	"	95,446	96,791	95,091	
Butter(f)	tons	197,256	201,234	202,809	203,465
Candles					
Cardigans, sweaters, etc.	cwt	8,020	9,159	9,847	
Casein	doz.	1,136,229	1,261,126	1,347,503	1,374,585
Caustic soda	'000 lb.	30,356	36,236	37,360	39,612
Cement, portland	tons	47,539	56,481	64,230	69,198
Cheese (green weight)	"	2,782,785	2,942,045	3,320,139	3,741,056
Chlorine	"	55,380	58,539	58,217	(g) 61,389
Chutney	"	27,787	36,803	43,488	47,916
Cigarettes and cigars	'000 pints	2,052	1,414	1,319	
Cloth (including mixtures)—	'000 lb.	42,899	45,346	46,040	49,649
Cotton(h)	'000 sq. yds	45,629	47,093	53,354	56,205
Woolen and worsted(i)	"	24,991	23,227	23,714	24,628
Coke—					
Metallurgical	'000 tons	2,717	2,759	2,915	3,175
Other	tons	762,455	694,575	693,361	
Confectionery—					
Chocolate	'000 lb.	77,761	83,815	92,714	95,304
Other	"	97,850	97,708	100,482	105,909

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Excludes canvas waterbags. (d) As reported by Department of Customs and Excise: includes waste. (e) Excludes tooth brushes and industrial metal and bristle brushes. (f) Includes the butter equivalent of butter oil production. 1964-65 figures as reported by Commonwealth Dairy Produce Equalisation Committee Ltd. and State Departments of Agriculture. (g) As reported by the Commonwealth Dairy Produce Equalisation Committee Ltd. and by producers not within the Equalisation Scheme. (h) Excludes towelling and tyre-cord fabric. (i) Excludes blanketing.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Copper, refined(c)	63,769	85,652	90,890	56,112
Coppers—				
Electric	13,188	10,385	10,412	
Gas	14,405	10,959	8,255	
Inserts (all types)	19,008	15,356	19,540	
Cordials and syrups	5,415	6,259	6,887	7,346
Corsets and corselets	237,555	274,353	303,538	341,717
Custard powder	5,768	6,493	6,315	
Cycles, assembled	55,065	59,168	62,326	67,570
Dentifrices (toothpaste)	8,687	8,443	8,800	
Dynamos—				
Alternators	687	1,022	1,011	
Generators	3,915	3,396	1,339	
Electricity	26,275	29,279	32,519	35,390
Engines, internal combustion(d)	206	271	290	288
Essences, flavouring—				
Domestic	131,281	114,239	127,915	
Industrial	480,951	530,649	585,015	
Face powder	255,189	247,916	282,122	
Fans, electric	183,819	146,193	156,844	204,126
Fats, edible (other than margarine)	n.a.	n.a.	21,730	23,991
Felt(e)	11,373	12,240	13,122	
Fence posts and dappers	37,397	53,932	66,794	68,698
Fibrous plaster sheets	15,332	15,932	15,922	14,298
Fish, canned (including fish loaf)	12,040	10,327	11,267	11,095
Floorboards—				
Australian timber	135,125	139,284	146,632	
Imported timber	733	776	665	
Floor coverings—				
Soft	7,067	8,801	10,297	11,579
Smooth surface	6,445	7,566	8,192	11,859
Flour—				
Self-raising	1,024,098	998,192	967,077	
Wheaten(f)	1,486	1,465	1,672	1,550
Footwear (not rubber)—				
Boots, shoes and sandals	25,215	26,687	28,241	27,898
Slippers	9,860	10,671	11,388	11,775
Fruit juices, natural	6,755	7,710	8,732	
Gas (town)	50,247	51,351	53,209	53,023
Gloves—				
Dress	27,688	27,580	28,058	28,301
Work—Sewn(g)	292,507	336,875	379,069	406,182
Dipped	570,779	760,149	1,100,185	1,194,545
Golf clubs	36,173	29,598	29,800	28,275
Handkerchiefs—				
Men's	1,553	1,738	1,717	
Women's	1,456	1,355	1,539	
Hats and caps (excluding berets)(h)	565,633	553,749	518,032	
Hose, Rubber, Garden	2,152	2,543	2,897	
Other	10,644	14,858	17,508	
Plastic, garden	36,296	36,118	37,268	
Hot water systems—				
Storage—electric, gas, solid fuel(i)	103,758	119,585	146,042	173,169
Non-storage—electric(j)	15,184	15,273	15,437	14,616
Ice	252,669	238,924	221,182	
Ice cream	19,221	20,661	22,403	24,658
Ice cream mix powder	1,360	1,341	973	786
Infants' and invalids' milk-based health beverages(k)	38,137	38,465	44,105	45,505
Ink, printing, News	11,611	12,397	14,673	
Other	12,206	12,735	14,013	
Iron and steel—				
Pig iron	3,380	3,400	3,772	4,033
Steel ingots	4,076	4,260	4,764	5,121
Blooms and slabs	3,326	3,672	4,076	4,515
Irons, electric (hand, domestic)	305,374	354,636	363,617	428,543
Jams (including conserves, jellies, etc.)	98,313	92,175	90,462	89,811
Jelly crystals	13,656	14,214	13,935	

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Primary origin only. (d) Petrol and diesel. Excludes motor car, motor cycle, truck, tractor, aeroplane and marine engines. (e) Includes underfelt. (f) Includes wheatmeal for baking and sharps. (g) Excludes fabric liners for dipped gloves, but includes moulded or heat sealed gloves. (h) Includes hoods and capelins. (i) Includes heat exchange (coil type) displacement or falling level type and circulating systems. (j) Instantaneous type. (k) Includes malted milk and milk sugar (lactose).

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Lacquer, clear and colours	'000 gals 1,310	1,443	1,525	1,525
Lard	'000 lb. 5,314	5,163	6,934	
Lawn mowers—				
Petrol, rotary	no. 200,712	217,172	199,204	200,520
Other types(c)	" 8,962	15,158	16,486	10,796
Lead refined(d)	tons 174,497	208,946	217,296	199,030
Leather—				
Dressed, from hides, measurement	'000 sq. ft. 62,357			
" weight	'000 lb. 122			
" skins	'000 sq. ft. 15,920			
Harness, skirt, belting, etc.	'000 lb. 1,205			
Sole	" 20,137			
Upholstery	'000 sq. ft. 736			
Dressed or finished—Chrome tanned (including retanned)	'000 sq. ft. }	77,887	84,417	
Vegetable tanned, by weight	'000 lb. }	20,838	21,010	
Vegetable tanned, by measurement	'000 sq. ft. }	3,449	5,423	
Tanned or dressed skins with hair or wool retained	'000 doz. 100	100	51	
Lime—Crushed	tons 191,501	161,129	180,316	
Hydrated	" 85,126	76,401	81,508	
Quick	" 96,792	98,545	110,429	
Lipstick	lb. 92,404	86,318	84,512	
Lubricating oil	'000 gals. 13,316	12,242	14,512	
Malt, barley	'000 bus. 10,360	10,536	12,127	11,997
Margarine—				
Table	'000 lb. 35,262	35,703	35,431	50,558
Other	" 65,066	68,030	73,047	69,058
Mattresses—Box spring	no. 26,937	37,825	46,580	63,220
Inner spring	" 635,298	644,510	689,114	724,337
Woven wire	" 402,651	403,867	454,657	530,008
Other	" 266,163	256,462	274,390	282,169
Meat, canned(e)	'000 lb. 117,088	95,279	99,901	115,266
Meters—				
Electric (domestic)	no. 245,246	235,753	254,884	302,532
Gas	" 50,439	48,198	53,551	50,010
Water	" 138,883	131,882	127,689	127,316
Milk, condensed, concentrated and evaporated—				
Full cream, sweetened	'000 lb. 63,299	75,533	95,744	103,175
" unsweetened(f)	" 83,860	97,848	83,860	97,848
Skim and/or buttermilk	" 13,168	19,203	25,712	22,709
Milk powder—				
Full cream	'000 lb. 45,326	39,703	42,169	42,495
Skim	" 84,441	94,176	92,130	105,930
Buttermilk and whey	" 18,918	21,831	22,139	21,027
Mops, floor	gross 17,449	18,024	14,425	
Motor spirit (including benzol)	'000 gals 1,212,864	1,262,767	1,358,499	1,481,734
Motors, electric	'000 1,698	1,936	2,223	2,563
Motor vehicles—Cars(g)	no. 202,676	299,518	322,880	334,683
Utilities	" 24,602	27,852	30,003	
Vans	" 10,137	12,530	13,643	41,463
Mustard prepared for instant use	lb. 368,695	353,943	446,628	
Nails	tons 22,186	23,447	24,987	26,616
Neckties	doz. 516,975	524,622	454,988	
Oatmeal and rolled oats for porridge	cwt 312,225	301,976	298,965	319,783
Paint—				
Dry colours, synthetic or chemical—				
Zinc oxide	cwt 122,847	152,156	153,439	
Other (whites and colours)	" 182,156	197,510	203,725	
Ground, natural earths	'000 cwt 993	1,294	1,496	
Ready-mixed, liquid and enamels	'000 imp. gals. 13,290	13,846	15,491	16,144
Tinting colours, ground in oil (vegetable or synthetic). gals	" 53,859	66,306	65,467	
Other than water, in paste form (heavy-bodied whites, etc.)	'000 lb. 3,160	3,088	3,191	2,862
Water—				
Emulsion type	'000 imp. gals. 2,778	3,077	3,349	3,689
Powder (including kalsomine)	'000 lb. 2,540	2,226	2,423	2,165
Paper—				
Newsprint	tons 89,758	90,245	92,039	93,142
Other	" 213,921	255,751	295,651	342,456
Paperboard	" 206,909	240,965	258,374	285,278

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Petrol cylinder, electric and hand. (d) Includes lead content of lead alloy from primary sources, but excludes lead-silver bullion produced for export. (e) Excludes poultry and baby food. (f) Includes liquid ice-cream mix. (g) Includes station wagons, estate cars and similar vehicles.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Peanut butter and paste	'000 lb. 7,488	7,727	8,130	
Pembulators, pushers and strollers	no. 145,236	140,449	147,338	135,604
Pickles	'000 pints 6,038	7,793	7,367	
Plaster of paris	tons 228,299	240,863	259,455	276,369
Plywood, $\frac{3}{4}$ inch basis	'000 sq. ft. 202,807	195,263	216,282	
Pollard	tons (2,000 lb.) 315,381	305,923	349,095	327,716
Preserves—				
Fruit—Canned or bottled	'000 lb. 449,814	431,739	471,289	511,074
Pulp and puree	cwt 139,778	132,788	79,437	
Vegetables—Canned or bottled	'000 lb. 135,328	132,628	144,070	149,755
Quick frozen	" 47,232	47,834	56,477	74,859
Pyjamas—				
Men's and boys' (suits only)	doz. 361,459	406,946	422,731	434,579
Women's and girls' (incl. nightdresses)	" 562,577	635,232	675,940	708,446
Racquet frames (all types)	" 12,538	15,034	14,466	15,948
Records (phonograph)—				
Single play (78 and 45 r.p.m.)	'000 3,018	3,629	3,885	4,198
Extended play	" 755	898	1,121	1,474
Long play	" 3,422	3,660	4,078	4,460
Refrigerators, domestic	no. 209,415	206,349	203,391	226,857
Resins, plastic and synthetic	'000 cwt 1,333	1,703	1,975	2,277
Rice (cleaned)(c)	" 1,538	1,693	1,596	
Ropes and cables (excluding wire)	cwt 139,789	143,490	147,038	137,007
Rugs	'000 161	194	186	201
Sauce	'000 pints 34,257	33,170	30,791	
Semolina	tons (2,000 lb.) 11,385	10,065	13,213	16,768
Shirts (men's and boys')	'000 doz. 1,620	1,920	1,965	2,136
Sink heaters	no. 15,195	13,398	12,989	13,991
Sinks, stainless steel	" 172,380	173,565	193,211	217,877
Soap and detergents—				
Soap—Personal toilet	cwt 400,276	418,706	427,851	464,031
Household	683,829	699,414	709,322	607,984
Industrial (incl. wool scourings)(d)	" 92,224	90,383	91,798	95,555
Extracts and powders—				
Household	562,196	593,838	524,375	398,032
Industrial	91,923	94,797	100,339	105,563
Detergents—Personal toilet	" 18,467	18,115	23,413	31,286
Household	311,387	378,774	428,155	468,574
Industrial	" 37,707	45,869	54,506	63,858
Extracts and powders—				
Household	481,807	485,515	555,753	604,207
Industrial	86,000	97,796	105,451	113,692
Socks and stockings—				
Men's and youths'	'000 doz. pairs 1,418	1,643	1,628	1,701
Women's and maids'	" 3,039	3,633	3,992	4,432
Children's and infants'	" 902	899	537	1,022
Soup—Canned	'000 pints 44,649	48,063	55,124	
Dry-mix	'000 lb. 6,267	7,622	6,805	
Spades and shovels	doz. 36,670	31,929	35,790	
Starch	000 lb. 83,160	92,029	102,132	109,688
Stearine (stearic acid)	" 9,886	10,050	9,877	11,538
Steel, structural, fabricated	tons 401,201	416,067	452,706	
Stoves, ovens and ranges—				
Domestic cooking—				
Electric(e)	no. 119,494	139,169	166,311	181,111
Gas	" 66,714	65,575	77,380	84,490
Solid fuel	" 28,712	27,137	28,076	23,551
Sugar—Raw (94 net titre)	'000 tons 1,383	1,850	1,724	1,956
Refined	tons 553,472	563,765	575,575	589,452
Sulphate of ammonia	" 103,918	93,475	85,488	109,259
Superphosphate(f)	'000 tons 2,591	2,862	3,347	3,703
Talcum powder	'000 lb. 6,210	6,571	7,382	
Tallow, unrefined (including dripping)—				
Edible	" 151,047	165,782	172,524	
Inedible	" 311,292	369,710	357,507	
Television sets	no. 289,488	295,692	270,235	310,247
Tiles, roofing—				
Cement	'000 53,220	60,482	76,543	86,584
Terracotta	" 50,048	51,298	53,785	53,535
Timber—				
From native logs—				
Hardwood	'000 super. ft. 1,063,086	1,088,197	1,157,165	} 1,511,483
Softwood	" 289,117	322,370	330,862	
From imported logs—				
Hardwood	" 21,249	22,255	31,704	
Softwood	" 6,685	9,694	33,042	

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Polished, unpolished or broken. (d) Includes industrial flakes and chips. (e) Includes wall ovens but excludes cooking tops. (f) Source: Department of Primary Industry. Includes ammonium sulphate (in terms of 22% P₂O₅ content) as from June 1964.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—*continued*

Article	1961-62	1962-63	1963-64	1964-65 (a) (b)
Toasters, electric (domestic) no.	216,923	289,063	305,248	322,839
Tobacco '000 lb.	13,011	11,553	10,046	9,116
Tomato Juice gals	2,354,954	2,353,029	1,130,853	1,302,780
Paste and puree '000 pints	12,357	7,709	13,451	
Tomato pulp cwt	591,219	449,767	521,614	
Towels doz.	762,400	729,680	826,004	901,583
Tractors no.	8,542	10,998	13,879	
Transformers, chokes and ballasts—				
For distribution of power and light, etc. '000	18,057	18,788	21,592	
" fluorescent lights and neon signs "	1,766	2,477	2,232	
" radio receivers, record players, etc. "	1,085	1,272	1,201	
" television receivers "	1,057	948	1,002	
" other purposes no.	209,352	302,403	376,652	
Tubes, pneumatic(c) '000	2,734	3,144	3,409	(d) 3,605
Twine (all types) cwt	141,782	157,972	184,356	195,082
Tyres, pneumatic(c) '000	4,002	5,013	5,097	(d) 5,517
Umbrellas no.	694,128	736,755	867,378	
Underwear (men's, women's, children's) '000 doz.	5,518	5,858	6,017	6,213
Vacuum cleaners (domestic) no.	114,189	127,348	140,708	180,715
Wash basins—				
C.I.P.E. no.	82,794	77,717	72,744	71,464
Earthenware "	81,095	97,404	113,905	143,034
Other (metal) "	32,687	37,333	45,289	59,370
Washing machines, household, electric "	220,102	215,844	222,070	263,469
Weatherboards—				
Australian timber '000 super. ft.	25,146	20,123	21,029	
Imported timber "	1,378	3,093	2,811	
Wheatmeal(e) tons (2,000 lb.)	102,285	97,203	129,561	174,037
Wheelbarrows (metal) no.	85,292	87,642	104,464	
Wine, beverage—				
Fortified '000 gals	11,077	8,761	10,390	
Unfortified "	6,897	6,091	7,623	
Wireless and television cabinets no.	482,887	440,843	439,769	453,633
Wireless receiving sets (including radiograms) "	367,778	500,861	465,520	463,004
Wool, scoured or carbonized '000 lb.	168,279	171,808	160,906	157,041
Wool tops "	46,031	48,147	50,939	46,528
Yarn(f)—				
Cotton '000 lb.	43,345	46,126	55,387	59,088
Woollen "	23,436	26,860	28,380	30,640
Wool worsted "	22,519	25,876	23,826	23,798
Zinc oxide (see Paint).				
Zinc, refined(g) tons	153,742	175,850	186,388	189,396

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Excludes bicycle and "other". (d) Source: Department of Supply. (e) Excludes wheatmeal for baking, included with flour; includes wheatmeal for porridge and stock food. (f) Includes mixtures predominantly the fibre mentioned. (g) Primary origin only—includes small quantities of zinc dust.

Individual industries

Particulars on pages 95-119 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this publication, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour or capital, or for other features of special interest. Details for individual States are available from publications issued by the Deputy Commonwealth Statistician in each State and, for selected industries, in the Central Office series *Manufacturing Industries*.

**PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT
GOODS: AUSTRALIA, 1963-64**

	Portland cement	Asbestos cement sheets and mouldings	Other cement goods	Total
Number of factories	16	16	637	669
Number of persons employed	3,225	2,994	8,011	14,230
Salaries and wages paid \$'000	8,572	7,832	20,646	37,050
Value of power, fuel, etc., used \$'000	11,073	1,246	1,369	13,689
Value of materials used \$'000	17,240	13,434	72,362	103,035
Value of production \$'000	29,195	16,517	45,858	91,570
Total value of output \$'000	57,508	31,197	119,589	208,294
Value of land and buildings \$'000	11,079	8,636	17,750	37,465
Value of plant and machinery \$'000	48,687	8,739	19,241	76,667
Horse-power of engines ordinarily in use h.p.	107,371	24,960	38,432	170,763

**PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT
GOODS: AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	523	577	600	639	669
Number of persons employed	12,054	12,998	12,965	13,577	14,230
Salaries and wages paid \$'000	26,862	30,245	30,901	33,137	37,050
Value of power, fuel, etc., used \$'000	11,232	11,934	12,105	12,862	13,689
Value of materials used \$'000	66,788	80,653	80,987	89,225	103,035
Value of production \$'000	61,570	69,812	71,060	79,223	91,570
Total value of output \$'000	139,590	162,399	164,152	181,310	208,294
Value of land and buildings \$'000	21,228	27,098	31,544	33,692	37,465
Value of plant and machinery \$'000	48,547	63,368	70,246	74,159	76,667
Horse-power of engines ordinarily in use h.p.	132,710	145,903	156,025	161,839	170,763

BRICKS, TILES, POTTERY AND EARTHENWARE: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	437	434	427	419	412
Number of persons employed	14,980	15,012	14,305	14,496	15,132
Salaries and wages paid \$'000	31,832	33,326	31,999	33,076	36,416
Value of power, fuel, etc., used \$'000	10,624	11,017	10,730	11,625	13,240
Value of materials used \$'000	15,712	16,990	16,849	17,797	21,931
Value of production \$'000	52,768	54,489	52,166	54,977	65,622
Total value of output \$'000	74,990	82,496	79,745	84,399	100,792
Value of land and buildings \$'000	22,011	25,012	26,301	31,474	35,675
Value of plant and machinery \$'000	23,377	28,752	33,549	41,964	49,165
Horse-power of engines ordinarily in use h.p.	97,471	101,389	108,491	118,673	127,124

GLASS AND GLASS BOTTLES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	229	242	248	255	263
Number of persons employed	9,189	9,444	9,651	10,510	10,382
Salaries and wages paid \$'000	18,722	19,984	21,375	23,171	24,230
Value of power, fuel, etc., used \$'000	5,797	5,886	5,394	5,375	6,485
Value of materials used \$'000	33,409	32,526	32,536	35,922	37,259
Value of production \$'000	35,784	38,477	40,423	44,479	47,454
Total value of output \$'000	74,990	76,889	78,353	85,976	91,197
Value of land and buildings \$'000	17,028	19,253	25,652	31,354	32,567
Value of plant and machinery \$'000	9,129	11,329	14,273	21,388	21,256
Horse-power of engines ordinarily in use h.p.	33,565	32,058	35,969	40,627	41,527

**INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	287	297	308	320	325
Number of persons employed	14,423	13,945	13,746	14,165	15,075
Salaries and wages paid \$'000	34,292	34,947	35,448	37,567	42,159
Value of power, fuel, etc., used \$'000	9,748	9,304	12,029	13,304	15,626
Value of materials used \$'000	92,426	87,622	101,172	117,449	132,303
Value of production \$'000	86,993	82,130	93,255	111,600	126,769
Total value of output \$'000	189,167	179,056	206,456	242,353	274,698
Value of land and buildings \$'000	49,315	57,018	68,118	68,673	75,208
Value of plant and machinery \$'000	82,653	89,037	141,152	136,126	151,235
Horse-power of engines ordinarily in use . . h.p.	117,311	124,629	165,055	174,380	205,235

In order to avoid the publication of confidential information, particulars relating to industrial and heavy chemicals include details for the explosives industry.

**PHARMACEUTICAL AND TOILET PREPARATIONS: AUSTRALIA
1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	216	212	211	209	213
Number of persons employed	7,791	7,805	7,910	8,058	8,173
Salaries and wages paid \$'000	14,149	14,896	15,728	16,940	16,904
Value of power, fuel, etc., used \$'000	1,619	1,683	1,595	1,850	1,070
Value of materials used \$'000	46,622	47,259	51,171	55,176	56,454
Value of production \$'000	57,971	64,311	66,258	63,996	73,419
Total value of output \$'000	106,212	113,253	119,024	121,022	130,943
Value of land and buildings \$'000	23,056	26,862	29,088	34,175	37,474
Value of plant and machinery \$'000	10,694	12,005	11,465	12,639	13,440
Horse-power of engines ordinarily in use . . h.p.	18,084	19,237	20,322	22,772	21,808

The bulk of the output of the above industry comes from New South Wales and Victoria.

WHITE LEAD, PAINTS AND VARNISH: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	181	182	188	184	184
Number of persons employed	5,475	5,208	5,096	5,144	5,356
Salaries and wages paid \$'000	11,420	11,492	11,338	11,659	12,845
Value of power, fuel, etc., used \$'000	832	787	808	873	876
Value of materials used \$'000	53,785	49,847	53,525	57,463	62,494
Value of production \$'000	30,892	30,813	30,934	34,635	36,674
Total value of output \$'000	85,509	81,447	85,267	92,971	100,044
Value of land and buildings \$'000	13,884	15,472	15,491	16,800	17,888
Value of plant and machinery \$'000	8,437	8,354	10,880	10,785	10,438
Horse-power of engines ordinarily in use . . h.p.	25,879	27,952	28,780	29,162	32,695

MINERAL OILS, EXTRACTION AND REFINING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	70	76	77	79	82
Number of persons employed	4,972	5,020	5,028	5,044	5,159
Salaries and wages paid \$'000	13,028	14,125	14,713	15,490	17,066
Value of power, fuel, etc., used \$'000	15,696	15,073	15,979	17,590	20,906
Value of materials used \$'000	266,834	273,007	272,714	287,008	297,591
Value of production \$'000	91,225	88,810	72,677	95,572	97,628
Total value of output \$'000	373,755	376,890	361,370	400,170	416,125
Value of land and buildings \$'000	36,523	36,985	39,034	40,244	42,606
Value of plant and machinery \$'000	169,909	173,509	190,949	218,387	232,195
Horse-power of engines ordinarily in use . . h.p.	108,231	132,640	145,383	183,935	203,325

Victoria, New South Wales, and Western Australia produce most of the refined mineral oil and by-products.

SOAP AND CANDLES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	120	119	117	117	122
Number of persons employed	3,210	3,234	3,290	3,340	3,232
Salaries and wages paid \$'000	6,441	7,077	7,135	7,542	7,679
Value of power, fuel, etc., used \$'000	767	862	841	837	832
Value of materials used \$'000	31,670	32,558	32,276	32,876	34,956
Value of production \$'000	28,260	30,419	30,005	32,754	34,610
Total value of output \$'000	60,697	63,839	63,122	66,467	70,398
Value of land and buildings \$'000	5,304	5,930	5,999	5,964	6,546
Value of plant and machinery \$'000	6,108	6,440	6,881	6,437	6,824
Horse-power of engines ordinarily in use . . h.p.	13,689	14,452	14,495	16,256	16,812

New South Wales and Victoria are the major centres of production in the above industry.

CHEMICAL FERTILIZERS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	49	44	47	48	48
Number of persons employed	4,763	4,567	4,525	4,432	4,476
Salaries and wages paid \$'000	10,737	10,951	10,938	11,016	11,842
Value of power, fuel, etc., used \$'000	1,988	2,003	1,939	1,840	2,022
Value of materials used \$'000	52,695	53,860	55,436	59,360	65,699
Value of production \$'000	23,041	24,650	24,667	24,917	26,059
Total value of output \$'000	77,724	80,513	82,042	86,117	93,780
Value of land and buildings \$'000	15,015	12,144	12,561	12,712	14,412
Value of plant and machinery \$'000	20,514	17,302	17,468	18,761	20,739
Horse-power of engines ordinarily in use . . h.p.	58,519	53,194	55,089	59,188	68,689

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	35	34	34	33	30
Number of persons employed	31,825	33,804	34,504	35,605	37,094
Salaries and wages paid \$'000	77,585	87,441	88,474	95,090	102,042
Value of power, fuel, etc., used \$'000	60,404	67,857	67,905	73,547	78,955
Value of materials used \$'000	325,354	348,553	327,557	368,873	390,414
Value of production \$'000	172,513	201,236	195,306	216,504	231,902
Total value of output \$'000	558,271	617,646	590,768	658,924	701,271
Value of land and buildings \$'000	28,835	63,320	73,943	78,759	83,708
Value of plant and machinery \$'000	190,219	295,352	360,857	389,806	410,432
Horse-power of engines ordinarily in use . . h.p.	690,291	757,451	778,470	872,050	943,974

The greater part of the output of the above industry comes from New South Wales, with Western Australia, Victoria, and South Australia producing nearly all the remainder.

FOUNDRIES—FERROUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	312	245	239	231	230
Number of persons employed	7,853	7,797	7,183	7,711	8,152
Salaries and wages paid \$'000	17,008	17,552	16,178	17,940	19,942
Value of power, fuel, etc., used \$'000	2,243	2,229	2,033	2,320	2,482
Value of materials used \$'000	15,808	17,308	14,796	17,955	20,069
Value of production \$'000	24,651	25,512	22,483	24,972	29,478
Total value of output \$'000	42,702	45,049	39,312	45,247	52,029
Value of land and buildings \$'000	9,732	10,256	10,079	10,949	12,652
Value of plant and machinery \$'000	7,581	7,454	7,157	7,460	8,574
Horse-power of engines ordinarily in use . . h.p.	32,455	31,471	31,506	32,752	34,581

(a) Excludes Tasmania. See Other engineering, page 128.

Tasmanian foundry output is relatively small and details prior to 1963-64 are included in Other engineering.

**PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS)
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	2,518	2,587	2,744	2,857	3,027
Number of persons employed	76,096	77,733	77,464	80,758	87,277
Salaries and wages paid \$'000	163,770	173,338	173,588	186,292	212,937
Value of power, fuel, etc., used \$'000	7,148	7,578	7,518	8,230	9,102
Value of materials used \$'000	288,809	304,658	296,927	334,716	389,996
Value of production \$'000	276,804	287,851	285,483	311,341	357,982
Total value of output \$'000	572,761	600,087	589,928	654,287	757,080
Value of land and buildings \$'000	112,231	132,674	148,015	162,815	178,430
Value of plant and machinery \$'000	78,814	86,244	92,355	98,263	105,786
Horse-power of engines ordinarily in use . . h.p.	267,497	278,138	293,577	303,606	321,550

(a) Includes agricultural machines and implements, Tasmania.

OTHER ENGINEERING(a): AUSTRALIA, 1959-60 TO 1963-64

—	1959-60(b)	1960-61(b)	1961-62(b)	1962-63(b)	1963-64
Number of factories	2,310	2,439	2,457	2,472	2,449
Number of persons employed	25,780	27,997	27,897	28,997	30,044
Salaries and wages paid \$'000	51,715	57,589	59,121	63,465	69,094
Value of power, fuel, etc., used \$'000	2,036	2,097	2,221	2,498	2,667
Value of materials used \$'000	62,220	70,282	71,915	82,198	91,145
Value of production \$'000	84,527	94,738	94,385	104,438	112,492
Total value of output \$'000	148,783	167,117	168,521	189,134	206,304
Value of land and buildings \$'000	38,467	48,030	52,847	56,375	58,584
Value of plant and machinery \$'000	27,565	32,882	35,180	36,600	40,194
Horse-power of engines ordinarily in use . . h.p.	89,374	93,019	101,245	107,735	114,317

(a) Jobbing and general engineering works, n.e.i. (b) Includes Foundries—ferrous, Tasmania.

**EXTRACTING AND REFINING OF NON-FERROUS METALS; ALLOYS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	71	69	62	64	68
Number of persons employed	7,438	7,545	7,974	8,277	8,960
Salaries and wages paid \$'000	19,070	19,684	21,284	22,905	25,996
Value of power, fuel, etc., used \$'000	9,666	9,405	10,563	13,331	17,839
Value of materials used \$'000	128,751	149,346	143,383	194,286	235,482
Value of production \$'000	41,004	43,969	43,427	52,090	62,349
Total value of output \$'000	179,421	202,720	197,373	259,707	315,670
Value of land and buildings \$'000	20,210	21,449	23,913	28,051	37,881
Value of plant and machinery \$'000	42,990	47,836	63,899	79,506	100,851
Horse-power of engines ordinarily in use . . h.p.	86,776	90,216	94,081	93,482	132,003

The above table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore. Ore dressing and elementary smelting of metallic minerals (e.g. in the case of gold), when these are carried out in an associated plant at or near the mine, are included in the mineral industry (see the chapter Mineral Industry).

**ELECTRICAL MACHINERY, CABLES AND APPARATUS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,360	1,339	1,349	1,404	1,438
Number of persons employed	53,089	54,072	52,918	55,692	59,416
Salaries and wages paid \$'000	108,022	114,358	114,039	123,113	135,806
Value of power, fuel, etc., used \$'000	5,700	5,642	5,671	6,153	6,841
Value of materials used \$'000	217,424	221,361	225,474	232,141	263,668
Value of production \$'000	180,398	187,792	186,033	201,809	229,536
Total value of output \$'000	403,192	414,795	417,178	440,103	500,045
Value of land and buildings \$'000	77,358	85,550	92,016	103,325	110,908
Value of plant and machinery \$'000	55,205	53,659	55,455	57,486	62,232
Horse-power of engines ordinarily in use . . h.p.	118,299	122,609	128,326	134,043	142,213

New South Wales factories account for almost two-thirds of the output of this industry.

TRAMCARS AND RAILWAY ROLLING STOCK(a)
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	129	126	122	122	119
Number of persons employed	36,746	35,323	35,466	34,653	33,689
Salaries and wages paid \$'000	68,416	69,589	71,990	70,663	73,267
Value of power, fuel, etc., used \$'000	2,224	2,194	2,170	2,144	2,162
Value of materials used \$'000	38,827	38,780	39,249	39,370	39,622
Value of production \$'000	82,947	85,779	87,369	85,495	92,435
Total value of output \$'000	123,998	126,753	128,788	127,009	134,219
Value of land and buildings \$'000	25,522	27,363	29,307	29,357	29,372
Value of plant and machinery \$'000	34,349	35,315	35,398	37,166	38,456
Horse-power of engines ordinarily in use . . h.p.	116,443	116,063	115,416	116,027	114,456

(a) Government and local authority only.

The railway and tramway workshops, which form an important part of Class 4, are owned chiefly by State governments and local authorities. *Workshops (fifteen in 1963-64) controlled by non-public bodies are not included in the figures above.*

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA, 1963-64

—	Construction and assembly	Repairs	Motor bodies (a)	Motor accessories	Total
Number of factories	43	11,224	2,291	308	13,866
Number of persons employed	24,311	68,141	33,812	17,393	143,657
Salaries and wages paid \$'000	64,647	124,175	79,546	40,836	309,204
Value of power, fuel, etc., used \$'000	5,040	4,016	3,467	2,664	15,187
Value of materials used \$'000	151,160	137,695	211,032	68,811	568,697
Value of production \$'000	109,608	199,628	116,498	68,678	494,412
Total value of output \$'000	265,808	341,339	330,997	140,153	1,078,296
Value of land and buildings \$'000	65,969	184,508	71,126	31,007	352,610
Value of plant and machinery \$'000	47,981	30,981	60,717	32,577	172,256
Horse-power of engines ordinarily in use . . h.p.	90,106	80,322	91,412	64,085	325,925

(a) Includes motor body repairing, panel beating, duco spraying, etc.

The industries catering for the motor trade are included in Class 4, Industrial metals, machines and conveyances. In the table above a summary is given of the principal statistics for 1963-64 for each branch of industry associated with the motor trade of Australia.

In the next table similar details are shown for Australia for these industries combined, for the years 1959-60 to 1963-64. Victoria, New South Wales, and South Australia account for the bulk of the output of these industries. Most of the output of the other States is from repair work.

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	12,089	12,757	13,135	13,623	13,866
Number of persons employed	120,561	127,274	121,409	135,579	143,657
Salaries and wages paid \$'000	228,372	248,771	240,583	281,091	309,204
Value of power, fuel, etc., used \$'000	10,246	11,787	11,756	13,783	15,187
Value of materials used \$'000	372,659	403,554	375,093	491,384	568,697
Value of production \$'000	366,732	396,000	391,220	448,106	494,412
Total value of output \$'000	749,637	811,341	778,069	953,273	1,078,296
Value of land and buildings \$'000	228,974	257,969	290,792	321,872	352,610
Value of plant and machinery \$'000	103,694	132,055	139,287	158,471	172,256
Horse-power of engines ordinarily in use . . h.p.	234,930	266,266	276,293	310,518	325,925

**SHIP AND BOAT BUILDING AND REPAIRING, MARINE ENGINEERING
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	297	318	318	335	346
Number of persons employed	13,786	14,155	14,293	14,218	14,253
Salaries and wages paid \$'000	29,344	32,227	32,928	33,366	35,043
Value of power, fuel, etc., used \$'000	754	802	862	873	901
Value of materials used \$'000	19,193	21,960	23,333	28,106	31,645
Value of production \$'000	36,283	39,419	39,930	40,396	40,272
Total value of output \$'000	56,230	62,181	64,125	69,375	72,817
Value of land and buildings \$'000	11,867	12,939	12,496	13,308	13,865
Value of plant and machinery \$'000	10,174	10,594	10,681	11,258	11,745
Horse-power of engines ordinarily in use . . h.p.	75,827	75,300	75,568	77,691	81,291

The above table includes government factories as well as those owned privately and by municipal authorities. About half the output of this industry comes from New South Wales shipyards, with Victoria and South Australia accounting for the greater part of the balance.

**AGRICULTURAL MACHINES AND IMPLEMENTS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	404	450	497	531	556
Number of persons employed	11,359	11,307	11,317	11,785	13,818
Salaries and wages paid \$'000	22,632	22,872	22,901	25,610	33,117
Value of power, fuel, etc., used \$'000	1,444	1,475	1,535	1,633	1,940
Value of materials used \$'000	35,215	34,646	36,487	38,912	51,440
Value of production \$'000	33,694	33,741	36,326	39,632	49,702
Total value of output \$'000	70,353	69,862	74,348	80,177	103,082
Value of land and buildings \$'000	13,713	16,437	19,173	20,132	23,064
Value of plant and machinery \$'000	9,451	10,490	10,883	11,441	13,245
Horse-power of engines ordinarily in use . . h.p.	42,922	39,648	41,339	43,226	46,606

(a) Excludes Tasmania. *In* Plant, Equipment and Machinery (including Machine Tools), page 128.

Victorian factories produce more than half the output of the above industry.

**NON-FERROUS METALS—ROLLING AND EXTRUSION
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	21	25	30	30	30
Number of persons employed	5,811	6,304	6,566	6,751	6,983
Salaries and wages paid \$'000	14,832	15,683	16,935	17,850	20,293
Value of power, fuel, etc., used \$'000	2,519	2,577	3,131	3,162	3,689
Value of materials used \$'000	80,853	73,288	80,243	86,982	104,550
Value of production \$'000	30,075	28,315	30,868	35,734	41,399
Total value of output \$'000	113,447	104,180	114,242	125,878	149,638
Value of land and buildings \$'000	11,314	17,072	19,545	20,022	21,531
Value of plant and machinery \$'000	17,202	33,177	34,622	39,739	45,932
Horse-power of engines ordinarily in use . . h.p.	59,203	73,869	80,662	90,942	114,313

**NON-FERROUS METALS—FOUNDING, CASTING, ETC.
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	480	490	477	462	461
Number of persons employed	10,602	10,510	9,833	10,467	11,180
Salaries and wages paid \$'000	21,770	22,073	20,789	22,613	25,389
Value of power, fuel, etc., used \$'000	1,813	1,817	1,794	1,964	2,100
Value of materials used \$'000	41,274	40,297	39,872	46,702	53,556
Value of production \$'000	36,831	36,917	36,733	40,913	49,276
Total value of output \$'000	79,918	79,031	78,399	89,579	104,932
Value of land and buildings \$'000	13,925	16,392	18,677	19,654	21,150
Value of plant and machinery \$'000	11,015	13,078	13,439	14,617	15,163
Horse-power of engines ordinarily in use . . h.p.	31,150	34,082	34,285	36,561	38,729

**SHEET METAL WORKING, PRESSING AND STAMPING
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,076	1,111	1,142	1,156	1,181
Number of persons employed	26,843	27,474	26,545	27,924	29,551
Salaries and wages paid \$'000	53,702	57,164	55,667	59,854	66,877
Value of power, fuel, etc., used \$'000	3,257	3,098	3,216	3,543	3,719
Value of materials used \$'000	121,602	130,451	132,210	139,767	156,346
Value of production \$'000	96,866	100,206	101,073	113,707	123,360
Total value of output \$'000	221,725	233,755	236,499	257,017	283,425
Value of land and buildings \$'000	41,729	49,801	55,770	59,812	65,805
Value of plant and machinery \$'000	30,082	34,738	36,108	40,461	44,779
Horse-power of engines ordinarily in use . . h.p.	77,233	80,020	79,963	84,487	89,116

PIPES, TUBES AND FITTINGS—FERROUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	49	55	62	58	58
Number of persons employed	8,332	8,547	8,272	8,784	9,138
Salaries and wages paid \$'000	19,311	20,679	20,243	22,394	24,495
Value of power, fuel, etc., used \$'000	2,714	2,701	2,577	3,212	3,425
Value of materials used \$'000	52,909	51,060	51,756	54,775	60,047
Value of production \$'000	39,087	40,042	37,782	38,751	45,258
Total value of output \$'000	94,710	93,803	92,115	96,738	108,730
Value of land and buildings \$'000	12,602	13,636	14,689	17,593	17,921
Value of plant and machinery \$'000	13,910	14,366	15,483	19,579	22,330
Horse-power of engines ordinarily in use . . h.p.	50,038	52,300	47,547	56,219	60,447

New South Wales, South Australia, and Victoria produce most of the output of the above industry.

**WIRE AND WIRE WORKING (INCLUDING NAILS)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	286	282	283	289	298
Number of persons employed	9,974	10,195	9,804	10,377	10,433
Salaries and wages paid \$'000	20,836	22,596	21,229	23,820	24,959
Value of power, fuel, etc., used \$'000	1,810	1,845	1,762	1,889	2,033
Value of materials used \$'000	71,750	74,602	69,936	80,581	92,097
Value of production \$'000	41,972	42,100	38,722	43,909	46,710
Total value of output \$'000	115,532	118,547	110,420	126,379	140,840
Value of land and buildings \$'000	16,244	17,916	19,570	21,200	21,743
Value of plant and machinery \$'000	12,255	13,176	13,988	16,168	15,770
Horse-power of engines ordinarily in use . . h.p.	37,162	37,233	39,010	43,818	42,624

New South Wales and Victoria predominate in this industry.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	289	301	327	330	355
Number of persons employed	19,559	17,273	14,707	16,586	16,907
Salaries and wages paid \$'000	35,288	34,184	29,204	33,240	35,772
Value of power, fuel, etc., used \$'000	1,241	1,296	1,171	1,315	1,321
Value of materials used \$'000	100,259	80,517	71,990	78,940	78,847
Value of production \$'000	60,607	51,009	47,173	54,437	56,834
Total value of output \$'000	162,107	132,822	120,334	134,692	137,002
Value of land and buildings \$'000	17,882	20,958	23,129	24,104	23,883
Value of plant and machinery \$'000	11,488	12,936	12,893	13,266	12,888
Horse-power of engines ordinarily in use . . h.p.	14,302	14,850	15,353	15,216	14,720

The above industry is confined mainly to New South Wales, Victoria and South Australia.

COTTON SPINNING AND WEAVING: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	92	88	88	88	85
Number of persons employed	9,780	9,121	8,980	9,313	9,869
Salaries and wages paid \$'000	17,706	16,244	16,490	17,262	19,187
Value of power, fuel, etc., used \$'000	1,995	1,915	2,066	2,267	2,549
Value of materials used \$'000	41,262	36,672	38,323	41,635	46,619
Value of production \$'000	32,447	30,338	29,654	33,521	38,194
Total value of output \$'000	75,704	68,925	70,043	77,423	87,362
Value of land and buildings \$'000	19,413	20,783	25,818	28,860	32,264
Value of plant and machinery \$'000	18,829	20,211	21,617	24,382	24,402
Horse-power of engines ordinarily in use . . h.p.	37,240	36,193	40,592	41,581	43,752

The growing of cotton is treated in some detail in the chapter Rural Industry. The production of raw cotton is supplemented by imports from overseas, chiefly (in 1964-65) from the United States of America, Mexico, Brazil, Pakistan, Uganda, Peru, and Colombia.

WOOL CARDING, SPINNING AND WEAVING:
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	134	135	134	134	129
Number of persons employed	22,433	21,400	20,102	21,131	20,061
Salaries and wages paid \$'000	36,105	34,743	34,162	36,461	35,476
Value of power, fuel, etc., used \$'000	3,126	2,968	2,913	3,014	2,874
Value of materials used \$'000	94,880	81,258	86,245	97,027	107,378
Value of production \$'000	58,262	56,237	53,186	58,652	55,799
Total value of output \$'000	156,268	140,463	142,344	158,693	166,051
Value of land and buildings \$'000	21,251	21,807	21,823	23,150	23,326
Value of plant and machinery \$'000	25,199	25,103	26,470	27,440	26,550
Horse-power of engines ordinarily in use . . h.p.	70,811	69,488	70,610	71,354	71,318

Victoria produces more than half the output of this industry.

HOSIERY AND OTHER KNITTED GOODS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	701	687	658	625	607
Number of persons employed	24,414	24,741	23,403	24,627	25,471
Salaries and wages paid \$'000	37,582	38,202	36,990	40,646	42,834
Value of power, fuel, etc., used \$'000	1,596	1,621	1,589	1,614	1,691
Value of materials used \$'000	82,957	84,456	83,545	92,517	98,423
Value of production \$'000	69,259	72,170	71,896	76,180	83,674
Total value of output \$'000	153,812	158,247	157,030	170,311	183,788
Value of land and buildings \$'000	25,924	29,213	30,458	31,499	32,685
Value of plant and machinery \$'000	18,342	19,933	21,222	22,753	24,370
Horse-power of engines ordinarily in use . . h.p.	22,019	22,738	23,250	23,106	24,344

Victorian mills produce about three-quarters of the Australian output of knitted goods, most of the balance being produced in New South Wales.

RAYON, NYLON AND OTHER SYNTHETIC FIBRES
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	33	40	44	45	43
Number of persons employed	3,072	3,878	3,947	4,329	4,527
Salaries and wages paid \$'000	5,836	7,752	7,866	9,079	9,825
Value of power, fuel, etc., used \$'000	802	939	1,033	1,143	1,236
Value of materials used \$'000	13,637	17,316	19,767	25,733	27,483
Value of production \$'000	10,010	12,343	13,646	16,089	18,191
Total value of output \$'000	24,449	30,598	34,446	42,965	46,910
Value of land and buildings \$'000	4,494	6,433	7,350	8,596	8,711
Value of plant and machinery \$'000	5,710	7,643	7,956	9,141	8,688
Horse-power of engines ordinarily in use . . h.p.	10,669	12,161	13,632	14,202	14,279

Victoria produces nearly two-thirds of the total Australian output of synthetic fibre textiles, most of the balance being produced in New South Wales.

ROPE AND CORDAGE: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	28	27	26	26	25
Number of persons employed	2,387	2,335	2,146	2,307	2,404
Salaries and wages paid \$'000	4,570	4,545	4,379	4,861	5,118
Value of power, fuel, etc., used \$'000	316	342	346	369	396
Value of materials used \$'000	8,333	10,242	8,480	9,590	11,022
Value of production \$'000	8,815	8,514	8,244	9,504	8,465
Total value of output \$'000	17,464	19,098	17,070	19,463	19,883
Value of land and buildings \$'000	5,251	5,259	5,403	5,508	5,492
Value of plant and machinery \$'000	3,317	3,389	3,437	3,568	3,600
Horse-power of engines ordinarily in use . . . h.p.	14,057	15,015	15,153	15,240	15,407

Most of the production takes place in New South Wales and Victoria.

WOOLSCOURING AND FELLMONGERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	59	58	58	56	54
Number of persons employed	3,014	2,740	2,803	2,842	2,570
Salaries and wages paid \$'000	6,701	6,176	6,307	6,594	6,152
Value of power, fuel, etc., used \$'000	1,282	1,110	1,170	1,238	1,212
Value of materials used \$'000	31,087	24,919	28,062	31,928	35,621
Value of production \$'000	9,919	8,842	8,866	9,271	8,546
Total value of output \$'000	42,288	34,871	38,098	42,437	45,379
Value of land and buildings \$'000	4,392	4,136	4,801	5,687	6,082
Value of plant and machinery \$'000	2,695	2,723	2,722	3,069	2,993
Horse-power of engines ordinarily in use . . . h.p.	17,479	17,926	16,779	17,544	18,089

Most of the production from the above industry comes from New South Wales and Victoria

TANNING, CURRYING AND LEATHER DRESSING
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	118	112	108	102	102
Number of persons employed	4,435	4,245	4,159	4,215	4,298
Salaries and wages paid \$'000	9,223	9,150	9,224	9,473	9,910
Value of power, fuel, etc., used \$'000	968	969	976	1,001	1,020
Value of materials used \$'000	31,531	28,842	28,560	25,156	23,881
Value of production \$'000	13,935	13,496	14,785	16,229	17,165
Total value of output \$'000	46,434	43,307	44,321	42,386	42,066
Value of land and buildings \$'000	6,798	6,836	7,074	7,329	8,205
Value of plant and machinery \$'000	4,303	4,460	4,483	4,531	4,761
Horse-power of engines ordinarily in use . . . h.p.	33,516	31,516	31,278	27,598	29,598

New South Wales, Victorian and Queensland factories produce most of the output of the above industry.

LEATHER GOODS (INCLUDING SADDLERY AND BELTING)
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	433	418	392	386	383
Number of persons employed	4,873	4,658	4,315	4,519	4,646
Salaries and wages paid \$'000	6,942	6,839	6,553	6,950	7,260
Value of power, fuel, etc., used \$'000	132	131	133	148	161
Value of materials used \$'000	13,214	13,010	12,064	13,151	14,083
Value of production \$'000	12,126	11,756	11,357	12,336	12,854
Total value of output \$'000	25,472	24,897	23,554	25,635	27,097
Value of land and buildings \$'000	5,643	6,171	6,383	6,884	7,238
Value of plant and machinery \$'000	1,292	1,669	1,690	1,484	1,572
Horse-power of engines ordinarily in use . . . h.p.	3,769	3,678	3,155	3,387	3,716

As with other industries of this class, New South Wales and Victorian factories dominate this industry.

TAILORING AND READY-MADE CLOTHING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,860	1,871	1,839	1,847	1,892
Number of persons employed	33,170	33,890	32,496	33,234	34,188
Salaries and wages paid \$'000	44,265	47,083	46,099	48,543	51,126
Value of power, fuel, etc., used \$'000	934	989	1,000	1,027	1,060
Value of materials used \$'000	81,582	85,348	82,170	88,153	92,342
Value of production \$'000	70,332	73,941	75,170	80,043	86,803
Total value of output \$'000	152,848	160,278	158,340	169,223	180,205
Value of land and buildings \$'000	26,574	30,765	32,378	35,586	38,214
Value of plant and machinery \$'000	6,294	6,892	6,902	7,032	7,406
Horse-power of engines ordinarily in use . . h.p.	10,899	11,820	12,618	12,939	13,348

New South Wales and Victorian factories account for more than 90 per cent of the output of this industry.

DRESSMAKING AND MILLINERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,228	1,194	1,183	1,189	1,124
Number of persons employed	15,021	14,403	14,466	15,093	14,930
Salaries and wages paid \$'000	18,412	18,382	18,943	20,373	21,188
Value of power, fuel, etc., used \$'000	381	379	390	420	439
Value of materials used \$'000	23,517	23,332	24,076	26,055	28,285
Value of production \$'000	29,527	30,127	30,345	33,394	34,240
Total value of output \$'000	53,425	53,838	54,811	59,869	62,964
Value of land and buildings \$'000	15,246	16,554	17,322	18,231	19,232
Value of plant and machinery \$'000	2,229	2,169	2,166	2,365	2,742
Horse-power of engines ordinarily in use . . h.p.	4,880	4,398	4,543	4,831	4,955

About two-thirds of the total Australian output comes from Victorian establishments.

SHIRTS, COLLARS AND UNDERCLOTHING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	376	368	353	351	329
Number of persons employed	12,891	12,864	12,270	13,304	13,271
Salaries and wages paid \$'000	16,652	16,848	16,484	17,967	18,312
Value of power, fuel, etc., used \$'000	274	295	313	333	335
Value of materials used \$'000	31,646	31,591	31,276	32,604	34,453
Value of production \$'000	27,144	26,720	26,552	29,113	29,719
Total value of output \$'000	59,064	58,606	58,141	62,050	64,507
Value of land and buildings \$'000	8,101	8,890	9,135	10,328	11,086
Value of plant and machinery \$'000	2,413	2,668	2,689	2,705	2,942
Horse-power of engines ordinarily in use . . h.p.	5,090	5,454	5,529	5,649	5,928

Victorian and New South Wales factories produce most of the output of the above industry.

FOUNDATION GARMENTS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	70	71	66	64	62
Number of persons employed	3,589	3,663	3,981	4,012	3,948
Salaries and wages paid \$'000	4,958	4,939	5,345	5,569	5,616
Value of power, fuel, etc., used \$'000	86	93	99	102	104
Value of materials used \$'000	10,462	10,060	11,559	11,628	13,057
Value of production \$'000	9,283	9,732	10,704	10,931	12,428
Total value of output \$'000	19,831	19,885	22,352	22,661	25,589
Value of land and buildings \$'000	3,224	3,782	4,011	4,595	4,918
Value of plant and machinery \$'000	841	940	1,068	1,380	1,414
Horse-power of engines ordinarily in use . . h.p.	1,739	1,995	2,023	1,987	2,082

BOOTS AND SHOES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	455	460	447	439	393
Number of persons employed	20,201	20,782	20,084	20,502	21,030
Salaries and wages paid \$'000	32,202	33,826	33,436	34,898	36,459
Value of power, fuel, etc., used \$'000	578	628	655	656	686
Value of materials used \$'000	56,276	59,850	59,991	61,165	63,347
Value of production \$'000	48,118	53,128	53,693	54,821	58,342
Total value of output \$'000	104,972	113,606	114,339	116,642	122,375
Value of land and buildings \$'000	11,101	12,316	13,427	14,238	16,243
Value of plant and machinery \$'000	9,302	10,718	10,768	14,097	16,077
Horse-power of engines ordinarily in use . . h.p.	17,674	14,599	14,805	15,351	15,594

(a) Includes details of Boot and Shoe Repairing in Tasmania.

The table above refers to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand-shoes, goloshes and gum, etc., boots of rubber are not included here, but are classified under Rubber Goods, see page 141. About two-thirds of the output of boots and shoes is produced in Victoria.

FLOUR-MILLING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	135	132	125	118	114
Number of persons employed	4,410	4,463	4,405	4,219	4,512
Salaries and wages paid \$'000	9,314	9,834	9,929	9,680	10,559
Value of power, fuel, etc., used \$'000	1,855	1,889	1,902	1,873	2,029
Value of materials used \$'000	115,911	125,651	123,862	120,792	132,712
Value of production \$'000	22,200	23,674	23,456	23,910	27,962
Total value of output \$'000	139,966	151,214	149,220	146,575	162,703
Value of land and buildings \$'000	13,964	14,718	14,227	15,769	18,024
Value of plant and machinery \$'000	12,350	11,368	10,922	11,696	13,065
Horse-power of engines ordinarily in use . . h.p.	49,253	50,265	48,586	47,393	54,256

OTHER GRAIN MILLS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	234	237	242	244	254
Number of persons employed	4,740	4,988	5,106	5,829	5,322
Salaries and wages paid \$'000	9,215	9,956	10,423	10,954	11,495
Value of power, fuel, etc., used \$'000	1,910	1,965	2,100	2,164	2,227
Value of materials used \$'000	58,271	64,399	65,589	69,965	77,154
Value of production \$'000	26,038	26,596	29,445	32,399	35,718
Total value of output \$'000	86,219	92,960	97,134	104,528	115,100
Value of land and buildings \$'000	11,099	11,604	12,467	13,959	15,464
Value of plant and machinery \$'000	11,810	12,269	13,653	14,821	15,778
Horse-power of engines ordinarily in use . . h.p.	45,173	45,728	48,674	51,610	53,849

BAKERIES (INCLUDING CAKES AND PASTRY)

AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62	1962-63	1963-64
Number of factories	3,999	3,895	3,855	3,779	3,689
Number of persons employed	21,253	21,743	20,566	21,061	21,627
Salaries and wages paid \$'000	29,872	32,893	31,899	33,708	36,163
Value of power, fuel, etc., used \$'000	5,248	5,475	5,338	5,479	5,635
Value of materials used \$'000	96,775	103,014	97,754	100,009	104,820
Value of production \$'000	70,790	76,617	77,063	83,058	86,550
Total value of output \$'000	172,813	185,106	180,155	188,546	197,005
Value of land and buildings \$'000	47,899	52,560	55,076	58,474	61,898
Value of plant and machinery \$'000	30,244	35,202	33,783	37,407	37,903
Horse-power of engines ordinarily in use . . h.p.	34,954	40,899	35,934	37,589	40,175

(a) Includes confectionery in Tasmania.

The table above contains information regarding establishments in which the manufacture of bread, cakes, etc., was carried on. Since the details refer only to establishments coming within the definition of a factory as explained at the beginning of this chapter, the table does not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded.

BISCUITS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	51	52	53	52	53
Number of persons employed	6,079	6,153	6,092	6,199	6,262
Salaries and wages paid \$'000	9,818	10,283	10,903	11,237	11,696
Value of power, fuel, etc., used \$'000	1,075	1,087	1,106	1,145	1,170
Value of materials used \$'000	23,246	24,170	25,448	26,052	27,483
Value of production \$'000	18,342	19,659	20,670	20,960	21,628
Total value of output \$'000	42,663	44,916	47,224	48,157	50,281
Value of land and buildings \$'000	9,515	10,005	10,531	11,411	11,278
Value of plant and machinery \$'000	7,455	8,002	8,341	8,462	8,868
Horse-power of engines ordinarily in use . . h.p.	13,290	13,720	14,017	13,443	16,381

Three-quarters of the output of biscuits comes from New South Wales and Victoria.

SUGAR-MILLS: NEW SOUTH WALES AND QUEENSLAND, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
New South Wales—					
Number of factories	3	3	3	3	3
Number of persons employed	243	200	219	261	247
Queensland—					
Number of factories	31	31	31	31	31
Number of persons employed	6,197	6,014	6,053	6,387	6,981

Sugar-cane is grown in New South Wales and Queensland, and particulars of area, yield, etc. are given in detail in the chapter Rural Industry. The products of the sugar-mills are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. In 1963-64 there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia.

CONFECTIONERY: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60(a)	1960-61(a)	1961-62	1962-63	1963-64
Number of factories	214	209	197	189	189
Number of persons employed	6,765	6,890	7,987	8,015	8,156
Salaries and wages paid \$'000	10,786	11,332	14,277	14,555	15,185
Value of power, fuel, etc., used \$'000	1,110	1,183	1,451	1,542	1,595
Value of materials used \$'000	35,348	36,767	44,955	46,426	49,471
Value of production \$'000	22,278	24,781	29,660	31,604	32,371
Total value of output \$'000	58,736	61,731	76,066	79,572	83,437
Value of land and buildings \$'000	10,617	11,180	15,269	17,264	17,459
Value of plant and machinery \$'000	9,489	10,855	15,270	16,954	17,780
Horse-power of engines ordinarily in use . . h.p.	30,571	32,006	38,948	42,665	43,165

(a) Excludes Tasmania. In Bakeries, etc., page 135.

New South Wales, Victoria and Tasmania produce most of the output of the above industry.

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	177	172	172	170	167
Number of persons employed	10,793	10,865	12,092	11,897	12,397
Salaries and wages paid \$'000	19,787	20,154	23,652	24,152	25,961
Value of power, fuel, etc., used \$'000	1,984	2,074	2,402	2,412	2,609
Value of materials used \$'000	79,906	83,735	101,634	95,297	103,551
Value of production \$'000	40,508	42,151	55,805	55,764	60,924
Total value of output \$'000	122,398	127,960	159,841	153,473	167,084
Value of land and buildings \$'000	24,190	26,299	28,838	29,840	32,105
Value of plant and machinery \$'000	20,323	22,422	24,471	26,458	30,011
Horse-power of engines ordinarily in use . . h.p.	42,250	44,819	45,852	48,574	53,024

BACON-CURING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	83	83	83	87	85
Number of persons employed	4,068	4,215	4,482	4,675	4,865
Salaries and wages paid \$'000	7,706	8,269	8,831	9,315	9,924
Value of power, fuel, etc., used \$'000	864	880	985	1,043	1,113
Value of materials used \$'000	56,438	58,090	54,190	61,989	67,841
Value of production \$'000	13,557	15,925	19,051	19,563	19,155
Total value of output \$'000	70,859	74,895	74,226	82,595	88,109
Value of land and buildings \$'000	6,776	7,926	8,045	8,546	8,750
Value of plant and machinery \$'000	4,100	5,488	4,958	5,455	5,919
Horse-power of engines ordinarily in use . . h.p.	15,670	16,044	17,537	18,236	18,152

Bacon and ham and other pig products are dealt with more fully in the chapter Rural Industry.

BUTTER, CHEESE AND CONDENSED AND PROCESSED MILK
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	363	361	353	348	347
Number of persons employed	11,139	11,072	11,317	11,320	11,510
Salaries and wages paid \$'000	22,084	23,049	24,476	24,883	26,314
Value of power, fuel, etc., used \$'000	5,840	5,650	5,863	5,961	6,138
Value of materials used \$'000	224,614	213,214	223,850	226,691	244,587
Value of production \$'000	49,633	48,974	51,586	52,425	59,237
Total value of output \$'000	280,087	267,838	281,299	285,077	309,962
Value of land and buildings \$'000	28,044	29,403	30,554	31,032	31,534
Value of plant and machinery \$'000	32,337	34,092	35,443	37,797	39,361
Horse-power of engines ordinarily in use . . h.p.	111,149	114,392	114,643	118,087	120,084

Victoria produces more than half the total Australian output of the industry. The butter, cheese and condensed milk industries are dealt with more fully in the chapter Rural Industry.

MEAT AND FISH PRESERVING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	128	143	149	159	164
Number of persons employed	9,326	9,031	9,491	10,032	10,161
Salaries and wages paid \$'000	19,829	18,638	21,048	21,917	22,923
Value of power, fuel, etc., used \$'000	2,488	2,399	2,623	2,854	3,146
Value of materials used \$'000	130,232	125,372	133,621	142,070	158,668
Value of production \$'000	28,389	30,771	37,687	38,266	43,539
Total value of output \$'000	161,109	158,542	173,931	183,190	205,353
Value of land and buildings \$'000	17,234	18,693	20,859	20,624	21,013
Value of plant and machinery \$'000	11,158	13,512	14,163	15,447	15,162
Horse-power of engines ordinarily in use . . h.p.	39,390	44,731	49,253	53,652	56,424

The industries included in this group are engaged chiefly in the freezing and preserving of meat. Most abattoirs are excluded, except in Queensland and Western Australia. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. In recent years there has been considerable expansion in the canning of meat and fish. Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in the chapter Rural Industry.

CONDIMENTS, COFFEE, SPICES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	250	254	258	260	238
Number of persons employed	4,407	4,487	4,463	5,283	5,218
Salaries and wages paid \$'000	6,973	7,542	7,714	9,805	9,975
Value of power, fuel, etc., used \$'000	552	565	597	685	743
Value of materials used \$'000	37,024	38,429	39,470	43,940	45,737
Value of production \$'000	19,781	21,077	22,211	27,558	27,506
Total value of output \$'000	57,357	60,071	61,278	72,183	73,986
Value of land and buildings \$'000	11,708	13,652	15,284	18,519	18,766
Value of plant and machinery \$'000	4,823	5,662	7,143	8,330	7,956
Horse-power of engines ordinarily in use . . h.p.	12,941	14,231	14,625	16,811	17,088

BREWERIES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	25	25	25	24	24
Number of persons employed	5,701	5,626	5,512	5,741	5,744
Salaries and wages paid \$'000	12,876	13,308	13,756	14,001	14,753
Value of power, fuel, etc., used \$'000	2,981	2,988	3,062	3,118	3,141
Value of materials used \$'000	45,463	48,606	51,496	54,311	59,967
Value of production \$'000	37,240	39,579	43,113	45,609	48,355
Total value of output(a) \$'000	85,684	91,173	97,671	103,038	111,463
Value of land and buildings \$'000	25,847	26,006	27,148	29,681	30,121
Value of plant and machinery \$'000	30,852	29,697	31,250	30,005	30,733
Horse-power of engines ordinarily in use . . . h.p.	48,396	49,172	50,083	50,237	53,765

(a) Excludes excise duty.

AERATED WATERS AND CORDIALS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	552	548	535	525	509
Number of persons employed	5,021	5,275	4,960	5,190	5,193
Salaries and wages paid \$'000	8,205	8,917	8,660	9,054	9,434
Value of power, fuel, etc., used \$'000	812	821	808	879	936
Value of materials used \$'000	25,530	26,799	25,543	28,059	30,985
Value of production \$'000	22,711	23,316	23,984	26,691	27,473
Total value of output \$'000	49,053	50,936	50,335	55,629	59,394
Value of land and buildings \$'000	12,464	14,976	15,670	17,251	19,027
Value of plant and machinery \$'000	9,033	10,324	11,403	11,991	12,688
Horse-power of engines ordinarily in use . . . h.p.	15,799	16,363	16,350	17,116	17,610

WINERIES AND DISTILLERIES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	165	164	153	161	169
Number of persons employed	2,058	2,095	2,111	2,084	2,204
Salaries and wages paid \$'000	3,780	4,034	4,136	4,100	4,459
Value of power, fuel, etc., used \$'000	804	766	810	772	798
Value of materials used \$'000	15,974	18,656	19,535	18,271	21,431
Value of production \$'000	9,801	8,854	9,728	9,468	11,874
Total value of output \$'000	26,579	28,276	30,073	28,511	34,103
Value of land and buildings \$'000	5,518	6,163	6,081	6,588	7,285
Value of plant and machinery \$'000	5,615	6,030	6,660	7,429	7,789
Horse-power of engines ordinarily in use . . . h.p.	11,604	16,450	16,676	17,601	17,942

South Australia is the principal wine-producing State, and produces more than half the Australian output. Most of the remainder comes from New South Wales and Victoria.

TOBACCO, CIGARS AND CIGARETTES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	21	20	18	18	15
Number of persons employed	5,046	5,178	4,914	4,671	4,498
Salaries and wages paid \$'000	9,548	10,464	10,564	10,277	10,898
Value of power, fuel, etc., used \$'000	353	450	468	512	508
Value of materials used \$'000	73,157	81,431	77,136	78,592	78,380
Value of production \$'000	33,778	36,757	38,981	40,377	45,233
Total value of output(a) \$'000	107,288	118,638	116,585	119,481	124,121
Value of land and buildings \$'000	7,240	7,103	8,613	9,280	10,004
Value of plant and machinery \$'000	9,923	12,418	13,719	14,187	13,784
Horse-power of engines ordinarily in use . . . h.p.	10,417	10,342	11,203	12,033	11,955

(a) Excludes excise duty.

There are no such factories in South Australia or Tasmania, and Queensland and Western Australian production is relatively small.

ICE-CREAM: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	52	55	55	54	53
Number of persons employed	2,080	2,124	2,237	2,295	2,518
Salaries and wages paid \$'000	3,569	3,730	4,383	4,791	5,429
Value of power, fuel, etc., used \$'000	761	789	825	905	1,040
Value of materials used \$'000	12,353	12,923	14,324	15,273	17,098
Value of production \$'000	10,110	9,817	11,972	11,676	13,902
Total value of output \$'000	23,224	23,529	27,121	27,854	32,040
Value of land and buildings \$'000	6,790	7,072	7,185	9,654	11,297
Value of plant and machinery \$'000	6,331	6,520	7,500	13,468	15,260
Horse-power of engines ordinarily in use . . h.p.	15,959	15,068	16,071	18,468	20,562

SAWMILLS AND PLYWOOD AND VENEER MILLS
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	2,791	2,703	2,585	2,514	2,421
Number of persons employed	36,040	34,701	32,382	31,993	32,202
Salaries and wages paid \$'000	62,345	63,186	59,631	60,217	63,119
Value of power, fuel, etc., used \$'000	5,208	5,243	5,196	5,258	5,324
Value of materials used \$'000	153,353	150,112	143,355	146,066	156,464
Value of production \$'000	116,825	113,051	106,984	106,431	115,903
Total value of output \$'000	275,386	268,406	255,535	257,755	277,691
Value of land and buildings \$'000	33,311	37,096	36,028	37,590	39,004
Value of plant and machinery \$'000	39,271	41,034	40,444	40,573	40,111
Horse-power of engines ordinarily in use . . h.p.	407,440	425,280	417,084	428,421	437,807

Sawmilling is the most important industry in Class 10. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the above table, together with plywood and veneer mills. The figures exclude particulars of a small number of itinerant and travelling sawmills.

JOINERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	2,149	2,217	2,256	2,247	2,239
Number of persons employed	17,203	17,912	17,239	17,509	17,594
Salaries and wages paid \$'000	30,861	34,383	34,051	35,340	36,706
Value of power, fuel, etc., used \$'000	827	911	919	965	969
Value of materials used \$'000	59,409	65,671	63,174	64,092	70,156
Value of production \$'000	48,890	54,436	53,423	55,761	59,291
Total value of output \$'000	109,126	121,018	117,516	120,818	130,416
Value of land and buildings \$'000	23,398	27,316	28,673	30,543	32,757
Value of plant and machinery \$'000	8,886	9,651	10,096	10,200	10,811
Horse-power of engines ordinarily in use . . h.p.	80,902	86,375	86,240	89,459	89,578

CABINET AND FURNITURE MAKING AND UPHOLSTERY
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,664	1,633	1,617	1,625	1,638
Number of persons employed	16,475	15,711	15,132	15,726	15,948
Salaries and wages paid \$'000	28,374	28,437	28,166	29,395	30,874
Value of power, fuel, etc., used \$'000	692	700	736	776	830
Value of materials used \$'000	52,246	51,999	53,110	56,241	61,062
Value of production \$'000	47,003	46,270	46,096	48,738	52,312
Total value of output \$'000	99,941	98,969	99,942	105,755	114,204
Value of land and buildings \$'000	23,236	25,438	27,246	29,309	30,905
Value of plant and machinery \$'000	5,737	5,928	6,316	6,982	7,716
Horse-power of engines ordinarily in use . . h.p.	45,955	45,313	46,000	45,641	46,599

These industries constitute the principal manufactures in Class 11.

**GOVERNMENT AND GENERAL PRINTING WORKS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,573	1,641	1,706	1,738	1,780
Number of persons employed	27,744	29,080	29,936	30,614	31,637
Salaries and wages paid \$'000	53,421	58,730	61,826	64,592	69,623
Value of power, fuel, etc., used \$'000	1,593	1,785	1,884	2,058	2,227
Value of materials used \$'000	70,349	76,498	74,945	82,395	89,280
Value of production \$'000	93,135	102,246	110,134	117,270	124,881
Total value of output \$'000	165,077	180,529	186,963	201,723	216,388
Value of land and buildings \$'000	43,197	51,227	59,364	61,046	67,550
Value of plant and machinery \$'000	38,702	43,778	47,418	50,504	54,510
Horse-power of engines ordinarily in use . . h.p.	43,561	47,269	50,129	52,182	54,491

The establishments covered in the table above include those engaged in lithographic printing, bookbinding, paper ruling and linotyping, and Government printing works.

NEWSPAPERS AND PERIODICALS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	429	420	421	415	411
Number of persons employed	15,437	15,789	15,491	15,500	16,052
Salaries and wages paid \$'000	34,112	38,011	37,748	38,140	40,225
Value of power, fuel, etc., used \$'000	1,230	1,307	1,352	1,392	1,480
Value of materials used \$'000	59,453	61,474	55,634	58,153	61,446
Value of production \$'000	61,534	67,994	69,088	70,385	74,133
Total value of output \$'000	122,217	130,775	126,074	129,930	137,059
Value of land and buildings \$'000	30,385	32,032	33,236	34,396	39,053
Value of plant and machinery \$'000	27,920	28,832	31,438	32,400	37,403
Horse-power of engines ordinarily in use . . h.p.	40,116	45,815	45,776	44,094	44,029

MANUFACTURED STATIONERY: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	143	142	153	150	148
Number of persons employed	5,088	5,148	5,221	5,436	5,563
Salaries and wages paid \$'000	9,083	9,527	10,262	10,946	11,746
Value of power, fuel, etc., used \$'000	371	390	450	465	524
Value of materials used \$'000	24,902	26,360	30,328	33,299	37,028
Value of production \$'000	22,617	21,511	25,290	26,818	30,272
Total value of output \$'000	47,890	48,261	56,068	60,582	67,824
Value of land and buildings \$'000	10,374	11,018	12,843	14,329	14,645
Value of plant and machinery \$'000	7,020	7,418	8,793	10,274	10,774
Horse-power of engines ordinarily in use . . h.p.	9,132	9,462	10,853	10,936	10,955

New South Wales and Victoria produce about 90 per cent of the output of this industry.

**CARDBOARD BOXES, CARTONS AND CONTAINERS AND PAPER BAGS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	226	231	239	243	254
Number of persons employed	9,429	10,041	10,133	10,832	11,501
Salaries and wages paid \$'000	17,801	19,353	20,432	22,236	24,543
Value of power, fuel, etc., used \$'000	756	824	892	965	1,045
Value of materials used \$'000	63,160	66,994	71,375	79,851	87,003
Value of production \$'000	40,170	42,814	44,823	48,202	53,694
Total value of output \$'000	104,086	110,632	117,090	129,018	141,743
Value of land and buildings \$'000	17,601	21,190	22,886	27,081	30,764
Value of plant and machinery \$'000	16,167	20,401	21,847	25,083	26,268
Horse-power of engines ordinarily in use . . h.p.	19,594	21,613	22,961	26,217	28,154

PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	20	22	23	24	26
Number of persons employed	8,775	8,822	8,147	8,678	9,205
Salaries and wages paid \$'000	23,959	24,111	22,437	24,694	28,011
Value of power, fuel, etc., used \$'000	7,812	8,400	8,219	9,305	9,944
Value of materials used \$'000	53,202	55,847	53,010	59,800	66,555
Value of production \$'000	56,652	55,316	52,911	60,409	66,195
Total value of output \$'000	117,666	119,563	114,140	129,514	142,694
Value of land and buildings \$'000	26,614	27,965	31,809	34,336	34,310
Value of plant and machinery \$'000	54,037	66,753	67,470	73,911	73,352
Horse-power of engines ordinarily in use . . h.p.	189,774	216,539	215,927	256,291	256,769

Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938-39 that any marked development occurred. The number of factories operating in 1963-64 comprised four in New South Wales, thirteen in Victoria, two in Queensland, two in South Australia, one in Western Australia, and four in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States, wrappings, other papers and boards. Mills producing pulp from eucalypt timber are operating in Victoria and Tasmania, while in South Australia pulp is being produced from locally-grown softwoods.

RUBBER GOODS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	118	116	114	117	119
Number of persons employed	15,620	15,416	13,993	15,702	16,944
Salaries and wages paid \$'000	34,283	34,077	31,439	37,482	41,181
Value of power, fuel, etc., used \$'000	4,635	4,763	4,562	5,112	5,354
Value of materials used \$'000	86,764	84,077	71,884	86,020	93,452
Value of production \$'000	52,145	56,052	52,447	61,433	67,037
Total value of output \$'000	143,544	144,892	128,893	152,565	165,843
Value of land and buildings \$'000	15,170	18,242	18,979	20,887	32,160
Value of plant and machinery \$'000	19,086	20,530	20,613	23,196	30,688
Horse-power of engines ordinarily in use . . h.p.	128,393	131,947	134,428	140,956	151,918

Victorian and New South Wales factories produce about 90 per cent of the output of this industry.

TYRE RETREADING AND REPAIRING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	502	513	536	542	555
Number of persons employed	3,043	2,979	3,181	3,214	3,317
Salaries and wages paid \$'000	5,372	5,492	6,122	6,434	6,822
Value of power, fuel, etc., used \$'000	813	831	887	897	930
Value of materials used \$'000	11,867	12,673	13,784	14,505	15,903
Value of production \$'000	12,132	13,799	16,128	16,889	18,667
Total value of output \$'000	24,812	27,303	30,799	32,291	35,500
Value of land and buildings \$'000	11,706	12,822	14,771	16,721	18,435
Value of plant and machinery \$'000	5,394	5,449	5,536	5,359	5,844
Horse-power of engines ordinarily in use . . h.p.	11,494	12,039	13,079	13,865	14,406

PLASTIC MOULDING AND PRODUCTS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	375	398	421	430	440
Number of persons employed	10,180	10,658	10,496	11,801	12,668
Salaries and wages paid \$'000	20,320	21,507	21,302	25,083	27,904
Value of power, fuel, etc., used \$'000	1,698	1,800	1,933	2,257	2,530
Value of materials used \$'000	52,787	49,226	48,520	57,598	63,489
Value of production \$'000	39,772	40,789	41,834	48,499	57,641
Total value of output \$'000	94,257	91,815	92,287	108,354	123,660
Value of land and buildings \$'000	15,613	17,556	20,111	23,321	25,485
Value of plant and machinery \$'000	16,017	19,494	21,210	25,397	28,965
Horse-power of engines ordinarily in use . . h.p.	37,055	41,635	47,083	54,576	58,759

ELECTRIC LIGHT AND POWER WORKS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	304	290	285	275	269
Number of persons employed	12,810	12,298	12,441	12,272	12,162
Salaries and wages paid \$'000	29,128	30,036	31,832	32,007	31,235
Value of power, fuel, etc., used \$'000	81,511	84,733	83,361	81,642	85,708
Value of materials used \$'000	9,678	9,952	10,573	10,386	11,492
Value of production \$'000	142,511	150,944	157,069	179,113	194,020
Total value of output \$'000	233,700	245,629	251,003	271,141	291,220
Value of land and buildings \$'000	272,172	279,580	490,779	499,901	497,126
Value of plant and machinery \$'000	519,798	556,014	583,073	613,244	622,087
Generators installed—kilowatt capacity '000kW	5,953	6,665	7,215	7,499	7,583

Further information on this subject is continued in the chapter Electric Power Generation and Distribution.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 108.

GAS-WORKS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	88	84	85	87	87
Number of persons employed	3,790	3,733	3,674	3,561	3,449
Salaries and wages paid \$'000	8,734	9,164	9,260	9,288	9,157
Value of power, fuel, etc., used \$'000	5,884	6,025	6,156	5,710	5,627
Value of materials used \$'000	29,475	29,778	28,360	26,651	26,586
Value of production \$'000	24,075	27,083	28,108	31,739	33,289
Total value of output \$'000	59,434	62,886	62,624	64,100	65,502
Value of land and buildings \$'000	11,892	14,469	15,036	15,072	15,327
Value of plant and machinery \$'000	58,692	58,693	59,691	59,382	60,559
Horse-power of engines ordinarily in use . . . h.p.	46,058	46,363	52,037	58,989	56,803