CHAPTER 22

MANUFACTURING INDUSTRY

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 series of substantially uniform statistics exist from that time up until 1967-68, when the framework within which manufacturing industry statistics were collected, was changed. Manufacturing statistics for the latest years for which they are available commence on page 716.

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).

Decentralisation of manufacturing industries

The decentralisation 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).

Bounties on manufacture

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 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 Chapter 18, Public Finance for products on which bounties are paid.)

Standardisation

The Commonwealth Scientific and Industrial Research Organization has 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 Standards Association of Australia is the organisation responsible for industrial standardisation on a national basis. It issues Australian standards for materials and products and standard codes of practice.

Formed as the Australian Commonwealth Engineering Standards Association in 1922, it was reconstituted as the Standards Association of Australia in 1929, and was incorporated by Royal Charter in 1950. It is an independent body having the full recognition and support of the Commonwealth and State Governments and of industry. Approximately half its funds are provided by Commonwealth Government grant, the remainder coming primarily from membership subscriptions and from sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Commonwealth and State Governments and their departments, from associations of manufacturing and commercial interests, and from professional institutions. Standards are prepared by committees composed of expert representatives from the interests associated with the subjects under consideration. This assistance is on a voluntary basis.

Preparation of standards is undertaken in response to requests from industrial associations or firms or from government departments. Standards may relate to one or more of several aspects of industrial practice such as terminology, test methods, dimensions, specifications of performance and quality of products, and safety or design codes. In general, standards derive authority from voluntary adoption based on their intrinsic merit, but in special cases where safety of life or property is involved, they may have compulsory application through statutory reference.

The Association is the owner of a registered certification trade mark covering conformity of products to standards. Manufacturers of products covered by Australian standards may obtain a licence to use the Australian Standard Mark, under conditions established by the Association.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electrotechnical Commission (IEC). Close links are maintained with overseas standards organisations, and the Association acts as Australian agent for the procurement of ISO and IEC publications and the standards of other countries.

The Association has two specialised libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organisations. These libraries provide necessary material for committee work and a free information service to those concerned with standards.

The headquarters office of the Association is in Sydney, and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

The National Association of Testing Authorities organises testing facilities throughout Australia to serve private and governmental needs.

Membership is open to authorities whose testing laboratories conform to the standards of staffing and operation defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, non-destructive testing, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement. In June 1970 766 laboratories held NATA registration. A further 52 laboratories had been nominated for registration.

The Industrial Design Council of Australia was established in June 1958 for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. The Council is fully representative of industry, commerce and government, together with designers and educationists. Its activities are financed by donations from industry and commerce, and by Commonwealth and State grants. IDCA has established Australian design centres in Adelaide, Melbourne and Sydney. These centres display Australian products of approved design and present changing exhibitions relating to design in manufactured articles. IDCA is also responsible for the Australian Design Index which provides a detailed, illustrated record of well-designed Australian products.

The Design Delegate scheme enables regular contact to be maintained with senior executives of manufacturing companies, departmental officers and designers wishing to participate actively in IDCA's programme of lectures, information, and guidance on all aspects of industrial design. Services to design delegates are administered by IDCA through its design centres.

A Record of Designers has been set up to register information about industrial designers and their work. The Council, which has its headquarters in Melbourne, is also concerned with raising the standard of training in industrial design in co-operation with education authorities. For further particulars see Year Book No. 51, page 145.

Overseas participation in Australian manufacturing industry

For further particulars, see Year Book No. 51, pages 143-4.

Manufacturing industry statistics

As mentioned on page 711, the manufacturing census was changed in respect of 1968-69, as a result of which statistics for that year are not directly comparable with previous years, details of which are given on page 722.

Manufacturing Census, 1968-69

For the year ended June 1969, the Censuses of Manufacturing and Electricity and Gas were conducted for the first time on an integrated basis with Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses in 1968-69, details of which are given on page 720. The integration of these economic censuses was designed to increase substantially

the usefulness and comparability of economic statistics collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The economic censuses of Manufacturing, Mining and Retail Trade previously conducted in Australia were originally designed and subsequently developed primarily to provide statistics for particular industries on a basis which would best suit the requirements of users interested in statistics of those industries. More recently there has been a growth of interest in statistics describing activity in the economy as a whole—reflected, for example, in the development of employment and earnings statistics, surveys of capital expenditure and stocks and the whole field of national accounts statistics. For such purposes statistics derived from economic censuses in the past have had serious limitations despite the fact that they covered a broad area of the whole economy. Because of the special-purpose nature of each of the censuses, there were no common definitions of data, there was no common system of reporting units, and, as a standard industrial classification was not used for these censuses, industry boundaries were not defined in ways which would avoid overlapping or gaps occurring between the industrial sectors covered. For these reasons, direct aggregation and comparison of statistics from different censuses were not possible.

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

For the integration of the various censuses it was necessary to undertake three major developments:

- (a) The census units for which the statistics were to be collected (factories, mines, shops, etc.) had to be defined and identified in consistent ways and recorded in a central register, together with identifying data about the businesses owning and operating them.
- (b) A standard industrial classification had to be adopted so that the census units could be classified in consistent ways and to enable the boundaries of the various economic censuses to be determined without gaps or overlapping between them.
- (c) In order to bring the items of data to a consistent basis of definition in all censuses, it was necessary to revise all the forms used in previous censuses.

The standardisation of census units in the integration of economic censuses means that the basic census unit (the establishment), in general, now covers all the operations carried on under the one ownership at a single physical location. The manufacturing establishment is thus one predominantly engaged in manufacturing but the data supplied for it now covers (with a few exceptions) all activities at the location. Previously, the manufacturing establishment covered only a specified manufacturing activity primary to one class of industry. It now covers, in addition, subject to certain exceptions mentioned below:

- (a) Any other manufacturing activity (i.e. production of goods primary to another class of industry).
- (b) Any selling and distribution activities connected with the products manufactured.
- (c) Any non-manufacturing activity (e.g. merchanting of goods not manufactured by the establishment; extraction of raw materials for use by the establishment).

The exceptions in general relate to locations where the subsidiary activities (in terms of gross value) exceed \$1 million, which are treated for statistical purposes as two or more establishments corresponding to the various kinds of activity carried on.

The establishment statistics (other than 'number of establishments') also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business enterprise which owns and operates the establishment. These units were formally excluded from the manufacturing census. They are units such as head offices, storage premises and manufacturers' sales branches or sales offices (except those of the kind which distribute to customers from stocks held by such branches or offices which are treated as establishments in the wholesale census).

The Australian Standard Industrial Classification (ASIC), described in the publication Australian Standard Industrial Classification (Preliminary Edition) 1969 Vol. 1, defines the industries in the economy for statistical purposes thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them. It also sets out standard rules for identifying the statistical units (e.g. establishments) and for coding them to the industries of the classification. This classification is broadly convertible to the International Standard Industrial Classification adopted by the United Nations Statistical Commission. The adoption of the ASIC has resulted in changes in scope between the 1968–69 economic censuses and the individual economic censuses conducted in previous years. The main changes in scope in the manufacturing census, apart from providing for a separate census for electricity and gas, are as follows:

- (a) Establishments mainly engaged in the following activities, previously included in manufacturing census, are excluded in 1968-69: motor vehicle repairs but not engine reconditioning; repair and servicing of agricultural machinery; dry-cleaning, laundering and clothes dyeing services; watch, clock and jewellery repairing; boot and shoe repairing; tyre retreading and repairing; custom dressmaking and tailoring (including clothing repair and alterations); installing and repairing of blinds and awnings, making up and installing of curtains; and repair of domestic appliances. Establishments mainly engaged in these activities are included in the 1968-69 Census of Retail Trade and Selected Services or the Census of Wholesale Trade.
- (b) Establishments mainly engaged in the following activities, previously excluded in most States from manufacturing censuses, are included in 1968-69: slaughtering; milk treatment; and publishing.

An indication of the effect of the above changes arising from the adoption of the new industrial classification, can be gained from the following comparison. In the 1967-68 manufacturing census there were approximately 62,600 manufacturing establishments (excluding electricity and gas establishments) in Australia. Of these, approximately 38,400 would have been included in the 1967-68 census if ASIC had been used. This decreased of 24,200 in the number of manufacturing establishments is due to the exclusion from the manufacturing census of the establishments referred to in the preceding paragraph. Figures for the individual States and Territories are shown in the following table.

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of manufacturing establishments in the 1967-68 census Approximate number of manufacturing establishments that would have been	24,800	18,000	6,100	6,200	5,300	1,800	180	240	62,600
in the 1967-68 census if ASIC had been used	14,600	12,500	4,200	3,200	2,600	1,000	70	130	38,400

In the 1968-69 census, the number of manufacturing establishments was about 38,800, representing a net increase of about 400 over the adjusted number for 1967-68. This increase is accounted for by the inclusion of establishments not formerly in the manufacturing census, together with the difference between the number of establishments which commenced operations during 1968-69 and the number which ceased operations during 1967-68.

The third step in integrating the censuses, whereby the items of data on the census forms were standardised for all census sectors, has meant changes in the content of the statistics. For example, the value of 'turnover' is now collected instead of the value of output at the factory, and purchases and selected expenses are collected as well as the value of specified materials, fuels, etc. used. However the underlying concept of 'value added', is similar to the former concept 'value of production', even though its method of derivation is different. Value added, the basic measure of the establishment's contribution to total production, is now calculated as turnover* less purchases and transfers in (from other establishments of the enterprise), plus increase (or less decrease) in stocks. In the past the corresponding item, value of production, was obtained by deducting the value of materials, fuels, etc. used from the value of output at the factory. A detailed comparison of the method of derivation is shown in the following table.

^{*} In this section 'sales, transfers out and other operating revenue' appears instead of 'turnover', as two components of turnover have been omitted from the preliminary statistics which are shown for 1968-69. These are 'capital work done for own use' and 'bounties and subsidies on production'.

Value of production 1967–68	Value added 1968–69
Selling value at works, exclusive of all delivery costs or changes, of goods manufactured, treated or worked up during the year, including by-products, plus	Sales, and transfers out (to other establishments of the enterprise), of goods manufactured by the establishment, plus Sales and transfers out of goods not manufactured
Value of other work done, such as repairing and making up for customers, etc.	by the establishment, plus Bounties and subsidies on production(a), plus All other operating income, plus Capital work done for own use, or for rental or lease(a)
Equals: Value of output	Equals: Value of turnover Plus: Value of stocks at 30 June 1969 Less: Value of stocks at 30 June 1968
Less—	Less—
Value of materials used	Purchases and transfers in of materials, electricity,
Power, fuel and light used	fuels, containers, etc.
Water used	Purchases and transfers in of goods for resale
Lubricating oils used	Charges for commission and subcontract work
Repairs, etc.	Repair and maintenance expenses
Containers used	Outward freight and cartage, motor vehicle running expenses, sales commission payments
Equals: Value of production	Equals: Value added

(a) Omitted from 1968-69 statistics which are preliminary and subject to revision.

Even though the concept of value added is similar to value of production, direct comparison of 1968-69 and 1967-68 figures will not be possible because of the change in census units already mentioned which has resulted in the value added for the whole establishment being reported, not merely the value added for the manufacturing process. Comparison is also affected, of course, by the change in the scope of the manufacturing census due to the adoption of ASIC.

The statistics in this chapter are preliminary and subject to revision. At this stage, the splitting of locations referred to previously on page 713 has not been completed, the detailed industry classification of establishments has not been carried out, and transfers between establishments of the same enterprise have been valued or reported in returns (in the final publication, some of these transfers will be adjusted to achieve a consistent basis of valuation). For these reasons, only key items of data are presented in this chapter for broad industry groups.

For a more detailed description of the Integrated Economic Censuses reference should be made to Chapter 31, Year Book No. 56.

Summary of operations

The following table shows the summary of operations for manufacturing establishments.

MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS BY INDUSTRY SUB-DIVISION: AUSTRALIA, 1968-69

Industry sub-divisio	ASIC code	Number of estab- lish- ments opera- ting during 1968-69	-	employe Females		Wages and salaries	Sales, trans- fers out and other opera- ting revenue	Stocks at	1 30 June	Pur- chases, trans- fers in and selected ex- penses	Value added
		No.	No.	No.	No.	\$m	\$m	\$m	\$m	\$m	\$m
Food, beverages and tobacco	21-2	5,613	142,893	51,160	194,053	567.1	4,202.2	513.4	556.3	3,036.9	1,208.3
Textiles; clothing and footwear Wood, wood pro-	23, 24	4,488	59,821	121,996	181,817	421.9	1,685.0	307.8	325.5	996.4	706.3
ducts and furni- ture Paper and paper	25	6,653	75,187	11,481	86,668	230.1	954.5	131.7	139.9	557.0	405.6
products, print- ing Chemical, petro- leum and coal	26	3,834	78,991	30,379	109,370	350.7	1,346.7	177.7	188.7	697.3	660.4
products .	27	1,263	50,238	18,221	68,459	246.8	1,639.0	316.0	312.3	998.6	636.6
Non-metallic min- eral products	28	2,063	51,468	5,485	56,953	190.6	806.6	104.0	112.7	430.6	384.7
Basic metal pro- ducts	29	413	78,589	5,152	83,741	317.0	2,070.9	354.2	392.0	1,444.3	664.4
Transport equip- ment . Fabricated metal products; other	32	1,473	131,520	13,601	145,121	462.8	1,987.2	353.2	376.8	1,147.5	863.3
machinery and equipment	31, 33	10,697	258,772	70,473	329,245	1,023.8	3,866.7	811.4	892.1	2,225.3	1,721.9
Miscellaneous manufacturing	34	2,337	42,024	22,716	64,740	186.1	790.8	135.1	151.2	469.3	337.6
Total manu- facturing		38,834	969,503	350,664	1,320,167	3,996.9	19,349.7	3,204.6	3,447.4	12,003.2	7,589.0

⁽a) Australian Standard Industrial Classification.

Number of establishments

The following table shows the number of establishments, in each State, which operated during the year 1968-69. These figures relate to manufacturing establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

MANUFACTURING ESTABLISHMENTS—NUMBER OF ESTABLISHMENTS OPERATING DURING 1968-69, BY STATE AND ASIC(a) SUB-DIVISION: STATES AND TERRITORIES

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Food, beverages and tobacco.	21-2	1,634	1,539	1,103	557	528	216	23	13	5,613
Textiles; clothing and footwear Wood, wood products and	23, 24	1,827	2,133	230	165	107	26	•••	••	4,488
furniture	25	2,252	1,724	1,028	558	591	461	5	34	6,653
Paper and paper products, printing	26	1,568	1,430	301	253	197	55	4	26	3,834
Chemical, petroleum and coal products	27	611	372	90	101	75	14			1,263
Non-metallic mineral products	28	728	575	230	224	215	60	18	13	2,063
Basic metal products	29	187	98	61	35	22	10			413
Transport equipment Fabricated metal products; other machinery and equip-	32	515	441	192	149	148	28	••	• •	1,473
ment	31, 33	4,451	3,451	893	974	728	153	21	26	10,697
Miscellaneous manufacturing	34	1,032	724	186	208	163	16	4	4	2,337
Total manufacturing .		14,805	12,487	4,314	3,224	2,774	1,039	75	116	38,834

⁽a) Australian Standard Industrial Classification.

⁽b) Includes working proprietors.

Employment

The statistics on the number of persons employed shown in the following table relates to working proprietors at end of June 1969 and employees on the payroll of the last pay period in June 1969, including those working at separately located administrative offices and ancillary units in the State.

It should be noted that persons employed in each State (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in that State, even though the administrative offices or ancillary units may have served establishments located in another State.

MANUFACTURING ESTABLISHMENTS—MALES, FEMALES AND PERSONS EMPLOYED BY INDUSTRY SUB-DIVISION: STATES AND TERRITORIES, 1968-69

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Old	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aus
				EMPL					-	
			MALES	EMIPL	OTED				_	
Food, beverages and tobacco. Textiles; clothing and footwear Wood, wood products and	21-2 23, 24		42,155 32,223	27,316 2,358	11,183 2,596	9,188 850	4,687 1,799	298 ··	258	142,89 59,82
furniture	25	26,085	18,708		6,744	7,171	4,320	153	205	75,18
printing Chemical, petroleum and coal	26	30,996	•		5,035	3,850	4,814	82	862	78,99
products . Non-metallic mineral products	27 28	22,771 20,973	17,822 13,964	2,525 5,718	2,939 3,987	2,878 5,086	1,303 1,239	177	324	50,23 51,46
Basic metal products	29	52,805	6,624	3,175	8,749	3,339	3,897		321	78,58
Fransport equipment Fabricated metal products; other machinery and equip-	32	42,216	47,855	11,312	24,424	4,637	1,076	••	••	131,52
ment Miscellaneous manufacturing	31, 33 34	107,394 17,128	89,106 17,951	18,940 2,850	26,603 2,809	13,719 1,052	2,369 101	190 88	451 45	258,77 42,02
Total manufacturing .		388,171	312,921	92,834	95,069	51,770	25,605	988	2,145	969,50
		F	EMALE	S EMP	LOYED)				
Food, beverages and tobacco.	21-2	17,428	15,664	7,040	4,330	4,027	2,496	82	93	51,160
Textiles; clothing and footwear Wood, wood products and furniture	23, 24 25	44,877 4,445	62,010 2,968	6,778 1,687	4,338 1,062	1,870 980	2,123 307	4	28	121,996 11,48
Paper and paper products, printing	26	13,102	10,028	2,693	1,797	1,313	1,038	36	372	30,379
Chemical, petroleum and coal	27	10,085	6,427	613	613	403	80			18,221
Non-metallic mineral products	28	2,194 2,995	1,998	320 270	396 433	462	.87	13	15	5,48
Basic metal products	29 32	4,051	1,133 7,159	522	1,499	180 200	141 170			5,15 13,60
Fabricated metal products; other machinery and equip-		34,536	23,406	2,654	7,332	2,052	402	24	67	,
ment Miscellaneous manufacturing	31, 33 34	10,564	9,098	1,037	1,450	539	16	8	4	70,473 22,716
Total manufacturing .		144,277	139,891	23,614	23,250	12,026	6,860	167	579	350,664
		P	ERSON	S EMPI	LOYED	_				
Food, beverages and tobacco. Textiles; clothing and footwear	21-2 23, 24	65,236 64,872	57,819 94,233	34,356 9,136	15,513 6,934	13,215 2,720	7,183 3,922	380	351	194,053 181,817
Wood, wood products and furniture	25	30,530	21,676	13,488	7,806	8,151	4,627	157	233	86,668
printing	26	44,098	36,541	9,532	6,832	5,163	5,852	118	1,234	109,370
products	27	32,856	24,249	3,138	3,552	3,281	1,383	100	226	68,459
Non-metallic mineral products Basic metal products	28 29	23,167 55,800	15,962 7,757	6,038 3,445	4,383 9,182	5,548 3,519	1,326 4,038	190	339	56,953 83,741
ransport equipment abricated metal products;	29 32	46,267	55,014	11,834	25,923	4,837	1,246	::	::	145,121
other machinery and equip- ment Miscellaneous manufacturing	31, 33 34	141,930 27,692	112,512 27,049	21,594 3,887	33,935 4,259	15,771 1,591	2,771 117	214 96	518 49	329,245 64,740
Total manufacturing .		532,448	452,812	116,448	118,319	63,796	32,465	1,155	2,724 1	,320,167

⁽a) Australian Standard Industrial Classification.

Wages and salaries

The following table shows wages and salaries of all employees of manufacturing establishments, including those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.

MANUFACTURING ESTABLISHMENTS—WAGES AND SALARIES BY INDUSTRY SUB-DIVISION: STATES AND TERRITORIES, 1968-69 (\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Food, beverages and tobacco.	21-2	195.5	178.2	94.3	42.2	35.2	19.2	1.4	1.1	567.1
Textiles; clothing and footwear Wood, wood products and		147.7	228.0	16.7	14.7	5.3	9.4	• • •	• • • • • • • • • • • • • • • • • • • •	421.9
furniture	25	84.9	60.7	31.5	19.3	21.2	11.3	0.5	0.7	230.1
printing	26	143.1	118.7	27.8	20.2	16.0	20.4	0.4	4.0	350.7
products	27	118.2	87.9	10.6	12.8	12.3	5.0	٠.٠		246.8
Non-metallic mineral products	28	79.7	53.0	18.9	14.3	18.4	4.2	0.8	1.4	190.6
Basic metal products	29	207.6	32.1	13.2	35.1	13.5	15.5			317.0
Transport equipment Fabricated metal products; other machinery and equip-	32	154.4	182.2	33.9	74.9	13.8	3.5	• •	••	462.8
ment	31, 33	446.7	359.9	60.5	99.7	47.3	7.4	0.7	1.6	1,023.8
Miscellaneous manufacturing	34	79.8	80.6	9.5	11.4	3.8	0.3	0.3	0.4	
Total manufacturing .		1,657.7	1,381.3	317.0	344.6	186.8	96.1	4.1	9.3	3,996.9

⁽a) Australian Standard Industrial Classification.

Sales, transfers out and other operating revenue

The following table shows the value of manufacturing establishments' sales, transfers out and other operating revenue. Figures include sales of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same enterprise, plus all other operating revenue from outside the enterprise, such as commission, repair and service revenue. This excludes rents, leasing revenue, interest (other than hire purchase), royalties and receipts from the sale of fixed tangible assets.

MANUFACTURING ESTABLISHMENTS—SALES, TRANSFERS OUT AND OTHER OPERATING REVENUE, BY INDUSTRY SUB-DIVISION: STATES AND TERRITORIES, 1968-69 (\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Food, beverages and tobacco.	21-2	1,268.9	1,447.3	782.2	295.7	262.4	127.5	12.3	5.9	4,202.2
Textiles; clothing and footwear Wood, wood products and	23, 24	582.5	931.9	59.6	55.6	18.7	36.7			1,685.0
furniture	25	355.4	251.8	124.7	83.3	83.0	51.9	1.7	2.7	954.
printing Chemical, petroleum and coal	26	539.9	470.2	102.3	78.9	53.6	92.5	0.9	8.4	1,346.1
products	27	803.6	532.6	129.3	69.1	80.2	24.3			1,639.6
Non-metallic mineral products	28	304.4	236.4	84.0	62.9	89.4	17.4	4.3	7.8	806.6
Basic metal products	29	1,245.5	179.6	203.9	208.5	116.6	116.8			2,070.9
Transport equipment Fabricated metal products; other machinery and equip-	32	564.2	832.3	160.7	359.2	61.9	8.9	••	••	1,987.2
ment	31, 33	1,623.4	1,424.2	239.2	356.3	186.2	29.5	3.0	4.9	3,866.
Miscellaneous manufacturing	34	334.8	351.8	41.9	44.2	15.8	0.6	0.6	1.1	790.8
Total manufacturing .		7,622.6	6,658.1	1,927.8	1,613.7	967.8	506.1	22.8	30.8	19,349.

⁽a) Australian Standard Industrial Classification.

Purchases, transfers in and selected expenses

The following table gives details of the value of purchases, transfers in and selected expenses. Figures include purchases of materials, fuel, power, containers, etc., plus transfers in of goods from other establishments of the enterprise, plus charges for commission and sub-contract work, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

MANUFACTURING FSTABLISHMENTS-PURCHASES, TRANSFERS IN AND SELECTED EXPENSES, BY INDUSTRY SUB-DIVISION: STATES AND TERRITORIES, 1968-69 (\$ million)

ASIC Industry sub-division code(a) N.S.W. Vic. Qld S.A. W.A. Tas. N.T. A.C.T. Aust. Food, beverages and tobacco. 21-2 23, 24 1,072.3 555.7 576.9 207.1 8 2 3.036.9 4 0 Textiles; clothing and footwear Wood, wood products and 345.2 35.1 31.1 10.2 19.2 furniture 25 208.6 148.2 73.9 49.4 44.7 29.9 1.0 557.0 1.3 Paper and paper products, printing
Chemical, petroleum and coal 26 278.9 253.5 52.9 37.7 24.5 0.1 697.3 46.8 27 469.8 90.0 28 29 163.3 826.1 127.6 45.2 155.3 2.4 430.6 1,444.3 1,147.5 5.1 135.1 522.4 Basic metal products 83.9 Transport equipment
Fabricated metal products;
Sother machinery and equip-32 267.3 944.3 814.4 209.0 $\frac{1.8}{0.2}$ 2.4 0.8 Miscellaneous manufacturing

> 4,162.0 1,282.3 (a) Australian Standard Industrial Classification.

1,003.8 625.2 312.8

13.7

16.5 12,003.2

4,587.0

Stocks

Total manufacturing

Statistics on the value of stocks at 30 June 1968 and 1969, are shown in the following table. Figures include all the stocks of materials, fuels, etc., and finished goods and work-in-progress of the establishment whether located at the establishment or elsewhere.

MANUFACTURING ESTABLISHMENTS—STOCKS AT 30 JUNE 1968 AND 1969 BY INDUSTRY SUB-DIVISION: STATES AND TERRITORIES (\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
		STO	CKS AT	30 JUN	NE 1968					
Food, beverages and tobacco. Textiles; clothing and footwear Wood, wood products and	21-2 23, 24	167.6 108.3	196.7 159.9	61.4 9.3	45.4 11.5	19.8 3.0	21.1 15.8	1.1	0.2	513.4 307.8
furniture	25	42.7	34.6	17.4	13.2	11.8	11.5	0.2	0.3	131.7
printing . Chemical, petroleum and coal	26	66.4	67.1	13.6	9.5	6.3	12.9	0.1	1.8	177.7
products . Non-metallic mineral products Basic metal products	27 28 29	150.4 44.4 205.6	108.0 28.3 28.1	20.6 10.8 39.5	12.2 8.7 45.6	18.9 9.2 17.1	5.8 2.1 18.2	0.2	0.4	354.2
Transport equipment Fabricated metal products; sother machinery and equip-	32	101.3	168.0	16.3	58.9	6.7	2.1			353.2
ment	31, 33 34	329.8 57.4	330.9 62.2	45.6 6.8	67.0 6.2	31.3 2.2	5.9 0.2	0.4 (b)	0.6 0.1	811.4 135.1
Total manufacturing .		1,273.8	1,183.9	241.3	278.3	126.4	95.6	2.0	3.4	3,204.6
		STO	CKS AT	30 JUN	IE 1969					
Food, beverages and tobacco. Textiles; clothing and footwear Wood, wood products and	21-2 23, 24	178.8 115.6	213.2 167.8	66.1 11.8	51.3 11.3	22.8 3.2	22.5 15.9	1.4	0.2	556.3 325.5
furniture	25	45.4	35.6	18.7	14.0	13.6	12.1	0.2	0.2	139.9
printing	26	70.3	71.4	14.7	9.6	6.7	13.9	0.1	2.0	188.7
products Non-metallic mineral products Basic metal products Transport equipment Fabricated metal products;	27 28 29 32	152.1 49.8 217.5 101.3	105.1 28.2 31.3 179.1	18.6 12.4 44.7 17 4	12.5 8.9 51.2 69.4	18.1 10.3 21.8 7.2	5.9 2.4 25.4 2.3	0.2	0.5 .:	312.3 112.7 392.0 376.8
other machinery and equipment	31, 33	371.2 61.9	360.9 69.9	45.8 9.2	72.6 7.4	34.4 2.4	6.0 0.3	0.5 (b)	0.7 0.1	892.1 151.2
Total manufacturing .		1,363.9	1,262.5	259.5	308.2	140.6	106.7	2.4	3.6	3,447.4

Value added

The statistics on value added contained in the following table have been calculated by adding to the value of sales, transfers out and other operating revenue, the increase (or deducting the decrease) in the value of stocks, and deducting the value of purchases, transfers in and selected expenses. A more detailed description of the method of deriving value added is given on page 715.

MANUFACTURING ESTABLISHMENTS—VALUE ADDED, BY INDUSTRY SUB-DIVISION STATES AND TERRITORIES, 1968-69

(\$ million)

Industry sub-division	ASIC code(a)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Food, beverages and tobacco.	21-2	396.2	391.5	210.0	94.5	71.0	38.8	4.4	1.9	1,208.3
Textiles; clothing and footwear Wood, wood products and	23, 24	244.6	384.1	27.0	24.3	8.7	17.6	• •		706.3
furniture	25	149.5	104.6	52.1	34.7	40.1	22.6	0.7	1.3	405.6
printing	26	264.9	221.1	50.5	41.3	29.5	46.7	0.7	5.9	660.4
Chemical, petroleum and coal products	27	335.5	205.9	37.3	23.2	23.7	11.1			636.
Non-metallic mineral products Basic metal products	28 29	146.5 431.3	108.7 47.7	40.4 53.8	30.1 58.4	45.4 33.0	8.8 40.1	1.9	2.8	384.1 664.4
Transport equipment Fabricated metal products; other machinery and equip-	32	296.9	321.0	69.0	151.9	19.4	4.9	••	::	863.:
ment	31,33 34	720.5 139.7	639.8 150.5	104.1 19.2	161.7 19.9	78.7 7.3	13.2 0.5	1.3 0.4	2.7 0.2	1,721.5 337.6
Total manufacturing .		3,125.6	2,574.7	663.5	639.8	356.8	204.4	9.4	14.7	7,589.

(a) Australian Standard Industrial Classification.

Electricity and gas establishments

As mentioned on page 712, the electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses in 1968-69. In addition the electricity and gas census has been extended to cover distribution as well as production. The following table shows statistics for each State and Territory, and for Australia for the year 1968-69. Statistics for the electricity and gas supply industries for the years 1963-64 to 1967-68 are included in tables on pages 722-9.

For electricity and gas, the basic census unit is an exception to the general concept of the standardised unit. Because of the nature of the activities of electricity and gas undertakings, the single operating location basis is not suitable. The establishment unit used consists of all locations, including administrative offices and ancillary units, mainly concerned with the production and/or distribution of electricity or gas, operated by the undertaking in the one State. The use of this concept is one of the reasons for the number of electricity and gas establishments in 1968-69 being considerably less than in previous years. The other main reason is that until 1967-68, a number of electricity generating stations operated by enterprises principally for their own use were included. However, in 1968-69, these generating stations were included in the electricity census only if sales and transfers of electricity exceeded \$100,000 in value.

ELECTRICITY AND GAS ESTABLISHMENTS(a), SUMMARY OF OPERATIONS STATES AND TERRITORIES, 1968-69

	opera.	of lish- ents	Person:	s employed		Wages	Sales(b), transfers out and other operating	Stocks a	t 30 June	Pur- chases, transfers in and selected	Value
State	1968		Males	Females	Total	salaries	revenue	1968	1969	expenses	added
New South Wales		No.	No.	No.	No.	\$m	\$m	\$m	\$m	\$m	\$m
	_	52	23,880	2 227	26,217	107.4	606 1	40.6	45.2	269.2	241.5
Electricity . Gas	•	34		2,337 487	3,480		506.1	40.6			
Victoria—	•	34	2,993	487	3,480	12.5	43.4	2.5	3.0	18.0	25.9
Electricity .		14	13,745	1,328	15,073	61.6	265.0	20.8	21.1	84.3	181.0
Gas	•	*8	4,140	621	4,761	18.6	56.6	5 7	6.7	19.5	38.1
Oueensland-	•	٠	7,170	021	4,701	10.0	50.0	5 ,	0.7	17.5	30.1
Electricity .		22	6,953	428	7,381	27.0	135.3	9.8	10.9	59.4	77.0
Gas	•	6	426	777	503	1.3	5.9	0.5	0.6	2.4	3.6
South Australia-	•	·	720		505		3.7	0.5	0.0	2.4	5.0
Electricity . Gas	:}	19	6,250	362	6,612	24.8	76.2	6.2	6.7	30.0	46.7
Western Australia Electricity Gas	:}	58	3,447	264	3,711	12.5	48.2	5.0	6.0	15.0	34.2
Tasmania— Electricity Gas Northern Territory	:}	5	2,450	194	2,644	10.6	34.8	5.1	4.7	0.9	33.5
Electricity . Gas . Australian Capital	:}	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Territory— Electricity Gas	:}	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Australia— Electricity . Gas	:	170 54	55,994 8,989	4,830 1,327	60,824 10,316	241.9 37.4	1,063.8 121.2	87.7 10.2	94.8 11.8	460.0 45.2	610.9 77.6

(a) Covers production and distribution. (b) In some States electricity is produced by certain undertakings and sold to other undertakings for distribution. In these States sales of electricity are duplicated due to the inclusion of the bulk sales to these distributors. (c) Not available for publication.

Manufacturing Industry Statistics Prior to 1968-69

Statistics relating to factories prior to 1968-69 were 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 had to be supplied in respect of every factory, which was defined for this purpose as an establishment where four or more persons were employed or where power (other than manual) was used in any manufacturing process. This definition included factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries), but did not cover smallgoods makers, laundries, photography studios, florists and seedsmen, or most abattoirs.

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

Manufacturers were requested to state in their returns particulars of the number, age, etc., of their employees, salaries and wages paid, the value of premises and equipment, the horse-power 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 of values of principal materials used and articles produced. The returns obtained from manufacturers were 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.

Persons employed in the manufacturing activities of the factory only were counted as factory employees, The figures relating to employment therefore included working proprietors as well as out-workers, but excluded all those engaged in selling and distribution such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen.

The average number of persons employed was quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former was 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 was used only in respect of details relating to classification according to the number of persons employed. The latter, which was used in all other instances

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

Value of materials used included also the value of stores used, containers, tools replaced, and materials used in repairs to plant.

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

The value of factory output was the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and included the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output was the selling value of the finished articles at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer. In the special case of government factories and workshops the value of output was, 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 was the value added to materials by the process of manufacture. It was 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 were treated in several industries, the output from one becoming the material for another, so that such commodities were counted more than once in the aggregate value of output and of materials. Examples were raw sugar passing from the mills to the refinery, metals from the smelters which became materials to 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 was 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 output, was used as a measure of activity in the manufacturing industries as a whole.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are included in the figures contained in this chapter as from 1 July 1964, unless otherwise indicated. A standard classification of manufacturing industries was used in compiling statistical data relating to factories in Australia. It was designed in accordance with decisions of the 1945 Conference of Statisticians, and represents a revision and extension of a classification which was introduced in 1930-31, replacing the revised versions of the original classification formulated in 1902.

Factory development since 1901, Australia

FACTORIES: AUSTRALIA(a), 1901 TO 1967-68

			G 1. 1	Value of-	-			
Year	Factories	Employ- ment(b)	Salaries and wages paid(c)	Materials and fuel used	Output	Production (d)	Land and buildings (e)	Plant and machinery (e)
	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
1960–61	57,782	1,145	2,289,230	6,115,930	10,465,765	4,349,835	2,389,140	2,785,565
1963-64	59,375	1,210	2,651,620	7,372,682	12,642,686	5,270,003	3,204,685	3,480,673
1964-65	61,042	1.269	2,993,709	8,140,600	14,037,355	5,896,754	3,505,859	3,766,253
1965-66	61,686	1,294	3,162,769	8,437,958	14,689,819	6,251,861	3,776,590	4,154,652
1966-67	62,500	1,309	3,407,683	9,015,844	15,892,845	6,877,001	4,061,193	4,706,843
1967-68	62,954	1,331	3,665,902	9,663,217	17,094,070	7,430,853	4,303,156	4,962,203

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory. (b) 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. (c) Excludes amounts drawn by working proprietors. (d) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used). (e) Depreciated or book values at 30 June. Includes estimated values of rented premises and machinery.

Number of factories

Number in each State and Territory

FACTORIES: NUMBER, STATES AND TERRITORIES, 1963-64 TO 1967-68

Aust.	A.C.T.	N.T.	Tas.	W.A.	S.A.	Qld	Vic.	N.S.W.	 Year
59,375	n.a.	п.а.	1.746	4,609	5,826	5,955	17,597	23,642	1963–64 .
61,042	187	174	1,805	4,734	5,887	5,962	17,925	24,368	1964–65 .
61,686	217	185	1,792	4,906	6,065	6,010	17,980	24,531	1965–66 .
62,500	238	187	1.771	5,167	6,222	6,013	18,053	24,849	1966-67 .
62,954	242	188	1,797	5.404	6,255	6.154	18,030	24,884	1967–68 .

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, AUSTRALIA(a), 1963-64 TO 1967-68

Class of industry	1963-64	1964-65	1965-66	1966–67	1967–68
1. Treatment of non-metalliferous mine and					
quarry products	1,517	1,557	1,611	1,615	1,635
2. Bricks, pottery, glass, etc	692	689	678	676	659·
3. Chemicals, dyes, explosives, paints, oils,					
grease	1,303	1,325	1,354	1,379	1,379
4. Industrial metals, machines, conveyances .	25,415	26,665	27,549	28,424	29,213
5. Precious metals, jewellery, plate	927	980	970	975	984
6. Textiles and textile goods (not dress)	1,358	1,373	1,360	1,329	1,332
7. Skins and leather (not clothing or footwear)	645	639	631	616	603
8. Clothing (except knitted)	7,447	7,450	7,271	7,141	6,965
9. Food, drink and tobacco	7,034	7,060	6,938	6,834	6,689
10. Sawmills, joinery, boxes, etc., wood turning					
and carving	5,422	5,454	5,402	5,414	5,336
11. Furniture of wood, bedding, etc	2,181	2,210	2,200	2,260	2,275
12. Paper, stationery, printing, bookbinding, etc.	2,828	2,937	2,971	3,052	3,085
13. Rubber	674	705	711	685	648
14. Musical instruments	82	76	73	69	70
15. Miscellaneous products	1,494	1,575	1,627	1,701	1,746
Total, classes 1 to 15	59,019	60,695	61,346	62,170	62,619
16. Heat, light and power	356	347	340	330	335
Total, all classes	59,375	61,042	61,686	62,500	62,954

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Employment in factories

Number employed

All persons employed in the manufacturing activities of a factory were counted as factory employees. The figures relating to employment, therefore, excluded all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on delivery of manufactured goods, and retailing storemen. The figures, however, included proprietors who worked in their own business, as well as 'out-workers'. From 1960-61 the occupational groupings collected were—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, draughtsmen 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 represented the equivalent average number employed over a full year of fifty-two weeks.

FACTORIES: EMPLOYMENT, STATES AND TERRITORIES, 1963-64 TO 1967-68

Year			N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Average numb during full y weeks)—											
1963–64 1964–65 1965–66 1966–67 1967–68		· · ·	487,753 508,979 519,364 524,054 531,185	413,120 432,413 439,149 445,307 449,945	110,696 116,246 117,581 117,937 120,852	110,813 116,183 118,343 118,220 121,417	55,705 58,097 60,282 63,757 67,335	31,833 32,580 34,315 34,879 35,178	n.a. 1,210 1,294 1,423 1,519	n.a. 3,227 3,495 3,631 3,716	1,209,920 1,268,935 1,293,823 1,309,208 1,331,147
Percentage of total—	Aus	tralian									
1963–64 1964–65 1965–66 1966–67 1967–68		· · ·	40.31 40.11 40.14 40.03 39.91	34.14 34.08 33.94 34.01 33.80	9.15 9.16 9.09 9.01 9.08	9.16 9.15 9.15 9.03 9.12	4.60 4.58 4.66 4.87 5.06	2.63 2.57 2.65 2.66 2.64	n.a. 0.10 0.10 0.11 0.11	n.a. 0.25 0.27 0.28 0.28	100 100 100 100
Per 1,000 of po 1963-64 1964-65 1965-66 1966-67 1967-68		on—	120 123 123 123 123 122	134 138 137 137 136	69 71 71 70 70	108 110 109 107 108	70 71 72 74 75	88 89 93 93 93	n.a. 23 23 25 25	n.a. 38 38 36 34	111 113 113 112 112

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, AUSTRALIA(a), 1963-64 TO 1967-68

Class of industry	1963-64	1964-65	1965-66	1966-67	1967-68
1. Treatment of non-metalliferous mine and					
quarry products	24,704	25,683	26,011	26,104	26,685
2. Bricks, pottery, glass, etc	25,656	27,002	27,177	26,974	27,171
3. Chemicals, dyes, explosives, paints, oils,					
grease	49,023	51,498	53,111	54,629	55, 053
4. Industrial metals, machines, conveyances .	552,795	588,022	601,637	611,614	626,280
5. Precious metals, jewellery, plate	5,543	5,900	5,926	5,990	6,108
6. Textiles and textile goods (not dress)	73,076	75,281	74,708	73,036	73,804
7. Skins and leather (not clothing or footwear)	12,209	12,026	11,807	11,355	11,458
8. Clothing (except knitted)	108,909	110,613	111,793	111,909	111,040
9. Food, drink and tobacco	134,487	138,768	142,153	143,510	144,441
10. Sawmills, joinery, boxes, etc., wood turning			•		•
and carving	57,650	59,815	60,642	59,976	60,274
11. Furniture of wood, bedding, etc	22,545	23,251	23,740	24,390	25,055
12. Paper, stationery, printing, bookbinding, etc.	79,250	83,692	87,129	89,192	90,563
13. Rubber	20,261	20,813	20,416	20,198	21,111
14. Musical instruments	779	785	764	824	831
15. Miscellaneous products	27,422	30,057	31,154	33,431	35,469
Total, classes 1 to 15	1,194,309	1,253,206	1,278,168	1,293,132	1,315,343
16. Heat, light and power	15,611	15,729	15,655	16,076	15,804
Total all classes	1,209,920	1,268,935	1,293,823	1,309,208	1,331,147

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: MALES AND FEMALES EMPLOYED, STATES AND TERRITORIES 1963-64 TO 1967-68

State or Territory				1963-64	1964–65	1965–66	1966–67	1967–68
				MAL	ES			
New South Wales				366,250	379,672	387,181	390,087	395,838
Victoria .				295,440	307,006	310,303	314,017	316,108
Queensland .				91,123	95,328	96,150	96,082	98,027
South Australia				90,933	94,690	96,194	96,076	98,929
Western Australia		•		48,163	50,065	51,464	53,981	56,835
Tasmania .				26,221	26,768	28,041	28,364	28,550
Northern Territory				n.a.	1,098	1,182	1,308	1,380
Australian Capital	Territory	•	•	n.a.	2,634	2,896	2,992	3,007
Australia(a)		•	•	918,130	957,261	973,411	982,907	998,674
			-	FEMA	LES			
New South Wales				121,503	129.307	132,183	133,967	135,347
Victoria .				117,680	125,407	128,846	131,290	133,837
Oueensland .				19,573	20,918	21,431	21,855	22,825
South Australia				19,880	21,493	22,149	22,144	22,488
Western Australia				7,542	8,032	8,818	9,776	10,500
Tasmania .				5,612	5,812	6,274	6,515	6,628
Northern Territory				n.a.	112	112	115	139
Australian Capital	Territory	•	•	n.a.	593	599	639	709
Australia(a)			•	291,790	311,674	320,412	326,301	332,473

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Salaries and wages paid, value of materials used, output, and production

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

FACTORIES: SALARIES AND WAGES PAID, AUSTRALIA(a) 1963-64 TO 1967-68

Year					Males	Females	Total
Total amount 1963-64 . 1964-65 .	•	\$'000	٠.		2,249,580 2,536,347	402,040 457,362	2,651,620 2,993,709
1965–66 . 1966–67 .	:	:	:	•	2,671,358 2,876,656	491,411 531,027	3,162,769 3,407,683
1967–68 .	÷		÷	:	3,096,386	569,516	3,665,902

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: TOTAL VALUE OF POWER, FUEL AND LIGHT USED(a) BY CLASS OF INDUSTRY, AUSTRALIA(b), 1963-64 TO 1967-68 (\$'000)

Class of industry	1963–64	1964–65	196566	1966–67	1967–68
1. Treatment of non-metalliferous mine and					
quarry products	24,245	26,575	26,455	26,987	27,728
2. Bricks, pottery, glass, etc	19,761	20,552	20,337	21,128	23,268
3. Chemicals, dyes, explosives, paints, oils, grease	45,500	50,468	52,557	57,864	64,375
4. Industrial metals, machines, conveyances .	158,843	171,268	180,606	199,444	216,098
5. Precious metals, jewellery, plate	851	1,052	1,132	1,190	1,304
6. Textiles and textile goods (not dress)	10,840	11,271	11,630	12,059	12,938
7. Skins and leather (not clothing or footwear)	2,428	2,424	2,358	2,321	2,444
8. Clothing (except knitted)	5,227	5,452	5,545	5,770	5,886
9. Food, drink and tobacco	41,577	43,967	46,025	47,545	49,834
10. Sawmills, joinery, boxes, etc., wood turning					
and carving	8,553	9,257	9,373	9,539	9,984
11. Furniture of wood, bedding, etc	1,096	1,156	1,218	1,285	1,391
12. Paper, stationery, printing, bookbinding, etc.	15,843	17,280	18,551	20,550	21,602
13. Rubber	6,285	6,386	6,550	6,838	7,173
14. Musical instruments	96	95	91	105	115
15. Miscellaneous products	4,672	5,304	5,577	6,314	7,272
Total, classes 1 to 15	345,818	372,506	388,007	418,940	451,414
16. Heat, light and power	91,335	94,127	99,337	103,360	107,421
Total, all classes	437,153	466,633	487,343	522,300	558,834

⁽a) Includes value of lubricants and water. (b) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a), STATES AND TERRITORIES 1963-64 TO 1967-68 (\$'000)

Year	 N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(b)
1963-64	210,157	114,648	37,462	34,772	23,749	16,364	n.a.	n.a.	437,153
1964-65	217,548	125,161	38,749	39,295	26,045	18,327	865	644	466,633
1965-66	223,517	127,858	43,791	44,066	27,314	19,181	856	760	487,343
1966-67	238,113	134,399	46,949	51,302	30,031	19.826	946	735	522,300
1967-68	252,639	143,086	51,871	56,205	33,561	19,485	1,157	830	558,834

⁽a) Includes value of lubricants and water. (b) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY, AUSTRALIA(a) 1963-64 TO 1967-68

(\$'000)

Class of industry	1963–64	1964–65	1965–66	1966-67	1 967–68
1. Treatment of non-metalliferous mine and					
quarry products	193,603	219,634	232,826	245,768	270,249
2. Bricks, pottery, glass, etc	59,540	69,275	69,239	75,127	82,482
3. Chemicals, dyes, explosives, paints, oils, grease	726,437	802,349	850,221	933,329	1,014,123
4. Industrial metals, machines, conveyances .	2,713,241	3,102,783	3,213,745	3,422,377	3,712,583
5. Precious metals, jewellery, plate	11,459	14,195	14,405	14,911	16,030
6. Textiles and textile goods (not dress)	355,503	374,764	370,844	394,860	404,240
7. Skins and leather (not clothing or footwear).	75,641	72,518	73,642	73,288	66,939
8. Clothing (except knitted)	265,805	280,195	282,823	304,160	309,113
9. Food, drink and tobacco	1,560,847	1,652,933	1,728,394	1,837,269	1,940,410
10. Sawmills, joinery, boxes, etc., wood turning					
and carving	255,936	282,792	286,639	299,345	317,488
11. Furniture of wood, bedding, etc	94,283	104,177	104,168	109,226	118,581
12. Paper, stationery, printing, bookbinding, etc.	367,028	409,999	431,037	462,333	496,025
13. Rubber	109,355	119,250	118,436	119,819	128,027
14. Musical instruments	3,031	3,336	3,161	3,797	3,614
15. Miscellaneous products	105,742	122,921	126,339	151,070	176,289
Total, classes 1 to 15	6,897,451	7,631,121	7,905,917	8,446,680	9,056,193
16. Heat, light and power	38,078	42,847	44,698	46,864	48,190
Total, all classes	6,935,530	7,673,967	7,950,615	8,493,544	9,104,383

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF MATERIALS USED, STATES AND TERRITORIES 1963-64 TO 1967-68 (\$'000)

Year			N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust(a)
1963-64 1964-65 1965-66 1966-67 1967-68	:	:	2,859,622 3,212,677 3,266,547 3,466,134 3,712,895	2,190,398 2,425,961 2,469,372 2,671,315 2,813,424	812,924 824,681 924,427 982,896 1,072,543	599,658 668,946 698,996 728,094 788,018	300,798 329,740 362,634 399,406 465,554	172,130 195,972 209,794 223,566 227,573	n.a. 4,550 5,497 7,214 7,995	n.a. 11,440 13,349 14,918 16,382	6,935,530 7,673,967 7,950,615 8,493,544 9,104,383

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

Value of output

The value of output represented 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 included 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, was the net value of factory production.

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY, AUSTRALIA(a) 1963-64 TO 1967-68

(\$'000)

Class of industry	1963–64	1964-65	1965–66	1966–67	1967–68
1. Treatment of non-metalliferous mine					
and quarry products	366,053	413,235	427,652	459,415	501,66 4
2. Bricks, pottery, glass, etc	193,031	221,894	225,147	242,627	269,138
3. Chemicals, dyes, explosives, paints, oils,					
grease	1,221,410	1,357,619	1,445,480	1,618,841	1,765,495
4. Industrial metals, machines, conveyances	5,046,075	5,760,129	6,042,120	6,534,706	7,092,313
5. Precious metals, jewellery, plate	31,062	37,024	38,424	40,857	43,688
6. Textiles and textile goods (not dress)	618,816	665,617	665,227	•	•
7. Skins and leather (not clothing or foot-	010,010	005,017	003,227	109,910	732,190
wear)	119,037	117,092	119,112	119,703	117,414
8. Clothing (except knitted)	552,447	587,946	•	651,432	675,075
9. Food, drink and tobacco	2,302,914	2,454,023	2,592,748	2,777,071	2,927,728
10. Sawmills, joinery, boxes, etc., wood	_,,	_,,	_,,,,,,,,,	_,,	_,,,
turning and carving	470,768	524,043	536,796	565,434	599,192
11. Furniture of wood, bedding, etc.	171,290	189,742	195,992	210,182	225,584
12. Paper, stationery, printing, book-					
binding, etc	762,610	854,204	909,061	986,199	1,066,600
13. Rubber	201,343	214,692	215,194	226,126	248,446
14. Musical instruments	8,028	9,300	9,285	10,801	11,768
15. Miscellaneous products	221,084	252,569	261,887	316,179	363,772
Total, classes 1 to 15	12,285,964	13,659,129	14,291,460	15,469,550	16,640,075
16. Heat, light and power	356,722	378,225	398,360	423,295	453,995
Total, all classes	12,642,686	14,037,355	14,689,819	15,892,845	17,094,070

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF OUTPUT, STATES AND TERRITORIES, 1963-64 TO 1967-68 (\$'000)

Year			N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
1963–64 1964–65 1965–66 1966–67 1967–68	:	:	5,337,695 5,951,702 6,154,835 6,632,474 7,096,517	4,054,822 4,500,786 4,624,915 5,041,051 5,351,311	1,292,260 1,341,853 1,511,214 1,622,451 1,782,267	1,061,786 1,206,830 1,270,539 1,343,160 1,476,113	555,058 616,422 678,751 765,224 887,372	341,065 381,549 404,581 437,964 445,076	n.a. 12,068 13,456 16,007 18,831	n.a. 26,145 31,528 34,514 36,583	12,642,686 14,037,355 14,689,819 15,892,845 17,094,070

(a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

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, were 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 was 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, approximated 'net value added' in the manufacturing process.

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

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY AUSTRALIA(a)
1963-64 TO 1967-68
(\$'000)

Class of industry	1963–64	1964-65	1965–66	1966–67	1967-68
1. Treatment of non-metalliferous mine and					
quarry products	148,204	167,026	168,371	186,660	203,687
2. Bricks, pottery, glass, etc	113,729	132,067	135,571	146,372	163,388
3. Chemicals, dyes, explosives, paints, oils,					
grease	449,473	504,802	542,702	627,64 7	686,997
4. Industrial metals, machines, conveyances .	2,173,990	2,486,078	2,647,768	2,912,885	3,163,632
5. Precious metals, jewellery, plate	18,752	21,777	22,886	24,756	26,355
6. Textiles and textile goods (not dress)	252,473	279,582	282,753	303,057	315,017
7. Skins and leather (not clothing or footwear).	40,968	42,150	43,111	44,093	48,031
8. Clothing (except knitted)	281,415	302,300	318,968	341,502	360,076
9. Food, drink and tobacco	700,489	757,122	818,329	892,257	937,484
10. Sawmills, joinery, boxes, etc., wood turning					
and carving	206,278	231,995	240,785	256,551	271,719
11. Furniture of wood, bedding, etc	75,911	84,409	90,606	99,671	105,612
12. Paper, stationery, printing, bookbinding, etc.	379,738	426,925	459,473	503,315	548,973
13. Rubber	85,704	89,057	90,208	99,469	113,245
14. Musical instruments	4,901	5,868	6,032	6,899	8,040
15. Miscellaneous products	110,670	124,344	129,971	158,795	180,211
Total, classes 1 to 15	5,042,695	5,655,502	5,997,536	6,603,930	7,132,468
16. Heat, light and power	227,308	241,251	254,325	273,072	298,384
Total, all classes	5,270,003	5,896,754	6,251,861	6,877,001	7,430,853

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

FACTORIES: VALUE OF PRODUCTION—TOTALS AND AVERAGES STATES AND TERRITORIES, 1963-64 TO 1967-68

Year		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Total value (\$'000)—										
1963-64 . 1964-65 . 1965-66 . 1966-67 . 1967-68 .	:	2,267,917 2,521,476 2,664,771 2,928,227 3,130,982	1,749,776 1,949,665 2,027,685 2,235,337 2,394,801	441,873 478,423 542,996 592,607 657,853	427,356 498,588 527,477 563,764 631,890	230,511 260,637 288,803 335,788 388,257	152,571 167,251 175,606 194,571 198,019	n.a. 6,654 7,103 7,847 9,680	n.a. 14,060 17,418 18,860 19,372	5,270,003 5,896,754 6,251,861 6,877,001 7,430,853
Average per person employe (\$)—	ed	-,,	_,,	•	•			ŕ		
1963–64 . 1964–65 . 1965–66 . 1966–67 .	:	4,650 4,954 5,131 5,588	4,236 4,509 4,617 5,020	3,992 4,116 4,618 5,025	3,857 4,291 4,457 4,769	4,138 4,486 4,791 5,267	4,793 5,134 5,117 5,578	n.a. 5,499 5,489 5,514	n.a. 4,357 4,984 5,194	4,356 4,647 4,854 5,261
1967–68 .	•	5,894	5,322	5,443	5,204	5,766	5,629	6,373	5,213	5,582

⁽a) Before 1 July 1964, excludes Northern Territory and Australian Capital Territory.

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.

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, where available, is published in the aforementioned bulletin and in the mimeographed statement *Principal Manufacturing Commodities*. Figures for 1965–66 to 1967–68 are those recorded in the Annual Factory Census. Figures for 1968–69 are derived from monthly returns and are subject to revision.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA 1965-66 TO 1968-69

Commodity code	Article			1965–66 (a)	196667 (a)	1967–68 (a)	1968-69
401.29	Acid (in terms of 100%)— Hydrochloric		tons				35,320
401.37	Nitric		. 10213	n.a. 25,522	n.a. 31,009	n.a. 35,033	65,039
401.57	Sulphuric	•	'000 tons	1,781	1,991	1.892	1,853
171.03, 05	Aerated and carbonated waters .		'000 gal	105,381	112,937	126,933	133,676
	Air-conditioning equipment—		_	•		•	
657.03, 05	Room air conditioners (refrigerate	ed) .	. No.	18,217	22,217	30,509	49,980
657.13, 15	Room air coolers (evaporative co	olers) .	,,,	6,000	10,414	18,363	(6)
657.21, 22, 23 475.04, 06, 07, 85	Package unit air conditioners Asbestos cement building sheets (fin	ished)	'000 sq yd	2,047 32,364	3,491 32,609	4,654 36,251	8,113 38,049
, ,	- ·			,	,	,	
	Bags, leather, fibre, etc.— Handbags—						
864.31	Leather		No.	534,121	501,762	492,736	448,197
864.33	Plastic		'000	1,993	1,938	2,294	2,442
864.39	Other		. No.	393,037	392,798	396,281	491,402
946.01-52	Hessian and calico bags		. '000 doz	3,601	3,808	3,973	3,69
864.11-19	Suitcases, kitbags and trunks .		. '000	1,515	1,551	1,592	(b
864.41–49	All other(c)		. ,,	2,128	2,057	1,988	2,00
652.01	Bath heaters— Electric		No.	13,524	11,701	11,777	10.05
652.03, 04	Gas	•		9,971	9,026	8,468	6,27
652.05	Solid fuel	•	• "	13,963	12,446	11,820	9,584
779.	Bathing suits	:	. doz	261,190	301,723	299,825	354,44
	Baths—			•	-		,
671.01	C.I.P.E	•	. No.	85,447	74,489	74,527	159,994
671.03-08	Other		. "	67,068	79,987	87,419 ∫	130,00
685.13, 15	Batteries, wet cell type— Auto (S.L.I.) 6 volts		, '000	470	481	465	220
685.17, 19	Auto (S.L.I.) 12 volts	•	. 000	1,312	1,488	1,653	330 1.718
685.33, 35	Radio, homelighter, fencer	No o	f 2 volt cells	136,173	117,445	106,525	91,85
685.43-65	Traction, plant and other .	110.0	2 2 1011 00115	78,066	99,537	70,518	92,33
172.02, 04, 06	Beer (excluding waste beer) .		. '000 gai	279,503	293,714	309,775	326,62
064.21	Biscuits		. '000 lb	223,678	230,118	233,383	233,67
372.52-66	Blankets		. '000	1,701	1,725	1,654	1,58
152.02	Boots and shoes (see Footwear)						
152.02	Bran (wheaten)	. to	ns (2,000 lb)	206,127	202,183	195,862	184,00
172.21 777.41, 49	Brassieres	. 0	00 proof gal	1,371	791 792,015	872	1,09
064.03-13	Bread (2 lb loaf equivalent)	•	. '000	719,739 787,841	802,936	81 5,13 0 805,679	765,06 790,61
066.01-31	Breakfast food, cereal (ready to eat	٠.	. cwt	904,040	900,231	935,523	967,72
472.01, 03	Bricks, clay	•	. million	1,360	1,361	1,440	1,61
261.41	Briquettes, brown coal		. '000 tons	1,883	1,820	1,745	1.47
051.31	Butter		. '000 lb	460,433	489,217	432,313	439,22
773.51, 71, 81	Cardigans, sweaters, etc	_	. '000 doz	1,432	1,436	1,378	1,34
474.02	Cement, Portland	:	, '000 tons	3,688	3,661	3,805	4,07
051.36-46	Cheese (green weight)		. '000 lb	131,300	153,834	155,385	164.83
183.02, 11	Cigarettes and cigars		. ,,	47,543	50,384	51,517	55,05
222 10 70	Cloth (including mixtures)—						
373.10-52	Cotton(d)	•	. '000 sq yd	55,701	57 573	59,043	56,71
374.02-16	Rayon and acetate	•	. ,,	32,985	35,692	37,226	36,19
374.20-34 372.02-50	Synthetic (non-cellulosic) . Wool	•	• "	20,805 32,588	23,530 30,635	27,904 32,599	32,19
J. 4. VA-30	Coke—	•	. "	34,388	30,033	32,399	32,03
435.22	Metallurgical	_	. '000 tons	3,179	3,365	3,678	3.64
435.12	Other	•	. tons	599,301	551,326	507,253	404,88
475.90	Concrete, ready mixed	:	. '000 cu yd	6,736	7,000	7,955	8,71
	Confectionery—	-	-	•	•	•	•
104.02-18	Chocolate		. '000 lb	104,312	104,934	98,984	108,50
104.21~29	Other		. , ,,,	107,856	111,796	112,848	114,23
452.04	Copper, refined(e)		. tons	91,588	74,313	72,166	94,786

⁽a) Excludes Northern Territory and Australian Capital Territory. (b) Not available for publication. (c) Excludes canvas water bags. (d) Excludes tyre-cord fabric. (e) Primary origin only.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA, 1965-66 TO 1968-69—continued

	ESTABLISHMENTS. AUSTRALIA, 1703-00 TO 1700-07Collinaea								
Commodity code	Article	1965-66 (a)	1966–67 (a)	1967–68 (a)	1968-69				
653.31 653.33, 34 653.51 171.06, 10 777.01–29 611.01	Coppers (wash boilers)— Electric	9,113 5,740 19,074 9,144 380,835 63,641	8,011 4,949 9,047 9,160 393,231 69,365	9,462 6,464 (b) 9,776 418,145 90,671	6,935 5,195 7,203 10,459 367,287 98,971				
804.01	Dentifrices (toothpaste) '000 ib	9,774	10,773	10,324	11,424				
503.06 503.08 499.42, 44 523.76-78 502.22-39	Electric generators— Non-automotive—Alternating current Direct current Electricity Electrodes for manual welding . "000 lb Engines, internal combustion(c) . "000 Essences, flavouring— Domestic gal	1,676 1,022 38,279 43,746 245	1,763 708 41,484 45,705 288	2,111 632 44,531 45,180 258	3,013 438 48,901 48,833 293				
139.35	Industrial gal	134,011 599,426	100,460 733,289	90,861 840,894	104,407 856,007				
802.11, 12 696.01, 03, 05 045.01, 51	Face powder	285,870 223,409 11,849	376,236 321,600 13,713	298,233 360,346 17,403	353,396 426,080 14,880 164,991				
332.06 332.08	Australian timber '000 super ft Imported timber	162,710 721	154,286 324	151,812 463	579				
841.01-07 841.31-41, 841.54-68 }	Textile	11,692 14,041	12,624 12,150	12,758 14,524	16,170 13,496				
841.85 692.22	Underfelts, underlays, etc. Floor polishers, electric No. Flour—	11,067 89,193	(<i>d</i>)14,802 88,840	(d)16,613 72,657	(d)18,485 53,382				
068.01 062.01, 10, 32	Self-raising	864 1,414	832 1,392	804 1,419	837 1,398				
791.	Boots, shoes and sandals '000 pairs Slippers	34,949 4,609	37,080 4,454	38,076 4,298	38,391 3,972				
074.61-79 074.76, 82, 89	Fruit juices, natural— Single strength '000 gal Concentrated(f) , "	7,317 901	9,798 1,236	8,779 1,047	12,967 1,794				
434.09	Gas (town) mil. cubic ft Gloves—	55,742	56,743	58,070	(g)62,214				
781.01, 03	Dress doz pairs Work—	26,163	27,761	30,913	25,604				
781.06, 07, 31 781.11-29 127.21 832.58, 59	Sewn(h) '000 doz pairs Dipped '000 lb Glucose '000 lb Golf clubs doz	382 1,309 60,779 33,145	358 1,343 65,422 40,680	371 1,539 61,945 38,082	2,556 69,258 39,006				
786.01 786.11	Handkerchiefs— Men's	1,901 1,555	1,664 1,371	1,971 1,205	1,910 1,314				
651.01, 03 651.11-17 651.21, 22, 26, 27	Solid fuel No. Radiators and electric fires , ,, Gas fires and space heaters, domestic ,,	37,967 706,943 31,185	31,606 600,294 38,764	24,558 623,950 38,268	23,104 803,475 58,457				
281.04 051.61 051.87, 89	Ice tons Ice cream	198,701 30,026	190,274 34,974	187,306 37,423	139,791 38,737				
419.31	beverages(I)	45,280 14,900	49,348 16,190	48,234 17,401	54,448 18,751				
419.43-59	Other	13,971	14,782	15,440	(b)				
442.04, 08 442.10-19 442.28 693.51, 61, 63	Pig iron '000 tons Steel ingots open hearth and electric Blooms and slabs '," Irons, electric (hand, domestic) . No.	4,380 5,561 4,823 450,230	4,893 6,114 4,978 507,882	5,209 6,287 5,372 465,501	5,722 (j)6,599 (k)5,749 550,916				
076.60	Jams (including conserves, jellies, etc.) . '000 lb	97,149	90,761	83,917	92,150				
391.04	Lard ,,	5,853	6,670	6,475	10,956				
699.52, 53 699.41, 45, 55, 61 453.04	Petrol, rotary	176,396 11,403 188,197	219,826 11,235 192,429	184,908 11,688 186,908	208,562 19,115 175,289				

⁽a) Excludes Northern Territory and Australian Capital Territory. (b) Not available for publication. (c) Petrol and diesel. Excludes car, motor cycle, truck, tractor, aero, and marine engines. (d) New basis—Needled (or bonded) felts of jute or jute/hair mixtures (for all purposes) as from July 1966. (e) Includes wheatmeal for baking and sharps and other flour. (f) Excludes grape must. (g) Includes natural gas. (h) Excludes fabric liners for dipped gloves but includes moulded or heat sealed work gloves. (f) Includes malted milk and milk sugar (lactose). (f) Including semi-permanent mould castings, investment casting and diecasting of iron and steel. (k) Year ended 31 May. (f) Petrol of the produced for export.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA, 1965-66 TO 1968-69—continued

Commodity code	Article		1965-66 (a)	1966–67 (a)	1967-68 (a)	1968-69
	Leather—					
201 42 65	Dressed or finished—	1000 0	02.455	71.053	72.214	74 (11
301.43-65 301.31-37, 83-89	Chrome tanned (including retained) Vegetable tanned, by weight	'000 sq ft '000 lb	83,175 15,326	71,953 12,883	72,214 11,296	74,617 10,573
301.67, 69	Vegetable tanned, by measurement	'000 sq ft	3,956	4,009	3,303	3,174
311.08, 14, 18	Tanned or dressed skins with hair or wool			•	-	
	retained	doz	117,778	82,018	110,381	115,143
275.43, 45	Lime— Crushed	tons	219,912	249,807	253,755	181,513
479.18	Hydrated	,,	96,566	97,544	95,539	(b)
479.12	Quick	**	143,311	155,173	179,536	(b
802.21	Lipstick	16	70,104	74,842	72,323	116,734
063.11-31	Malt (excluding extract)	'000 bus	13,444	14,239	13,776	14,103
005,11-51	Margarine—	000 043	13,777	•	13,770	14,10.
121.01	Table	'000 lb	53,698	48,356	35,576	34,393
121.06, 08	Other Mattresses and bed bases—	**	67,884	76,138	89,285	97,032
844.01	Box spring	No.	80,319	100,362	118,883	143,874
844.21	Inner spring	"	705,702	682,587	659,452	656,922
844.11	Woven wire, link mesh and spring	**	557,344	638,726	626,534	722,62
844.41, 51, 61 027.02-76	Other	'000 1ii	273,040 114,098	302,882	304,533	291,36
027.02-70	Meat, canned(c)	000 10	114,050	100,849	106,957	96,33
702.01	Electric (domestic)(d)	No.	302,511	296,571	304,905	295,999
703.01	Gas	,,	41,443	37,884	37,831	60,89
703.11	Water	**	141,042	146,915	148,839	143,91
051.21, 22	Full cream, sweetened	'000 1ь	73,985	61,510	47,316	40,43
051.24, 25, 26, 27	Full cream, unsweetened	19	88,482	91,700	87,946	98,65
051.28	Skim	"	21,196	24,974	18,932	19,67
051.72, 73	Milk powder— Full cream		45,060	48,018	47,272	54,42
051.76-79	Skim	"	112,342	188,584	196,029	156,23
051.81, 82	Buttermilk or mixed skim and buttermilk .		25,900	32,518	33,592	33,85
503.17–32	Motors, electric	'000	2,510	2,667	2,911	3,20
581.0208	Cars	No.	235,326	238,720	270,963	288,10
581.10-16	Station wagons	,,	58,334	57,534	59,047	53,78
582.04	Utilities	"	33,038	33,909	31,174	33,97
582.06 582.08-24	Panel vans Truck and truck-type vehicles	,,	14,427 766	14,013 768	14,687 1,137	15,72 1,66
	Motor vehicles, partly finished—	,,	.00		2,207	1,00
581.22-28, 582.31, 32 }	Cars, station wagons, utilities, vans	,,	1,666	1,381	1,663	1,39
582.31, 32 f 582.33-46	Trucks and truck-type vehicles		20,851	21,747	21,857	25,16
589.81–89	Motor vehicle safety belts	"	426,847	835,162	962,851	984,64
465 16 17	N. 11.		02.414		22.025	
465.16, 17 782.03, 04	Nails	tons doz	23,414 496,989	23,830 490,677	22,925 473,503	23,24 439,10
				,	,-	,
	Oatmeal and rolled oats-					
062.61,63	For porridge, etc	cwt	313,987	340,781	314,319	309,47
062. <i>65</i> 393.08 – 90, ℃	Other	**	397,401	308,712	116,034	(1
394.01-54	Oils, vegetables, crude	'000 1Ь	87,903	84,519	95,033	94,96
•						
412.02-20	Paints, etc.— Paints (not water) and enamels ready for use	'000 gai	15,188	16,037	16,473	16,79
112.28	Paints (not water) in paste form	'000 lb	3,158	2,589	2,238	1,88
112.22, 24	Lacquers (nitro-cellulose)	'000 gal	1,437	1,427	1,427	1,48
412.32	Tinting colours, packaged ready for sale .	**	54	57	68	-
412.54	Stains and clear varnishes packaged ready for sale	,,	845	913	875	93
	Water paints-					
412.42, 44, 46	Emulsion type	'ii 000'	4,321 943	4,193	4,357	4,42 77
412.48, 50 412.64, 66,	In powder form	'000 gal	4,018	870 4,031	745 4,233	4,32
	Paper—					
351.11	Newsprint	tons	93,211 351,303	97,255 389,223	92,648	123,93
261 17 70	Other	**	317,553	329,496	385,567 334,660	440,13 342,40
	Perambulators, pushers and strollers	No.	132,499	133,018	139,082	148,71
352.11-33				•===		
352.11-33 975.04, 09, 11	Petrol—					
352.11-33 975.04, 09, 11 431.12	Petrol— For blending and refining	nillion gal	45	1.832 ₹	50	
352.11-33 975.04, 09, 11 431.12 431.04, 08, 20	Petrol— For blending and refining Other (all types)	***	1,609 }	1,832 { 261,054	1.911	1.98
351.17-79 352.11-33 975.04, 09, 11 431.12 431.04, 08, 20 479.22 479.32, 33	Petrol— For blending and refining Other (all types) Plaster of paris Plaster sheets	tons	1,609 <i>}</i> 265,553	261,054 30.601	1,911 278,225 32,809	1,98 281,73 35,31
352.11-33 975.04, 09, 11 431.12 431.04, 08, 20	Petrol— For blending and refining	***	1,609 }	1,832 { 261,054 30,601 200,451 284,628	1.911	1.98

⁽a) Excludes Northern Territory and Australian Capital Territory. (b) Not available for publication. (c) Excludes poultry and baby food. (d) New basis—electricity consumption meters from 1 July 1965.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA, 1965-66 TO 1968-69—continued

Commodity code	Article	1965–66 (a)	1966-67 (a)	1967–68 (a)	1968-69
	Preserves— Fruit—	_			
076.01-50 074.01	Canned or bottled	579,619 62	611,552 51	659,700 44	511,970 7 7
094.02 -4 9 092.02, 06, 19	Canned or bottled '000 lb Quick frozen	180,098 93,885	194,834 118,216	182,051 100,862	191,857 142,790
774.21, 23 774.51-58	Pyjamas— Men's and boys' (suits only) doz Women's and girls' (incl. nightdresses) . ,,	480,396 627,711	422,640 722,519	420,563 746,779	435,920 719,358
832.65, 85 643.01, 03, 15-3		15,308 392,526	16,866 445,766	15,798 522,394	16,802 676,312
646.32, 35, 62, 6 646.37, 41, 51,	3	4,295	4,727	5,296	7,080
67, 71, 81. 646.43.45, 53,	Extended play , ,	1,486	2,103	1,869	1,601
55, 73, 75, 83, 85 557.32, 41, 53	Refrigerators, domestic No.	5,086 213,870	6,714 232,200	6,847 245 138	9,513 (b)289,90
403, 404	Resins, plastic and synthetic, for all purposes '000 cwt	2,421	2,854	3,349	3,88
061.67, 69 369.11	Rice, polished, unpolished and broken Ropes and cables (excluding wire)	2,080 133,355	2,373 130,845	(c) 117,670	3,302 (c
372.70, 72, 374.59	}Rugs	175	191	- 170	184
123.18-25	Sauce	46,111	42,213	43,692	41,655
062.04 773.02-31	Semolina tons (2,000 lb) Shirts (men's and boys') '000 doz	18,744 2,226	20,777 2,214	24,287 2,226	24,55 2,36
653.01 671.14	Sink heaters, electric No. Sinks, steel	10,646 219,333	10,174 226,076	9,941 212,752	9,47 220,37
805.01–13	Soap, for personal toilet use	478	483	500	50
775.51-82	Men's and youths' '000 doz pairs	1,690	1,815	1,910	
775.01-39 775.91 <i>-</i> 776.42	Women's and maids' , ,, Children's and infants' , ,,	4,563 903	4,971 1,045	5,600 1,004	
122.02, 09	Soup— Canned '000 pints	72,032	78,985	67,201	71,41
122.13, 15 127.11-19	Dry-mix	8,226 161,555	8,803 165,563	9,127 183,800	9,14 204,10
401.53 461.20	Stearine (stearic acid) ,,, Steel, constructional, fabricated	9,647 517,257	10,722 547,258	11,780 558,591	
	Stoves, ovens and ranges, domestic cooking—	-			•
661.01-11 661.31-42	Electric(d) No. Gas(e) , ,	188,132 71,265	192,655 75,482	193,627 73,127	210,80 84,61
662.01,03	Solid fuel ,,	20,859	18,785	14,921	13,11
102.01, 02 102.11	Raw (94 net titre) '000 tons Refined	1,953 609	2,343 613	2,334 614	2,64 64
405.36	Sulphate of ammonia tons	118,387	110,246	87,007	93,58
415.07	Superphosphate '000 tons	(f)4,265	(f)4,430	(f)3,935	
803.61	Talcum powder	6,870	8,134	8,975	9,51
391.14, 16 391.24	Edible	148,628 345,104	150,789 361,588	148,099 353,901	
643.51–68 645.52–66	Television sets No.	276,586	254,811	253,247	283,39
	Television pitcture tubes ,, Tiles, roofing—	361,534	368,517	342,159	
475.30 472.12	Cement	82,921 51,258	88,509 47,101	96,831 46,972	
	Timber— From native logs—				
331.01~07	Hardwood, etc '000 super ft	1,178,473 329,532	1,143,814	1,165,376	
331.09-19 331.23, 25	Softwood , , , From imported logs , , , ,	27,892	317,591 25,771	307,683 32,379	· (4
661.21, 23 183.02–28	Toaster, electric (domestic) No. Tobacco	329,626 8,407	366,972 7,595	331,717 7,463	
094.51 094.53	Tomato juice	1,927 22,428	2,627 22,776	2,463 11,546	
094.57	,, pulp	133	181	193	12
373.58-64 671.51-59	Towels	960 340,895	992 352,791	892 370,346	
683.03-11	Transformers, chokes and ballasts, for distribution of power and light, etc ,,	19,361	16,823	15,892	16,10
622.01~07, 19 369.21~27	Tubes, pneumatic (h) . '000	3,968 174,646	4,211 248,825	4,528 185,966	4,67
621.31-37	Tyres, pneumatic (h)	5,714	5,930	6,887	
863.01	Umbrellas, street and general purpose No.	716,987	825,032	930,266	611,49
774.01-18,41-47 60, 62, 91-9 7	Underwear (men's, women's, children's) . '000 doz		6,179	6,624	

⁽a) Excludes Northern Territory and Australian Capital Territory. (b) Code 657.53 not collected prior to July 1968. (c) Not available for publication. (d) Includes wall ovens but excludes cooking tops and portable units. (e) Upright and elevated (with ovens) including wall ovens, but excluding hotplates, stovettes, etc. (f) Excludes ammonium phosphate. (g) Source: Department of Primary Industry, includes ammonium phosphate. (h) Excludes bicycle tubes and tyres. (i) Excludes Code 621.35. (j) Excludes Codes 774.16 and 774.18.

MANUFACTURING INDUSTRY

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA, 1965–66 TO 1968–69—continued

Commodity code	Article				1965–66 (a)	1966–67 (a)	1967–68 (a)	1968-69
692.01	Vacuum cleaners (domestic)			No.	181,691	156,307	163,613	151,532
	Wash basins—							
671.31	C.I.P.E.,			No.	64,126	58,040	52,919	44,631
671.37	Earthenware				140,652	146,546	159,480	184,625
671.33-35	Pressed steel		÷	,,	62,852	78,893	91,796	97,685
693.02-18	Washing machines, household, e		•	,,	240,189	231,601	278,348	302,532
0,5.02.10	Weatherboards—	ACCEL IC	•	"	270,107	231,001	270,510	502,552
332.12	Australian timber		200	0 super ft	20,307	19,025	18,799	14,564
332.14	Imported timber			o super re	2,583	1,857	2,175	1,917
152.14	Wheatmeal for stock feed .	: :		(2,000 16)	284,474	228,872	283,589	202,913
519.01	Wheelbarrows (metal)		tons		116,838			109,156
319.01			•	No.	110,030	123,291	118,797	109,130
172.42	Wine, beverage— Fortified			10001	0.770	10 401	11 514	12,447
			•	'000 gal	9,678	12,401	11,534	
172.46	Unfortified		•	27	8,663	12,020	14,562	16,401
341.31-45	Wood pulp		•	tons	330,625	357,665	351,268	410,933
242.07-11	Wool, scoured or carbonised			'000 1ь	156,113	154,119	157,860	155,882
242.32	Wool tops, pure			**	45,798	44,535	42,439	43,538
	Yarn (including mixtures)							
364.11-50	Cotton				59,020	60,792	60.849	61,114
363.47-75	Woollen	•	•	**	30,534	32,641	34,596	35,672
363.17-31	Wool worsted		•	**	21,519	18,781	18,896	18,364
365.38-66	Rayon and acetate, spun		•	"	5.970	6,771	9,213	10,996
365.90, 366.03,	Nayon and acetate, spun		•	**	3,970	0,771	9,213	10,550
04, 16, 29, 30, 42, 55, 56, 88, 96, 97		s spun.	٠	,,	6,720	8,843	9,543	10,408
457.04	Zinc, refined(b).			tons	196,534	197,030	187 565	228,000

⁽a) Excludes Northern Territory and Australian Capital Territory. (b) Primary origin only includes small quantities of zinc dust.