CHAPTER 17

MANUFACTURING AND INTERNAL TRADE

MANUFACTURING

Introduction

History

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book.

Decentralisation and manufacturing industries

The decentralisation of secondary industries, and the steps taken by the Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book.

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 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 Chapter 22, Public Finance, for products on which bounties are paid.)

Government authorities

Industries Assistance Commission

The Industries Assistance Commission is a statutory authority which came into existence on 1 January 1974 as a result of the passing of the *Industries Assistance Commission Act* 1973 by the Commonwealth Parliament. The Commission replaced the Tariff Board, which since 1921 had been responsible for advising the Government on assistance for industries mainly in the secondary sector of the economy.

The Commission is an advisory body whose functions are to hold inquiries and make reports to the Government on assistance to industries in the primary, secondary and tertiary sectors of the economy. The Commission also has a responsibility to report annually on the general structure of industry assistance and its effects on the economy.

A reference from the Government is the official document directing the Commission to inquire and report on certain matters. The Government is required to seek the Commission's advice before it makes changes in the long term assistance afforded industries. References mainly arise from representations to the Government from organisations, companies or individuals seeking assistance. Some references arise from Government commitments to review assistance. The Commission itself has the power to initiate an inquiry under certain circumstances.

Public hearings are held by the Commission in Canberra and in capital cities and regional centres throughout Australia. Any evidence presented to the Commission must be on oath or affirmation. The inquiry subject and the date and location of public hearings are advertised in the press and advised by Commission circular. The Commission normally releases draft reports to give interested parties an opportunity to examine and comment on these reports within the Commission's public inquiry system before the final report is submitted to Government.

After receiving a final report from the Commission, the Government decides whether or not the Commission's advice should be followed. If it decides that assistance afforded a particular industry should be changed, this usually involves introduction of a proposal to this effect in Parliament. The final responsibility for the assistance given to industries within Australia rests with Parliament.

Copies of the Commission's annual reports and final inquiry reports are sold by Australian Government Publishing Service bookshops after being released by the Government. Draft reports are only available from the Commission.

Temporary Assistance Authority

The Temporary Assistance Authority (TAA), which replaced the Special Advisory Authority set up under the Tariff Board Act, came into operation on 1 January 1974 under the provisions of the Industries Assistance Commission Act 1973 (since amended).

The main function of the TAA is to undertake inquiries and submit reports to the Government within 45 days of receipt of a reference from the Government on the question of whether urgent action is necessary to provide assistance to any industry that is experiencing difficulty due to the importation of specified goods. If urgent action is necessary the Authority recommends the nature and extent of the assistance to be provided.

The Authority's reports on individual inquiries are normally made public once the Government's decision is announced and are available, as is the annual report, from the Australian Government Publishing Service bookshops.

Bureau of Industry Economics

The Bureau of Industry Economics has been established by the Australian Government as a centre for research into the manufacturing and commerce sectors. Formally attached to the Department of Industry and Commerce, it has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- carry out research work needed to assist the Government in the formation of industrial policy
- assist the Industries Assistance Commission and other government bodies by making submissions on the results of its research
- attract a high standard of professional staff and publish its research findings
- complement the work of other research agencies and co-operate with universities and colleges in developing research programs.

Activities coming within the Bureau's research area include manufacturing; building; wholesale and retail trade; entertainment, travel and accommodation; warehousing and storage and personal and business services. These currently contribute well over 50 per cent of gross domestic product in Australia and absorb an even larger share of the labour force.

The Bureau is also concerned with developments in mining, rural industry, public and private services and international trade and investment where these impinge on the manufacturing and commerce sectors.

A Council of Advice advises the Minister of Industry and Commerce about the Bureau's work and ensures that it is relevant to contemporary and long term issues in manufacturing and commerce. Its members are drawn from a wide range of industries and backgrounds, including the universities and the trade union movement. The Council assists with the work of the Bureau and the effective dissemination of the results of the Bureau's work.

The techniques of economic analysis used include supply and demand estimation, industry structure-performance relationships, input-output analysis, econometrics, cost-benefit methods and socio-demographic investigations. Technical and social factors affecting industry structure and performance are also taken into account in investigations.

The staff of the Bureau consists of approximately 60 officers with backgrounds in business, government and university teaching and research.

Research projects often require special surveys where existing data sources are inadequate or more detailed information is required for particular industries. In certain projects the Bureau undertakes joint research with other organisations and consultants are engaged where this will significantly enhance the quality of the research.

Current research areas include:

- the retail pharmacy industry
- regional development and structural change
- corporate taxation
- economic effect of shorter working hours
- productivity
- tourism
- · structural adjustment in heavy engineering
- Australian direct investment abroad
- investment behaviour in manufacturing
- trade relations with north-east Asia.

When initial findings are available, working papers are prepared to discuss the methods employed and to ensure that specialist qualified observers have an opportunity to comment on objectives of the research programme. By 1983 thirteen final research reports on projects and five information bulletins had been published.

Standardisation

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is obliged by two Acts of Parliament to be associated with national standards. The functions of CSIRO as laid down by these Acts involve establishing, developing and maintaining standards of measurement of physical quantities and to promote the use of these standards.

CSIRO first undertook this role in 1938 after government acceptance of a recommendation by a Secondary Industries Testing and Research Committee that these functions were essential for the successful development of manufacturing industry in Australia. Since that time, standards and calibrations have been established for a very wide range of physical quantities, extending considerably beyond the minimum required by law. From 1978, CSIRO has been responsible for first level calibrations in the defence area.

In certain specialist areas, CSIRO has authorised other bodies to carry out functions related to standards. CSIRO has authorised the *Australian Atomic Energy Commission* (Department of Resources and Energy) and the *Australian Radiation Laboratory* (Department of Health) to maintain standards for quantities relating to ionising radiations, such as radioactivity, exposure, and absorbed dose. It has also authorised the *Division of National Mapping* (Department of Resources and Energy) and the *Australian Telecommunications Commission* (Department of Communications) to maintain working standards of time interval and frequency.

At the international level, a treaty now widely known as the Metric Treaty has been signed by 45 member nations, including Australia. The *International Bureau of Weights and Measures* (BIPM) coordinates activities under the Treaty by providing a mechanism for making international agreements in scientific metrology and for coordinating research on basic scientific problems in measurement. The CSIRO has representatives on five of the BIPM's Consultative Committees, while the *Australian Radiation Laboratory* and the *Australian Atomic Energy Commission* (as CSIRO agents) are represented on another Consultative Committee.

The Standards Association of Australia is the organisation responsible for the preparation, on a national basis, of 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 the 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 subject under consideration. This assistance is on a voluntary basis.

Preparation of a standard is undertaken in response to a request from any responsible source, subject to verification that the standard will meet a genuine need. 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 many cases where safety of life or property or consumer protection 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 Standards Commission was established in 1948 and is presently located at North.

Ryde, Sydney. The original purpose was to advise the Minister for Science and Technology on matters relating to weights and measures. It operated under the *Weights and Measures (National Standards) Act*, 1948. This was replaced in 1960 with a new Act which took account of advances in measuring technology and its impact in Australia. Amendments to the 1960 Act were made in 1966 and 1978. The present role of the Commission provides for the establishment and use throughout Australia of uniform units of measurement, uniform standards of measurement of physical quantities and for the examination and approval of the patterns of measuring instruments used for trade in order to control design and quality.

The Commission has close contacts with all States and Territorial weights and measures authorities who ensure by regular inspections that trade instruments continue to comply with the approved patterns.

Close liaison is also maintained with the manufacturing industry, retailers, consumers and other users to ensure a balance between design, quality and cost.

The Commission has regular contacts overseas and provides the Australian member accredited to the International Organisation of Legal Metrology. The Commission is directed by a board of five part-time Commissioners.

The National Association of Testing Authorities (NATA) 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 operations 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 acoustic and vibration measurement, biological testing, chemical testing, electrical testing, heat and temperature measurement, mechanical testing, metrology, non-destructive testing and optics and photometry.

The Industrial Design Council of Australia (IDCA) is engaged in activities aimed at encouraging better design in Australian-made goods and fostering a wider appreciation of good design throughout the community. The Council is representative of industry, commerce and government, together with designers and educationists. It is financed by donations from industry and commerce, and by Common-wealth and State Government grants.

The Council's Field Advisory Service has a diagnostic and counselling role, assisting smaller manufacturers throughout Australia with product development policy and direction. Field advisers are based in IDCA State offices in Sydney, Melbourne, Brisbane, Adelaide, Perth and Hobart.

The Australian Design Award is granted for high-quality products of Australian design and manufacture. An index of these products is held in each State office. These products are also displayed in Australian Design Centres.

Regular contact is maintained with senior executives of manufacturing companies, departmental officers and designers through the Design Delegate program of lectures. Inquirers seeking professional design services are referred to qualified industrial designers. The Council is also concerned with raising the standard of training in industrial design in co-operation with education authorities.

The Council's National Secretariat is in Melbourne.

The Australian Standard Commodity Classification (ASCC) has been developed by the ABS to enable users to compare statistics of commodities produced in Australia with statistics of commodities imported and exported.

The ASCC manual (1207.0 and 1208.0) links production, import and export items at their most detailed level of comparability in the form of standard (ASCC) commodity items. In a large number of cases, however, due to the differences between production, import and export items, comparability is only achieved at fairly broad aggregate levels. In the ASCC, commodities are grouped under industries (as defined in the Australian Standard Industrial Classification (ASIC)) in which they are typically produced.

The first edition of the ASCC was restricted to commodities originating in manufacturing industries. The second edition, which relates to the year 1977–78 was extended to also include commodities originating in the agriculture, forestry, fishing, hunting and mining industries. The latest edition published is in respect of the year 1980–81 which was released in April 1983. Because of the relatively few changes that occurred in the component items of the ASCC, it was decided not to publish the 1979–80 edition of the ASCC manual.

The classification will continue to be developed over the coming years to improve the alignment between production, imports and exports.

The Australian Standard Industrial Classification (ASIC) (1201.0 and 1202.0) was developed by

the ABS as part of its program for the integration of economic statistics. Since its introduction by the ABS in the processing of the 1969 Integrated Economic Censuses, the ASIC has gained a wide acceptance by users of statistics outside the ABS and has been progressively applied in most ABS collections and compilations where data are classified by industry.

The ASIC has been devised for the purpose of classifying statistical units by industry. It has been designed primarily as a system for the classification of establishments (e.g. individual mines, factories, shops, etc.) although it may also be used for classifying other economic units such as enterprises.

The fundamental concept of this classification system is that an industry (i.e. an individual class, group, etc.) in the ASIC is composed of establishments that have been classified to it. Each industry class is defined in terms of the predominant activities of the establishment classified to it and these activities are specified in the ASIC as *primary activities* of the individual industry classes. These industry definitions are revised only at relatively infrequent intervals so as to minimise the disruption to time series data assembled on an ASIC basis.

As a result of a recent comprehensive review of the classification, the 1978 Edition of ASIC has been published. This revised edition is being progressively introduced in all relevant ABS collections.

Productivity action

For information about the Productivity Group Movement and Productivity Promotion Council of Australia see Chapter 25, Science and Technology.

Manufacturing industry statistics

Manufacturing industry statistics from 1901 to 1967-68

A series of substantially uniform statistics exist from 1901 up until 1967-68 when the framework within which manufacturing statistics were collected was changed. Detailed manufacturing statistics in respect of this period are included in Year Book No. 57, pages 721-9, and in earlier issues.

Manufacturing industry statistics from 1968-69

As from the year ended June 1969, the Censuses of Manufacturing, Electricity and Gas have been conducted within the framework of the integrated economic censuses which include the Censuses of Mining, Retail Trade, Wholesale Trade, Construction and Electricity and Gas industries. As a result, manufacturing industry statistics for 1968–69 and subsequent years are not directly comparable with previous years.

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 cover (with a few exceptions) all activities at the location. The establishment statistics 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.

Census units are classified to industry according to the Australian Standard Industrial Classification (ASIC), described in the ABS publication Australian Standard Industrial Classification (1201.0 and 1202.0). The ASIC 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 industrial 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 integrated economic censuses introduced in 1968-69 and the individual economic censuses conducted in previous years.

In the 1967-68 census there were approximately 62,600 manufacturing establishments (excluding electricity and gas establishments) with employment of 1,276,000. Of these, approximately 35,400, with employment of 1,097,000 would have been included in the 1967-68 census if ASIC had been used.

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MANUFACTURING ESTABLISHMENTS: SUMMARY OF OPERATIONS, AUSTRALIA, 1968-69 to 1981-82

			tablish-		employmen le year (a)	<i>i</i>	Wages and	_	Stocks		Purchases, transfers in and	·	Fixed capital expend-
Census year		,	nents at 30 June	Males	Females	Persons	salaries (b)	Turn- over	Opening	Closing	selected expenses		iture less
			No.	No.	No.	No.	\$ m	\$m	\$m	• \$m	, Sm	\$m	\ \$m-\-
1968 69 .			35,939	927,211	334,066	1,261,277	3,908.1	18,646.5	3,102.5	3,319.6	11,514.9	7,348.8	
1969 70 .			35,674	950,055	345,578	1.295.633	4,328.7	20,687.6	3,322.8	3,634.7	12,862.3	8,137.1	1,030:7
1970 71 .					No	manufactu	ing census v	vas conduct	ed in respec	t of this ye	ar.		
1971 72 .			36,206	953,967	347,672	1,301,639	5,250.0	23.620.4	3,920.1	4,182.5	14.374.8	9,508.1	1,297.8
1972 73			36,437	951,610	345,485	1.297.095	5,820.0	26.352.4	4,187.2	4,306.3	15,963.0	10,508.5	
1973 74 .			37,143	969,338	369,041	1,338,379	7,176.4	31,246.7	4,299.1	5,268.5	19,329.8	12,886.3	
974 75(c)			36,836	931,367	333,440	1,264,807	8,588.0	35,468.0	5,267.2	6,572.2	21,712.3	15,060.7	1,456.4
1974 75(d)			26,973	916.896	328,341	1.245.237	8,533.5	35,133.7	5,241.0	6.542.7	21,522.3	14,913.1	1,445.9
1975 76			27,507	888,523	311,917	1,200,440	9,472.4	39,485.3	6,581.1	7,023.3	23,371.7	16,555.8	
1076 77			26,780	876,111	299,720	1,175,831	10,535.8	44,814.3	6,985.1	7,996.8	27,010.0	18,816.1	1.548.0
1977 78(e)			25,998	855,448	290,237	1,145,685	11.151.4	48,210.8	7.880.2	8,510.8	29.066.5	19,739,8	1.871.8
1977 78()			26,065	853,966	290,233	1,144,199	11,135.8	48,112.6	7,863.5	8,498.1	28,979.3	19,738.1	1.877.3
1078 70	÷		26,312	852,982	290,909	1.143.891	11,966.4	55,211.3	8.515.4	9,299.6	33,765.4	22,230.1	2,262.8
1070 00			27,430	862,368	291,816	1,154,184	13,357.5	65,354.8	9,287.6	11,126.4	41,579.5	25,614.0	
1000 01			27,681	859.092	290,746	1.149.838	14,911.4	73,711.8	11.064.3	12,409.7	46,526.1	28,531.1	2,882.7
1001 03	:		28,706	862,395	292,264	1,154,659	17.001.0	81.861.5	12,377.3	13,314.9	51,421.3	31,377.7	

(a) Including working proprietors.
 (b) Excluding the drawings of working proprietors.
 (c) These data and that of previous years includes the data of all manufacturing establishments.
 (d) These data and those of following years exclude single establishment manufacturing enterprises with fewer than four persons employed.
 (e) These data and those of previous years are classified to the 1969 (preliminary) edition of ASIC.

The items of data on the census forms were standardised for all census sectors, which 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.

Even though the concept of 'value added' is similar to 'value of production', direct comparison of 1968-69 and previous figures is not 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. In addition, 'value added' as calculated for the Manufacturing Census differs from the concept used in the National Accounts where the concept of 'value added' also excludes some administrative expenses and sundry charges and the change in stocks component is measured by valuing the physical change in stocks at current prices. It is not practicable in the Manufacturing Census to collect data fully in accord with the National Accounts concept of 'value added'.

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

Since the introduction of the system of integrated economic censuses the comparability of manufacturing census data has been affected by two additional changes to collection practices:

- (i) Commencing with the 1975-76 Manufacturing Census, only a limited range of data (i.e. employment and wages and salaries) is collected from single establishment manufacturing enterprises with less than four persons employed. This procedure significantly reduced both the statistical reporting obligations of small businesses and the collecting and processing costs of the Australian Bureau of Statistics without affecting the reliability of information for the evaluation of trends in the manufacturing sector of the economy (as these small enterprises contribute only marginally to statistical aggregates). In order to provide a link with past and future years, 1974-75 data was processed on both bases.
- (ii) Commencing with the 1977-78 census the classification of census units to industry is based on the 1978 edition of the ASIC which replaces the 1969 preliminary edition in use since the 1968-69 census. In general the impact of the change in industrial classification is minimal at the ASIC Division and Subdivision levels.

Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed

Main structural aggregates relating to number of establishments, employment, wages and salaries, turnover, purchases, transfers in and selected expenses, stocks, and value added are shown in the following tables. Further detailed statistics are contained in the following ABS statistical publications: Manufacturing Establishments, Details of Operations by Industry Class, Australia (8203.0), Manufacturing Establishments, Summary of Operations by Industry Class, Australia (8202.0) and Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size, Australia (8204.0).

Summary of operations

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

MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS BY INDUSTRY SUB-DIVISION: AUSTRALIA 1980-81 AND 1981-82

Indus	ry sub-division	Establish- nients	Average ei over wh (a)	nployment ole year		Wages and		itocks at 30.	June	Purchases, transfers in and		Fixed capital expend-
ASIC code	Description	operating at 30 June No.	Males No.	Females No.	Persons No.	salaries (b) \$ m	Turn- over \$ m	Opening S m	Closing \$ m	selected expenses \$ m	Value added \$ m	iture less disposals § m
					1980-	81						
21	Food, beverages and tobacco	3,415	132,614	51,078	183,692	2,362	16,129	1,697	1,935	11,343	5,024	497
23	Textiles	634	21,399	15,524	36,923	448	2,015	372	373	1,247	769	38
24 25	Clothing and footwear	1,999	18,178	60,272	78,450	765	2,710	437	473	1,480	1,267	30
	furniture	4.075	66,908	11.927	78,835	853	3.675	454	515	2,126	1,609	92
26	Paper, paper products,	••••								•	-	
27	printing and publishing Chemical, petroleum and	2,816	73,274	29,136	102,410	1,404	5,255	612	704	2,779	2,568	204
28	coal products Non-metallic mineral	904	44,404	15,267	59,671	933	7,068	1,132	1,302	4,725	2,513	302
	products	1.698	40.759	5,096	45,855	673	3,304	414	434	1,872	1.452	199
29	Basic metal products	529	89,455	7.027	96,482	1,561	9,750	1.637	1,977	6.910	3,180	946
31	Fabricated metal products	4.272	92.714	20,336	113,050	1.395	5.853	870	969	3,450	2,502	138
32	Transport equipment	1,404	113,438	14,999	128,437	1,675	6,412	1,272	1,295	3,880	2,555	155
33	Other machinery and	1,404	113,430	14,777	120,437	1,075	0,412	1,272	1,275	5,000	2,333	155
	equipment	3,767	122,699	38,693	161,392	2,058	7,954	1,632	1,849	4,564	3,607	178
34	Miscellaneous manufacturing	2,168	43,250	21,391	64,641	786	3,585	536	583	2,148	1,484	105
	Total manufacturing	27,681	859,092	290,746	1,149,838	14,911	73,712	11,064	12,410	46,526	28,531	2,883
					1981-	82						
21	Food, beverages and tobacco	3,485	127,921	50.811	178,732	2,606	17,118	1,919	1,947	11.821	5,325	549
23	Textiles	655	20,863	15.082	35,945	500	2,181	374	410	1,361	856	72
24	Clothing and footwear	2.032	18,015	59,492	77,507	849	2,915	460	506	1,580	1,380	34
25	Wood, wood products and furniture	4.184	68.008	12,411	80,419	968	4,102	527	585	2,391	1.770	94
26	Paper, paper products,	4,104	00,000	12,411	00,417	700	4,102	527	202	2,371	1,770	,,,
	printing and publishing	2,946	73,071	29,842	102,913	1,591	6,118	697	792	3,228	2,984	293
21	Chemical, petroleum and coal products	942	44,820	15,398	60,218	1,069	7,836	1,256	1,332	5,146	2,767	310
28	Non-metallic mineral products	1,777	40.886	5,071	45,957	768	3,820	438	514	2.210	1,685	179
29	Basic metal products	548	88,779	7,335	96,114	1,784	10,158	2.009	2.073	7,141	3,080	1,687
Ĵí	Fabricated metal products	4,509	95,725	20.607	116,332	1.625	6.781	975	1.074	4.021	2.860	1,007
32	Transport equipment	1,394	115,563	15,904	131.467	1,961	7,631	1.270	1,389	4,021	2,998	329
33	Other machinery and			-	•					•		
34	equipment	3,934	123,902	39,028	162,930	2,358	9,192	1,862	2,061	5,331	4,059	246
	manufacturing	2,300	44,842	21,283	66,125	922	4,009	590	632	2,437	1,614	125
	Total manufacturing	28,706	862,395	292,264	1,154,659	17,001	81,861	12,377	13,315	51,421	31,378	4,084

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors.

Employment

The statistics on the number of persons employed shown in the following table relate to the average whole year employment, including working proprietors and those persons 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, 1981–82, AND TOTAL MANUFACTURING 1979–80 TO 1981–82

21 F 23 T 24 C 25 V 26 F 27 C 28 N 29 E 31 F 32 T 33 C	Cood, beverages and tobacco Food, beverages and tobacco Extiles Clothing and footwear Wood, wood products and furniture Paper, paper products, printing and publishing - Themical, petroleum and coal pro- ducts Non-metallic mineral products asic metal products - abricated metal products - abr	N.S.W. 39,451 5,767 5,136 22,766 26,104 20,244 14,773 50,880 34,556 31,294 52,479 51,877 319,327 323,117	37,859 11,555 10,722 16,756 23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	Q/d EMPLOYE 25,814 664 11,109 7,244 2,845 6,582 6,279 12,811 12,194 9,843 3,383	<i>S.A.</i> 2D 11,966 1,514 1,120 6,593 5,613 2,397 3,029 8,397 3,029 8,997 16,535 16,536 12,944 4,338	<i>W.A.</i> 8,140 495 281 6,910 4,524 4,667 5,746 9,409 5,073 7,313	Tas. 3,751 871 81 3,350 4,723 921 780 3,524 1,544 591 845	N.T. 479 -7 102 205 - 859 198 45 37 30	4.C.T. 461 4 422 925 - 207 430 37 129 12	Aus 127,92 20,86 18,01 68,00 73,07 44,82 40,88 88,77 95,72 115,56 123,90 44,82
23 T 24 C 25 V 26 F 27 C 28 N 29 E 31 F 32 T 33 C	Textiles Clothing and footwear Nood, wood products and furniture aper, paper products, printing and publishing Chemical, petroleum and coal pro- ducts Non-metallic mineral products Basic metal products Chemical metal products Transport equipment Other machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	5,767 5,136 22,766 26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	37,859 11,555 10,722 16,756 23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	25,814 661 664 11,109 7,244 2,845 6,582 6,279 12,811 12,194 9,843	11,966 1,514 1,120 6,593 5,613 2,397 3,029 8,397 6,955 16,536 12,944	495 281 6,910 4,524 2,845 4,667 5,746 9,409 5,073 7,313	871 81 3,350 4,723 921 780 3,524 1,544 591	7 102 205 } 859 198 45 37	4 422 925 — 207 430 37 129	20,86 18,01 68,00 73,07 44,82 40,88 88,77 95,72 115,56 123,90
3 T 4 C 5 V 6 F 7 C 8 M 9 E 9 E 1 F 2 T 3 C	Textiles Clothing and footwear Nood, wood products and furniture aper, paper products, printing and publishing Chemical, petroleum and coal pro- ducts Non-metallic mineral products Basic metal products Chemical metal products Transport equipment Other machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	5,767 5,136 22,766 26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	11,555 10,722 16,756 23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	661 664 11,109 7,244 2,845 6,582 6,279 12,811 12,194 9,843	1,514 1,120 6,593 5,613 2,397 3,029 8,397 6,955 16,536 12,944	495 281 6,910 4,524 2,845 4,667 5,746 9,409 5,073 7,313	871 81 3,350 4,723 921 780 3,524 1,544 591	7 102 205 } 859 198 45 37	4 422 925 — 207 430 37 129	20,86 18,01 68,00 73,07 44,82 40,88 88,77 95,72 115,50 123,90
4 C 5 V 6 F 7 C 8 N 9 E 9 E 1 F 2 T 3 C	Clothing and footwear Wood, wood products and furniture Paper, paper products, printing and publishing -hemical, petroleum and coal pro- ducts Non-metallic mineral products Basic metal products -abricated metal products 	5,136 22,766 26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	10,722 16,756 23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	664 11,109 7,244 2,845 6,582 6,582 6,279 12,811 12,194 9,843	1,120 6,593 5,613 2,397 3,029 8,397 6,955 16,536 12,944	281 6,910 4,524 2,845 4,667 5,746 9,409 5,073 7,313	81 3,350 4,723 921 780 3,524 1,544 591	102 205 - 859 198 45 37	422 925 — 207 430 37 129	18,01 68,00 73,0 44,8 40,81 88,7 95,7 115,50 123,90
5 V 6 P 7 C 8 N 9 E 9 E 1 F 2 T 3 C	Wood, wood products and furniture Paper, paper products, printing and publishing Chemical, petroleum and coal pro- ducts Non-metallic mineral products Basic metal products Pabricated metal products Pransport equipment Other machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	22,766 26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	16,756 23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	11,109 7,244 2,845 6,582 6,279 12,811 12,194 9,843	6,593 5,613 2,397 3,029 8,397 6,955 16,536 12,944	6,910 4,524 2,845 4,667 5,746 9,409 5,073 7,313	3,350 4,723 921 780 3,524 1,544 591	102 205 - 859 198 45 37	422 925 — 207 430 37 129	68,0 73,0 44,8 40,8 88,7 95,7 115,5 123,9
6 P 7 C 8 N 9 E 1 F 2 1 3 C	Paper, paper products, printing and publishing Chemical, petroleum and coal pro- ducts Sasic metal products Pabricated metal products Fransport equipment Uther machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	7,244 2,845 6,582 6,279 12,811 12,194 9,843	5,613 2,397 3,029 8,397 6,955 16,536 12,944	4,524 2,845 4,667 5,746 9,409 5,073 7,313	4,723 921 780 3,524 1,544 591	205 - 859 198 45 37	925 — 207 430 37 129	73,0 44,8 40,8 88,7 95,7 115,5 123,9
7 C 8 N 9 E 1 F 2 T 3 C	"aper, paper products, printing and publishing Themical, petroleum and coal pro- ducts Non-metallic mineral products absic metal products "absic metal products "absi	26,104 20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	23,733 15,568 10,703 13,241 29,822 49,793 40,312 18,844	7,244 2,845 6,582 6,279 12,811 12,194 9,843	5,613 2,397 3,029 8,397 6,955 16,536 12,944	4,524 2,845 4,667 5,746 9,409 5,073 7,313	4,723 921 780 3,524 1,544 591	205 - 859 198 45 37	925 — 207 430 37 129	73,0 44,8 40,8 88,7 95,7 115,5 123,9
7 C 8 N 9 E 1 F 2 T 3 C	publishing Chemical, petroleum and coal pro- ducts Non-metallic mineral products asic metal products Pabricated metal products Transport equipment Other machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	1 5,568 10,703 1 3,241 29,822 49,793 40,312 18,844	2,845 6,582 6,279 12,811 12,194 9,843	2,397 3,029 8,397 6,955 16,536 12,944	2,845 4,667 5,746 9,409 5,073 7,313	921 780 3,524 1,544 591	<pre>-</pre>		44,8 40,8 88,7 95,7 115,5 123,9
8 N 9 E 1 F 2 T 3 C	Chemical, petroleum and coal pro- ducts Son-metallic mineral products abricated metal products ransport equipment Uther machinery and equipment Viscellaneous manufacturing 1981-82 1980-81	20,244 14,773 50,880 34,556 31,294 52,479 15,877 319,327	1 5,568 10,703 1 3,241 29,822 49,793 40,312 18,844	2,845 6,582 6,279 12,811 12,194 9,843	2,397 3,029 8,397 6,955 16,536 12,944	2,845 4,667 5,746 9,409 5,073 7,313	921 780 3,524 1,544 591	<pre>-</pre>		44,8 40,8 88,7 95,7 115,5 123,9
8 N 9 E 1 F 2 1 3 C	ducts Non-metallic mineral products absic metal products abricated metal products Fransport equipment Uther machinery and equipment Miscellaneous manufacturing Total manufacturing 1981-82 1980-81	14,773 50,880 34,556 31,294 52,479 15,877 319,327	10,703 13,241 29,822 49,793 40,312 18,844	6,582 6,279 12,811 12,194 9,843	3,029 8,397 6,955 16,536 12,944	4,667 5,746 9,409 5,073 7,313	780 3,524 1,544 591	198 45 37	430 37 129	40,8 88,7 95,7 115,5 123,9
9 E 1 F 2 1 3 C	Non-metallic mineral products sasic metal products abricated metal products Fransport equipment Uther machinery and equipment Miscellaneous manufacturing 1981-82 1980-81	50,880 34,556 31,294 52,479 15,877 319,327	1 3,241 29,822 49,793 40,312 18,844	6,279 12,811 12,194 9,843	8,397 6,955 16,536 12,944	5,746 9,409 5,073 7,313	3,524 1,544 591	198 45 37	430 37 129	88,7 95,7 115,5 123,9
I F 2 1 3 C	abricated metal products transport equipment Uther machinery and equipment Viscellaneous manufacturing 1981-82 1980-81	34,556 31,294 52,479 15,877 319,327	29,822 49,793 40,312 18,844	12,811 12,194 9,843	6,955 16,536 12,944	9,409 5,073 7,313	1,544 591	198 45 37	430 37 129	95,7 115,5 123,9
2 1 3 C	Fransport equipment Other machinery and equipment Miscellaneous manufacturing Total manufacturing 1981–82 1980–81	31,294 52,479 15,877 319,327	49,793 40,312 18,844	12,194 9,843	16,536 12,944	5,073 7,313	591	45 37	37 129	115,5 123,9
3 C	Other machinery and equipment Miscellaneous manufacturing Total manufacturing 1981–82 1980–81	52,479 15,877 319,327	40,312 18,844	9,843	12,944	7,313		37	129	123,9
	Miscellaneous manufacturing Total manufacturing 1981–82 1980-81	15,877 319,327	18,844				845			
94 F	Total manufacturing 1981-82 1980-81	319,327		3,383	4,338		364	30		44,8
	1981-82					1,992	364		12	
	1980-81									
		323,117	278,908	99,429	81,402	57,395	21,345	1,962	2,627	862,3
	1979-80	111 071	277,744	94,319	81,449	55,874	21,942	2,117	2,530	859,0
		323,871	281,959	93,636	83,498	53,461	21,520	2,015	2,408	862,3
			FEMALE	S EMPLOY	'ED					
	Food, beverages and tobacco	16,820	15,280	7,622	5,151	3,886	1,714	177	161	50,8
	Fextiles	4,550	7,592	544	1,165	305	926	-	_	15,0
	Clothing and footwear Wood, wood products and furniture	18,981	32,825	3,138	3,086	1,295	127	22	18	59,4
		4,371	3,302	2,013	1,148	1,293	208	15	61	12,4
	Paper, paper products, printing and publishing	12,493	9,106	2,892	2,102	2,041	697	122	389	29,8
7 C	Chemical, petroleum and coal pro- ducts	9,341	4,681	472	449	401	54			15,3
8 1	Non-metallic mineral products	1,972	1,779	452	323	446	54	<u>۱</u>		5,0
	Basic metal products	3,998	1,599	372	694	429	121	} 137	30	7,3
	Fabricated metal products	8,353	6,810	2,282	1,526	1,272	229	37	98	20,6
	Fransport equipment	3,396	9,773	652	1,635	270	170	4	4	15,9
	Other machinery and equipment	19,403	12,692	1,446	4,243	1,092	94	8	50	39,0
4 N	Miscellaneous manufacturing	8,778	8,390	1,403	1,950	674	70	5	13	21,2
	Total manufacturing		112 030	22.200		12 404		607	074	202.0
	1981–82	112,456 112,997	113,829	23,288 21,796	23,472	13,404 12,996	4,464 4,586	527 534	824 786	292,2 290,7
	1980-81	112,562	113,745 115,354	21,796	23,306 23,545	12,996	4,580	497	780	290,1
		112,502		S EMPLOY		12,520	4,000			271,0
									(10	
	Food, beverages and tobacco	56,271	53,139	33,436	17,117	12,026 800	5,465	656	622	178,7 35,9
	Textiles	10,317 24,117	19,147	1,205 3,802	2,679	1,576	1,797 208	29	22	30,9 77,5
	Wood, wood products and furniture		43,547		4,206					
6 F	Paper, paper products, printing and	27,137	20,058	13,122	7,741	8,203	3,558	117	483	80,4
	publishing Chemical, petroleum and coal pro-	38,597	32,839	10,136	7,715	6,565	5,420	327	1,314	102,9
	ducts	29,585	20,249	3,317	2,846	3,246	975	_	_	60,
8 1	Non-metallic mineral products	16,745	12,482	7,034	3,352	5,113	834	> 994		45,
9 E	Basic metal products	54,878	14,840	6,651	9,091	6,175	3,645	1	237	96,
11 F	Fabricated metal products	42,909	36,632	15,093	8,481	10,681	1,773	235	528	116,
	Fransport equipment	34,690	59,566	12,846	18,171	5,343	761	49	41	131,
	Other machinery and equipment .	71,882	53,004	11,289	17,187	8,405	939	45	179	162,9
4 1	Miscellaneous manufacturing	24,655	27,234	4,786	6,288	2,666	434	37	25	66,
	Total manufacturing								• •=•	
	1981–82	431,783	392,737 391,489	122,717	104,874	7 0,799 68,870	25,809	2,489 2,651	3,451 3,316	1,154,0
	1980-81 1979-80	436,114 436,433	391,489 397,313	116,115 115,606	104,755 107,043	65,987	26,528 26,158	2,651	3,316	1,149,8

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, 1981–82 AND TOTAL MANUFACTURING 1979–80 TO 1981–82 (\$ million)

Indus	ry sub-division									
ASIC codi	Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T .	A.C.T.	Ausi.
21	Food, beverages and tobacco	865	797	474	223	160	68	10	8	2,606
23	Textiles	150	270	15	34	10	21	-	-	500
24	Clothing and footwear	260	491	37	44	15	2	-	-	849
25	Wood, wood products and furniture	346	239	147	93	90	45	1	7	968
26 27	Paper, paper products, printing and publishing Chemical, petroleum and coal pro-	614	521	143	104	95	90	5	19	1,591
21	ducts	526	356	60	49	60	18	-	-	1.069
28	Non-metallic mineral products	290	215	113	51	78	13	} 21	4	768
29	Basic metal products	1,040	267	119	157	120	62	<u>۲</u>		1,784
31	Fabricated metal products	620	515	198	107	153	22	3	8	1,625
32	Transport equipment	518	911	179	268	74	11	1	-	1,961
33	Other machinery and equipment	1,048	779	159	232	124	13	1	2	2,358
34	Miscellaneous manufacturing	346	395	57	84	33	5	-	-	922
	Total manufacturing									
	1981-82	6,623	5,757	1,700	1,446	1,013	370	42	49	17,001
	1980 81	5,884	5,032	1,410	1,283	869	347	42	45	14,911
	1979 80	5,253	4,563	1,253	1,186	734	298	33	37	13,358

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not, transfers out of goods to other establishments of the same enterprise; bounties and subsidies on production; plus all other operating revenue from outside the enterprise, (such as commission, repair and service revenue and rent, leasing and hiring revenue), plus capital work done for own use, or for rental or lease. Receipts from interest, royalties, dividends, and the sale of fixed tangible assets are excluded.

MANUFACTURING ESTABLISHMENTS—TURNOVER, BY INDUSTRY SUB-DIVISION, 1981–82 AND TOTAL MANUFACTURING 1979–80 TO 1981–82 (Smillion)

Indus	try sub-division									
ASIC code	Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Ausı.
21	Food, beverages and tobacco	5,115	5,452	3,373	1.407	1,153	508	64	45	17,118
23	Textiles	720	1,107	77	163	45	69	-	_	2,181
24	Clothing and footwear	975	1.647	102	147	36	7	-	i	2,915
25	Wood, wood products and furniture	1.452	1,016	586	405	375	229	5	34	4,102
26	Paper, paper products, printing and								•	
	publishing	2,375	2,066	518	400	301	396	14	50	6,118
27	Chemical, petroleum and coal pro-									
	ducts	3,277	2,365	1,359	282	452	101		-	7,836
28	Non-metallic mineral products .	1,390	902	713	292	392	79	3 185	27	3,820
29	Basic metal products	4,746	1,809	1,081	779	1,260	322	5 ¹⁰³	21	10,158
31	Fabricated metal products	2,535	2,043	980	455	638	90	21	19	6,781
32	Transport equipment	1,565	3,825	897	1.095	203	40	3	2	7,631
33	Other machinery and equipment	3,957	3,196	613	903	477	35	2	10	9,192
34	Miscellaneous manufacturing	1,432	1,780	290	324	160	22	2	1	4,009
	Total manufacturing									
	1981-82	29,538	27,208	10,590	6.651	5,491	1.898	297	188	81,861
	1980 81	26,898	23,856	9,667	6,067	4,902	1,867	292	163	73,712
	1979 80	24,109	21,233	8,304	5,415	4.259	1.656	251	127	65,355

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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, fuels, power, containers, etc. and goods for resale, 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, sales commission payments and rent, leasing and hiring expenses.

MANUFACTURING ESTABLISHMENTS—PURCHASES, TRANSFERS IN AND SELECTED EXPENSES, BY INDUSTRY SUB-DIVISION, 1981–82 AND TOTAL MANUFACTURING 1979–80 TO 1981–82

				nillion)						_
Indus	try sub-division									
ASIC code	Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
21	Food, beverages and tobacco	3,437	3,801	2,388	924	832	362	44	33	11,821
23	Textiles	444	682	57	110	27	39	-	-	1,361
24	Clothing and footwear	565	878	46	70	16	4	-	-	1,580
25	Wood, wood products and furniture	847	584	336	250	208	142	3	20	2,391
26	Paper, paper products, printing and publishing	1,241	1,106	263	208	154	229	5	23	3,228
27	Chemical, petroleum and coal pro- ducts	1,972	1,468	1,154	178	310	64	_	-	5,146
28 29	Non-metallic mineral products	838 3,195	482 1,319	419 865	163 524	224 852	49 244	} 158	20	2,210 7,141
31	Fabricated metal products	1,489	1,161	635	270	390	54	16	8	4,021
32	Transport equipment	746	2.614	604	657	105	22	2	1	4,752
33	Other machinery and equipment	2,286	1,824	373	539	286	16	Ĩ	6	5,331
34	Miscellaneous manufacturing	851	1,112	175	190	96	12	1	-	2,437
	Total manufacturing									
	198182	17,910	17,031	7,316	4,084	3,501	1,237	231	112	51,421
	1980 81	16,653	14,814	6,722	3,693	3,149	1,176	231	89	46,526
	1979 80	15,071	13,353	5,777	3,426	2,663	1,046	179	64	41,580

Stocks

Statistics on the value of opening and closing stocks at 30 June 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—OPENING AND CLOSING STOCKS BY INDUSTRY SUB-DIVISION, 1981–82 AND TOTAL MANUFACTURING 1979–80 TO 1981–82 (\$ million)

	try sub-division									
ASIC code	Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
		OPE	NING STO	CKS AT 3	0 JUNE					
21	Food, beverages and tobacco	659	641	201	273	84	53	6	1	1,919
23	Textiles	123	186	14	25	8	18	-	-	374
24	Clothing and footwear	147	265	16	28	3	1	-	-	460
25	Wood, wood products and furniture	180	127	66	51	59	41	1	3	527
26	Paper, paper products, printing and									
	publishing	260	263	48	45	27	49	1	5	697
27	Chemical, petroleum and coal pro-									
	ducts	609	369	152	43	59	24	_	-	1,256
28	Non-metallic mineral products	180	104	53	33	55	10 1	70		438
29	Basic metal products	990	263	228	195	193	10	70	3	2,009
31	Fabricated metal products	386	330	112	58	67	15 7	4	2	975
32	Transport equipment	305	640	134	159	23	8	_	_	1,270
33	Other machinery and equipment	798	742	96	146	74	6	-	1	1.862
34	Miscellaneous manufacturing	216	270	35	45	21	3	-	_	590
	Total manufacturing									
	1981-82	4.854	4,200	1,154	1.101	673	298	83	14	12,377
	1980 81	4,235	3,809	1,024	1,091	563	280	49	13	11,064
	1979-80	3,538	3,216	871	866	508	233	45	1 11	9,288
		CLO	SING STO	CKS AT 3	0 JUNE					
21	Food, beverages and tobacco	620	655	232	276	95	61	7	1	1,947
23	Textiles	137	206	14	28	6	18	-	-	410
24	Clothing and footwear	157	295	16	32	4	1	-	-	506
25	Wood, wood products and furniture	202	143	74	52	61	49	1	3	585
26	Paper, paper products, printing and									
	publishing	285	312	58	50	31	46	2	6	792
27	Chemical, petroleum and coal pro-									
	ducts	636	411	152	47	63	23	-	-	1,332
28	Non-metallic mineral products	203	121	78	37	60	12		-	514
29	Basic metal products	982	290	260	183	197	99 j	► 64	3	2.073
31	Fabricated metal products	404	371	137	61	78	16	4	2	1.074
32	Transport equipment	320	705	151	167	29	17	_	_	1,389
33	Other machinery and equipment	870	799	124	173	89	5	_	1	2,061
34	Miscellaneous manufacturing	234	291	33	48	22	3	-	-	632
	Total manufacturing									
	1981-82	5.051	4,601	1,328	1.154	736	350	78	17	13,315
	1980 81	4,855	4,207	1,154	1,104	686	302	83	17	12,410
	1979 80	4.246	3.840	1.036	1.110	556	276	50	13	11.126

Value added

. The statistics on 'value added' contained in the following table have been calculated by adding to the value of turnover 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 380.

MANUFACTURING ESTABLISHMENTS-VALUE ADDED, BY INDUSTRY SUB-DIVISION, 1981-82 AND TOTAL MANUFACTURING, 1979-80 TO 1981-82 (\$ million)

. Industry sub-division ASIC Description N.S.W. Vic. Old S.A. W.A. Tas A.C.T. code NT Aust. 21-1.017 Food, beverages and tobacco 1.639 1.666 486 331 154 21 12 5.325 23 24 25 Textiles 280 445 20 56 15 31 856 . . . Clothing and footwear 56 800 420 80 21 3 1.380 Wood, wood products and furniture 627 447 258 157 170 96 2 15 1,770 26 Paper, paper products, printing and 1.009 197 9 2 984 publishing 1.160 266 152 163 28 27 Chemical, petroleum and coal pro-2.767 ducts 1,332 940 205 107 147 36 Non-metallic mineral products 575 32 28 418 318 133 173 1,685 21 8 29 31 Basic metal products 516 247 243 413 3 080 Fabricated metal products 1.064 924 371 189 258 38 5 10 2.860 32 Transport equipment 834 1.276 311 446 103 27 1 1 2.998 33 Other machinery and equipment 1.743 1.429 268 392 205 18 t 4 4.059 34 Miscellaneous manufacturing 500 690 113 137 65 10 1.614 1 -Total manufacturing 10.578 31.378 1981-82 11.825 3.448 2.620 2.053 713 61 78 10.865 9 440 3 075 2.387 77 1980 81 1.877 713 96 77 28 531 1979 80 9.745 8.505 1.643 25.614 2.692 2.233 654 64

Number of establishments

The following table shows the number of establishments in each State in operation at 30 June for the years indicated. 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 IN OPERATION AT 30 JUNE 1982 BY INDUSTRY SUB-DIVISION, AND TOTAL MANUFACTURING 1979-80 TO 1981-82

Industry sub-division

ASIC code	Description	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
21	Food, beverages and tobacco	1,010	1.000	590	374	366	113	20	12	3.485
23	Textiles	210	325	43	36	31	10	-	-	655
24 ·	Clothing and footwear	754	1.011	102	90	64	5	3	3	2.032
25	Wood, wood products and furniture	1,435	1,130	653	312	468	143	14	29	4,184
26	Paper, paper products, printing and publishing	1,262	916	266	202	207	49	12	32	2,946
27	Chemical, petroleum and coal pro-			200	202	207	.,			
-	ducis	438	293	65	52	78	16	-	-	942
28	Non-metallic mineral products	591	406	342	134	228	46	16	14	1.777
29	Basic metal products	215	181	59	37	40	10	4	2	548
31	Fabricated metal products	1.762	1.197	625	352	462	77	19	15	4,509
32	Transport equipment	447	413	221	118	166	21	4	4	1.394
33	Other machinery and equipment	1.641	1,259	340	327	311	39	6	11	3,934
34	Miscellaneous manufacturing	860	785	250	185	182	26	8	4	2,300
	Total manufacturing									
	1981-82	10,625	8,916	3,556	2,219	2,603	555	106	126	28,706
	1980 81	10,334	8,726	3,291	2,131	2,426	558	98	117	27,681
	1979 80	10,158	8,902	3,170	2,143	2,301	543	101	112	27,430

Single establishment manufacturing enterprises with less than four persons employed

Summary of operations

The following table shows the summary of operations for single establishment manufacturing enterprises with less than four persons employed.

SINGLE ESTABLISHMENT MANUFACTURING ENTERPRISES WITH LESS THAN FOUR PERSONS EMPLOYED: SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION, AUSTRALIA, 1981–82 AND TOTAL MANUFACTURING 1979–80 TO 1981–82

<u> </u>	ry sub-division	- Establishments	Employm	ient at 30 June	(a)	Wages and
ASIC code·	Description	operating at 30 June	Males	Females	Persons	salaries (b)
	. .			-No.—		់ Smi
21	Food, beverages and tobacco	. 850	1,278	674	1,952	7.9
23	Textiles	. 252	320	207	527	2.1
24	Clothing and footwear		559	722	1,281	. 5.9
25	Wood, wood products and furniture	. 3,371	5,419	1,336	6,755	25.4
26	Paper, paper products, printing and publishing	1,390	1,847	1,026	2.873	16.0
27	Chemical, petroleum and coal products		. 345	161	506	3.2
28	Non-metallic mineral products	ca/	831	272	1,103	4.8
29	Basic metal products	1.21	193	36	229	:1.2
31	Fabricated metal products	1 220	3,769	1.039	4,808	25.8
32	Transport equipment		1,241	303	1,544	7.7
33	Other machinery and equipment	1 077	2,811	. 956	3,767	23.6
34	Miscellaneous manufacturing	1 (77	2,343	998	3,341	13.9
	Total manufacturing	14,024	20,956	7,730	28,686	137.3
	1980 8	12,275	18,405	6,516	24,921	98.6
	1979-8	12,720	19,367	6,650	26,017	.92.0
						5 A.S.

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors.

Principal manufacturing commodities

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The factory production of certain commodities is shown in the monthly publications of the ABS, and in the annual publication, *Manufacturing Commodities, Selected Principal Articles Produced, Australia (Preliminary)* (8365.0). A more comprehensive list of articles produced is contained in the annual publication, *Manufacturing Commodities, Principal Articles Produced, Australia* (8303.0).

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 ABS publication 8303.0 mentioned above.

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QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA

	AUSTRALIA				
Commodity code	Article	Unit of quantity	1979-80	1980-81	1981-82p
	<u> </u>	1			
401.00	Acid (in terms of 100%)—	•	60 (72	60.000	
401.29	Hydrochloric	tonnes	58,672	59,909	54,554
401.37	Nitric		166,647	168,868	n.p.
401.57	Sulphuric	'000 tonnes	2,153	1,976	2,039
171.03, 04, 07, 08	Aerated and carbonated waters	'000 litres	935,732	1,031,259	1,007,288
	Air-conditioning equipment —				
657.03, 05	Room air conditioners (refrigerated)	No.	60,107	58,428	n.p.
657.13, 15	Room air coolers (evaporative coolers)	**	89,691	117,623	n.p.
657.21, 22, 23	Packaged unit air conditioners	••	30,448	30,629	п.р.
	Animal feeds—				
	From wheat-				
152.06	Pollard	'000 tonnes	216	230	229
159.11	Poultry pellets and crumbles	**	1,455	1,425	1,346
159.15	Poultry mash	**	163	149	187
159.01	Canned dog and cat foods	'000 kg	199,578	194,602	174,079
159.02	Dog biscuits (whole)		5,839	5,649	11,773
159.03	Other manufactured dog and cat food	••	92,427	108,892	104,611
	Bags, leather, fibre, etc				
	Handbags—				
864.31	Leather	'000'	220	295	325
864.33	Plastic		335	257	269
864.39	Other	••	481	483	483
864.11-19		'000'	766	684	385
804.11-19	Suitcases, kitbags and trunks	000	/00	084	303
(62.0)	Bath heaters—	N.	6 206	4 202	4 1 3 7
652.01		No.	5,295	4,303	4,137
652.03, 06, 08			n.p. 115	} 90	n.p.
652.05	Solid fuel				-
779.02-37	Bathing suits (a)	'000 doz	n.p.	n.p.	528
	Baths (exclude infants' baths)-				
671.03	Pressed steel—Enamelled	000	150	157	142
671.01, 04, 08	Other (exclude pressed steel, galvanised)		26	32	37
	Batteries, wet cell type—				
685.13, 15	Auto (S.L.I.) 6 volts	**	263	231	202
685.17, 19	Auto (S.L.I.) 12 volts	**	2,788	2,479	2,559
685.33, 35	Radio, homelighter, fencer No.	of 2 volt cells	18,408	11,072	19,930
685.43-65	Traction, plant and other	••	206,291	170,138	197,365
172.02,04,06	Beer (excluding waste beer)	mil. litres	. 2,023	1,987	1,968
064.21	Biscuits	'000 kg	124,055	129,748	131,628
372.52-66,		-			
374.51-57	Blankets, Woollen—Pure and Mixtures	000'	972	857	961
152.02	Bran (wheaten)	'000 tonnes	89	95	90
172.21	Brandy	'000 litre al	1.921	2,410	2,858
777.41.49	Brassieres	'000 doz	666	681	654
066.01-31	Breakfast food, cereal (ready to eat)	tonnes	77,333	81,504	85,992
472.01,03	Bricks, clay	million	2,172	2,287	2.234
261.41	Briquettes, brown coal	'000 tonnes	1,230	1,081	993
		'000 kg	81,733		74,983
051.30, 052.20		Ŷ		84,077	
773.51, 53, 74,	Cardigans, jumpers, etc.	'000 doz	2,030	1,908	1,765
75,83	Constant De elle de	1000	6 201		<i></i>
474.02	Cement, Portland	'000 tonnes	5,201	5,656	6,136
053.45	Cheese (non-processed)	'000kg	154,219	136,744	153,210
	Cloth (including mixtures)—				
373.10-52	Cotton(b)	'000m²	43,189	42,761	39,123
	Rayon and acetate—				
374.02, 06, 14	Pure	**	13,612	12,237	n.p.
374.20-35	Synthetic (non-cellulosic)	**	121,423	124,509	122,807
372.02-50	Wool (excluding blanketing and rug)	••	9,128	10,351	8,488
435.22	Coke-Metallurgical	'000 tonnes	4,367	4,690	п.р.
475.90	Concrete, ready mixed	'000m3	11,412	12,273	13,596
	Confectionery-		•		-
104.02-18	Chocolate	'000 kg	53,192	58,019	65,331
104.21-29	Other		53,609	56,324	60,071
452.04	Copper, refined(c)	'000 tonnes	137	159	163

(a) Includes swim shorts. Excludes infants' and babies' swim-wear. (b) Excludes tyre-cord fabric and towelling. (c) Primary origin only.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—continued

Commodity code	Article	Unit of quantity	1979-80	198081	1981—82p
171.06, 10	Cordials and syrups	. '000 litres	115,736	121,993	1 30,859
777.01-29	Corsets and corselets	. doz	128,985	133,605	146,367
611.01	Cycles (complete)	. '000	263	211	145
804.01	Dentifrices (toothpaste)	. '000 kg	7.057	6,700	7,080
499.42	Electricity	. mil. kWh	95,910	100,782	105,034
523.76-78	Electrodes for manual welding	. '000 kg	21,727	21,432	23,464
502.22-39		. '000	236	n.p.	n.p.
139.31	Domestic	. '000 litres	724	655	628
139.35	Industrial	. "	6,321	6,987	6,525
696.01, 03, 05	Fans, electric (propellor type)	. No.	521,614	658,717	598,217
332.06	Australian timber	. m ³	207,816	181,627	202,506
332.08	Imported timber	. "	1,532	1,698	2,277
	Floor coverings-				
841.01-07	Textile	. '000 m ²	30,582	31,956	34,531
841.31-61.69	Smooth surface and embossed	. "	5,463	n.p.	n.p.
841.67,68	Timber parquetry	, ,,	146	184	206
841.85	Underfelts, underlays, etc. (b)	,	7,745	7,728	7,584
692.21, 23	Floor polishers, electric	. No.	8,146	6,989	n.p.
068.01	Self-raising	. '000 kg	27.507	25,587	17.601
062.01, 10, 32	Wheaten(c)	. '000 tonnes	1,085	1,110	n.p.
	Fruit juices, natural-				•
074.61-69, 79	Single strength	. '000 litres	208,412	232,612	187,268
074.76, 89	Concentrated(d)		22,225	30,272	25,002
781.06-29		. '000 doz pairs	3,994	3,254	n.p.
127.21	Glucose	. '000 kg	50,140	50,738	52,052
832.58, 59	Golf clubs	. doz	26,038	35,383	28,469
	Heaters, room—				
651.01,03	Solid fuel	. No.	7,426	n.p.	n.p.
651.11-20	Electric radiators and fires	. '000'	606	694	605
651.04, 05, 21, 22,					
26, 27 775, 776	Gas fires and space heaters	. No.	79,643	n.p.	53,156
	Women's (including panty hose)	. '000 doz pairs	6,627	7,585	6,734
	Men's	. "	2,013	2,252	2,128
	Children's and infants'	. "	1,325	1,237	1,333
051.56, 58, 59	Ice cream(f)	. '000 litres	213,347	213,879	213,971
051.87, 89, 90	Infants', invalids' and health beverages from co	ws			
	milk(g)	. '000 kg	26,924	28,681	29,775
442.04, 08	Pigiron	. '000 tonnes	7,481	7,335	6,606
442.80-83	Steel ingots	. "	7,374	7,012	6,198
442.28	Blooms and slabs(h)	. "	6,526	6,179	5,438
076.60	Jams (including conserves, jellies, etc.)	. '000 kg	22,522	27,538	32,070
391.04	Lard	. "	3,773	3,196	3,028
	Lawn mowers-				
699.52, 53	Petrol, rotary	. No.	337,051	312,107	311,508
699.41, 45, 55, 61	Other types (i)	. "	11,007	n.p.	n.p.
453.04	Lead refined(j)	. '000 tonnes	204	206	207
	Dressed or finished—				_
301.43-65	Chrome tanned (including retanned)	. '000 m²	4,457	4,377	3,673
301.31-37,83-89	Vegetable tanned, by weight	. '000 kg	2,426	1,462	n.p
301.67,69	Vegetable tanned, by measurement	. '000 m ²	192	n.p.	n.p

(a) Petrol and diesel. Excludes car, motorcycle, truck, tractor, aero, and marine engines.
 (b) Needled (or bonded) felts of jute or jute/hair mixtures (for all purposes).
 (c) Includes wheatmeal for baking, excludes sharps and other flour.
 (d) Excludes grape must.
 (e) Excludes fabric liners for dipped gloves but includes moulded or heat-sealed work gloves.
 (f) Includes ice cream combined with other confections, including those aerated milk-based confections which contain 10% or more butterfat.
 (g) Includes malted milk and milk sugar (lactose).
 (h) Primary mills output.
 (i) Petrol cylinder, electric and hand.
 (j) Includes lead content of lead alloys from primary sources but excludes lead-silver bullion.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—continued

		Unit of	1070 00	1000 01	1081 03-
Commodity code	Article	quantity	1979-80	1980-81	1981-82p
	Lime_				
275.43, 45	Crushed	tonnes	288,688	331,761	n.p.
479.18		'000 tonnes	132	153	167
479.12	Quick	**	429	390	446
802.21	Lipstick	'000 kg	41	38	38
063.11-21, 31		'000 tonnes	537	565	558
121.01	Margarine— Table	'000 kg	98,831	99,068	105,282
121.06, 08	Other	.,	41,109	40,938	42,199
844.22, 25, 27	Mattresses-	'000 '	714	703	708
844.42, 45, 47			10	10	4
	Other	**	546	523	529
844.52-67		'000 kg	41,402	40,603	34,658
027.02-77	$Meat, canned(a) \qquad \dots \qquad $	000 kg	41,402	40,003	54,058
703.11	Meters (domestic)-	2000	176	166	176
703.11	Water consumption	'000'	175	166	176
	Milk, condensed, concentrated and evaporated-	10001		12.170	
051.21, 22	Full cream, coffee and milk, sweetened	'000 kg	16,532	17,170	n.p.
051.23, 052.42	Full cream, unsweetened	"	45,224	46,377	36,686
051.28	Skim	• ••	23,586	20,349	19,494
061 73 73	Milk powder in powdered form—		80.255	75.225	62 200
051.72, 73	Full cream	,,	80,255		63,299
051.76-79	Skim	"	54,155	56,079	76,201
051.81,82	Buttermilk or mixed skim and buttermilk	,,	6,354	6,888	n.p.
503.13-32	Motors, electric (excl. automotive)	,000	3,742	4,021	3,570
581.02-08		No.	321,997	244,597	285,387
581.10-16	Station wagons		77,291	72,432	88,432
582.04			18,795	15,212	}
582.06		**	10,449	9,330	24,264
582.08-24	Panel vans	**	8,603	5,554	
382.08-24		••	8,005	5,554	,
581.22-28,	Motor vehicles, partly finished—				
•	Corr station wasses willitigs wass		654	298	
582.31, 32	Cars, station wagons, utilities, vans	**	654	16,161	n.p. 15,899
582.33-46	Trucks and truck-type vehicles	******	17,315	,	,
465.16, 17		tonnes	24,953	23,013	п.р.
0(2())	Oatmeal and rolled oats—	•	10.007	20.016	22 676
062.61, 63	For porridge, etc.	tonnes	19,086	20,916	23,676
	Paints, etc.—				
	Architectural and decorative (b) —				
	Solvent thinned—	1000 1	10.000		0.240
410.01	Primers and undercoats	'000 litres	10,982	11,347	9,348
410.03, 05, 07	Finishing coats	"	28,322	27,640	24,245
	Water thinned—				
410.11, 13, 15	Plastic latex	"	42,760	46,096	46,767
410.17	Other water based	••	2,064	2,787	3,066
410.25	Tinting colours (all types) packed for sale or				
	transfer out	,,	616	525	487
	Paper				
351.11	Newsprint	'000 tonnes	222	214	304
351.18-79	Other	,,	727	764	706
352.11-33	Paperboard (c)	,,	483	486	487
336.12	Particle board (resin bonded)	'000 m²	667	686	707
479.22	Plaster of Paris	'000 tonnes	419	443	n.p.
479.32, 33	Plaster sheets-Non-acoustic	'000 m²	54,770	63,617	63,768
334.32, 34, 36, 38	Plywood, 1 mm basis	••	89,933		90,602(d)
	Preserves-			,	
	Fruit-				
076.01-50	Canned or bottled	'000 kg	228,470	241,870	206,190
074.01	Pulp and purce—single strength		3,109	2,516	1,768
	Vegetables-		5,.07	2,2.0	.,
094.02-47	Canned or bottled	"	134,792	121,311	138,645
092.02, 06, 10, 19	Ouick frozen	"	160,646	168,735	200,925
J. 2. 02, 00, 10, 13	Agree noten		100,040	100,100	200,720

(a) Excludes poultry and baby food. (b) Excludes heavy duty coatings. (c) Excludes coated container board. (d) Excludes case plywood.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—continued

Commodity code	Article	Unit of quantity	1979-80	198081	1981-82p
	Pyjamas—				
774.27,29	Men's, youths' and boys', woven (suits only)	'000 doz	364	328	269
774.50-59, 64, 66	Women's, maids' and girls' (incl. nightdresses)	**	765	677	680
832.65, 85	Racquet frames (all types)	doz.	7,598	7,603	n.p.
647.10-12	Radio receiving sets (including radiograms)	No.	199.017	n.p.	n.p.
047.10-12	Records (phonograph)—		177,017	n.p.	mp.
647.93	Single play	000'	10,357	11,445	9,927
647.94			269	11,445	184
647.95	Extended play	"	21,248	22,289	22.329
		"	21,240		327
657.33, 34, 35, 41	Refrigerators, domestic, electric and gas	2000 4	816	286 808	820
403.02, 18-96, 404	Resins, synthetic and plastics, for all purposes	'000 tonnes			
372.70, 72, 374.59	Rugs	000'	141	130	137
123.18-25	Sauce	'000 litres	33,796	33,465	33,811
062.04	Semolina	'000 tonnes	37	33	34
773.04-09	Shirts, woven (men's, youths' and boys'), collar				
	attached (a)	'000 doz	497	504	n.p.
654.41	Sink heaters, electric	No.	13,352	9,620	8,800
805.01-13	Soap, for personal toilet use(b)	tonnes	31,388	32,095	36,141
	Soup-				
	Liquid—	1000			
122.02		'000 litres	15,777	n. p .	n.p.
122.09	Other	**	23,560	19,172	n.p.
122.13, 15	Dry-mix	'000 kg	5,742	5,958	5,351
127.11-19	Starch (incl. cornflour)	**	158,521	151,914	172,130
	Stoves, ovens and ranges, domestic cooking—				
661.01-11	Electric(c)	No.	234,529	267,012	232,229
662.26, 31, 34,					
36, 42, 43	Gas(d)	73	100,754	92,781	105,895
662.01,03	Solid fuel	"	5,771	5,608	2,771
	Sugar				
102.01	Raw	'000 tonnes	2,997	3,323	3,435
405.36	Sulphate of ammonia	tonnes	199,956	217,902	209,927
415.07, 405.25	Superphosphate(e)	'000 tonnes	4,202	3,557	3,464
803.61	Talcum powder	'000 kg	4,302	4.838	4,650
	Tallow (including dripping), rendered—	···-B		.,	.,
391.15		**	76,081	68,278	68,395
391.24		,,	270,069	248.067	228,561
	Television sets (colour)	No.	331,971	357,799	376,958
647.25-28	Tiles, roofing—	140.	551,271	551,155	570,550
176.20		'000	186,960	189.396	166,841
475.30			46,420	49,390	52,025
472.12	Timber—		40,420	47,570	52,025
	From native logs—				
331.01-07		'000 m3	2		
	Hardwood, etc.	'000 m³	> 3,280	3,407	3,276
331.09-19	Softwood	N 1.	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(0(747	711.246
661.21, 23	Toasters, electric (domestic)	No.	640,569	686,743	711,365
094.51	Tomato juice	'000 litres	8,974	7,805	8,186
094.53	Tomato paste and puree		16,828	16,189	17,902
373.58-64	Towels	'000 doz	932	942	944
671.51-59	Toilet cisterns	No.	513,087	541,261	683,299
683.03-11	Transformers, chokes and ballasts, for distribution	.,	10.565	00 7 47	
772.00.07	of power and light, etc.		19,565	20,747	22,589
773.90-97,					·
774.01–18, 36–49,	Underwear (men's, women's, children's)	'000 doz	6,926	n.p.	7,251
61-73,91-97		· • •			
692.02,04	Vacuum cleaners (domestic)	,000	251	236	175
	Wash basins—				
671.37	Earthenware	**	215	265	275
693.02-18	Washing machines, household, electric	**	372	n.p.	n.p.

(a) Business or formal. (b) Excludes powdered shampoo. (c) Includes wall ovens but excludes cooking tops and portable units. (d) Upright and elevated (with ovens) including wall ovens, but excluding hotplates, stovettes, etc. (e) Includes double and triple superphosphate and ammonium phosphate expressed in terms of single superphosphate i.e. 22% P₂O₃ equivalent.

Commodity code	Article								Unit of quantity	1979-80	1980-81	1981—82p
	Weatherboards-							_				
332.12	Australian timber								m³	18,076	13,240	17,921
332.14	Imported timber								••	3,375	1,747	3,392
152.14	N/L								'000 tonnes	342	482	544
519.01	11 /1 11 / . 11								No.	200,453	176,409	206,949
	Wine, beverage-											
172.42	Fortified								'000 litres	57,619	53,620	54,235
172.46	Unfortified								"	261,504	246,596	253,029
341.31-45									'000 tonnes	688	706	669
242.07-11	Wool, scoured or carbonised								tonnes	89,335	90.253	81,786
242.33.35	Wool tops, pure								'000 kg	19,887	19,880	21,351
	Yarn (including mixtures)-				-					,-	.,.	,
364.11-50	Cotton								"	21.837	21,696	22,004
363.47-75	Woollen								••	14,620	,	
363.17-31	Wool worsted								"	5,227 }	19,440	19,919
365.90, 366.03, 0 16, 29, 30, 42, 5 56, 88, 96, 97	•	ibres	spu	n		•	•		"	9,880	10,939	8,340
457.04	Zinc, refined(a)								'000 tonnes	300	274	301

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA—continued

(a) Primary origin only includes small quantities of zinc dust.

Enterprise Statistics—Integrated Economic Censuses and Surveys

The Integrated Economic Censuses and Surveys conducted by the Australian Bureau of Statistics have, since 1977-78, included *enterprises* primarily engaged in Mining and Manufacturing annually, with Electricity and Gas Production and Distribution collected in 1977-78 and annually from 1979-80, while other economic sectors are approached on a rotating basis. Statistics in respect of enterprises have been published in *Integrated Economic Censuses and Surveys, Enterprise Statistics: Details by Industry Class, Australia* (Cat. No. 8103.0).

Below is a brief summary of the censuses collection units and methodology and a summary table of enterprise statistics. More detailed explanations on the censuses are shown in the above publication.

The business units, as standardised for purposes of the Integrated Economic Censuses and Surveys are at three levels: the establishment (and associated administrative offices and ancillary units); the enterprise; and the enterprise group.

The central unit from which statistical information was collected is the *enterprise*, defined broadly as the unit comprising all operations in Australia of a single operating legal entity. The term *legal entity* is used to cover a sole proprietor, or partnership, or company, but also includes co-operative societies and some government authorities mainly engaged in the industries included in the censuses and surveys.

The group of legal entities owned or controlled by a single company is recognised as a separate type of unit—the *enterprise group*. The basic unit for which most data were collected and tabulated is the *establishment*, defined in general as a unit comprising all the operations carried on by the one enterprise at a single physical location—such as an individual factory, shop or mine.

In the Integrated Economic Censuses and Surveys, information was collected using a common framework of reporting units (enterprises and establishments as defined above) and data concepts and in accordance with a standard industrial classification (the *Australian Standard Industrial Classification*, 1978 Edition). As a result the statistics for the industries covered by the censuses and surveys are provided with no overlapping or gaps in scope, so that aggregates for economic data such as value added, employment, wages and salaries, fixed capital expenditure and stocks are obtained on a consistent basis for all industries and business units covered by the censuses and surveys. A detailed description of the integration of economic censuses is contained in Chapter 31, Year Book No. 56, 1970.

Industry and year	Enterprises operating		Wages and	Ť	Purchases and selected	Rent, leasing and hiring	Sto	cks ai(g)	Value	Fixed capital expenditure less
	during year (a)	at 30 June (b)		Turnover (d)	expenses (e)	expenses (f)	30 June	30 June	added (h)	disposals (i)
	No.	No.	\$m	\$m	\$m	\$m	\$m	\$m	\$m	Sm
Mining (excludin services t Mining)										,
1979-80	. 788	75,328	1,291.1	7,967.5	2.574.2	74.1	840.8	968.8	5,447.2	1,149.7
1980-81	. 803	78,564	1,590.3	8,831.2	2,995.2	117.2	920.4	1,231.0	6,029.4	1,847:0
Manufacturing										
1979-80	. 22,938	1,158,941	13,485.7	65,222.9	39,556.0	777.2	10,071.1	12,143.9	26,962.3	2,376.1
1980-81	. 23,091	1,168,374	15,191.0	74,607.1	44,654.9	959.4	12,203.2	13,583.3	30,372.9	3,155.1
Electricity and Ga Production an Distribution										
1979-80	. 73	86,975	1,191.5	4,828.3	2.049.5	19.4	325.7	370.5	2,804.2	1,573.7
1980-81	. 101	89,393	1,416.4	5,922.4	2,612.7	23.8	362.6	449.0	3,372.3	2,050.8

ENTERPRISES—SUMMARY OF OPERATIONS BY INDUSTRY, AUSTRALIA

(a) The number of enterprises in operation for all or any part of the year which were in the scope of the censuses and surveys. (b) Working proprietors and employees, including part-time and casual employees as at 30 June. (c) Wages and salaries paid during the year to employees of the enterprise. Drawings of working proprietors are excluded. (d) Sales of goods, commission revenue, repair and service revenue. rent, leasing and hiring revenue (as from the year 1978-79 inclusive), government bounties and subsidies and all other operating revenue except interest, royalties and dividends. (e) Purchases by the enterprise of goods for manufacture or resale, containers, stores and supplies (except office supplies) and charges for fuels, electricity and water, freight and cartage, vehicle running expenses, sales commission expenses, repair and (e) Stocks of materials, fuels, etc. work in progress and finished goods owned by the enterprise. (h) This is derived as turnover plus maintenance expenses, and commission and sub-contract expenses. ment. (h) This is derived as turnover plus increase (less decrease) in stocks, less purchases and selected expenses, and from 1978-79 inclusive less rent, leasing and hiring expenses. (i) Outlay on new assets (including progress payments) and land and secondhand fixed tangible assets less disposals.

Foreign Ownership and Control in Manufacturing Industry

Summary information on foreign ownership and control in the manufacturing industry is shown in Chapter 24.

INTERNAL TRADE

Wholesale Trade

For summary tables showing final figures from the 1968-69 census of Wholesale Trade *see* Year Book No. 61, pages 1070-2. Further and more detailed statistics are included in separate publications published by Central and State offices of ABS.

Retail Trade

Retail census

The definition of retail trade, for the purpose of the most recent retail census which was taken for the year ended 30 June 1980, is the resale of new and used goods to final consumers for personal and household consumption. For information and detailed tables relating to the 1979–80 Retail Census, reference should be made to the series of final census publications (8622.0 to 8627.0) for 1979–80. Summary of operations of establishments classified by industry group for Australia for 1979–80 are set out in the following table.

Retail surveys

In intercensal periods, estimates of the value of retail sales at current and constant (average 1979-80) prices by broad commodity groups are obtained quarterly by means of sample surveys for each State and Australia.

The following table shows the value of retail sales of goods at current and constant prices in each of the commodity groups specified. The figures have been obtained from a sample based on the 1973-74 Retail Census. A new series based on the 1979-80 Retail Census was commenced in April 1982. More detailed information concerning the quarterly surveys of retail trade is contained in the quarterly publication *Retail Sales of Goods, Australia* (8503.0). Further information on the nature and concepts of constant price estimates is contained in Chapter 4 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS(a): SUMMARY OF OPERATIONS, BY INDUSTRY GROUP OR CLASS(b), 1979-80

	Industry group or class		Persons	Wages			Sto	cks	Purchases. transfers in and		
ASIC Code(c)	Description	at 30 Ju		ments employed at 30 June at 30 June (No.) (No.)(d)	salaries(e)	Retail sales (\$m)	Turnover (Sm)	Opening (\$m)	Closing (Sm)		Value added (\$m)
			RET	AIL ESTAR		ITS					
481	Department and gen- eral stores	857	99,569	717.4	4,010.1	4,253.8	602.7	692.4	3,206.9	1,136.6	
484	Clothing, fabrics and furniture stores	17,908	81,797	519.1	4,057.5	4,143.4	740.4	851.3	3,140.5	1,113.7	
485	Household appliance and hardware stores(f)		43.542	319.7	2,575.9	2,965.6	448.2	517.8	2.252.9	782.3	
486	Motor vehicle dealers, petrol and tyre			••••	•	2,705.0		517.0	2,232.7	102.5	
	retailers(g)		175,995	1,319.2	12,467.6	18,203.2	1,625.7	1,752.8	15,130.8	3,199.6	
488 489	Food stores		260,266 76,209	1,131.3 406.9	12,577.3 3,251.5	12,747.0 3,385.4	635.0 469.1	751.5 549.9	10,517.0 2,489.4	2,346.5 976.7	
	Total	110,500	737,378	4,413.6	38,940.0	45,698.4	4,521.0	5,115.6	36,737.6	9,555.4	
			SELECTED	SERVICE	ESTABLIS	HMENTS					
9133 923	Motion picture theatres Restaurants, hotels and	577	6,777	44.9	31.8	177.9	1.3	1.4	76.0	102.0	
925	accommodation .	17,702	183,310	1.021.6	2,618.3	4,670.2	135.5	160.5	2.617.0	2.078.2	
9241,2,3	Licensed clubs(h)		52,297	423.1	697.4	1.515.2	48.2	50.1	577.6	939.5	
934	Laundries and dry cleaners		12.106	91.3	1.5	223.5	6.8	8.0	66.7	158.0	
935	Hairdressers, beauty salons		12,100	78.2	1.5	173.3	4.8	8.0 5.7	50.7	123.4	

(a) Excludes all bread and milk vendors and single establishment enterprises with turnover of less than \$50,000 (except for ASIC classes 9232 and 9233 in ASIC group 923). For ASIC classes 9232 and 9233 all establishments are included irrespective of turnover size.
 (b) A class total or a total for a combination of classes has been shown where the scope of the census did not include all the ASIC classes in an ASIC group.
 (c) Australian Standard Industrial Classification.
 (d) Includes working proprietors.
 (f) Includes household appliance and domestic hardware stores, watchmakers and jewellers, music stores and electric appliance repairers but excludes establishments predominantly engaged in selling building materials, paint, tools of trade, etc.
 (g) Establishments predominantly engaged clubs, and this group.

VALUE OF RETAIL SALES: AT CURRENT AND CONSTANT PRICES : COMMODITY GROUPS (a) (\$ million)

	Current pri	ces		Averages 19	979-80 price.	5
Commodity group	1980-81	1981-82	1982-83	198081	1981-82	198283
Groceries	6,318.4	7,179.0	8,871.1	5,700.0	5,880.4	6,534.9
Butchers' meat	2,151.1 3,430.0	2,312.4 3,834.0	2,302.3 4,054.6	2,087.9 2,980.0	2,223.9 2,996.7	2,091.6 2,927.1
Total food and groceries	11,899.5	13,325.4	15,228.0	10,767.9	11,101.0	11,553.6
Beer, wine and spirits	4,414.6 4,691.6 777.1 1,452.7 2,431.4 1,732.9 1,650.6 1,287.9 2,845.0	4,944.1 5,266.0 859.6 1,637.3 2,754.6 1,918.5 1,864.4 1,405.0 3,182.8	5,199.1 5,670.7 914.7 1,779.9 3,008.3 1,880.2 1,939.9 1,600.7 3,317.5	4,100.7 4,388.0 709.9 1,311.9 2,360.4 1,570.9 1,469.4 1,103.1 2,649.4	4,189.7 4,608.9 736.2 1,388.5 2,554.4 1,610.0 1,518.5 1,041.4 2,763.9	3,936.7 4,677.4 723.5 1,362.1 2,741.9 1,415.3 1,414.3 1,052.2 2,628.0
Total (excluding motor vehicles, etc.)		37,157.7	40,539.1	30,431.6	31,512.5	31,505.0

 (a) Excludes Northern Territory and Australian Capital Territory.
 (b) Includes fresh fruit and vegetables, confectionery, soft drinks, ice

 cream, cakes, pastry, cooked provisions, fish and wrapped lunches.
 (c) Excludes basic building materials, builders' hardware and supplies

 such as tools of trade, paint, etc.
 (d) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc.

 cludes tobacco, cigarettes, etc., sporting goods, etc., but excludes grain and produce and business machines.

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