## 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 arother 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 parttime 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 Commonwealth 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 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 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.

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

| Census year | Establishments at 30 June | Average employment over whole year (a) |  |  | Wages and salaries (b) | Turnover | Stocks |  | Purchases. transfers in and selected expenses | Value added | Fixed capital expend-: iture less5.', disposals. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females | Persons |  |  | Opening | Closing |  |  |  |  |
|  | No. | No. | No. | No. | \$m | \$m | \$m | , Sm | \$m | \$m | 1 \$m |  |
| 196869 | $35.939$ | 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 | 903.0 |  |
| 196970 | 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 |  |
| 197071 |  |  |  | manufactu | g census | as conduc | in respec | of this yea | . |  | . $3: \therefore$ |  |
| 197172 | 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 |  |
| 197273 | 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 | 1,244.4. |  |
| 197374 | 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 | 1,215.5 |  |
| $197475(c)$ | 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 | \$,241.0 | 6,542.7 | 21,522.3 | 14,913.1 | 1.445 .9 |  |
| 197576 | 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 | 1.45147 |  |
| 197677 | 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 |  |
| $-197778(e)$ | 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 |  |
| $197778(\mathrm{f})$ | 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 |  |
| 197879 | 26.312 | 852,982 | 290,909 | 1,143,89] | 11,966.4 | 55.211 .3 | 8,515.4 | 9.299 .6 | 33,765.4 | 22,230.1 | 2.262 .8 |  |
| 197980 | 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 | $\cdot 2,186.7$ |  |
| 198081 | 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 |  |
| 198182 | 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 | 4,084.2 |  |

(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. ( $)$ These data and those of following years are classified to the 1978 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 ceensus 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

| Industry sut-divisiom |  | Eistahlishmenis operating of 30 June No. | Average emptoyment over nhole year (a) |  |  | Wages and salaries (b) \$m | Stocks at 30 June |  |  | Purchases, transfers in and selected expenses 5 m | Value added 5 m | Fixed capital expendinure less disposa/s$\qquad$ 5 m |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.S/C code | Description |  | $\begin{gathered} \text { Males } \\ \text { No. } \end{gathered}$ | Females No. | Pertons No. |  | over $5 m$ | Opening $5 m$ | Closing |  |  |  |
| 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 | Clothing and footwear | 1,999 | 18,178 | 60,272 | 78,450 | 765 | 2,710 | 437 | 473 | J,480 | 1,267 | 30 |
| 25 | Wood, wood producls and furniture | 4.075 | 66,908 | 11.927 | 78,835 | 853 | 3,675 | 454 | 515 | 2,126 | 1.609 | 92 |
| 26 | Paper, paper products. printing and publishing | 2,816 | 73,274 | 29,136 | 102,410 | 1,404 | 5,255 | 612 | 704 | 2,779 | 2,568 | 204 |
| 27 | Chemical, petroleum and coal products | 904 | 44,404 | 15,267 | 59,671 | 933 | 7,068 | 1,132 | 1,302 | 4,725 | 2,513 | 302 |
| 28 | Non-metallic mineral 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 | Ohher machinery and 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. printing and publishing | 2.946 | 73,071 | 29,842 | 102.913 | 1,591 | 6,118 | 697 | 792 | 3,228 | 2,984 | 293 |
| 27 | 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 |
| 31 | Fabricated metal products | 4,509 | 95.725 | 20,607 | 116.332 | 1.625 | 6.781 | 975 | 1.074 | 4.021 | 2.860 | 167 |
| 32 | Transport equipment | 1,394 | 115,563 | 15,904 | 131,467 | 1,961 | 7,631 | 1,270 | 1,389 | 4,752 | 2.998 | 329 |
| 33 | Other machinery and equipment | 3,934 | 123,902 | 39,028 | 162,930 | 2,358 | 9,192 | 1,862 | 2,061 | 5,331 | 4,059 | 246 |
| 34 | Miscellaneous 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 |

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## 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



## 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)

| Industry sub-division |  | N.S.W. | Vic. | Qld | S.A. | $\boldsymbol{W} . \boldsymbol{A}$. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code | Description |  |  |  |  |  |  |  |  |  |
| 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 | Paper, paper products, printing and publishing | 614 | 521 | 143 | 104 | 95 | 90 | 5 | 19 | 1,591 |
| 27 | Chemical. petroleum and coal products | 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 | 21 | 4 | 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 manufacluring . | 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 |
|  | 198081 . . | 5.884 | 5.032 | 1,410 | 1,283 | 869 | 347 | 42 | 45 | 14,911 |
|  | 197980 | 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
(\$ million)

| Indusiry sub-division |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code | Descripuion | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| 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 products | 3.277 | 2,365 | 1,359 | 282 | 452 | 101 | - | - | 7.836 |
| 28 | Non-metallic mineral products | 1.390 | 902 | 713 | 292 | 392 | 79 | 185 | 27 | 3.820 |
| 29 | Basic metal products . . . | 4,746 | 1,809 | 1.081 | 779 | 1,260 | 322 | 185 | 27 | 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 | , | 4,009 |
| Total manufacturing |  |  |  |  |  |  |  |  |  |  |
|  | 1981-82 | 29,538 | 27,208 | 10,590 | 6,651 | 5,491 | 1,898 | 297 | 188 | 81,861 |
|  | 198081 | 26.898 | 23.856 | 9.667 | 6.067 | 4,902 | 1,867 | 292 | 163 | 73.712 |
|  | 197980 | 24,109 | 21,233 | 8.304 | 5.415 | 4,259 | 1,656 | 251 | 127 | 65,355 |

## 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
( $\$$ million)

| Industry sub-division |  | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code | Description |  |  |  |  |  |  |  |  |  |
| 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 products | 1,972 | 1.468 | 1,154 | 178 | 310 | 64 | - | - | 5,146 |
| 28 | Non-metallic mineral productsBasic metal products | 838 | 482 | 419 | 163 | 224 | 49 |  | 20 | 2.210 |
| 29 |  | 3.195 | 1.319 | 865 | 524 | 852 | 244 | 158 | 20 | 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 | , | 1 | 4,752 |
| 33 | Other machinery and equipment | 2,286 | 1,824 | 373 | 539 | 286 | 16 | 1 | 6 | 5,331 |
| 34 | Miscellaneous manufacturing | 851 | 1.112 | 175 | 190 | 96 | 12 | 1 | - | 2,437 |
|  | Total manufacturing |  |  |  |  |  |  |  |  |  |
|  | 1981-82 | 17,910 | 17,031 | 7,316 | 4,084 | 3.501 | 1,237 | 231 | 112 | 51,421 |
|  | 198081 | 16.653 | 14,814 | 6,722 | 3,693 | 3,149 | 1,176 | 231 | 89 | 46,526 |
|  | 197980 | 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)

| Indust | ry, sub-division |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code | Description | N.S.W. | Vic. | Qld | S. $A$. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| OPENING STOCKS AT 30 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 foot wear | 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 products | 609 | 369 | 152 | 43 | 59 | 24 | - | - | 1,256 |
| 28 | Non-metallic mineral products | 180 | 104 | 53 | 33 | 55 | 10 | 70 | 3 | 438 |
| 29 | Basic metal products | 990 | 263 | 228 | 195 | 193 | 71 | 70 |  | 2,009 |
| 31 | Fabricated metal products | 386 | 330 | 112 | 58 | 67 | 15 | 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 |
|  | 198081 | 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 | 11 | 9,288 |
| CLOSING STOCKS AT 30 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 products | 636 | 411 | 152 | 47 | 63 | 23 | - | - | 1.332 |
| 28 | Non-metallic mineral products | 203 | 121 | 78 | 37 | 60 | 12 |  | 3 | 514 |
| 29 | Basic metal products . . | 982 | 290 | 260 | 183 | 197 |  | 64 |  | 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 |
|  | 198081 | 4.855 | 4,207 | 1,154 | 1,104 | ${ }_{6}^{686}$ | 302 | 83 | 17 | 12.410 |
|  | 197980 | 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 code | Description | N.S.W. | Vic. | Qld | S.A. | W.A. | Tos. | N.T. | A.C.T. | Aust. |
| 21. | Food, beverages and tobacco | 1.639 | 1.666 | 1.017 | 486 | 331 | 154 | 21 | 12 | 5.325 |
| 23 | Texiles | 289 | 445 | 20 | 56 | 15 | 31 | - | - | 856 |
| 24 | Clothing and footwear Wood, wood products and furniture | 420 | 800 | 56 | 80 | 21 | 3 | - | - | 1.380 |
| 25 |  |  |  |  |  |  |  |  |  |  |
|  | ; . . . . . . . . . . | 627 | 447 | 258 | 157 | 170 | 96 | 2 | 15 | 1.770 |
| 26 | Paper, paper products, printing and publishing | 1.160 | 1.009 | 266 | 197 | 152 | 163 | 9 | 28 | 2,984 |
| 27 | Chemical, petroleum and coal products | 1.332 | 940 | 205 | 107 | 147 | 36 | - | - | 2.767 |
| 28 | Non-metallic mineral products | 575 | 438 | 318 | 133 | 173 | 321 | 21 | 8 | 1.685 |
| 29. | Basic metal products | 1.544 | 516 | 247 | 243 | 413 | 105 | 21 | 8 | 3.080 |
| 31 | 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 | I | 4 | 4,059 |
| 34. | Miscellancous manufacturing | 599 | 690 | 113 | 137 | 65 | 10 | I | - | 1.614 |
| Total manufacturing |  |  |  |  |  |  |  |  |  |  |
|  | 1981-82 | 11,825 | 10.578 | 3,448 | 2,620 | 2,053 | 713 | 61 | 78 | 31,378 |
|  | 198081 | 10,865 | 9.440 | 3075 | 2,387 | 1.877 | 713 | 96 | 77 | 28,531 |
|  | 197980 | 9.745 | 8.505 | 2,692 | 2,233 | 1.643 | 654 | 77 | 64 | 25,614 |

## 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 |  | N.S.W. | Vic. | QId | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code | Description |  |  |  |  |  |  |  |  |  |
| 21 | Fuod, 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 products | 438 | 293 | 65 | 52 | 78 | 16 | - | - | 947 |
| 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 |
|  | 198081 | 10,334 | 8.726 | 3,291 | 2.131 | 2,426 | 558 | 98 | 117 | 27.681 |
|  | 197980 | 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| Industry sub-division |  |  | Establishments operating at 30 June | Employment at 30 June (a) |  |  | Wages and salaries (b) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASIC code. | Description | - |  |  |  |  |  |
|  |  |  |  | Males | Females | Persons |  |
|  |  |  |  |  | No.- |  | Smi |
| 21 | Food, beverages and tobacco | . . . | 850 | 1,278 | 674 | 1.952 | 7.9 |
| 23 | Textiles . . . | . . . | 252 | 320 | 207 | 527 | 21 |
| 24 | Clothing and footwear | . . . | 624 | 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 coat products | . . . | 253 | 345 | 161. | 506 | 3.2 |
| 28 | Non-metallic mineral products | . . . | 536 | 831 | 272 | 1.103 | -4.8 |
| 29 | Basic metal products | - . | 121 | 193 | 36 | 229 | :1.2 |
| 31 | Fabricated metal products | - . | 2.320 | 3.769 | 1,039 | 4.808 | 25.8 |
| 32 | Transport equipment | - . | 753 | 1,241 | 303 | 1,544 | 7.7 |
| 33 | Other machinery and equipment | - . | 1.877 | 2.811 | 956 | 3,767 | 23.6 |
| 34 | Miscellaneous manufacturing |  | 1,677 | 2,343 | 998 | 3.341 | 13.9 |
|  | Total manufacturing | .1981-82 | 14,024 | 20.956 | 7,730 | 28,686 | '137.3 |
|  |  | 198081 | 12,275 | 18,405 | - 6,516 | 24,921 | 98.6 |
|  |  | 1979.80 | 12.720 | 19,367 | 6,650 | 26.017 | 92.0 |

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

## Principal manufacturing commodities

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.

## QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA



[^1]QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS: AUSTRALIA-continued

(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. (/) 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 bultion.

QUANTITIES'OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA-continued

(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


(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. $\mathbf{2 2 \%} \mathrm{P}_{2} \mathrm{O}_{\text {, equivalent }}$.

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.

ENTERPRISES_SUMMARY OF OPERATIONS BY INDUSTRY, AUSTRALIA

| Indusiry and year | Enterprises operating during year (a) | Persons employed at 30 June | Wages and salaries (c) | Turnover <br> (d) | Purchases and selected expenses (e) | Rent, leasing and hiring expenses () | Stocks at (g) |  | Value added <br> (h) | Fixed capital expenditure less disposals (i) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 30 June | 30 June |  |  |
|  | No. | No. | Sm | Sm | Sm | Sm | \$m | Sm | \$m | sm |
| Mining (excluding |  |  |  |  |  |  |  |  |  |  |
| services to 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 |
| Electricily and Gas |  |  |  |  |  |  |  |  |  |  |
| Production and |  |  |  |  |  |  |  |  |  |  |
| 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 |

(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) Work-
proprietors and employes, including part-time and casual employees as at 30 June. (c) Wages and salaries paid during the year to eming 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 maintenance expenses, and commission and sub-contract expenses. (f) Amount paid for rent and leasing premises, vehicles and equipment. ( $g$ ) Stocks of materials, fuels, ete. work in progress and finished goods owned by the enterprise. ( $h$ ) 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

| ASIC Codef() | Industry group or class | Esrablish ments at 30 June (No.) | Persons employed at 30 June ( $N o$. )/d) | Wages and salaries(e) ( 5 m ) | Retail sales ( sm ) | Turnover ( $8 m$ ) | Siocks |  | Purchases. transfers in and selected expenses ( $\$ m$ ) | Value added ( 5 m ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Description |  |  |  |  |  | Opening <br> ( 8 m ) | Closing (Sm) |  |  |
| RETAIL ESTABLISHMENTS |  |  |  |  |  |  |  |  |  |  |
| 481 | Department and general stores | 857 | 99.569 | 717.4 | 4,010.1 | 4,253.8 | 602.7 | 692.4 | 3,206.9 | 1,136.6 |
| 484 | Clothing, Pabrics 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) | 8,196 | 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 retailers( $g$ ) | 26,516 | 175,995 | 1,319.2 | 12.467.6 | 18,203.2 | 1,625.7 | 1,752.8 | 15,130.8 | 3,199.6 |
| 488 | Food stores . | 39.416 | 260.266 | 1.131 .3 | 12.577.3 | 12,747.0 | 635.0 | 751.5 | 10,517.0 | 2,346.5 |
| 489 | Other retailers | 17,607 | 76,209 | 406.9 | 3,251.5 | 3,385.4 | 469.1 | 549.9 | 2,489.4 | 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 ESTABLISHMENTS |  |  |  |  |  |  |  |  |  |  |
| 9133 | Motion picture theatres | 577 | 6.777 | 44.9 | 31.8 | 177.9 | 1.3 | 1.4 | 76.0 | 102.0 |
| 923 | Restaurants, hotels and 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 ( $h$ ) | 3.243 | 52,297 | 423.1 | 697.4 | 1.515 .2 | 48.2 | 50.1 | 577.6 | 939.5 |
| 934 | Laundries and dry cleaners | 1,365 | 12,106 | 91.3 | 1.5 | 223.5 | 6.8 | 8.0 | 66.7 | 158.0 |
| 935 | Hairdressers, beauty salons | 2,265 | 12,282 | 78.2 | 12.2 | 173.3 | 4.8 | 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. (e) Excludes drawings by working proprietors. ( $)$ 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 in wholesaling new motor vehicles are included in this group. (h) Includes licensed bowling clubs, licensed golf clubs and licensed clubs, n.e.c.

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

| Commodity group | Current prices |  |  | Averages 1979-80 prices |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980-81 | 1981-82 | 1982-83 | 1980-81 | 1981-82 | 1982-83 |
| Groceries | 6,318.4 | 7,179.0 | 8,871.1 | 5,700.0 | 5,880.4 | 6,534.9 |
| Butchers' meat | 2,151.1 | 2,312.4 | 2,302.3 | 2,087.9 | 2,223.9 | 2,091.6 |
| Other food (b) | 3,430.0 | 3,834.0 | 4,054.6 | 2,980.0 | 2,996.7 | 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 | 4,944.1 | 5,199.1 | 4,100.7 | 4,189.7 | 3,936.7 |
| Clothing and drapery | 4,691.6 | 5,266.0 | 5,670.7 | 4,388.0 | 4,608.9 | 4,677.4 |
| Footwear | 777.1 | 859.6 | 914.7 | 709.9 | 736.2 | 723.5 |
| Hardware, china and glassware(c) | 1,452.7 | 1,637.3 | 1,779.9 | 1,311.9 | 1,388.5 | 1,362.1 |
| Electrical goods(d) | 2,431.4 | 2,754.6 | 3,008.3 | 2,360.4 | 2,554.4 | 2,741.9 |
| Furniture and floor coverings | 1,732.9 | 1,918.5 | 1,880.2 | 1,570.9 | 1,610.0 | 1,415.3 |
| Chemists' goods . | 1,650.6 | 1,864.4 | 1,939.9 | 1,469.4 | 1,518.5 | 1,414.3 |
| Newspapers, books and stationery | 1,287.9 | 1,405.0 | 1,600.7 | 1,103.1 | 1,041.4 | 1,052.2 |
| Other goods(e) | 2,845.0 | 3,182.8 | 3,317.5 | 2,649.4 | 2,763.9 | 2,628.0 |
| Total (excluding motor vehicles, etc.) | 33,183.3 | 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. (e) Includes tobacco, cigareltes, etc., sporting goods, etc., but excludes grain and produce and business machines.


[^0]:    (a) Includes working proprietors.
    (b) Excludes the drawings of working proprietors.

[^1]:    (a) Includes swim shorts. Excludes infants' and babies'swim-wear
    (b) Excludes tyre-cord fabric and towelling.
    (c) Primary origin only.

