

MANUFACTURING

NATURAL RESOURCES AND LOCATION

Natural resources

Victoria's natural resources – a temperate climate, adequate rainfall and water supply, and productive soils – have been used to provide both raw materials and power for industry. For example, clay deposits for brick, tile, and pottery making are worked near Melbourne, Ballarat, Bendigo, Colac, Shepparton, Wangaratta, and in other areas of Victoria. Sand, used in foundries and concrete and glass works, is obtained in the Port Phillip and west Gippsland districts. Stone and gravel are quarried in many parts of Victoria, but, since large loads are expensive to transport, sites are concentrated within eighty kilometres of the principal market, metropolitan Melbourne. Inside a similar radius, the availability of limestone has attracted the establishment of cement works at Geelong and Traralgon, while the Lilydale deposits are extracted to produce agricultural lime.

Although Victoria's historic gold rush period has long since passed, gold is still mined in the Castlemaine, Gaffneys Creek, and Harrietteville areas. Victoria's other mineral resources include salt harvested by solar evaporation on the western shores of Port Phillip Bay and from the Wimmera and Mallee lakes; gypsum is also found in the north-western Mallee.

Victorian forests provide approximately one-quarter of Australia's timber output. The fine vegetation of the Central Highlands forms the basis of important felling activities. The industry is also significant in Gippsland, where paper is manufactured at Maryvale. Other paper mills are situated in Melbourne, which is a major market for all wood and timber products.

Water, needed in large quantities for industry, is available throughout much of Victoria from dams in the catchment areas of the chief rivers. In most years, Melbourne is well supplied from the storages to its north and north-east in the Plenty, Upper Yarra, Maroondah, and O'Shannassy watersheds. However, severe restrictions were imposed during the 1967-68, 1972-73, and 1982-83 summers because of widespread drought conditions. To meet future demands, construction works are being extended.

Power supplies and the fuels from which they are derived are basic for industrial development. Victoria's range of black coal is not great and, in the past, it was necessary to import significant amounts from New South Wales. Subsequently, the State Electricity Commission of Victoria developed the brown coal resources of the La Trobe Valley. The open-cut mines of the Yallourn-Morwell region presently produce about 30.8 megatonnes per year for use in the steam-generation of electricity and briquette making. The Commission now delivers the bulk of Victoria's public electricity requirements; the balance is purchased interstate.

The discovery, in February 1965, and subsequent development of sizeable offshore reserves of oil and natural gas in the Gippsland basin have augmented Victoria's power and chemical resources. In March 1969, natural gas for commercial use flowed from the Barracouta field and, a month later, the first domestic customers were connected. The Marlin field began to operate in January 1970. Natural gas is now piped from Longford to Melbourne and then to Geelong, Ballarat, and Bendigo. Oil in commercial quantities has been produced from the Barracouta field since October 1969, from Halibut since March 1970, and from Kingfish since April 1971. Petroleum refining is carried out at Altona, Geelong, and Crib Point, and petrochemical manufacturing at Altona, Geelong, Dandenong, and Footscray.

Location

Victoria's earliest industries were located in Melbourne, the entry port for most of the people and their supplies. As Victoria developed, Melbourne became its most populous centre, the major port, the hub of the railway and road network, and major manufacturing centre. At 30 June 1982, 79.5 per cent of Victoria's 12,625 manufacturing establishments and 83.2 per cent of its labour force engaged in manufacturing, were located in the Melbourne Statistical Division (this compares with 79.2 per cent of Victoria's 12,145 manufacturing establishments and 82.7 per cent of its labour force at 30 June 1983): of the 12,625 manufacturing establishments (12,145 in 1983) the full range of financial data was only collected from the 8,916 manufacturing establishments (8,392 in 1983) owned by all multi-establishment enterprises and single establishment manufacturing enterprises employing four or more persons (see pages 389-92 for further details). There are basic reasons for this: Melbourne's function as port and transport focus makes the collection of raw materials and the distribution of manufactured goods relatively easy; the concentration of Victoria's population in the city means a concentration of potential purchasers and potential workers; and by locating their operations in Melbourne, manufacturers can enjoy easy interchange of materials, parts, and services, with other manufacturers.

Melbourne's early industrial suburbs grew on the fringes of the city centre in Port Melbourne, South Melbourne, Richmond, Collingwood, Spotswood, Fitzroy, and Footscray. In these suburbs a wide range of manufacturing industry is found. The more recent new industrial municipalities are Altona, Broadmeadows, Moorabbin, Oakleigh, and Dandenong, where extensive areas are available for the establishment of new industries.

Apart from smelting and large-scale steel making, most types of secondary industry are found in Melbourne. In terms of employment, engineering and metal processing constitute Melbourne's major industries, but a high proportion of Victoria's chemical, textile, paper, furniture, food, and building materials industries are also concentrated there.

Outside the Melbourne metropolitan area, Geelong is the most important industrial centre, with port facilities, close proximity to the Melbourne market, and rich surrounding rural areas. Industries established in the area include petroleum refining, and the manufacture of agricultural machinery, motor vehicles, aluminium ingots and extruded products, textiles, chemical fertilisers, glass, clothing, carpets, foodstuffs, cement, fertilisers, and sporting ammunition.

MANUFACTURING ACTIVITY

Manufacturing developments since 1982

The food processing industry constitutes one of Victoria's largest manufacturing industries, and in 1982-83 the industry accounted for eighteen per cent of value added in manufacturing (\$1,890m) and fourteen per cent of employment (51,450). Approximately one-third of Australia's food processing occurs in Victoria.

Some of the important characteristics of the food processing industry include:

- (1) value added per employee is twenty-four per cent higher in food processing establishments than in manufacturing establishments overall, reflecting the capital intensity of food processing;
- (2) profitability has been slightly lower in food processing than in manufacturing overall;
- (3) the export orientation of the Australian food processing industry is nearly double that of manufacturing as a whole; and
- (4) the penetration of imports into Australian domestic sales is lower in the food processing industry (8 per cent) than manufacturing as a whole (twenty-five per cent).

The food processing industry is generally internationally competitive and requires little assistance against imports. This is reflected in the average effective rate of assistance for the food, beverage, and tobacco industries in 1981-82, being eight per cent compared with twenty-six per cent for manufacturing as a whole.

The number of establishments in the Victorian food processing industry has remained static at about 1,000 in recent years. Traditionally the industry has had a fragmented structure, with operations concentrated on small regional markets. However, in recent years the industry has undergone substantial rationalisation which has resulted in operations becoming more nationally orientated both in terms of marketing and distribution, particularly in the beverages, flour milling, and fruit and vegetable products sectors. Economies have been obtained in sourcing of raw materials and in marketing and distribution through ownership by a national company often with linkages to other food processing industries.

The process of rationalisation has been assisted by improvement in surface transport which allows more efficient location and geographic distribution of plants. Improvement in preservation techniques and the development and implementation of technologies which have extended shelf life, have also been significant factors influencing the change in the food industry's structure.

On export markets, the food processing industry has encountered many of the problems common to other sectors of the Australian economy, including barriers to trade in importing countries and other policies which have given precedence to locally based industries, and greater competition in export markets, including competition from the subsidised exports of major trading blocs (notably the EEC).

Based upon the abundant gas resources of Bass Strait, the synthetic resins and rubber industry is firmly established in Victoria. Victoria contributes over seventy per cent of the Australian industry sector's value added and sixty-four per cent of its employment. Bass Strait ethane and gas oil are processed into ethylene, propylene, and butadiene and their downstream products such as polyethylene, styrene polypropylene, latexes, and rubber.

The brown coal-based industry has received much attention during 1983 and 1984. In early 1983 a large consultant study concluded that there was ample brown coal available for uses other than electricity generation. A comprehensive world wide marketing exercise was started in July 1984 to promote the potential of Victorian brown coal as an industrial feedstock. One major use of brown coal is as a feed stock to liquefaction plants that can produce liquid fuels. The Japanese Government-funded pilot plant at Morwell in the La Trobe Valley commenced in late 1984. Future potential for the coal-based chemical industry is regarded as extremely high.

Activities in the textiles, clothing and footwear industries in Victoria went through a minor reduction in 1982-83, but by 1984, there were strong signs of recovery, with activity exceeding 1981-82 levels. Notable rationalisation within the textile industry occurred, largely as a result of acquisition by a small number of major corporations and this process of rationalisation is expected to continue.

In the clothing industry, significant investment in computerised equipment for the purposes of fabric making and cutting, has taken place, reflecting the move to improved technology in the industry. In the footwear industry, the continuing growth of non-leather footwear has continued; there were also some signs of industry rationalisation.

Over the last two years the metal and engineering industry has been severely affected by the recent economic recession. In 1982-83, sales, output, employment, and capital expenditure suffered the worst decline in more than two decades, resulting in large retrenchments and significant problems of excess capacity. Employment and sales decreased by more than twenty per cent in the agricultural equipment, industrial machinery and equipment, and metal fastener sectors. In 1983-84 activity levels in the metal and engineering industry started to recover, and expectations were for this to continue. Levels of production activity increased strongly as sales and employment stabilised, but the heavy engineering and pumps sectors suffered a severe decline in both employment and sales.

In response to the Victorian Government's economic strategy, a tripartite Metal and Engineering Development Committee was established, and the benefits of a number of projects (such as the Portland aluminium smelter) are expected to provide an incentive to the manufacturing industry over the coming years.

The Victorian automotive and component manufacturing industry faced accelerated rationalisation and sharp swings in consumer demand over the past two years, with the industry continuing to shed labour as a short-term reaction to a slump in car sales, and on a permanent basis as part of its restructuring. In May 1984, the Commonwealth Government announced the Government Motor Vehicle Policy to replace the car industry plan that was announced in late 1981. The new policy became fully effective from 1 January 1985.

During the two years, the automotive component manufacturing sector was further rationalised, with a number of Victorian-based firms closing down or moving out of the industry.

Production activity in the Victorian automotive industry was severely affected by the slowdown in retail car sales during 1983, but the market improved in 1984 with sales in the six months to 30 June well above the same period in 1983, and nearly at the levels of 1982.

There have been developments in the use of technology in manufacturing. The number and extent of Computer Aided Design/Computer Aided Manufacture centres continued to expand through 1984 suggesting the need for a measure of co-ordination between facilities and research programmes. The understanding and implications of this new technology can be expected to be advanced by a major study of Computer Aided Technology in the Metal Trades Industry, which was commenced in March

1984 by the Technological Change Committee of the Australian Science and Technology Council.

A draft National Technology Strategy has been released with a principal purpose of bridging the gap between research and development, and industrial application. Moves are underway to expand the scope of the Technology Transfer Council and several governmental initiatives have begun to produce commercial products using research discoveries from government, private, and university research institutions. In particular, the Commonwealth Government launched Sirotech Limited to harness CSIRO research output, and the Victorian Government has announced joint ventures in biotechnology, and related scientific areas.

Government activities

Industrial legislation

The *Labour and Industry Act* 1958 represents the development and consolidation of industrial legislation which had its beginnings in 1873. Among other matters, the Act deals with the registration and inspection of factories, guarding of machinery, and conditions of employment. The Act also provides for the appointment of Wages Boards and the Industrial Appeals Court. Further information on these matters may be found on pages 223-5.

Department of Industry, Commerce and Technology

The Department of Industry, Commerce and Technology operates primarily under the *Economic Development Act* 1981, as amended in 1983. The Department replaces the former Ministry of Economic Development as the major catalyst for business development in Victoria and directs its attention specifically to developing industry and commerce in the State, and promoting appropriate use of modern technologies.

The Department of Industry, Commerce and Technology was created on 2 November 1983. The Department has eight main objectives:

- (1) to prepare advice to the Victorian Government on development objectives, plans, and strategies for Victoria's manufacturing and commercial sectors, and advise the Government on the impact of its policies on these sectors;
- (2) to participate in the development of advice to the Victorian Government on economic objectives, plans, and strategies;
- (3) to develop, implement, monitor, and review policies and programmes in line with Victorian Government plans to enhance growth in Victoria's manufacturing and commercial sectors, including policies and plans for particular industries and regions;
- (4) to co-ordinate and monitor the implementation of the Victorian Government's objectives and plans for the development of technology and Victoria's manufacturing and commercial sectors, as well as consulting and advising other government departments and agencies on matters related to these sectors;
- (5) to act as the focal point for relationship between the Victorian Government and business and community groups on matters concerning technology, and Victoria's manufacturing and commercial sectors to facilitate co-ordinated government responses to emerging business, commercial, and regional needs and opportunities in Victoria;
- (6) to consult with business and community groups to assist the Victorian Government to develop industry development objectives, policies, and programmes, as well as to communicate the Government's objectives, policies, and programmes relating to technology and Victoria's manufacturing and commercial sectors to these groups and to the public;
- (7) to act as a referral point within the Victorian Government for nominated projects in Victoria's manufacturing and commercial sectors, as well as assisting the Victorian Government to formulate responses to specific proposals in those sectors and to ensure that the implementation of these proposals is not frustrated or unreasonably delayed by Victorian Government approval and control processes; and
- (8) to provide and co-ordinate business promotion and support services at both State and regional level in Victoria in co-operation with other agencies and government departments.

Agencies within the Department

The following agencies also report to the Minister for Industry, Commerce and Technology, and each maintains a working relationship with the Department:

- (1) *Victorian Economic Development Corporation*. This agency provides a range of advisory, funding, and promotional services to encourage development of worthwhile enterprises, including encouragement of overseas investment, and export assistance.

(2) *Small Business Development Corporation*. This agency provides counselling, educational, and financial services to meet the needs of small businesses.

(3) *Geelong Regional Commission*. This agency has responsibility for a wide range of economic, social, and land-use planning matters, with a particular focus on co-ordinating and promoting industrial development in the Geelong region.

(4) *Albury/Wodonga (Victoria) Corporation*. This agency works with its NSW counterpart to provide direction to the development of Albury-Wodonga as a major growth centre.

(5) *Victorian Tourism Commission*. This agency promotes the attractions of Victoria as a tourist destination both within Australia and overseas.

(6) *Liquor Control Commission*. This agency is responsible for administering Victoria's liquor licensing laws.

The following two bodies were established in 1983-84, each charged with the task of promoting appropriate development within prescribed areas:

(1) *Latrobe Regional Commission*. This body is charged with the task of co-ordinating and promoting industrial development in the La Trobe region.

(2) *Alpine Resorts Commission*. This body now works to develop and manage co-ordinated approaches to the development of Victoria's alpine tourist areas.

Policies and schemes administered by the Department

To carry out its newly defined role, new State and regional industry policies were developed and announced on 12 April 1984, as part of the State Economic Strategy. These policies, and the schemes which give them effect, follow from a process of wide community involvement and discussion. They are intended to strengthen firms operating in the international sectors of manufacturing and tertiary industries involved with overseas trade, and are tailored to assist those firms to gain new outlets as well as to improve their competitiveness.

The schemes are designed particularly for small to medium-sized firms with growth potential, and slower growing industries with a capacity to improve their growth prospects.

Industry throughout Victoria is eligible for support and assistance under State industry schemes, while additional support is available through regional industry schemes, which give particular emphasis to designated centres identified as offering growth potential or in need of special attention to overcome difficulties. The schemes fall into the following three categories:

(1) *Business Support Services*. This scheme provides information or assistance with government processes, which are intended to improve the ability of Victorian firms to gain access to new markets, information, and technology.

(2) *Business Development Assistance*. This scheme provides assistance with planning and finance and is intended to foster the growth of small to medium-sized firms and revitalise companies, particularly in the manufacturing sector, which currently are not internationally competitive.

(3) *Regional Industry*. This scheme is designed to improve the economic performance of regions within Victoria by helping industries to build on the regional economic bases and to alleviate problems arising from the concentration of slow growing or declining industries in certain regions.

The complete policy document sets out the priorities and mechanisms for achieving objectives in much greater detail, including provision for non-standard assistance measures. Copies of the *State and regional industry policies* book are available from the Department.

Victorian Economic Development Corporation

History

The Victorian Economic Development Corporation (VEDC) was established in June 1981, through a merger of the Victoria Promotion Committee and the Victorian Development Corporation (VDC). The Victoria Promotion Committee was established under Trust arrangement on 22 March 1956, to capitalise on the potential investment resulting from the international interest generated by the Melbourne Olympic Games. The VDC was created on 17 April 1973.

On 1 July 1984, the VEDC was restructured to become the principal agency for the provision of loan and equity funds to business, in line with the Victorian Government's economic strategy. To support this role the Corporation's equity base has been increased to \$20m.

Structure and policy

The Corporation is a Statutory body, incorporated under an Act of the Victorian Parliament and controlled by a board comprising eight businessmen, a representative from the Victorian Government, and an executive officer from the trade union movement.

The Corporation's issued capital of \$20m is owned by the Government of Victoria.

The financing operations of the Corporation are not subsidised by the Victorian Government. They are run on a commercial basis and expected to make a profit sufficient to meet the payment of dividends and the creation of adequate reserves.

The Corporation meets all of its funding requirements on the open market through the issue of inscribed stock.

Its main responsibility is to promote and facilitate the establishment, continuance, and expansion of industry, commerce, tourism, and the production of goods and services in Victoria with finance and financial services.

General financial assistance

The financial services, which have been the basis of the Corporation's activities from its inception, include the provision of loan and equity funds above the limits which may be extended by conventional finance sources.

For instance, a business may be seeking \$1m for a project and can put \$400,000 towards the total. A bank or other lending institution may provide \$200,000 and the Corporation may – providing the venture meets normal commercial criteria – provide the remainder in loan funds, at competitive rates of interest, or equity funds, or a mixture of both.

Finance may be for short-term working capital or long-term expansion. The maximum loan term is eight years with provision for subsequent renewal or roll over. There is no minimum loan period, and the minimum loan amount is \$10,000. The maximum amount is not specified, but is subject to negotiation.

The overall objective of the Corporation's financial assistance is to help Victorian industry and commerce become more efficient, productive, and outward looking. For that reason general loan criteria include growth in production, innovation, exports, import replacement, employment creation, and greater efficiency. Exports includes sales to other States as well as overseas.

While conformity with every one of these criteria is not essential, they indicate the Corporation's assessment priorities. All applications are judged on commercial viability, as well as the impact of the proposal on the Victorian economy. Assessment embraces such factors as marketing objectives, state of technology, competition, trends in population, economic climate, legal circumstances as well as internal considerations such as personnel, production facilities, business plans, calibre of management, location, public image, research and development, and product details.

The following specific lending situations also fall within the guidelines:

- (1) The Corporation would normally reject an application for funds to either take over an existing business or buy out other partners. However, where the owner reaches retirement or, due to ill health, wishes to sell or close down the business, the Corporation will consider loan applications from employees or others to buy the business if this is the only way to either save the business from closure or to bring about increases in efficiency and/or output.
- (2) The Corporation takes a unique stand between the banks' requirement for security and the finance companies' charging of high interest rates. Where businesses can be accommodated by the banks the Corporation encourages them to do so. However, if businessmen are forced to pay uncompetitive interest rates, VEDC loan funds may be obtained if it can be demonstrated that lower rates will materially assist the business.

There are customers who wish the Corporation to fund all their requirements. In some instances this makes sense, as the legal costs of, for example, executing separate first and second mortgages, floating debenture charges, and giving personal guarantees to different financiers can be substantial.

The advantage of consolidating all borrowings must be clearly demonstrated, as the Corporation, as a matter of policy, does not seek to compete against banks. If, however, the client wishes to exploit such an advantage, a loan application may be considered.

In a number of cases the Corporation has taken the role of a lead financier, i.e. the total amount of the loan is approved by the Corporation and subsequently taken up by other financiers in either equal or various other degrees of security rankings.

Overseas investment in Victoria

The Corporation offers overseas investors both equity finance, to comply with the Foreign Investment Review Board guidelines, and loan funds to establish a business in Victoria. For example, an investor wanting to set up a plant in Victoria may contribute forty-five per cent of the capital proposed for equity. The Corporation may then advance fifteen per cent, plus the necessary loan funds

which may encourage other Australian shareholders to contribute the remaining forty per cent. This facility is known as 'straddling' finance, and demonstrates the Corporation's commitment to consider all possible types of investment.

The Corporation also offers support finance to local industry. For example, an overseas investor may depend on a number of local sub-contractors and suppliers of raw material and services essential for the successful running of his investment in Victoria. The Corporation will look after the financial needs of the local sub-contractors and suppliers in conjunction with the local banks.

Export pre-shipment finance

The Corporation is the only Victorian Government organisation in Australia which provides an Export Pre-shipment Finance Scheme. Under the provisions of this Scheme, money will be provided to Victorian exporters.

One of the most important points of this Scheme is its capacity to ensure the continuing viability of many industries in their existing export efforts and allow other companies to explore new overseas markets with strong confidence based on the knowledge that funds are available.

Terms and conditions of export pre-shipment finance

Any exporter of goods or services produced in Victoria is eligible providing proof of having received a firm, profitable export order is submitted together with acceptable arrangements for securing payment. The time associated with executing an export pre-shipment facility should be stressed. Hence the application for a standby facility prior to the receipt of an export order is recommended as this enables the order to be executed forthwith.

The maximum amount of any loan is \$1m per shipment with a minimum of \$50,000 per year. There is no minimum term, and the maximum term can be in line with the terms of payment from overseas.

The stamp duty and other charges are payable by the exporter and will be deducted in advance on the first settlement, and the security will be the normal available commercial security plus, where applicable, a lien or equitable charge over the goods to be exported.

The funds may be used for such items as extra labour, production capacity, purchase of raw materials, transport, insurance, performance bonds, tender deposits, etc.

Current market rates of interest are charged for this facility. An initial establishment fee of 1 per cent will be charged with the first transaction, but will not be charged on subsequent transactions during the lifetime of the commercial relationship between the Corporation and the exporter.

VICTORIAN ECONOMIC DEVELOPMENT CORPORATION, APPROVAL OF LOANS

Sector	1982-83			1983-84		
	Number	Amount (\$)	Per cent	Number	Amount (\$)	Per cent
DECENTRALISED MANUFACTURING AND PROCESSING						
Food, beverages, and tobacco	7	1,560,000	10.0	7	995,000	3.0
Textiles	5	1,345,000	8.6	5	1,863,000	5.6
Clothing and footwear	3	360,000	2.3	1	300,000	0.9
Wood, wood products, and furniture	6	300,000	1.9	4	161,000	0.5
Paper, paper products, printing, and publishing	2	95,000	0.6	2	50,000	0.2
Chemical, petroleum, and coal products	3	80,000	0.5	1	70,000	0.2
Non-metallic mineral products	6	604,000	3.9	5	1,134,200	3.4
Basic metal products	5	262,250	1.7	1	1,000,000	3.0
Fabricated metal products	10	424,700	2.9	9	707,625	2.1
Transport equipment	4	58,000	0.4	—	—	—
Other machinery and equipment	3	177,500	1.1	3	845,257	2.6
Miscellaneous manufacturing	—	—	—	1	35,000	0.1
Personal services	—	—	—	1	190,000	0.6
Total decentralised manufacturing and processing	54	5,266,450	33.7	40	7,351,082	22.2
PREFERRED INDUSTRIES						
Basic chemicals	—	—	—	1	240,000	0.7
Chemical products	2	93,750	0.6	3	2,040,000	6.2
Appliances, electrical and electronic equipment	18	3,202,000	20.5	33	5,715,620	17.2
Industrial machinery and equipment	8	805,000	5.2	6	1,447,000	4.4
Business services, data processing	7	1,480,000	9.5	8	1,461,000	4.4
Food, beverages, and tobacco	2	1,600,000	10.3	1	20,000	0.1
Textiles	2	1,750,000	11.2	6	1,440,000	4.3
Paper, paper products, printing, and publishing	—	—	—	7	3,925,000	11.8

VICTORIAN ECONOMIC DEVELOPMENT CORPORATION, APPROVAL OF LOANS — *continued*

Sector	1982-83			1983-84		
	Number	Amount (\$)	Per cent	Number	Amount (\$)	Per cent
PREFERRED INDUSTRIES — <i>continued</i>						
Clothing and footwear	—	—	—	1	250,000	0.8
Wood, wood products, and furniture	—	—	—	1	100,000	0.3
Non-metallic mineral products	—	—	—	1	30,000	0.1
Fabricated metal products	—	—	—	4	455,000	1.4
Transport equipment	—	—	—	1	100,000	0.3
Total preferred industries	39	8,930,750	57.2	73	17,223,620	52.0
TOURISM						
Parks and zoological gardens	2	140,000	0.9	—	—	—
Cafes and restaurants	—	—	—	—	—	—
Accommodation (a) —						
Hotels, motels, guest houses	17	1,020,000	6.5	14	1,455,000	4.4
Tourist flats	2	107,500	0.7	2	95,000	0.3
Group tour accommodation and holiday farms	4	85,000	0.5	5	442,000	1.3
Caravan parks	4	57,000	0.4	4	177,000	0.5
Snow accommodation and facilities	—	—	—	1	50,000	0.2
Others	—	—	—	9	4,412,000	13.3
Total tourism	29	1,409,500	9.0	35	6,631,000	20.0
OTHER						
Export pre-shipment finance	—	—	—	6	575,000	1.7
Growth firm assistance program	—	—	—	1	100,000	0.3
Small business development loans	—	—	—	12	1,263,000	3.8
Grand total	122	15,606,700	100.0	167	33,143,702	100.0

(a) This classification has been sub-divided for Victorian Economic Development Corporation statistical purposes.

Source: Victorian Economic Development Corporation.

Commonwealth Department of Industry and Commerce

The role of the Department is to:

- (1) provide advice to the Commonwealth Government on policy for the development of Australian manufacturing and tertiary industries, including small business;
- (2) monitor industry trends and conditions and undertake reviews of specific industries. This work is augmented by the Bureau of Industry Economics, which publishes its findings; and
- (3) administer the Australian Customs Service which is responsible for the collection of customs and excise revenue, provision of assistance to industry through the administration of the Customs tariff, by-law, import quota, and anti-dumping systems, and the control of imports and exports for community protection purposes.

The Department has recently become responsible for regional development and petroleum retail marketing.

Commonwealth Department of Science and Technology

The Department of Science and Technology is responsible for the registration of patents, trademarks, and designs, and for a number of programmes aimed at transferring technology from innovative sources to manufacturers. These programmes are concerned with information technology awareness, manufacturing technology transfer, and the formation and support of research organisations. The Department also administers the Assistance to Inventors' Schemes which support individuals with grants and advice to develop inventions. The Australian Industrial Research and Development Incentives Scheme, which is administered by the Australian Industrial Research and Development Incentive Board, offers grants to companies to undertake or extend industrial research and development activities.

The Department has assisted in the development of such centres as the Australian Microcomputer Industry Clearinghouse conducted by the Royal Melbourne Institute of Technology. The centre enables businesses and individuals to test and evaluate both microcomputers and software in an impartial environment prior to making purchasing decisions.

The Victorian State Office of the Department participates in planning and operating departmental projects, provides policy advice to Central Office, and develops relations with industry and Victorian Government organisations.

Prices Surveillance Authority

The Prices Surveillance Authority, which subsumed the activities of the Petroleum Products Pricing Authority, was established on 19 March 1984 pursuant to the *Prices Surveillance Act* 1983. The functions of the Authority are to consider price notices submitted to it in accordance with section 22 of the Act and to hold inquiries into matters relating to prices for the supply of goods and services. The Authority is required to report to the Minister the results of each such inquiry.

The Act provides for the declaration of persons in relation to the supply of specified goods and services. Notifications to the Authority are required where declared persons propose to charge higher than currently existing prices for those specified goods and services. Action by the Authority in relation to price notifications includes the issuing of a notice stating that it has no objection to the proposed prices, a notice that it has no objection to a price lower than the proposed price, and recommending to the Minister that a public inquiry be held.

The Authority is required to hold such inquiries as directed by the Minister and, with the approval of the Minister, such other inquiries as it thinks fit.

Although the Act provides that prices shall not be increased during an inquiry, provision exists for the granting of interim price increases pending the outcome of an inquiry.

Further references: *Prices Justification Tribunal, Victorian Year Book* 1982, p. 368; *Ministry for Economic Development, 1983*, pp. 358-9; *Petroleum Products Pricing Authority, 1983*, p. 361

Scientific research and standardisation

Commonwealth Scientific and Industrial Research Organization

The Commonwealth Scientific and Industrial Research Organization (CSIRO) was established as an independent statutory corporation by the *Science and Industry Research Act* 1949. It succeeded the former Council for Scientific and Industrial Research which was established in 1926. The Act was substantially amended in 1978.

The main role of the Organization is to plan and execute a comprehensive programme of general scientific research on behalf of the Commonwealth. Research is carried out mainly in the physical and biological sciences, with the emphasis on strategic research. Strategic research is undertaken to achieve practical results and is characterised by its orientation towards the basic research end of the research and development spectrum.

The transfer of research results into commercial use or other beneficial applications is a principal aim of the CSIRO. Other activities are undertaken to the extent that they can be carried out conveniently in conjunction with the Organization's main research and technology transfer activities.

The CSIRO's statutory functions, in summary form, are to:

- (1) carry out scientific research relevant to Australian industry, the community, national objectives national or international responsibilities, or for any other purpose determined by the Minister;
- (2) encourage and facilitate the application and utilisation of research results;
- (3) liaise with other countries in matters of scientific research;
- (4) train research workers;
- (5) make grants and award fellowships and studentships relevant to the Organization's research;
- (6) recognise, co-operate with, and make grants to, industrial research associations;
- (7) establish, and promote the use of, standards of measurement of physical quantities;
- (8) collect, interpret, and disseminate scientific and technical information; and
- (9) publish scientific and technical reports, periodicals, and papers.

Standards Association of Australia

This Association is the officially endorsed national organisation for the promotion of standardisation in Australia. It is an independent body incorporated by Royal Charter, having the full recognition and support of the Commonwealth and State Governments and industry. Formed as the Australian Commonwealth Engineering Standards Association in 1922 it was reconstituted as the Standards Association of Australia (SAA) in 1929. Approximately thirty per cent of its funds are provided by Commonwealth Government grants, the remainder coming from membership subscriptions and the sale of publications.

A Council composed of representatives of Commonwealth and State Government departments, associations of manufacturing and commercial interests, and professional institutions controls the

Association's activities. The technical work of the Association is carried out on a voluntary basis by committees composed of experts in the particular subjects for which standards have been requested.

Australian standards are developed by co-operative effort and negotiation on the part of those most concerned, whether as producers or as users. They are based on what is best in present practice. They do not attempt to attain an ideal which might be too costly to adopt under industrial and commercial conditions. They are constantly revised to take account of new developments and to eliminate outmoded practices.

Industrial associations, firms, or government departments may request standards relating to such things 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 intrinsic merit. It is only in special cases where safety of life and property is involved, that they may have compulsory application.

The Association owns a registered certification trade mark which manufacturers may obtain a licence to use. The presence of the 'AS Mark' on a product provides the purchaser with an independent assurance that the item so marked has been manufactured to comply with the particular designated Australian standard. The SAA also administers a national scheme for assessing suppliers' quality supply systems, namely, the Supplier Assessment Scheme.

The Association has international affiliations, being the Australian member body of the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC); it also maintains close links with overseas standards organisations. It acts as Australian agent for the procurement of overseas publications and the standards of other countries. The headquarters office of the Association is in Sydney, and there is a major office in Melbourne. Branch offices are located in other capital cities and at Newcastle, New South Wales.

National Association of Testing Authorities, Australia

This is the Australian organisation for accreditation of testing and measuring facilities. It registers testing and measuring laboratories which can demonstrate their technical and managerial competence. Registration of laboratories is voluntary. Registered laboratories are operated by industrial, governmental, medical, educational, and commercial testing authorities. The Association is recognised by all State Governments, the Commonwealth Government, and industry associations. Registered laboratories have the right to endorse their test documents in the name of the Association.

Industrial Design Council of Australia

The Industrial Design Council of Australia has established its Victorian headquarters at the Victorian Centre for Innovation and Design in East Melbourne. The Council provides three authoritative types of endorsements for companies and their products and these endorsements are made on the recommendation of independent panels with a wide range of technical and design expertise.

The Design Council's field advisers who are experts in engineering, design, and marketing are available to assist manufacturers with new product development including the provision of scientific and technological abstracts that apply to specific product development needs. The Council's Design Referral Service offers quick access to pre-selected lists from the Council's extensive register of specialists in all aspects of product development.

The Design Council also runs new product development workshops and lectures. These training programmes, for middle and upper management, follow a logical progression through the product development process from idea generation to sales and promotion, and include such important stages as financial planning, product design, and research.

The Council assists manufacturers with product design management, helping establish corporate design policies, and strategies for new product development. If required, the Council can develop a complete product development programme that is tailored to the specific needs of particular companies. Such programmes may encompass design audit, new product idea searches, idea development and evaluation, development of a product profile, and the contracting of external talent and the supervision of their work. The Council can also assist manufacturers with the assembly of panels of creative persons who can apply techniques of creative problem solving. These panels also assist in the training of company staff.

MANUFACTURING INDUSTRY STATISTICS

Basis of collection

A series of substantially uniform statistics exists from 1901 to 1967-68 when the framework within which manufacturing statistics were collected was changed. More detailed manufacturing statistics in respect of this period have been included in previous editions of the *Victorian Year Book*.

Manufacturing censuses

From the year ended June 1969, the Census of Manufacturing, Electricity, and Gas has been conducted within the framework of the integrated economic censuses, which include the Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. As a result, manufacturing industry statistics for 1968-69 and subsequent years are not directly comparable with previous years. The electricity and gas industries, which were previously included in the annual manufacturing census, were the subject of separate censuses. The integration of these economic censuses was designed to increase substantially the usefulness and comparability of economic statistics collected and published by the Australian Bureau of Statistics and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

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

The integration of these economic censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in coverage, and in such a way that aggregates for certain important economic data – such as value added, employment, wages and salaries, fixed capital expenditure, and stocks – can be obtained on a consistent basis for all sectors of the economy covered by the censuses. From the 1975-76 Census of Manufacturing Establishments onwards, only a limited range of data – employment, and wages and salaries – is collected from single establishment manufacturing enterprises with less than four persons employed. This procedure has significantly reduced the statistical reporting obligations of small businesses, while at the same time only marginally affecting statistical aggregates other than the number of establishments. Data in respect of establishments from which the full range of data is collected under the new collection criteria (i.e. all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed) are considered to provide reliable information for the evaluation of trends in the manufacturing sector of the economy. All tables in this *Victorian Year Book* show details collected from all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises employing four or more persons.

From the 1977-78 manufacturing census, the classification of census units to industry is based on the 1978 edition of the *Australian Standard Industrial Classification (ASIC)*. The 1978 edition of the classification replaces the 1969 preliminary edition which had been in use since the 1968-69 census.

The 1977-78 data used in the following tables are classified according to the 1978 edition of ASIC. In general, the impact of the change in industrial classification is minimal at the ASIC division and sub-division levels, leaving their basic character and structure unchanged. The ASIC division and sub-division levels are the levels used in this chapter.

Further reference: *Victorian Year Book 1971*, pp. 368-89

Manufacturing statistics compiled for 1967-68 were the last of the old series, and definitions used in the 1967-68 and previous manufacturing censuses were published in the *Victorian Year Book* 1971, pages 394-7. The first publication of statistics from the 1968-69 economic censuses, *Manufacturing establishments and electricity and gas establishments: preliminary statement* (8208.0), was issued in January 1971 and contained information in respect of twelve industry sub-divisions, permitting comparisons to be made between States, but not between 1968-69 and previous years because of the changes in the definition of the establishment, bases of classification, and forms.

In respect of 1982-83, the four metal products sub-divisions employed 145,900 persons or 40.2 per cent of the total employment in manufacturing establishments. Next in order of employment was Food, beverages, and tobacco with 51,450 or 14.2 per cent, followed by Clothing and footwear with 41,240 or 11.4 per cent, and Paper, paper products, printing, and publishing with 33,759 or 9.3 per cent of the total.

Year	Manufacturing establishments	Employment (a)	Wages and salaries paid (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
	number	number	\$m	\$m	\$m	\$m	\$m
1977-78(c)	(d)8,571	396,372	3,829	16,191	9,475	6,916	651
1978-79(c)	(d)8,546	394,964	4,102	(e)18,228	(e)11,109	(e)7,377	742
1979-80(c)	(f)(d)8,902	397,313	4,563	(e)21,233	(e)13,353	(e)8,505	735
1980-81(c)	(d)8,726	391,489	5,032	(e)23,856	(e)14,814	(e)9,440	712
1981-82(c)	(d)8,916	392,737	5,757	27,208	17,031	10,578	1,046
1982-83(c)	(d)8,392	363,018	5,950	27,747	17,060	10,649	998

(f) The coverage of the 1979-80 manufacturing census was improved as a result of conducting the 1979-80 Census of Retail and Selected Services Industries. While this improved coverage contributes to the increase in the number of establishments in some States or industries, its effects on any other statistical aggregates are only marginal.

State or Territory	Establishments operating at 30 June	Employment (a)	Wages and salaries paid (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
	number	number	\$m	\$m	\$m	\$m	\$m
		1981-82					
New South Wales	10,625	431,783	6,623	29,538	17,923	11,812	1,314
Victoria	8,916	392,737	5,757	27,208	17,031	10,578	1,046
Queensland	3,556	122,717	1,700	10,590	7,316	3,448	622
South Australia	2,219	104,874	1,446	6,651	4,084	2,620	283
Western Australia	2,603	70,799	1,013	5,491	3,501	2,053	719
Tasmania	555	25,809	370	1,898	1,238	713	84
Northern Territory	106	2,489	43	297	231	59	11
Australian Capital Territory	126	3,451	49	188	112	78	6
Total	28,706	1,154,659	17,001	81,862	51,434	31,362	4,084

MANUFACTURING ESTABLISHMENTS (c) - continued

State or Territory	Establishments operating at 30 June	Employment (a)	Wages and salaries paid (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
	number	number	\$m	\$m	\$m	\$m	\$m
		1982-83					
New South Wales	10,471	384,608	6,638	29,024	17,520	11,332	1,325
Victoria	8,392	363,018	5,950	27,747	17,060	10,649	998
Queensland	3,440	114,646	1,786	10,716	7,393	3,445	541
South Australia	2,099	95,906	1,502	6,708	4,041	2,709	220
Western Australia	2,499	64,980	1,038	5,597	3,574	2,041	537
Tasmania	528	24,085	388	1,969	1,260	695	45
Northern Territory	117	2,434	45	344	251	91	6
Australian Capital Territory	150	3,228	55	218	126	97	6
Total	27,696	1,052,905	17,403	82,321	51,226	31,059	3,678

For footnotes see table on page 389.

The total value added in 1981-82 was \$10,578m. Of this amount, the Metal products sub-divisions contributed \$4,145m which represented 39.2 per cent of the total. The Food sub-division followed with \$1,666m or 15.7 per cent, and the next in order were the Paper, paper products, printing, and publishing sub-division with \$1,009m, 9.5 per cent, and the Chemical, petroleum, and coal products sub-division with \$940m, 8.9 per cent.

The total value added in 1982-83 was \$10,649m. Of this amount, the Metal products sub-divisions contributed \$4,006m which represented 37.6 per cent of the total. The Food sub-division followed with \$1,890m or 17.7 per cent, and the next in order were the Paper, paper products, printing, and publishing sub-division with \$1,049m, 9.8 per cent, and the Chemical, petroleum, and coal products sub-division with \$953m, 9.0 per cent.

The following tables contain a summary of manufacturing establishments by sub-division of industry in Victoria during the years 1981-82 and 1982-83:

MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY, VICTORIA

ASIC code	Industry sub-division	Establishments operating at 30 June	Employment (a)	Wages and salaries (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
		number	number	\$m	\$m	\$m	\$m	\$m
			1981-82					
21	Food, beverages, and tobacco	1,000	53,139	797	5,452	3,801	1,666	151
23	Textiles	325	19,147	270	1,107	682	445	31
24	Clothing and footwear	1,011	43,547	491	1,647	878	800	22
25	Wood, wood products, and furniture	1,130	20,058	239	1,016	584	447	22
26	Paper, paper products, printing, and publishing	916	32,839	521	2,066	1,106	1,009	121
27	Chemical, petroleum, and coal products	293	20,249	356	2,365	1,468	940	97
28	Non-metallic mineral products	406	12,482	215	902	482	438	32
29	Basic metal products	181	14,840	267	1,809	1,319	516	190
31	Fabricated metal products	1,197	36,632	515	2,043	1,161	924	48
32	Transport equipment	413	59,566	911	3,825	2,614	1,276	196
33	Other machinery and equipment	1,259	53,004	779	3,196	1,824	1,429	80
34	Miscellaneous manufacturing	785	27,234	395	1,780	1,112	690	57
	Total	8,916	392,737	5,757	27,208	17,031	10,578	1,046

MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY, VICTORIA - *continued*

ASIC code	Industry sub-division	Establishments operating at 30 June	Employment (a)	Wages and salaries (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
		number	number 1982-83	\$m	\$m	\$m	\$m	\$m
21	Food, beverages, and tobacco	966	51,450	863	5,959	4,145	1,890	135
23	Textiles	307	17,358	277	1,087	658	420	28
24	Clothing and footwear	943	41,240	509	1,717	894	821	21
25	Wood, wood products, and furniture	1,074	17,992	241	1,014	571	443	15
26	Paper, paper products, printing, and publishing	881	33,759	573	2,262	1,213	1,049	82
27	Chemical, petroleum, and coal products	289	20,323	397	2,451	1,518	953	111
28	Non-metallic mineral products	392	11,181	209	884	470	425	23
29	Basic metal products	191	13,379	267	1,721	1,258	445	199
31	Fabricated metal products	1,086	32,232	509	1,953	1,076	833	41
32	Transport equipment	374	54,383	968	4,014	2,601	1,403	212
33	Other machinery and equipment	1,159	45,906	768	2,987	1,618	1,324	72
34	Miscellaneous manufacturing	730	23,815	368	1,701	1,037	643	60
	Total	8,392	363,018	5,950	27,747	17,060	10,649	998

For footnotes see page 389.

The following table summarises, by sub-division of industry, the percentage contribution of Victorian manufacturing establishments to the total Australian figures for the years 1981-82 and 1982-83:

MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY,
PERCENTAGE OF AUSTRALIAN TOTALS, VICTORIA
(per cent)

ASIC code	Industry sub-division	Establishments operating at 30 June	Employment (a)	Wages and salaries paid (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
			1981-82					
21	Food, beverages, and tobacco	29	30	31	32	32	31	27
23	Textiles	50	53	54	51	50	52	44
24	Clothing and footwear	50	56	58	57	56	58	65
25	Wood, wood products, and furniture	27	25	25	25	24	25	23
26	Paper, paper products, printing, and publishing	31	32	33	34	34	34	41
27	Chemical, petroleum, and coal products	31	34	33	30	29	34	31
28	Non-metallic mineral products	23	27	28	24	22	26	18
29	Basic metal products	33	15	15	18	18	17	11
31	Fabricated metal products	27	31	32	30	29	32	29
32	Transport equipment	30	45	46	50	55	43	59
33	Other machinery and equipment	32	33	33	35	34	35	32
34	Miscellaneous manufacturing	34	41	43	44	46	43	45
	Total	31	34	34	33	33	34	26

MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY,
PERCENTAGE OF AUSTRALIAN TOTALS, VICTORIA – *continued*
(per cent)

ASIC code	Industry sub-division	Establishments operating at 30 June	Employment (a)	Wages and salaries paid (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
1982-83								
21	Food, beverages, and tobacco	28	29	30	32	32	32	23
23	Textiles	49	53	54	51	50	52	48
24	Clothing and footwear	56	59	60	59	58	61	72
25	Wood, wood products, and furniture	27	25	25	25	25	26	16
26	Paper, paper products, printing, and publishing	30	34	33	35	36	34	39
27	Chemical, petroleum, and coal products	31	35	35	30	29	34	34
28	Non-metallic mineral products	23	27	27	24	21	27	16
29	Basic metal products	35	16	16	18	18	18	14
31	Fabricated metal products	25	32	32	30	29	31	28
32	Transport equipment	29	45	45	50	54	43	71
33	Other machinery and equipment	31	33	33	35	35	35	34
34	Miscellaneous manufacturing	33	40	41	43	44	41	44
	Total	30	34	34	34	33	34	27

For footnotes see page 389.

The following table shows the number of manufacturing establishments operating in Victoria at 30 June 1978 to 1983, classified according to sub-division of industry:

NUMBER OF MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF
INDUSTRY, VICTORIA, AT 30 JUNE

ASIC code	Industry sub-division	1978	1979	1980 (f)	1981	1982	1983
21	Food, beverages, and tobacco	984	957	982	975	1,000	966
23	Textiles	301	291	312	309	325	307
24	Clothing and footwear	1,079	1,041	1,038	1,004	1,011	943
25	Wood, wood products, and furniture	1,078	1,068	1,156	1,129	1,130	1,074
26	Paper, paper products, printing, and publishing	848	853	949	903	916	881
27	Chemical, petroleum, and coal products	276	286	295	283	293	289
28	Non-metallic mineral products	380	380	397	393	406	392
29	Basic metal products	166	169	175	174	181	191
31	Fabricated metal products	1,097	1,114	1,133	1,153	1,197	1,086
32	Transport equipment	409	434	456	437	413	374
33	Other machinery and equipment	1,228	1,216	1,245	1,230	1,259	1,159
34	Miscellaneous manufacturing	725	737	764	736	785	730
	Total	8,571	8,546	8,902	8,726	8,916	8,392

For footnotes see page 389.

The size classification of manufacturing establishments is based on the number of persons employed at 30 June 1982 and 1983 (including working proprietors). The following table shows the number of manufacturing establishments classified according to the number of persons employed:

**MANUFACTURING ESTABLISHMENTS (a) CLASSIFIED ACCORDING TO NUMBER OF
PERSONS EMPLOYED (INCLUDING WORKING PROPRIETORS),
VICTORIA, AT 30 JUNE**

Manufacturing establishments employing persons numbering –	1982		1983	
	Number of establish- ments	Number of persons employed (b)	Number of establish- ments	Number of persons employed (b)
Less than 10	3,853	22,727	3,643	21,099
10 to 19	2,018	27,167	1,901	25,558
20 to 49	1,544	46,863	1,453	43,785
50 to 99	695	47,944	650	44,801
100 to 199	444	61,608	431	58,338
200 to 499	274	79,575	231	65,495
500 to 999	59	40,752	57	36,366
1,000 and over	29	50,455	26	43,320
Total	8,916	377,091	8,392	338,762

(a) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. In addition, there were 3,709 single establishment enterprises employing 7,557 persons in the one to three persons employed group for 1982, compared with 3,753 enterprises and 7,685 persons for 1983.

(b) Excludes persons employed in separately located administrative offices and ancillary units serving more than one establishment.

The relative importance of large and small manufacturing establishments is illustrated in the preceding table. The most numerous of the establishments with less than ten persons were printing, stationery, and bookbinding; furniture (excluding sheetmetal); joinery and wooden structural fittings; and industrial machinery and equipment not elsewhere classified.

A general indication of the geographical distribution of manufacturing establishments in Victoria at 30 June 1982 and 1983 is shown in the following tables where they are classified according to statistical divisions:

**MANUFACTURING ESTABLISHMENTS (c) IN STATISTICAL DIVISIONS,
VICTORIA**

Statistical division	Establish- ments operating at 30 June	Employ- ment (a)	Wages and salaries (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expen- diture less disposals
	number	number 1981-82	\$m	\$m	\$m	\$m	\$m
Melbourne	7,174	327,099	4,819	22,150	13,842	8,686	707
Barwon	297	19,046	306	1,656	1,032	634	73
South Western	120	4,316	61	390	262	126	107
Central Highlands	205	8,097	109	443	236	217	20
Wimmera	71	1,280	13	59	37	24	2
Northern Mallee	91	1,396	17	95	56	38	4
Loddon-Campaspe	236	9,323	118	550	332	207	11
Goulburn	215	6,355	92	590	396	196	17
North Eastern	139	5,826	79	471	305	179	19
East Gippsland	103	2,132	27	164	101	64	7
Central Gippsland	206	6,338	95	534	356	173	70
East Central	59	1,529	21	108	75	34	8
Total	8,916	392,737	5,757	27,208	17,031	10,578	1,046
		1982-83					
Melbourne	6,734	300,741	4,945	22,424	13,592	8,782	680
Barwon	292	17,740	340	1,679	1,100	566	110
South Western	116	4,728	71	455	310	144	121
Central Highlands	195	7,194	110	458	248	212	12
Wimmera	55	1,057	13	57	36	22	2
Northern Mallee	87	1,195	16	127	79	49	3
Loddon-Campaspe	216	8,958	125	608	398	219	17

**MANUFACTURING ESTABLISHMENTS (c) IN STATISTICAL DIVISIONS,
VICTORIA — continued**

Statistical division	Establishments operating at 30 June	Employment (a)	Wages and salaries (b)	Turnover	Purchases, transfers in, and selected expenses	Value added	Fixed capital expenditure less disposals
	number	number	\$m	\$m	\$m	\$m	\$m
		1982-83					
Goulburn	207	6,153	96	624	433	201	7
North Eastern	135	5,666	88	489	306	185	16
East Gippsland	102	2,014	27	171	109	60	2
Central Gippsland	194	5,988	93	533	366	172	26
East Central	59	1,584	26	123	84	37	4
Total	8,392	363,018	5,950	27,747	17,060	10,649	998

For footnotes see page 389.

Employment, wages, and salaries

Employment

From 1968-69, all persons employed in a manufacturing establishment and separately located administrative offices and ancillary units serving the establishment (including proprietors working in their own businesses) are included as persons employed. The grouping of persons employed comprises: (1) working proprietors; (2) administrative, office, sales, and distribution employees; and (3) production and all other employees.

The figures showing employment in manufacturing establishments represent either the average number of persons employed, including working proprietors, over a full year, or the number of persons employed at June each year as specified in the following tables:

PERSONS EMPLOYED (a) IN MANUFACTURING ESTABLISHMENTS (c), VICTORIA

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages, and tobacco	58,234	55,283	54,477	55,349	53,139	51,450
23	Textiles	19,460	19,046	20,210	19,711	19,147	17,358
24	Clothing and footwear	45,012	44,983	44,219	43,614	43,547	41,240
25	Wood, wood products, and furniture	19,089	18,401	19,136	19,628	20,058	17,992
26	Paper, paper products, printing, and publishing	31,654	31,656	33,268	33,629	32,839	33,759
27	Chemical, petroleum and coal products	21,174	21,610	19,792	19,972	20,249	20,323
28	Non-metallic mineral products	12,950	12,737	12,974	12,448	12,482	11,181
29	Basic metal products	12,475	12,817	13,836	14,045	14,840	13,379
31	Fabricated metal products	35,267	35,061	36,269	36,027	36,632	32,232
32	Transport equipment	58,752	61,319	60,994	56,790	59,566	54,383
33	Other machinery and equipment	55,052	54,793	54,356	53,403	53,004	45,906
34	Miscellaneous manufacturing	27,253	27,258	27,782	26,873	27,234	23,815
Total		396,372	394,964	397,313	391,489	392,737	363,018

For footnotes see page 389.

It should be noted that the metal fabricating sub-divisions (31-33) (including transport equipment, and other machinery and equipment), Food, beverages, and tobacco sub-division (21), and Clothing and footwear sub-division (24) are large contributors.

Manufacturing establishments in the Melbourne Statistical Division, employing four or more persons, constituted 80.5 per cent of the total number in Victoria at 30 June 1982, 83.3 per cent of the persons employed, and 82.1 per cent of the value added. This compares with 30.2 per cent of the total number, 82.8 per cent of the persons employed, and 82.5 per cent of the value added at 30 June 1983.

It should be noted that Geelong is located in the Barwon Statistical Division, Bendigo, Castlemaine, and Maryborough in the Loddon-Campaspe Statistical Division, Ballarat in the Central Highlands Statistical Division, Warrnambool in the South Western Statistical Division, Shepparton in the Goulburn Statistical Division, Wangaratta in the North Eastern Statistical Division, and Morwell and Yallourn in the Central Gippsland Statistical Division.

**NUMBER OF MANUFACTURING ESTABLISHMENTS (c) AND PERSONS EMPLOYED (a) IN EACH STATISTICAL DIVISION,
CLASSIFIED ACCORDING TO INDUSTRY SUB-DIVISION, VICTORIA, 1981-82**

ASIC code	Industry sub-division	Statistical division												Total
		Mel- bourne	Barwon	South Western	Central High- lands	Wimmera	North- ern Mallee	Loddon- Campaspe	Goul- burn	North Eastern	East Gipps- land	Central Gipps- land	East Central	
NUMBER OF MANUFACTURING ESTABLISHMENTS (c)														
21	Food, beverages, and tobacco	579	45	34	39	21	31	63	61	44	17	50	16	1,000
23	Textiles	266	22	3	5	3	1	5	9	4	—	5	2	325
24	Clothing and footwear	928	16	4	11	1	—	17	11	6	2	13	2	1,011
25	Wood, wood products and furniture	807	45	21	35	11	9	25	42	27	50	39	19	1,130
26	Paper, paper products, printing, and publishing	776	15	11	14	9	12	20	18	10	10	17	4	916
27	Chemical, petroleum, and coal products	266	12	3	2	—	1	3	1	1	—	4	—	293
28	Non-metallic mineral products	216	25	13	26	7	14	29	25	14	10	24	3	406
29	Basic metal products	150	11	2	7	1	—	5	—	1	—	3	1	181
31	Fabricated metal products	1,009	45	9	24	10	9	24	16	12	4	30	5	1,197
32	Transport equipment	348	13	5	9	—	3	14	13	3	1	4	—	413
33	Other machinery and equipment	1,113	29	13	23	5	9	23	13	10	4	13	4	1,259
34	Miscellaneous manufacturing	716	19	2	10	3	2	8	6	7	5	4	3	785
Total		7,174	297	120	205	71	91	236	215	139	103	206	59	8,916
NUMBER OF PERSONS EMPLOYED (a)														
21	Food, beverages, and tobacco	37,277	1,347	1,821	1,510	319	743	2,436	3,412	1,768	479	1,455	572	53,139
23	Textiles	14,011	1,756	n.p.	239	n.p.	n.p.	563	361	n.p.	—	295	n.p.	19,147
24	Clothing and footwear	36,559	1,729	n.p.	772	n.p.	n.p.	1,426	444	n.p.	n.p.	839	n.p.	43,547
25	Wood, wood products, and furniture	14,289	636	580	841	101	98	268	619	781	1,065	522	258	20,058
26	Paper, paper products, printing, and publishing	28,614	422	173	499	102	168	436	398	n.p.	142	n.p.	137	32,839
27	Chemical, petroleum and coal products	18,071	1,765	n.p.	n.p.	—	n.p.	n.p.	n.p.	n.p.	—	n.p.	—	20,249
28	Non-metallic mineral products	9,380	1,188	60	689	66	88	307	205	147	n.p.	266	n.p.	12,482
29	Basic metal products	10,384	3,086	n.p.	800	n.p.	—	202	—	n.p.	—	n.p.	n.p.	14,840
31	Fabricated metal products	32,806	751	73	442	92	68	907	294	191	n.p.	756	n.p.	36,632
32	Transport equipment	52,199	n.p.	44	1,128	—	n.p.	942	361	14	n.p.	35	n.p.	59,566
33	Other machinery and equipment	47,541	1,442	235	985	121	132	1,426	189	404	116	382	31	53,004
34	Miscellaneous manufacturing	25,968	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	40	n.p.	90	17	27,234
Total		327,099	19,046	4,316	8,097	1,280	1,396	9,323	6,355	5,826	2,132	6,338	1,529	392,737

For footnotes see page 389.

**NUMBER OF MANUFACTURING ESTABLISHMENTS (c) AND PERSONS EMPLOYED (a) IN EACH STATISTICAL DIVISION,
CLASSIFIED ACCORDING TO INDUSTRY SUB-DIVISION, VICTORIA, 1982-83**

ASIC code	Industry sub-division	Statistical division												Total
		Mel- bourne	Barwon	South Western	Central High- lands	Wimmera	North- ern Mallee	Loddon- Campaspe	Goul- burn	North Eastern	East Gipps- land	Central Gipps- land	East Central	
NUMBER OF MANUFACTURING ESTABLISHMENTS (c)														
21	Food, beverages, and tobacco	554	44	34	35	19	32	61	61	45	18	47	16	966
23	Textiles	253	19	4	5	2	2	5	8	3	—	4	2	307
24	Clothing and footwear	860	17	5	10	1	—	17	10	7	2	12	2	943
25	Wood, wood products, and furniture	778	47	17	36	6	6	24	37	26	44	35	18	1,074
26	Paper, paper products, printing, and publishing	754	14	9	12	8	11	16	18	10	11	14	4	881
27	Chemical, petroleum, and coal products	264	12	2	2	—	1	3	1	1	—	3	—	289
28	Non-metallic mineral products	205	26	14	25	6	13	26	26	13	9	25	4	392
29	Basic metal products	156	14	1	7	1	—	5	—	1	1	4	1	191
31	Fabricated metal products	915	43	9	22	7	9	18	14	13	7	24	5	1,086
32	Transport equipment	311	11	5	8	—	4	11	13	3	1	7	—	374
33	Other machinery and equipment	1,021	27	14	23	3	6	22	13	8	3	14	5	1,159
34	Miscellaneous manufacturing	663	18	2	10	2	3	8	6	5	6	5	2	730
Total		6,734	292	116	195	55	87	216	207	135	102	194	59	8,392
NUMBER OF PERSONS EMPLOYED (a)														
21	Food, beverages, and tobacco	35,457	1,355	2,019	1,332	289	641	2,670	3,397	1,861	515	1,290	624	51,450
23	Textiles	12,366	1,547	n.p.	254	n.p.	n.p.	489	355	n.p.	—	253	n.p.	17,358
24	Clothing and footwear	34,284	1,743	n.p.	793	n.p.	—	1,425	412	n.p.	n.p.	694	n.p.	41,240
25	Wood, wood products, and furniture	13,072	627	459	765	42	51	239	508	706	889	426	208	17,992
26	Paper, paper products, printing, and publishing	29,496	n.p.	168	452	99	165	407	387	371	152	n.p.	139	33,759
27	Chemical, petroleum, and coal products	18,293	1,666	n.p.	n.p.	—	n.p.	n.p.	n.p.	n.p.	—	n.p.	—	20,323
28	Non-metallic mineral products	8,225	1,179	73	576	63	90	288	194	150	40	260	43	11,181
29	Basic metal products	9,192	2,833	n.p.	726	n.p.	—	194	—	n.p.	n.p.	286	n.p.	13,379
31	Fabricated metal products	28,522	730	65	420	68	66	836	292	227	n.p.	716	n.p.	32,232
32	Transport equipment	47,475	n.p.	43	n.p.	—	58	837	315	14	n.p.	40	n.p.	54,383
33	Other machinery and equipment	41,748	919	224	733	n.p.	71	1,198	206	312	n.p.	317	33	45,906
34	Miscellaneous manufacturing	22,611	231	n.p.	141	n.p.	n.p.	n.p.	n.p.	31	n.p.	89	n.p.	23,815
Total		300,741	17,740	4,728	7,194	1,057	1,195	8,958	6,153	5,666	2,014	5,988	1,584	363,018

For footnotes see page 389.

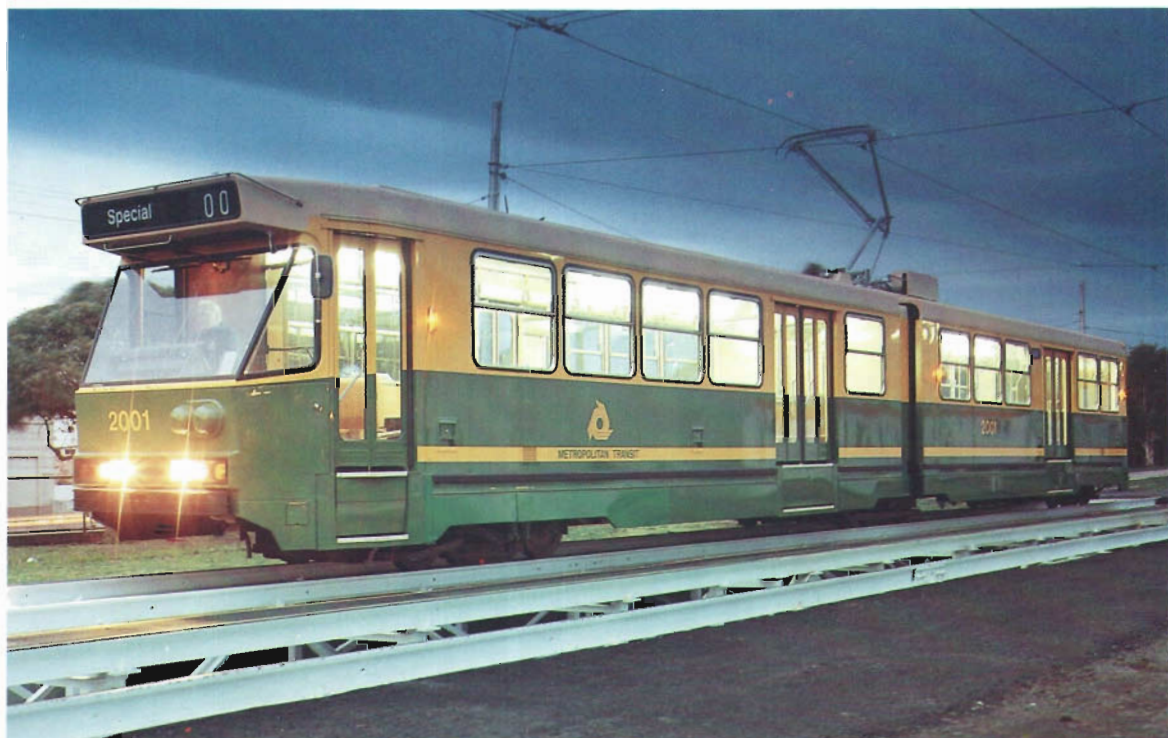


This articulated cable tram (No. 1) was typical of Melbourne's cable cars which operated from 1885 to 1940.

Metropolitan Transit Authority

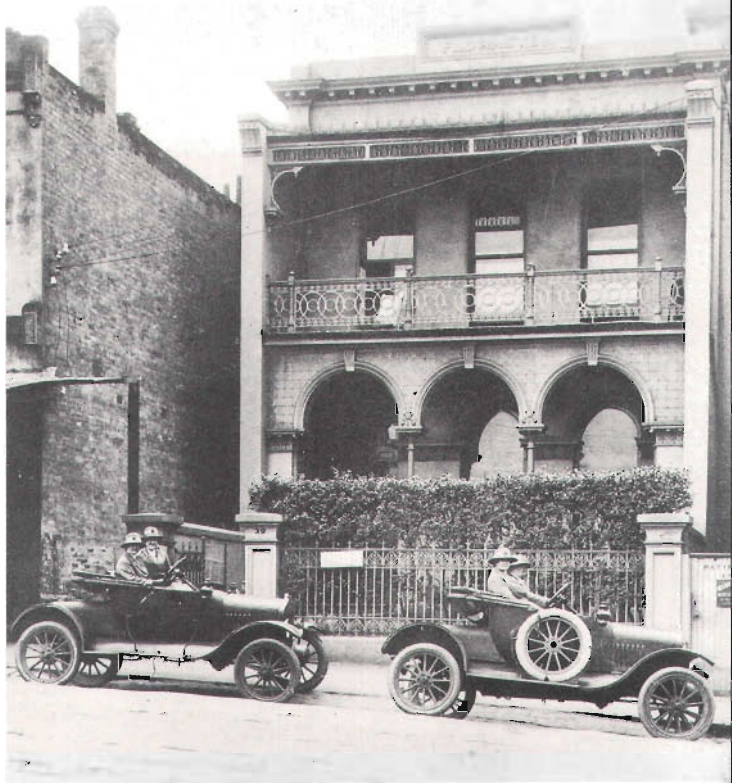
A modern articulated electric tram (No. 2001) undergoing trials in 1985, one hundred years after the establishment of cable trams in Melbourne.

Metropolitan Transit Authority



Part of the Royal District Nursing Service Car Fleet in 1920 outside the then headquarters in Victoria Parade, East Melbourne.

Royal District Nursing Service



(Above and right) An important aspect of the activities of the Royal District Nursing Service is assistance with rehabilitation and patient care at home.

Royal District Nursing Service



In the following table the number of persons employed in manufacturing establishments in Victoria is classified according to the nature of their employment at 30 June 1978 to 1983:

**MANUFACTURING ESTABLISHMENTS (c), TYPE OF EMPLOYMENT,
VICTORIA**

Year ended 30 June -	Working proprietors	Administrative, office, sales, and distribution employees	Production and all other employees	Total
1978	4,007	98,705	288,099	390,811
1979	4,019	98,859	294,468	397,346
1980	4,160	98,425	288,442	391,027
1981	3,744	97,885	290,172	391,801
1982	3,475	98,178	287,219	388,872
1983	2,869	89,517	257,293	349,679

For footnotes see page 389.

The following tables show the nature of employment in manufacturing establishments at 30 June 1982 and 1983, classified according to industry sub-division:

**MANUFACTURING ESTABLISHMENTS (c), TYPE OF EMPLOYMENT BY INDUSTRY
SUB-DIVISION, VICTORIA, AT 30 JUNE 1982**

ASIC code	Industry sub-division	Working proprietors	Administra- tive, office, sales, and distribution employees	Production and all other employees	Total
21	Food, beverages, and tobacco	602	13,537	37,696	51,835
23	Textiles	79	4,563	14,096	18,738
24	Clothing and footwear	502	5,501	37,533	43,536
25	Wood, wood products, and furniture	632	4,066	14,904	19,602
26	Paper, paper products, printing, and publishing	339	10,573	22,044	32,956
27	Chemical, petroleum, and coal products	34	7,805	12,433	20,272
28	Non-metallic mineral products	125	3,230	8,941	12,296
29	Basic metal products	29	5,305	9,341	14,675
31	Fabricated metal products	417	8,743	26,782	35,942
32	Transport equipment	131	13,138	46,954	60,223
33	Other machinery and equipment	352	15,096	36,788	52,236
34	Miscellaneous manufacturing	233	6,621	19,707	26,561
	Total	3,475	98,178	287,219	388,872

For footnotes see page 389.

Although 'production and all other employees' constitute 73.9 per cent of the total number employed in manufacturing establishments, the percentage varies from 86.2 per cent in sub-division 24 to 61.3 per cent in sub-division 27. Sub-division 27 also had the highest percentage of 'administrative, office, sales, and distribution employees', 38.5 per cent, compared with the Victorian average of 25.2 per cent.

Where small establishments predominate, there is usually a higher proportion of working proprietors than on the average and a smaller than average managerial and clerical staff. This was particularly evident in sub-division 25 where working proprietors comprised 3.2 per cent of the total number employed.

**MANUFACTURING ESTABLISHMENTS (c), TYPE OF EMPLOYMENT BY INDUSTRY
SUB-DIVISION, VICTORIA, AT 30 JUNE, 1983**

ASIC code	Industry sub-division	Working proprietors	Administra- tive, office, sales, and distribution employees	Production and all other employees	Total
21	Food, beverages, and tobacco	522	12,886	35,459	48,867
23	Textiles	55	4,156	12,939	17,150
24	Clothing and footwear	407	5,304	35,176	40,887

MANUFACTURING ESTABLISHMENTS (c), TYPE OF EMPLOYMENT BY INDUSTRY SUB-DIVISION,
VICTORIA, AT 30 JUNE 83 - continued

ASIC code	Industry sub-division	Working proprietors	Administrative, office, sales, and distribution employees	Production and all other employees	Total
25	Wood, wood products, and furniture	529	3,631	13,583	17,743
26	Paper, paper products, printing, and publishing	294	11,261	21,780	33,335
27	Chemical, petroleum, and coal products	26	7,560	12,575	20,160
28	Non-metallic mineral products	99	2,760	7,943	10,802
29	Basic metal products	34	4,507	8,193	12,734
31	Fabricated metal products	311	7,531	22,770	30,612
32	Transport equipment	125	12,185	39,058	51,368
33	Other machinery and equipment	285	12,209	31,018	43,512
34	Miscellaneous manufacturing	182	5,527	16,800	22,509
	Total	2,869	89,517	257,293	349,679

For footnotes see page 389.

Although 'production and all other employees' constituted 73.6 per cent of the total number employed in manufacturing establishments, the percentage varies from 86.0 per cent in sub-division 24 to 62.4 per cent in sub-division 27. Sub-division 27 also had the highest percentage of 'administrative, office, sales, and distribution employees', 37.5 per cent, compared with the Victorian average of 25.6 per cent.

Where small establishments predominate, there is usually a higher proportion of working proprietors than on the average and a smaller than average managerial and clerical staff. This was particularly evident in sub-division 25 where working proprietors comprised 3.0 per cent of the total number employed.

The numbers of males and females employed in manufacturing establishments, and the proportions of the average male and female population per 10,000 working in these establishments in 1982-83 and earlier years are shown in the following table:

MANUFACTURING ESTABLISHMENTS, EMPLOYMENT (a) OF MALES AND FEMALES,
VICTORIA

Year	Males		Females		Total	
	Number	Average per 10,000 of male population	Number	Average per 10,000 of female population	Number	Average per 10,000 of total population
1977-78 (g)	280,498	1,460	115,874	600	396,372	1,029
1978-79 (g)	279,315	1,454	115,649	598	394,964	1,025
1979-80 (g)	281,959	1,455	115,354	592	397,313	1,022
1980-81 (g)	277,744	1,424	113,745	575	391,489	996
1981-82 (g)	278,908	1,416	113,829	569	392,737	989
1982-83 (g)	257,870	1,294	105,148	520	363,018	904

For footnotes see page 389.

Female workers in manufacturing establishments at 30 June 1982 and 1983 were 29.0 per cent of the total number employed. Females exceeded males in the clothing and footwear sub-division (24) where they accounted for 75.4 per cent of the sub-division total in 1982 and 75.1 per cent in 1983.

In sub-division 29, Basic metal products, the proportion of females to total persons employed is at its lowest, 10.8 per cent in 1982, compared with 11.0 per cent in 1983.

MANUFACTURING ESTABLISHMENTS (c), EMPLOYMENT, VICTORIA

ASIC code	Industry sub-division	Number at 30 June -					
		1978	1979	1980	1981	1982	1983
		MALES					
21	Food, beverages, and tobacco	39,929	37,907	37,727	37,737	36,944	34,875
23	Textiles	11,083	11,139	11,852	11,919	11,326	10,537
24	Clothing and footwear	11,221	11,053	10,741	10,777	10,752	10,335
25	Wood, wood products, and furniture	16,023	15,682	16,431	16,655	16,407	14,981

MANUFACTURING ESTABLISHMENTS (c), EMPLOYMENT, VICTORIA – *continued*

ASIC code	Industry sub-division	Number at 30 June –					
		1978	1979	1980	1981	1982	1983
MALES — <i>continued</i>							
26	Paper, paper products, printing, and publishing	23,418	23,417	24,526	24,408	23,795	24,014
27	Chemical, petroleum, and coal products	15,959	16,369	15,004	15,289	15,562	15,501
28	Non-metallic mineral products	10,959	11,073	10,852	10,582	10,566	9,364
29	Basic metal products	11,027	11,824	12,423	12,942	13,084	11,289
31	Fabricated metal products	27,981	28,303	29,242	29,578	29,317	24,962
32	Transport equipment	49,565	53,835	48,689	48,604	50,396	43,150
33	Other machinery and equipment	40,889	41,658	41,415	40,945	39,756	32,923
34	Miscellaneous manufacturing	18,544	18,910	19,068	18,581	18,625	15,698
Total		276,598	281,170	277,970	278,017	276,530	247,629
FEMALES							
21	Food, beverages, and tobacco	14,983	14,733	14,403	15,190	14,891	13,992
23	Textiles	8,223	7,948	7,949	7,824	7,412	6,613
24	Clothing and footwear	33,758	34,084	33,609	33,200	32,784	30,552
25	Wood, wood products, and furniture	2,908	2,882	2,905	3,038	3,195	2,762
26	Paper, paper products, printing, and publishing	8,379	8,328	9,061	9,141	9,161	9,321
27	Chemical, petroleum, and coal products	5,322	5,445	4,782	4,717	4,710	4,659
28	Non-metallic mineral products	1,788	1,920	1,858	1,865	1,730	1,438
29	Basic metal products	1,253	1,342	1,450	1,508	1,591	1,445
31	Fabricated metal products	6,960	6,916	6,939	7,034	6,625	5,650
32	Transport equipment	8,983	10,173	8,594	9,221	9,827	8,218
33	Other machinery and equipment	13,342	13,749	13,120	12,722	12,480	10,589
34	Miscellaneous manufacturing	8,314	8,656	8,387	8,324	7,936	6,811
Total		114,213	116,176	113,057	113,784	112,342	102,050

For footnotes see page 389.

Wages and salaries

The following tables give details of wages and salaries paid in the various classes of industry in Victoria in 1981-82 and 1982-83. Amounts paid to 'administrative, office, sales, and distribution employees' are shown separately from those paid to 'production and all other workers'. It should be noted that in all tables of salaries and wages paid the amounts drawn by working proprietors are excluded.

MANUFACTURING ESTABLISHMENTS (c), WAGES AND SALARIES PAID,
VICTORIA, 1981-82
(\$m)

ASIC code	Industry sub-division	Paid to –		
		Administrative, office, sales, and distribution employees	Production and all other workers	All employees
21	Food, beverages, and tobacco	239	558	797
23	Textiles	87	183	270
24	Clothing and footwear	83	408	491
25	Wood, wood products, and furniture	56	183	239
26	Paper, paper products, printing, and publishing	175	346	521
27	Chemical, petroleum, and coal products	150	206	356
28	Non-metallic mineral products	64	151	215
29	Basic metal products	108	159	267
31	Fabricated metal products	140	374	515
32	Transport equipment	257	654	911
33	Other machinery and equipment	263	516	779
34	Miscellaneous manufacturing	112	283	395
Total		1,735	4,021	5,757

For footnotes see page 389.

Of the total amount of wages and salaries paid in Victoria in 1981-82—\$5,757m—the metal fabricating sub-divisions (29-33) (including transport equipment, machinery, and other equipment), were responsible for \$2,472m or 42.9 per cent; Food, beverages, and tobacco, \$797m or 13.8 per cent; Clothing and footwear, \$491m or 8.5 per cent; and Paper, paper products, printing, and publishing, \$521m or 9.1 per cent.

**MANUFACTURING ESTABLISHMENTS (c), WAGES AND SALARIES PAID,
VICTORIA, 1982-83
(\$m)**

ASIC code	Industry sub-division	Paid to -		
		Administrative, office, sales, and distribution employees	Production and all other workers	All employees
21	Food, beverages, and tobacco	245	619	863
23	Textiles	93	185	277
24	Clothing and footwear	85	424	509
25	Wood, wood products, and furniture	55	185	241
26	Paper, paper products, printing, and publishing	195	378	573
27	Chemical, petroleum, and coal products	164	233	397
28	Non-metallic mineral products	59	149	209
29	Basic metal products	109	158	267
31	Fabricated metal products	143	366	509
32	Transport equipment	279	689	968
33	Other machinery and equipment	249	519	768
34	Miscellaneous manufacturing	108	260	368
Total		1,785	4,165	5,950

For footnotes see page 389.

Of the total amount of wages and salaries paid in Victoria in 1982-83—\$5,950m—the metal products sub-divisions (29-33) (including transport equipment, machinery, and other equipment), were responsible for \$2,512m or 42.2 per cent; Food, beverages, and tobacco, \$863m or 14.5 per cent; Clothing and footwear, \$509m or 8.6 per cent; and Paper, paper products, printing, and publishing, \$573m or 9.6 per cent.

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by an 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, the value of capital work done on own account, and from 1978-79, rents and leasing revenue. Interest, royalties, and receipts from the sale of fixed tangible assets are excluded.

**MANUFACTURING ESTABLISHMENTS (c), TURNOVER BY INDUSTRY
SUB-DIVISION (e), VICTORIA
(\$m)**

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages, and tobacco	3,477	3,901	4,435	5,029	5,452	5,959
23	Textiles	710	827	930	1,020	1,107	1,087
24	Clothing and footwear	1,073	1,208	1,355	1,524	1,647	1,717
25	Wood, wood products, and furniture	618	661	750	871	1,016	1,014
26	Paper, paper products, printing, and publishing	1,165	1,314	1,539	1,788	2,066	2,262
27	Chemical, petroleum, and coal products	1,216	1,458	1,750	2,121	2,365	2,451
28	Non-metallic mineral products	586	635	703	787	902	884
29	Basic metal products	773	953	1,318	1,519	1,809	1,721
31	Fabricated metal products	1,196	1,360	1,599	1,797	2,043	1,953
32	Transport equipment	2,444	2,656	3,034	3,077	3,825	4,014

**MANUFACTURING ESTABLISHMENTS (c), TURNOVER BY INDUSTRY
SUB-DIVISION (e), VICTORIA —continued**
(\$m)

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
33	Other machinery and equipment	1,901	2,078	2,419	2,751	3,196	2,987
34	Miscellaneous manufacturing	1,032	1,177	1,402	1,573	1,780	1,701
	Total	16,191	18,228	21,233	23,856	27,208	27,747

For footnotes see page 389.

Purchases, transfers in, and selected items of expense

In the following table the figures include purchases of materials, fuel, 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 from 1978-79, rent, leasing, and hiring expenses:

**MANUFACTURING ESTABLISHMENTS (c), PURCHASES, TRANSFERS IN, AND
SELECTED ITEMS OF EXPENSE BY INDUSTRY SUB-DIVISION, VICTORIA**
(\$m)

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages and tobacco	2,339	2,707	3,173	3,549	3,801	4,145
23	Textiles	420	511	582	623	682	658
24	Clothing and footwear	551	653	730	805	878	894
25	Wood, wood products, and furniture	335	371	432	492	584	571
26	Paper, paper products, printing, and publishing	604	703	826	962	1,106	1,213
27	Chemical, petroleum and coal products	723	881	1,128	1,338	1,468	1,518
28	Non-metallic mineral products	299	322	362	414	482	470
29	Basic metal products	486	677	943	1,109	1,319	1,258
31	Fabricated metal products	640	739	912	1,005	1,161	1,076
32	Transport equipment	1,510	1,689	2,037	1,989	2,614	2,601
33	Other machinery and equipment	1,008	1,160	1,363	1,574	1,824	1,618
34	Miscellaneous manufacturing	561	697	864	955	1,112	1,037
	Total	9,475	11,109	13,353	14,814	17,031	17,060

For footnotes see page 389.

Stocks

The figures in the following table includes all stocks of materials, fuels, etc., finished goods and work-in-progress whether located at the establishment or elsewhere. It should be noted that due to reporting differences on individual returns and variations in the number of establishments from year to year, the closing stocks in one year may differ from the opening stocks in the following year.

**MANUFACTURING ESTABLISHMENTS (c), STOCKS
BY INDUSTRY SUB-DIVISION, VICTORIA**
(\$m)

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
	OPENING STOCKS						
21	Food, beverages, and tobacco	407	482	515	579	641	646
23	Textiles	141	150	162	183	186	204
24	Clothing and footwear	169	186	217	245	265	289
25	Wood, wood products, and furniture	82	84	94	112	127	140
26	Paper, paper products printing, and publishing	145	166	187	225	263	291
27	Chemical, petroleum and coal products	202	239	254	320	369	404
28	Non-metallic mineral products	73	89	83	101	104	121
29	Basic metal products	152	139	163	183	263	293
31	Fabricated metal products	215	222	254	306	330	364
32	Transport equipment	462	514	537	659	640	674
33	Other machinery and equipment	472	509	550	653	742	781
34	Miscellaneous manufacturing	176	178	200	241	270	274
	Total	2,695	2,959	3,216	3,809	4,200	4,480

**MANUFACTURING ESTABLISHMENTS (c), STOCKS
BY INDUSTRY SUB-DIVISION, VICTORIA —continued
(\$m)**

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
CLOSING STOCKS							
21	Food, beverages, and tobacco	464	497	596	652	655	722
23	Textiles	144	158	181	187	206	195
24	Clothing and footwear	187	219	241	266	295	287
25	Wood, wood products, and furniture	85	89	107	121	143	140
26	Paper, paper products, printing, and publishing	160	185	222	269	312	291
27	Chemical, petroleum, and coal products	232	257	325	368	411	425
28	Non-metallic mineral products	91	81	93	106	121	132
29	Basic metal products	139	160	207	261	290	275
31	Fabricated metal products	226	236	307	333	371	320
32	Transport equipment	478	555	664	649	705	665
33	Other machinery and equipment	512	578	654	731	799	737
34	Miscellaneous manufacturing	178	200	243	265	291	253
Total		2,896	3,217	3,840	4,207	4,601	4,442

For footnotes see page 389.

Value added

Statistics on value added in the following table have been calculated by adding to turnover the increase (or deducting the decrease) in value of stocks and deducting the value of purchases and selected items of expense:

**MANUFACTURING ESTABLISHMENTS (c), VALUE
ADDED BY INDUSTRY SUB-DIVISION, VICTORIA
(\$m)**

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages, and tobacco	1,195	1,208	1,342	1,553	1,666	1,890
23	Textiles	293	324	367	401	445	420
24	Clothing and footwear	540	588	650	740	800	821
25	Wood, wood products, and furniture	285	296	331	388	447	443
26	Paper, paper products, printing, and publishing	576	630	748	870	1,009	1,049
27	Chemical, petroleum, and coal products	523	595	693	830	940	953
28	Non-metallic mineral products	305	306	351	377	438	425
29	Basic metal products	275	297	419	487	516	445
31	Fabricated metal products	567	635	740	819	924	833
32	Transport equipment	950	1,008	1,124	1,078	1,276	1,403
33	Other machinery and equipment	933	987	1,160	1,255	1,429	1,324
34	Miscellaneous manufacturing	474	502	580	641	690	643
Total		6,916	7,377	8,505	9,440	10,578	10,649

For footnotes see page 389.

Relation of costs to turnover

Certain costs of production, the value of turnover, movement in stocks, and the balance available for profit, interest, taxation, depreciation, etc., in each sub-division of manufacturing industry during 1981-82 and 1982-83 are given in the following tables:

**MANUFACTURING ESTABLISHMENTS (c), COSTS AND TURNOVER, VICTORIA
(\$m)**

ASIC code	Industry sub-division	Turnover	Movement in stocks	Cost of —		Balance between turnover, stocks, and costs (a)
				Purchases and selected items of expense	Wages and salaries	
1981-82						
21	Food, beverages, and tobacco	5,452	+ 14	3,801	797	868
23	Textiles	1,107	+ 20	682	270	175
24	Clothing and footwear	1,647	+ 30	878	491	308
25	Wood, wood products, and furniture	1,015	+ 16	584	239	208
26	Paper, paper products, printing, and publishing	2,066	+ 49	1,106	521	488
27	Chemical, petroleum, and coal products	2,365	+ 42	1,468	356	583
28	Non-metallic mineral products	902	+ 17	482	215	222

MANUFACTURING ESTABLISHMENTS (c), COSTS AND TURNOVER, VICTORIA — continued
(\$m)

ASIC code	Industry sub-division	Turnover	Movement in stocks	Cost of—		Balance between turnover, stocks, and costs (a)
				Purchases and selected items of expense	Wages and salaries	
29	Basic metal products	1,809	+ 27	1,319	267	250
31	Fabricated metal products	2,043	+ 41	1,161	515	408
32	Transport equipment	3,825	+ 65	2,614	911	365
33	Other machinery and equipment	3,196	+ 57	1,824	779	650
34	Miscellaneous manufacturing	1,780	+ 22	1,112	395	295
	Total	27,208	+401	17,031	5,757	4,822
1982-83						
21	Food, beverages, and tobacco	5,959	+ 76	4,145	863	1,026
23	Textiles	1,087	— 8	658	277	143
24	Clothing and footwear	1,717	— 2	894	509	312
25	Wood, wood products, and furniture	1,014	—	572	241	202
26	Paper, paper products, printing, and publishing	2,262	—	1,213	573	475
27	Chemical, petroleum and coal products	2,451	+ 21	1,518	397	557
28	Non-metallic mineral products	884	+ 11	470	209	216
29	Basic metal products	1,721	— 18	1,258	267	178
31	Fabricated metal products	1,953	— 43	1,076	509	325
32	Transport equipment	4,014	— 10	2,601	968	435
33	Other machinery and equipment	2,987	— 44	1,618	768	556
34	Miscellaneous manufacturing	1,701	— 21	1,037	368	274
	Total	27,747	— 38	17,060	5,950	4,700

(a) Balance available to provide for all other costs and overhead expenses such as interest, insurance, pay roll tax, income tax, depreciation, etc., as well as drawings by working proprietors and profit.

For other footnote see page 389.

MANUFACTURING ESTABLISHMENTS (c), PERCENTAGE OF SPECIFIED COSTS TO TURNOVER, VICTORIA, 1981-82
(per cent)

ASIC code	Industry sub-division	Turnover	Movement in stocks	Cost of—		Balance between turnover, stocks, and costs (a)
				Purchases and selected items of expense	Wages and salaries	
21	Food, beverages, and tobacco	100.0	0.3	69.7	14.6	15.9
23	Textiles	100.0	1.8	61.6	24.4	15.8
24	Clothing and footwear	100.0	1.8	53.3	29.9	18.7
25	Wood, wood products, and furniture	100.0	1.5	57.5	23.5	20.5
26	Paper, paper products, printing, and publishing	100.0	2.4	53.5	25.2	23.6
27	Chemical, petroleum, and coal products	100.0	1.8	62.1	15.1	24.7
28	Non-metallic mineral products	100.0	1.9	53.4	23.8	24.7
29	Basic metal products	100.0	1.5	72.9	14.8	13.8
32	Fabricated metal products	100.0	2.0	56.8	25.2	20.0
32	Transport equipment	100.0	1.7	68.4	23.8	9.5
33	Other machinery and equipment	100.0	1.8	57.1	24.4	20.3
34	Miscellaneous manufacturing	100.0	1.2	62.5	22.2	16.5
	Total	100.0	1.5	62.6	21.2	17.7

(a) Balance available to provide for all other costs, such as rent (prior to 1978-79), interest, insurance, pay roll tax, income tax, depreciation, etc., as well as drawings by working proprietors and profit.

For other footnote see page 389.

There are considerable variations in the proportions which purchases and selected items of expenditure, and wages and salaries, bear to the turnover in the different sub-divisions. These are due to the differences in the treatment required to convert materials to their final form. Thus in sub-division 24 the sum paid in wages represents 29.9 per cent and the purchases and selected items of expense 53.3 per cent of the values of the finished articles, while in sub-division 21 the expenditure on wages amounts to 14.6 per cent and that on purchases, etc., to 69.7 per cent of the value of turnover.

**MANUFACTURING ESTABLISHMENTS (c), PERCENTAGE OF SPECIFIED COSTS TO
TURNOVER, VICTORIA, 1982-83**
(per cent)

ASIC code	Industry sub-division	Turnover	Movement in stocks	Cost of—		Balance between turnover, stocks, and costs (a)
				Purchases and selected items of expense	Wages and salaries	
21	Food, beverages, and tobacco	100.0	1.3	69.6	14.5	17.2
23	Textiles	100.0	-1.8	60.6	25.5	13.2
24	Clothing and footwear	100.0	-0.1	52.1	29.7	18.2
25	Wood, wood products, and furniture	100.0	—	56.4	23.7	19.9
26	Paper, paper products, printing, and publishing	100.0	—	53.6	25.3	21.0
27	Chemical, petroleum, and coal products	100.0	0.9	62.0	16.2	22.7
28	Non-metallic mineral products	100.0	1.3	53.2	23.6	24.5
29	Basic metal products	100.0	-1.0	73.1	15.5	10.3
31	Fabricated metal products	100.0	-2.2	55.1	26.0	16.6
32	Transport equipment	100.0	-0.2	64.8	24.1	10.8
33	Other machinery and equipment	100.0	-1.5	54.2	25.7	18.6
34	Miscellaneous manufacturing	100.0	-1.2	61.0	21.7	16.1
Total		100.0	-0.1	61.5	21.4	16.9

(a) Balance available to provide for all other costs, such as rent (prior to 1978-79), interest, insurance, pay roll tax, income tax, depreciation, etc., as well as drawings by working proprietors and profit.
For other footnote see page 389.

In sub-division 24 the sum paid in wages represents 29.7 per cent and the purchases and selected items of expense 52.1 per cent of the values of the finished articles, while in sub-division 21 the expenditure on wages amounts to 14.5 per cent and that on purchases, etc., to 69.6 per cent of the value of turnover.

In the following table specified costs of production, the value of turnover of manufacturing establishments, and the balance available for profit and miscellaneous expenses are compared for each of the years 1977-78 to 1982-83:

**MANUFACTURING ESTABLISHMENTS (c), SPECIFIED COSTS OF
PRODUCTION, ETC., AND TURNOVER, VICTORIA**
(\$m)

Year	Turnover	Movement in stocks	Cost of—		Balance between turnover, stocks and costs (a)
			Purchases and selected items of expense	Wages and salaries	
1977-78	16,191	+201	9,475	3,829	3,088
1978-79	18,228	+258	11,109	4,102	3,275
1979-80	21,233	+624	13,353	4,563	3,941
1980-81	23,856	+399	14,814	5,032	4,409
1981-82	27,208	+401	17,031	5,757	4,822
1982-83	27,747	-38	17,060	5,950	4,700

(a) Balance available to provide for all other costs and overhead expenses such as interest, insurance, pay roll tax, income tax, depreciation, etc., as well as drawings by working proprietors and profit.
For other footnote see page 389.

In the following table the components of cost are converted to their respective percentages of the value of turnover:

**MANUFACTURING ESTABLISHMENTS (c), PERCENTAGE OF SPECIFIED
COST OF PRODUCTION, ETC., TO TURNOVER, VICTORIA
(per cent)**

Year	Turnover	Movement in stocks	Cost of -		Balance between turnover, stocks and costs (a)
			Purchases and selected items of expense	Wages and salaries	
1977-78	100.0	1.2	58.5	23.6	19.1
1978-79	100.0	1.4	60.9	22.5	18.0
1979-80	100.0	2.9	62.9	21.5	18.6
1980-81	100.0	1.7	62.1	21.1	18.5
1981-82	100.0	1.5	62.6	21.2	17.7
1982-83	100.0	-0.1	61.5	21.4	16.9

(a) Balance available to provide for all other costs and overhead expenses such as interest, insurance, pay roll tax, income tax, depreciation, etc., as well as drawings by working proprietors and profit.
For other footnote see page 389.

Fixed capital expenditure, and rent, leasing, and hiring expenses

Fixed capital expenditure is the outlay on new and second-hand fixed tangible assets less disposals. Rent, leasing, and hiring expenses are the amounts paid for renting, leasing, and hiring of premises, vehicles, and equipment.

**MANUFACTURING ESTABLISHMENTS (c), FIXED CAPITAL EXPENDITURE LESS
DISPOSALS AND RENT, LEASING, AND HIRING EXPENSES, VICTORIA
(\$'000)**

ASIC code	Industry sub-division	Fixed capital expenditure less disposals			Rent, leasing, and hiring expenses
		Land, buildings, and other structures	Vehicles, plant, machinery, and equipment	Total	
1981-82					
21	Food, beverages, and tobacco	35,226	115,451	150,677	49,105
23	Textiles	3,734	27,670	31,404	22,016
24	Clothing and footwear	3,095	18,927	22,023	26,251
25	Wood, wood products, and furniture	6,597	15,044	21,641	25,198
26	Paper, paper products, printing, and publishing	4,431	116,396	120,827	39,875
27	Chemical, petroleum, and coal products	10,134	86,620	96,755	16,053
28	Non-metallic mineral products	3,510	28,859	32,368	6,749
29	Basic metal products	65,024	125,014	190,038	9,969
31	Fabricated metal products	7,804	39,794	47,598	31,951
32	Transport equipment	44,024	151,529	195,553	42,646
33	Other machinery and equipment	15,842	63,897	79,739	45,262
34	Miscellaneous manufacturing	7,299	49,689	56,988	30,968
Total		206,719	838,892	1,045,611	346,041
1982-83					
21	Food, beverages, and tobacco	30,144	104,990	135,133	53,395
23	Textiles	496	27,093	27,589	24,060
24	Clothing and footwear	1,628	19,493	21,121	29,506
25	Wood, wood products, and furniture	3,316	11,336	14,652	26,982
26	Paper, paper products, printing, and publishing	7,055	74,529	81,584	45,275
27	Chemical, petroleum, and coal products	17,890	92,615	110,506	21,412
28	Non-metallic mineral products	-595	23,854	23,260	7,097
29	Basic metal products	80,026	119,404	199,431	11,064
31	Fabricated metal products	4,800	36,147	40,948	30,829
32	Transport equipment	31,546	180,352	211,898	32,752
33	Other machinery and equipment	7,736	64,737	72,474	49,522
34	Miscellaneous manufacturing	4,219	55,441	59,660	35,604
Total		188,262	809,993	998,255	367,499

For footnote see page 389.

**MANUFACTURING ESTABLISHMENTS (c), FIXED CAPITAL EXPENDITURE LESS
DISPOSALS, VICTORIA
(\$'000)**

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages, and tobacco	91,453	120,962	130,116	137,907	150,677	135,133
23	Textiles	11,576	15,667	19,338	10,966	31,404	27,589
24	Clothing and footwear	11,148	13,393	14,900	19,653	22,023	21,121
25	Wood, wood products, and furniture	9,169	16,970	13,164	16,340	21,641	14,652
26	Paper, paper products, printing, and publishing	60,106	62,933	56,259	59,278	120,827	81,584
27	Chemical, petroleum, and coal products	161,264	159,475	117,646	105,263	96,755	110,506
28	Non-metallic mineral products	26,724	25,657	46,833	59,364	32,368	23,260
29	Basic metal products	55,970	46,125	61,106	114,585	190,038	199,431
31	Fabricated metal products	27,685	32,505	35,231	33,762	47,598	40,948
32	Transport equipment	120,689	154,718	143,567	46,962	195,553	211,898
33	Other machinery and equipment	43,392	59,760	62,820	65,282	79,739	72,474
34	Miscellaneous manufacturing	31,974	34,327	33,760	42,712	56,988	59,660
Total		651,151	742,492	734,738	712,074	1,045,611	998,255

For footnote see page 389.

Electricity and fuels used

**MANUFACTURING ESTABLISHMENTS (c), VALUE OF ELECTRICITY AND FUELS USED
BY INDUSTRY SUB-DIVISION, VICTORIA
(\$'000)**

ASIC code	Industry sub-division	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
21	Food, beverages, and tobacco	44,530	49,925	57,767	67,754	73,732	85,746
23	Textiles	11,521	13,563	15,347	16,395	18,973	22,557
24	Clothing and footwear	5,925	7,161	8,530	9,523	11,172	13,086
25	Wood, wood products, and furniture	6,318	7,376	9,126	10,592	13,062	13,962
26	Paper, paper products, printing, and publishing	13,754	16,947	20,020	23,524	26,924	41,135
27	Chemical, petroleum, and coal products	29,822	35,060	41,538	46,366	58,609	75,721
28	Non-metallic mineral products	23,555	24,577	27,154	31,868	37,274	42,379
29	Basic metal products	25,816	35,086	40,067	49,891	73,435	84,770
31	Fabricated metal products	12,667	14,965	18,877	19,606	23,950	25,044
32	Transport equipment	18,258	22,384	26,815	28,317	33,221	32,355
33	Other machinery and equipment	15,196	17,595	20,224	23,638	27,014	29,475
34	Miscellaneous manufacturing	14,594	17,682	20,560	23,492	26,914	29,127
Total		221,955	262,321	306,027	350,967	424,283	495,357

For footnote see page 389.

**MANUFACTURING ESTABLISHMENTS (c), VALUE OF ELECTRICITY AND FUELS USED
BY COMMODITY, VICTORIA
(\$'000)**

Commodity	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Electricity	131,909	158,654	183,317	215,366	274,257	309,852
Coal and coke—						
Black coal	31	30	58	26	n.p.	73
Brown coal	1,382	1,884	1,893	2,312	n.p.	n.p.
Brown coal briquettes	3,931	4,716	5,067	5,736	5,904	n.p.
Coke (including coke breeze)	3,137	3,882	4,298	4,555	3,728	1,818
Petroleum fuels (non-gaseous)—						
Light oils, etc.	5,921	5,741	7,063	7,497	8,161	8,301
Industrial diesel fuel	6,486	6,570	8,412	9,892	6,980	5,863
Furnace oil and other fuel oil	17,169	18,812	24,393	21,923	19,235	16,313
Reticulated gas	42,240	50,634	57,422	69,734	89,149	122,073
Other fuels	9,748	11,397	14,105	13,925	14,629	n.p.
Total	221,955	262,321	306,027	350,967	424,283	495,357

For footnote see page 389.

MANUFACTURING ESTABLISHMENTS (c), QUANTITIES OF FUELS USED BY COMMODITY, VICTORIA

Fuel	Unit	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
Coal and coke—							
Black coal	tonne	693	658	859	458	n.p.	1,322
Brown coal	"	310,475	426,639	399,197	336,058	n.p.	n.p.
Brown coal briquettes	"	279,249	285,135	274,199	291,236	265,203	n.p.
Coke (including coke breeze)	"	35,264	37,816	36,546	35,811	27,083	10,936
Petroleum fuels (non-gaseous)—							
Light oils, etc.	'000 litres	40,902	33,795	33,012	26,988	25,309	21,457
Industrial diesel fuel	tonne	71,795	54,626	40,956	38,308	21,831	14,749
Furnace oil and other fuel oil	"	232,865	221,094	181,673	112,320	83,862	63,699

For footnote see page 389.

Selected factory products of Victoria and Australia

Annual quantity and value

From February 1976, production statistics have no longer been collected from single establishment manufacturing enterprises employing less than four persons or from establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing activity. However, except for a few commodities, the effect of this modification on production levels and movements is marginal.

The following table shows quantities of some selected articles manufactured in Victoria, and corresponding figures for Australia during 1982-83 and 1983-84. Owing to the limited number of producers, it is not permissible under statute to publish particulars regarding some articles of manufacture which would otherwise appear.

SELECTED ARTICLES MANUFACTURED (a)

Commodity code no.	Article	Unit	Victoria		Australia	
			1982-83	1983-84	1982-83	1983-84
027.02-29, 72-77; 023.17	Meat-canned (excluding baby food)	'000 tonnes	12	12	29	29
051.56-59	Ice cream	mill. litres	75	65	208	197
062.01	Flour, white (including sharps)	'000 tonnes	228	218	1,048	1,091
063.15	Malt	"	233	200	545	482
064.21	Biscuits	"	51	53	126	129
074.61, 65	Natural fruit juices	mill. litres	39	37	150	133
076.60	Jam etc.	'000 tonnes	20	19	29	30
094.02-47	Vegetables canned or bottled (including pickled)	"	33	37	122	141
	Confectionery—					
104.06-18	Chocolate or containing chocolate	"	33	36	63	69
104.21-29	Other	"	36	39	58	61
123.18	Sauce-tomato	mill. litres	n.p.	20	22	30
159.01	Canned cat and dog food	'000 tonnes	170	n.p.	190	199
171.03, 07, 08	Aerated and carbonated waters, canned or bottled (b)	mill. litres	273	251	1,013	986
261.41	Briquettes-brown coal	'000 tonnes	760	746	760	746
385.09, 11, 13, 15, 29, 31	Finished woven fabric-woollen (c)	'000 sq.m	3,742	4,088	7,381	7,041
389.09-12	Wool-scoured or carbonised	'000 tonnes	28	36	72	89
403.22, 52-96	Plastics and synthetic resins	'000 tonnes	459	529	720	820
404.01-98						
471.91, 93	Bricks-clay	mill.	359	401	1,655	1,773
472.15, 475.32	Tiles, roofing	'000 sq.m	3,959	4,947	15,127	18,385
475.90	Ready mixed concrete	'000 cub. m	2,280	2,541	10,885	11,523
503.13-32	Electric motors	'000	1,063	953	2,543	2,669
581.02-08, 10-16	Finished motor vehicles (d)— Cars and station wagons	'000	193	218	335	342

SELECTED ARTICLES MANUFACTURED (a) — continued

Commodity code no.	Article	Unit	Victoria		Australia	
			1982-83	1983-84	1982-83	1983-84
775.01-39	Women's hosiery	'000 doz.				
		pairs				
775.51-82	Men's hosiery	"	5,836	7,039	7,454	8,818
775.91-98;	Children's hosiery	"	1,613	1,620	2,071	2,133
776.11-22			1,065	1,117	1,072	1,127
776.31-42	Infants' hosiery	"	101	117	101	117
	Footwear—boots, shoes, and sandals (e)—					
793.05.08,	Men's and youths'	'000 pairs	6,499	6,762	9,837	10,838
21, 22, 31,						
32, 41, 46,						
51, 61, 65						
66, 71, 81						
793.06, 09, 23,	Women's and maids'	"	12,238	13,870	15,393	17,280
24, 33, 34,						
42, 47, 52,						
62, 67, 68,						
72, 82						
793.04, 07, 10,	Children's and infants'	"	4,536	4,653	5,450	5,747
25, 35, 43,						
48, 53, 63,						
69, 73, 83						

(a) By all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed.

(b) Excludes bulk aerated and carbonated waters.

(c) Excludes blanketing and rug material.

(d) Excludes vehicles finished by specialist body building works outside the motor vehicle manufacturers' organisation.

(e) Excludes thongs and adults' boots with uppers of rubber or synthetic material.

Monthly production statistics

The Australian Bureau of Statistics collects monthly production returns and makes available printed tables of Australian production statistics within a few weeks of the month to which they relate. A list of the subjects included in these production bulletins is given in the following table:

PRODUCTION BULLETINS

No.	Subject	No.	Subject
1	Electrical Appliances, Australia (8357.0)	5	Building Materials and Fittings, Australia (8361.0)
2	Clothing and Footwear, Australia (8358.0)	6	Chemicals and By-products, Australia (8362.0)
3	Food, Drink and Tobacco, Australia (8359.0)	7	Motor Vehicles, Parts and Accessories, Australia (8363.0)
4	Textiles, Bedding, and Floor Coverings, Australia (8360.0)	8	Miscellaneous Products, Australia (8364.0)

A preliminary production bulletin showing Australian totals for selected major production indicators is also published. In addition, statistical publications for the meat and dairying industries are issued each month. Selected Victorian production figures are published in the *Monthly Summary of Statistics, Victoria* (1303.2).

Further references: History of manufacturing, *Victorian Year Book* 1961, pp.531-5; Motor vehicle industry, 1962, pp. 591-4; Chemical industry, 1963, pp. 615-20; Petrochemical industry, 1964, pp. 650-4; Glass industry, 1965, pp. 606-8; Agricultural machinery industry, 1966, pp. 587-9; Aluminium industry, 1967, pp. 415-18; Automation and technical development in industry, 1967, pp. 376-82; Textile industry, 1968, pp. 416-20; Canning of foodstuffs, 1967, pp. 432-5; Butter, cheese and processed milk products, 1970, pp. 431-6; Heavy engineering, 1971, pp. 419-22; Light engineering, 1972, pp. 392-5; Secondary industry and the environment, 1974, pp. 418-21; Concrete pipe industry, 1975, pp. 500-1; Paper industry, 1976, pp. 466-8; Wine industry in Victoria, 1977, pp. 510-11; Timber industry in Victoria, 1978, pp. 434-7; Manufacturing industry in the Geelong area, 1980, pp. 406-8; Development of Point Wilson, 1981, pp. 382-3; History of the brewing industry in Victoria, 1981, pp. 405-7; Manufacturing industry in the Bendigo area, 1981, pp. 407-9; Manufacturing industry in the Ballarat area, 1982, pp. 386-7; Economic activity in the La Trobe region, 1983, pp. 379-81; Manufacturing since 1935, 1984, pp. 471-90

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ABS publications

Census of Manufacturing Establishments: Summary of Operations by Industry Sub-division, Australia, Preliminary (8201.0)

Manufacturing Establishments: Details of Operations, Victoria (8201.2)

Manufacturing Establishments: Summary of Operations by Industry Class, Australia (8202.0)

Manufacturing Establishments: Selected Items of Data by Industry and Employment Size, Victoria (8202.2)

Manufacturing Establishments: Details of Operations by Industry Class, Australia (8203.0)

Manufacturing Establishments: Small Area Statistics, Victoria (8203.2)

Manufacturing Establishments: Summary of Operations by Industry Class Victoria (8205.2)

Production Bulletins Nos.1 to 8 (see page 408 of this *Year Book*) (8357.0-8364.0)