

MANUFACTURING

NATURAL RESOURCES AND LOCATION

Natural resources

Victoria's natural resources have been used to provide both raw materials and power for industry. For example, clay, sand, stone and gravel, and limestone are all available in Victoria for use by its manufacturing industry. The State's mineral resources include offshore reserves of oil and gas, brown coal, salt, gypsum, and a limited supply of gold. Victorian forests provide approximately one-quarter of Australia's timber output and pulp for the manufacture of paper. 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.

The abundant resources of brown coal, developed by the State Electricity Commission of Victoria, provide the requisite fuel for power generation. The State Electricity Commission of Victoria delivers the bulk of Victoria's public electricity requirements with the balance being 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 energy and chemical resources. Petroleum refining and petrochemical manufacturing are carried out in various locations throughout the State.

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. 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 these suburbs a wide range of manufacturing industry is found. The more recent industrial municipalities are Altona, Broadmeadows, Moorabbin, Oakleigh, and Dandenong, where extensive areas are available for the establishment of 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 1983

In Victoria at the broad industry level during 1983-84 significant gains were made in turnover (8.1 per cent) and value added (10.3 per cent), over 1982-83. At the industry subdivision level, Basic

metal products recorded the highest rises in turnover (22.7 per cent) and value added (19.5 per cent), while reporting decreases in the number of establishments, persons employed, and the value of fixed capital expenditure (7.8, 4.5, and 84.9 per cent, respectively). Of the four subdivisions which recorded increases in employment, Clothing and footwear had the highest rate (2.9 per cent), against a 1 per cent drop in the number of establishments. The Other machinery and equipment subdivision recorded the highest decrease in employment (8.3 per cent) and was the only subdivision to report a drop in value added (0.2 per cent).

Fixed capital expenditure, which in Victorian manufacturing had recorded a decrease of 4.3 per cent between 1981-82 and 1982-83, declined further from \$998.3m in 1982-83 to \$779.4m in 1983-84, a drop of 21.9 per cent. Most of the decrease occurred in the Basic metals, Paper, paper products and printing, and Other machinery and equipment industry subdivisions, which declined by 84.9, 40.0, and 33.0 per cent, respectively. However, this decline was not confined to Victoria. The rest of Australia had recorded decreases of 11.7 and 25.2 per cent, respectively. In fact, in the last four years Victoria has been increasing its share of the national total fixed capital expenditure, which from 24.7 per cent in 1980-81 progressively increased to 27.9 per cent in 1983-84.

Although on an industry basis, Administrative, etc. employees accounted for 25.3 per cent of total Victorian manufacturing employees and 30 per cent of wages and salaries paid, there have been significant variations between industry subdivisions. In the Clothing and footwear subdivision, for instance, this category of employees accounted for 12.7 per cent of total employees and 15.9 per cent of wages and salaries paid, while in the Chemical, petroleum, and coal products subdivision the proportion was 36.9 and 40.8 per cent, respectively.

The Transport equipment subdivision recorded the widest margin between the proportion of Administrative, etc. employees (22.2 per cent) and wages and salaries paid (32.5 per cent). In absolute numbers and at the subdivision level, the Transport equipment subdivision employed the largest number of male employees (44,000) and the Clothing and footwear subdivision employed the largest number of female employees (31,700). In relative terms, the Basic metal products subdivision had the largest proportion of male, and hence the smallest proportion of female employees (89.5 and 10.5 per cent, respectively).

The relationship between turnover, value added, and wages and salaries paid varied significantly between industry subdivisions. While, for instance, the Food, beverage, and tobacco subdivision accounted for 20.8 per cent of total turnover in 1983-84, its share of value added was 17.8 per cent and wages and salaries paid accounted for only 15.8 per cent. In contrast the Transport equipment subdivision accounted for 14.2, 12.5, and 15.8 per cent of turnover, value added, and wages and salaries, respectively.

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 in Chapter 9 of this *Year Book*.

Department of Industry, Technology and Resources

The Department of Industry, Technology and Resources was created through the merger of the former Departments of Industry, Commerce and Technology, and Minerals and Energy. The Department came into operation on 21 March 1985, for the purpose of facilitating co-operation between public and private sectors as part of the Economic Strategy to promote the comparative advantage Victoria enjoys in the energy field and to give the business community one specialist department with which to deal.

Statement of mission

The Department's statement of mission identifies its responsibility as the major catalyst for business and resource development in the State.

The major responsibilities of the Department are to promote the effective use of Victoria's resources for the long-term benefit of the community, and to achieve growth and international competitiveness for Victorian industry.

In carrying out these responsibilities the Department:

(1) advises the Minister for Industry, Technology and Resources on economic, industrial, and

resources policies, and on the Minister's role in support for Victorian business; and
 (2) implements the Victorian Government's economic strategies and advises on their further development.

In pursuit of the Victorian Government's objectives of increased economic and employment growth and international competitiveness for Victorian industry, the Department:

- (1) works to create a climate favourable for business activity in Victoria;
- (2) promotes safe and effective exploration, development, and efficient use of the State's mineral, quarry products, oil and gas, groundwater, and energy resources for the benefit of present and future generations;
- (3) provides ready access to its minerals and energy and industry data bases;
- (4) encourages the adoption of new technologies and appropriate management practices; and
- (5) assists firms, industries, and regions with direct support and facilitative services.

Agencies reporting to the Minister

A number of agencies and bodies report to the Minister for Industry, Technology and Resources. In assisting the Minister the Department's role is complementary to that of the agencies. Each agency also maintains a working relationship with the Department.

Coal Corporation of Victoria. The Corporation was established under the *State Electricity Commission (Coal Corporation of Victoria) Act 1984*. The Corporation is responsible for joint research with industry, the coal laboratory at Gippsland, and the project development work previously done by the Victorian Brown Coal Council.

Gas and Fuel Corporation. The Corporation is a public authority owned jointly by the Victorian Government and private shareholders. It was established and constituted by the *Gas and Fuel Corporation Act 1959*, and was incorporated with the Memorandum and Articles of Association as if it has been incorporated as a limited company under the Companies Act.

The principal objectives of the Corporation are to ensure a safe, economical, and effective supply of gas to the people of Victoria; to promote the efficient use of gas where it can effectively contribute to meeting the energy demands of modern society; and to operate as an efficient enterprise at a level of profit consistent with its role as a publicly owned utility.

State Electricity Commission. The Commission generates and distributes electricity throughout Victoria, supplying directly to 1,420,000 customers. In addition, 277,800 customers are supplied by eleven municipal authorities which purchase electricity in bulk from the Commission. It also has a regulatory responsibility to ensure the safe use of electricity. It is a self-supporting business which finances its capital works programme and meets its operating expenses solely through revenue received from its customers and repayable loans. The Commission was established under the *State Electricity Commission Act 1958*.

Alpine Resorts Commission. The Commission was established under the *Alpine Resorts Act 1983* to take over the management and development of Victoria's alpine resorts.

The Commission's major objectives are to operate, improve, develop, and promote existing resorts to their optimum capacity within sound planning and environmental restraints; to be responsible for the planning and development of new resorts; to open up the alpine areas to people of all income levels; and to encourage the use of the resorts and their facilities on a year round basis.

Liquor Control Commission. The Commission was established under the *Liquor Control Act 1968* to administer the provisions of the Act. It controls the licensing and supervises the conduct of all liquor outlets in Victoria. The Commission also issues permits allowing the consumption of liquor on unlicensed premises.

Albury-Wodonga (Victoria) Corporation. The Corporation was established under the *Albury Wodonga Agreement Act 1973*. It is responsible for undertaking, in conjunction with the Albury-Wodonga Development Corporation and the Albury-Wodonga (New South Wales) Corporation, the development of a growth complex at Albury-Wodonga.

Geelong Regional Commission. The Commission was established under the *Geelong Regional Commission Act 1977*. It is charged with the responsibility for attracting, promoting, and developing industrial, commercial, and other business undertakings and employment opportunities in the Geelong region. It is also responsible for planning, co-ordinating, and managing the development of the Geelong region.

Latrobe Regional Commission. The Commission was established under the *Latrobe Regional Commission Act 1983*. It is responsible for co-ordinating the planning of the economic, physical, environmental, and social development of the La Trobe region.

Small Business Development Corporation. The Corporation was established under the *Small Business Development Corporation Act 1976*. Its main function is to operate as an information and referral centre and to utilise the expertise available in the community best able to assist small business. Assistance is also provided in business counselling, education, training, legislative matters, and provision of finance through small business loans and guarantees.

Victorian Economic Development Corporation. The Corporation was established under the *Victorian Economic Development Corporation Act 1981*. In July 1984, the Corporation was restructured to become the principal agency for the provision of loan and equity funds to Victorian companies, in line with the Victorian Government's Economic Strategy.

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

Victorian Tourism Commission. The Commission was established under the *Victorian Tourism Commission Act 1982*. Its main function is to market Victoria by promoting the State as a holiday destination, together with the retailing of tourism and travel services, through its travel centres.

The Commission also has responsibility for research and for establishing priorities and facilitating both private and public enterprise tourism developments.

The Commission, through its wholly owned subsidiary (Victour Properties Pty Ltd), undertakes commercial activities, including the ownership and operation of tourist accommodation establishments, attractions, and other facilities and in addition provides equity for private enterprise projects on a selected basis.

Prices Commissioner. In May 1985, the Victorian Government announced that the Prices Commissioner would be transferred from the Ministry for Consumer Affairs to the Department of Industry, Technology and Resources. The Commissioner's responsibilities include the statutory requirement to monitor retail petrol prices and to adjust the 'trigger' price at which an Order under the *Fuel Prices Regulation Act 1981* would reimpose price controls. The Commissioner also responds to requests from Ministers for advice on other pricing matters.

Office of the Mining Warden. The Office was created by the *Mines (Amendment) Act 1983* in response to a need to resolve mining-related disputes and complaints. The Mining Warden is appointed by the Governor in Council and reports to the Minister. He has wide-ranging powers in settling disputes relating to prospecting, exploration, and mining in Victoria.

Victorian Solar Energy Council. The Council was established by the *Victorian Solar Energy Council Act 1980*. It aims primarily to encourage and review research into the development and potential uses of solar energy.

Office of Regulation Review. The Office was created in October 1984. Administratively, the Office reports directly to the Minister and in turn to the Regulation Review Committee of Cabinet. The Office's principal role is to examine legislation and regulations which impinge directly on business.

The Office is also involved in scrutinising new or proposed legislation and regulatory measures which affect business or economic activity. The Office is concerned to ensure that regulation is the most efficient and effective method of attaining community objectives and that regulation does not unnecessarily inhibit economic and social development of Victoria.

Overseas Projects Corporation of Victoria Limited. The Corporation is a public company established by the Government of Victoria to facilitate the participation of the State's private enterprise and government agencies in overseas development projects with the ultimate aim of contributing to the economic growth of emerging nations.

Victorian CAD/CAM Centre Ltd. The Centre is a private non-profit sharing company set up as a result of a Victorian Government initiative. Its purpose is to provide industry with a vendor-free environment in which to study all aspects of computer-aided engineering. It is funded by the Department of Industry, Technology and Resources and private industry.

Scientific research and standardisation

There are a number of Commonwealth Government bodies which impact on the manufacturing sector. These include the Commonwealth Scientific and Industrial Research Organisation, the Standards Association of Australia, the National Association of Testing Authorities, the Industrial Design Council of Australia, the Department of Science, and the Department of Industry, Technology and Commerce.

For further information concerning these bodies, refer to pages 385-7 of the *Victorian Year Book 1985*.

MANUFACTURING INDUSTRY STATISTICS

Basis of collection

The annual manufacturing census is conducted as a component of the ABS's integrated economic statistics system. This system was introduced in 1968-69 so that data from each industry sector conform to the same conceptual standards thereby allowing comparative analysis between and across different industry sectors. The results of this census are therefore comparable with economic data collections undertaken annually for the mining, electricity, and gas industries and periodically for the wholesale trade, retail trade, construction industry, and transport industry.

Manufacturing, as specified in Division C of the Australian Standard Industrial Classification (ASIC), broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand.

For further information on the integration of economic statistics refer to page 388 of the *Victorian Year Book* 1985.

Summary of manufacturing statistics

DEVELOPMENT OF MANUFACTURING ACTIVITY, VICTORIA

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
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
1983-84(c)	(d)8,404	353,248	6,059	30,081	18,405	11,779	779

(a) Average over whole year, including working proprietors.

(b) Excludes drawings of working proprietors.

(c) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed.

(d) Number of establishments operating at 30 June.

(e) Commencing with the 1978-79 census, the method of calculating value added, purchases, etc., and turnover has been changed to accord more closely with the concepts and definitions used in the Australian National Accounts.

(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.

A comparison between manufacturing activity in Victoria and the other States is shown in the following table:

MANUFACTURING ESTABLISHMENTS (c), 1983-84

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
New South Wales	10,278	363,300	6,556	30,950	18,336	12,713	1,062
Victoria	8,404	353,248	6,059	30,081	18,405	11,779	779
Queensland	3,451	110,438	1,813	11,707	8,002	3,701	396
South Australia	2,110	90,658	1,472	7,137	4,292	2,842	176
Western Australia	2,408	61,997	1,047	5,923	3,828	2,137	292
Tasmania	556	24,056	407	2,196	1,374	829	58
Northern Territory	115	2,432	49	359	249	110	8
Australian Capital Territory	148	3,247	59	280	181	119	4
Total	27,470	1,009,376	17,461	88,632	54,666	34,229	2,775

For footnotes see table above.

The following table contains a summary of manufacturing establishments by sub-division of industry in Victoria during 1983-84:

**MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY,
VICTORIA, 1983-84**

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
		number	'000	\$m	\$m	\$m	\$m	\$m
21	Food, beverages, and tobacco	991	49.9	880	6,266	4,198	2,092	168
23	Textiles	295	17.6	296	1,219	741	497	25
24	Clothing and footwear	932	42.4	558	1,926	1,030	937	25
25	Wood, wood products, and furniture	1,086	18.3	262	1,115	628	505	18
26	Paper, paper products, printing, and publishing	889	34.4	609	2,499	1,325	1,174	49
27	Chemical, petroleum, and coal products	288	19.7	419	2,668	1,619	1,093	98
28	Non-metallic mineral products	390	10.4	207	1,001	515	473	43
29	Basic metal products	177	12.9	281	2,116	1,592	534	30
31	Fabricated metal products	1,079	30.2	505	2,037	1,137	918	41
32	Transport equipment	381	52.4	958	4,269	2,760	1,476	180
34	Other machinery and equipment	1,162	42.1	704	3,055	1,703	1,319	49
34	Miscellaneous manufacturing	734	23.0	380	1,911	1,156	761	54
	Total	8,404	353.2	6,059	30,081	18,405	11,779	779

For footnotes see page 264.

The following table summarises, by sub-division of industry, the percentage contribution of Victorian manufacturing establishments to the total Australian figures for 1983-84:

**MANUFACTURING ESTABLISHMENTS (c) BY SUB-DIVISION OF INDUSTRY,
PERCENTAGE OF AUSTRALIAN TOTALS, VICTORIA, 1983-84
(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
21	Food, beverages, and tobacco	29	29	30	32	31	32	32
23	Textiles	47	55	55	52	51	55	47
24	Clothing and footwear	48	59	61	59	58	60	61
25	Wood, wood products, and furniture	27	26	26	25	25	26	23
26	Paper, paper products, printing, and publishing	31	35	34	35	36	35	27
27	Chemical, petroleum, and coal products	32	35	35	30	28	35	37
28	Non-metallic mineral products	23	27	28	25	22	27	28
29	Basic metal products	33	17	17	19	21	16	4
31	Fabricated metal products	26	32	33	31	30	33	33
32	Transport equipment	30	45	45	50	55	44	67
33	Other machinery and equipment	31	33	33	36	37	34	29
34	Miscellaneous manufacturing	33	40	41	43	44	43	39
	Total	31	35	35	34	34	34	28

For footnotes see page 264.

The following table shows the number of manufacturing establishments operating in Victoria at 30 June 1979 to 1984, classified according to sub-division of industry:

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

ASIC code	Industry sub-division	1979	1980 (f)	1981	1982	1983	1984
21	Food, beverages, and tobacco	957	982	975	1,000	966	991
23	Textiles	291	312	309	325	307	295
24	Clothing and footwear	1,041	1,038	1,004	1,011	943	932
25	Wood, wood products, and furniture	1,068	1,156	1,129	1,130	1,074	1,086
26	Paper, paper products, printing, and publishing	853	949	903	916	881	889
27	Chemical, petroleum, and coal products	286	295	283	293	289	288
28	Non-metallic mineral products	380	397	393	406	392	390
29	Basic metal products	169	175	174	181	191	177
31	Fabricated metal products	1,114	1,133	1,153	1,197	1,086	1,079
32	Transport equipment	434	456	437	413	374	381
33	Other machinery and equipment	1,216	1,245	1,230	1,259	1,159	1,162
34	Miscellaneous manufacturing	737	764	736	785	730	734
	Total	8,546	8,902	8,726	8,916	8,392	8,404

For footnotes see page 264.

The size classification of manufacturing establishments is based on the number of persons employed at 30 June 1983 and 1984 (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 -	1983		1984	
	Number of establishments	Number of persons employed (b)	Number of establishments	Number of persons employed (b)
Less than 10	3,643	21,099	3,778	22,472
10 to 19	1,901	25,558	1,830	24,946
20 to 49	1,453	43,785	1,409	42,930
50 to 99	650	44,801	673	47,560
100 to 199	431	58,338	401	57,299
200 to 499	231	65,495	236	71,479
500 to 999	57	36,366	55	37,336
1,000 and over	26	43,320	22	40,305
Total	8,392	338,762	8,404	344,327

(a) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. In addition, there were 3,620 single establishment enterprises employing 7,377 persons in the one to three persons employed group for 1984.

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

A general indication of the geographical distribution of manufacturing establishments in Victoria at 30 June 1984 is shown in the following table where they are classified according to statistical divisions:

**MANUFACTURING ESTABLISHMENTS (c) IN STATISTICAL DIVISIONS,
VICTORIA, AT 30 JUNE 84**

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
Melbourne	6,711	290,624	5,010	24,166	14,669	9,582	556
Barwon	294	17,628	336	1,857	1,164	664	101
South Western	115	4,269	67	474	336	155	15
Central Highlands	201	7,289	112	531	295	243	18
Wimmera	65	1,157	15	72	46	27	1
Northern Mallee	95	1,178	17	159	103	61	3
Loddon-Campaspe	229	9,288	140	687	436	249	22
Goulburn	215	6,567	106	709	462	241	17
North Eastern	133	5,999	100	567	345	229	11
East Gippsland	100	1,981	28	182	109	91	4
Central Gippsland	187	5,644	102	556	359	195	30
East Central	59	1,624	27	122	81	42	2
Total	8,404	353,248	6,059	30,081	18,405	11,779	779

For footnotes see page 264.

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	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
21	Food, beverages, and tobacco	55,283	54,477	55,349	53,139	51,450	49,883
23	Textiles	19,046	20,210	19,711	19,147	17,358	17,575
24	Clothing and footwear	44,983	44,219	43,614	43,547	41,240	42,436
25	Wood, wood products, and furniture	18,401	19,136	19,628	20,058	17,992	18,285
26	Paper, paper products, printing, and publishing	31,656	33,268	33,629	32,839	33,759	34,359
27	Chemical, petroleum, and coal products	21,610	19,792	19,972	20,249	20,323	19,665
28	Non-metallic mineral products	12,737	12,974	12,448	12,482	11,181	10,371
29	Basic metal products	12,817	13,836	14,045	14,840	13,379	12,865
31	Fabricated metal products	35,061	36,269	36,027	36,632	32,232	30,210
32	Transport equipment	61,319	60,994	56,790	59,566	54,383	52,441
33	Other machinery and equipment	54,793	54,356	53,403	53,004	45,906	42,133
34	Miscellaneous manufacturing	27,258	27,782	26,873	27,234	23,815	23,025
Total		394,964	397,313	391,489	392,737	363,018	353,248

For footnotes see page 264.

With regard to the following table 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, 1983-84

ASIC code	Industry sub-division	Statistical division											Total	
		Mel-bourne	Barwon	South Western	Central Highlands	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	46	34	37	21	39	66	66	47	18	46	17	991
23	Textiles	242	21	3	5	2	2	4	7	3	-	4	2	295
24	Clothing and footwear	850	18	5	9	1	-	16	10	6	2	12	3	932
25	Wood, wood products, and furniture	788	50	17	39	8	8	24	40	22	40	31	19	1,086
26	Paper, paper products, printing, and publishing	757	16	9	12	9	11	18	18	9	11	15	4	889
27	Chemical, petroleum, and coal products	264	11	2	2	-	1	4	1	1	-	2	-	288
28	Non-metallic mineral products	202	25	15	24	8	12	28	26	13	9	24	4	390
29	Basic metal products	143	12	-	8	1	-	6	-	1	1	4	1	177
31	Fabricated metal products	907	42	9	22	8	7	19	15	14	7	26	3	1,079
32	Transport equipment	310	10	6	11	-	3	15	13	2	3	8	-	381
33	Other machinery and equipment	1,022	27	13	22	5	9	22	13	8	5	12	4	1,162
34	Miscellaneous manufacturing	672	16	2	10	2	3	7	6	7	4	3	2	734
	Total	6,711	294	115	201	65	95	229	215	133	100	187	59	8,404
NUMBER OF PERSONS EMPLOYED (a)														
21	Food, beverages, and tobacco	32,920	1,404	1,904	1,518	335	691	2,876	3,862	1,965	469	1,316	623	49,883
23	Textiles	13,010	1,559	346	276	n.p.	n.p.	397	296	1,088	-	n.p.	n.p.	17,575
24	Clothing and footwear	35,287	1,968	804	698	n.p.	-	1,491	445	772	n.p.	629	120	42,436
25	Wood, wood products, and furniture	13,228	688	453	774	61	56	235	492	736	904	425	233	18,285
26	Paper, paper products, printing, and publishing	29,978	486	172	429	96	167	354	368	388	162	1,597	162	34,359
27	Chemical, petroleum, and coal products	17,736	1,567	n.p.	n.p.	-	n.p.	27	n.p.	n.p.	-	n.p.	-	19,665
28	Non-metallic mineral products	7,583	1,083	64	549	82	65	318	187	142	39	225	34	10,371
29	Basic metal products	9,039	2,706	-	655	n.p.	-	200	-	n.p.	n.p.	125	n.p.	12,865
31	Fabricated metal products	26,447	813	70	407	80	53	917	320	250	98	606	149	30,210
32	Transport equipment	45,145	4,629	54	n.p.	-	52	960	325	n.p.	16	54	n.p.	52,441
33	Other machinery and equipment	38,563	536	204	704	103	51	1,086	191	260	105	295	35	42,133
34	Miscellaneous manufacturing	21,688	189	n.p.	144	n.p.	29	427	n.p.	227	112	68	n.p.	23,025
	Total	290,624	17,628	4,269	7,289	1,157	1,178	9,288	6,567	5,999	1,981	5,644	1,624	353,248

For footnotes see page 264.

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 1979 to 1984:

**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
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
1984	2,906	88,879	262,624	354,409

For footnote see page 264.

The following table shows the nature of employment in manufacturing establishments at 30 June 1984, classified according to industry sub-division:

**MANUFACTURING ESTABLISHMENTS (c), TYPE OF EMPLOYMENT BY INDUSTRY
SUB-DIVISION, VICTORIA, AT 30 JUNE 1984**

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	481	12,415	35,708	48,604
23	Textiles	45	4,314	13,435	17,794
24	Clothing and footwear	393	5,422	37,374	43,189
25	Wood, wood products, and furniture	573	3,864	14,083	18,520
26	Paper, paper products, printing, and publishing	337	11,502	22,267	34,106
27	Chemical, petroleum, and coal products	25	7,261	12,413	19,699
28	Non-metallic mineral products	107	2,679	7,686	10,472
29	Basic metal products	29	4,336	8,382	12,747
31	Fabricated metal products	329	7,933	21,901	30,163
32	Transport equipment	103	11,950	41,874	53,927
33	Other machinery and equipment	273	11,609	30,389	42,271
34	Miscellaneous manufacturing	211	5,594	17,112	22,917
	Total	2,906	88,879	262,624	354,409

For footnote see page 264.

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, 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	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
21	Food, beverages, and tobacco	3,901	4,435	5,029	5,452	5,959	6,266
23	Textiles	827	930	1,020	1,107	1,087	1,219
24	Clothing and footwear	1,208	1,355	1,524	1,647	1,717	1,926
25	Wood, wood products, and furniture	661	750	871	1,016	1,014	1,115
26	Paper, paper products, printing, and publishing	1,314	1,539	1,788	2,066	2,262	2,499

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

ASIC code	Industry sub-division	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
27	Chemical, petroleum, and coal products	1,458	1,750	2,121	2,365	2,451	2,668
28	Non-metallic mineral products	635	703	787	902	884	1,001
29	Basic metal products	953	1,318	1,519	1,809	1,721	2,116
31	Fabricated metal products	1,360	1,599	1,797	2,043	1,953	2,037
32	Transport equipment	2,656	3,034	3,077	3,825	4,014	4,269
33	Other machinery and equipment	2,078	2,419	2,751	3,196	2,987	3,055
34	Miscellaneous manufacturing	1,177	1,402	1,573	1,780	1,701	1,911
	Total	18,228	21,233	23,856	27,208	27,747	30,081

For footnote see page 264.

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, 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	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
21	Food, beverages, and tobacco	2,707	3,173	3,549	3,801	4,145	4,198
23	Textiles	511	582	623	682	658	741
24	Clothing and footwear	653	730	805	878	894	1,030
25	Wood, wood products, and furniture	371	432	492	584	571	628
26	Paper, paper products, printing, and publishing	703	826	962	1,106	1,213	1,325
27	Chemical, petroleum, and coal products	881	1,128	1,338	1,468	1,518	1,619
28	Non-metallic mineral products	322	362	414	482	470	515
29	Basic metal products	677	943	1,109	1,319	1,258	1,592
31	Fabricated metal products	739	912	1,005	1,161	1,076	1,137
32	Transport equipment	1,689	2,037	1,989	2,614	2,601	2,760
33	Other machinery and equipment	1,160	1,363	1,574	1,824	1,618	1,703
34	Miscellaneous manufacturing	697	864	955	1,112	1,037	1,156
	Total	11,109	13,353	14,814	17,031	17,060	18,405

For footnote see page 264.

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	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
	OPENING STOCKS						
21	Food, beverages, and tobacco	482	515	579	641	646	741
23	Textiles	150	162	183	186	204	192
24	Clothing and footwear	186	217	245	265	289	280
25	Wood, wood products, and furniture	84	94	112	127	140	136
26	Paper, paper products, printing, and publishing	166	187	225	263	291	285
27	Chemical, petroleum, and coal products	239	254	320	369	404	420
28	Non-metallic mineral products	89	83	101	104	121	132
29	Basic metal products	139	163	183	263	293	258
31	Fabricated metal products	222	254	306	330	364	306
32	Transport equipment	514	537	659	640	674	709

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

ASIC code	Industry sub-division	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
OPENING STOCKS							
33	Other machinery and equipment	509	550	653	742	781	720
34	Miscellaneous manufacturing	178	200	241	270	274	266
	Total	2,959	3,216	3,809	4,200	4,480	4,444
CLOSING STOCKS							
21	Food, beverages, and tobacco	497	596	652	655	722	764
23	Textiles	158	181	187	206	195	211
24	Clothing and footwear	219	241	266	295	287	320
25	Wood, wood products, and furniture	89	107	121	143	140	155
26	Paper, paper products, printing, and publishing	185	222	269	312	291	286
27	Chemical, petroleum, and coal products	257	325	368	411	425	463
28	Non-metallic mineral products	81	93	106	121	132	119
29	Basic metal products	160	207	261	290	275	268
31	Fabricated metal products	236	307	333	371	320	324
32	Transport equipment	555	664	649	705	665	677
33	Other machinery and equipment	578	654	731	799	737	686
34	Miscellaneous manufacturing	200	243	265	291	253	273
	Total	3,217	3,840	4,207	4,601	4,442	4,546

For footnote see page 264.

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	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
21	Food, beverages, and tobacco	1,208	1,342	1,553	1,666	1,890	2,092
23	Textiles	324	367	401	445	420	497
24	Clothing and footwear	588	650	740	800	821	937
25	Wood, wood products, and furniture	296	331	388	447	443	505
26	Paper, paper products, printing, and publishing	630	748	870	1,009	1,049	1,174
27	Chemical, petroleum, and coal products	595	693	830	940	953	1,093
28	Non-metallic mineral products	306	351	377	438	425	473
29	Basic metal products	297	419	487	516	445	534
31	Fabricated metal products	635	740	819	924	833	918
32	Transport equipment	1,008	1,124	1,078	1,276	1,403	1,476
33	Other machinery and equipment	987	1,160	1,255	1,429	1,324	1,319
34	Miscellaneous manufacturing	502	580	641	690	643	761
	Total	7,377	8,505	9,440	10,578	10,649	11,779

For footnote see page 264.

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, 1983-84
(\$m)**

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	
21	Food, beverages, and tobacco	34.7	133.5	168.2	59.8
23	Textiles	0.5	25.0	25.4	25.1
24	Clothing and footwear	0.1	24.3	24.5	32.3
25	Wood, wood products, and furniture	3.0	14.7	17.7	27.6
26	Paper, paper products, printing, and publishing	-2.8	51.8	49.0	54.1
27	Chemical, petroleum, and coal products	8.9	89.4	98.3	21.5
28	Non-metallic mineral products	2.9	39.9	42.8	7.0
29	Basic metal products	3.7	26.5	30.2	10.8
31	Fabricated metal products	4.3	37.0	41.3	32.0
32	Transport equipment	33.5	146.5	180.0	56.0
33	Other machinery and equipment	2.3	46.2	48.5	49.2
34	Miscellaneous manufacturing	4.5	49.0	53.5	40.3
	Total	95.6	683.7	779.4	415.6

For footnote see page 264.

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

ASIC code	Industry sub-division	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
21	Food, beverages, and tobacco	120.9	130.1	137.9	150.6	135.1	168.2
23	Textiles	15.6	19.3	10.9	31.4	27.5	25.4
24	Clothing and footwear	13.3	14.9	19.6	22.0	21.1	24.5
25	Wood, wood products, and furniture	16.9	13.1	16.3	21.6	14.6	17.7
26	Paper, paper products, printing, and publishing	62.9	56.2	59.2	120.8	81.5	49.0
27	Chemical, petroleum, and coal products	159.4	117.6	105.2	96.7	110.5	98.3
28	Non-metallic mineral products	25.6	46.8	59.3	32.3	23.2	42.8
29	Basic metal products	46.1	61.1	114.5	190.0	199.4	30.2
31	Fabricated metal products	32.5	35.2	33.7	47.5	40.9	41.3
32	Transport equipment	154.7	143.5	46.9	195.5	211.8	180.0
33	Other machinery and equipment	59.7	62.8	65.2	79.7	72.4	48.5
34	Miscellaneous manufacturing	34.3	33.7	42.7	56.9	53.5	53.5
	Total	742.4	734.7	712.0	1,045.6	998.2	779.4

For footnote see page 264.

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 1983-84 and 1984-85. 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	
			1983-84	1984-85	1983-84	1984-85
027.02-29, 72-77, 023.17	Meat—canned (excluding baby food)	'000 tonnes	12	10	29	n.p.
051.56-59		Ice cream	mill. litres	65	65	197
062.01	Flour, white (including sharps)	'000 tonnes	218	241	1,091	1,112
063.15	Malt	"	200	164	482	438
064.21	Biscuits	"	53	52	129	128
074.61, 65	Natural fruit juices	mill. litres	37	52	133	190
076.60	Jam etc.	'000 tonnes	19	19	30	30
094.02-47	Vegetables canned or bottled (including pickled)	"	37	33	141	134
104.06-18	Confectionery— Chocolate or containing chocolate	"	36	38	69	66
104.21-29	Other	"	39	41	61	63
123.18	Sauce—tomato	mill. litres	20	19	30	29
159.01	Canned cat and dog food	'000 tonnes	n.p.	n.p.	199	n.p.
171.03, 07, 08	Aerated and carbonated waters, canned or bottled (b)	mill. litres	251	270	986	1,053
261.41	Briquettes—brown coal	'000 tonnes	746	824	746	824
385.09, 11, 13, 15, 29, 31	Finished woven fabric—woollen (c)	'000 sq.m.	4,088	4,054	7,041	7,009
389.09-12		Wool, scoured or carbonised	'000 tonnes	36	39	89
403.22, 52-96 404.01-98	Plastics and synthetic resins	'000 tonnes	529	607	820	n.p.
471.91, 93		Bricks, clay	mill.	401	432	r1,702
472.15, 475.32	Tiles, roofing	'000 sq.m.	4,947	5,871	18,385	20,910
475.90	Ready mixed concrete	'000 cub. m.	r2,547	2,867	11,523	12,754
503.13-32	Electric motors	'000	953	1,022	2,669	2,482
581.02-08, 10-16	Finished motor vehicles (d)— Cars and station wagons	'000	218	245	342	376
793.05,08, 21, 22, 31, 32, 41, 46, 51, 61, 65 66, 71, 81		Men's and youths'	'000 pairs	6,762	6,902	r10,854
793.06, 09, 23, 24, 33, 34, 42, 47, 52, 62, 67, 68, 72, 82	Women's and maids'	"	13,870	14,987	r17,368	18,943
793.04, 07, 10, 25, 35, 43, 48, 53, 63, 69, 73, 83		Children's and infants'	"	4,653	4,989	r5,745

(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	<i>Electrical Appliances, Australia</i> (8357.0)	5	<i>Building Materials and Fittings, Australia</i> (8361.0)
2	<i>Clothing and Footwear, Australia</i> (8358.0)	6	<i>Chemicals and By-products, Australia</i> (8362.0)
3	<i>Food, Drink and Tobacco, Australia</i> (8359.0)	7	<i>Motor Vehicles, Parts and Accessories, Australia</i> (8363.0)
4	<i>Textiles, Bedding, and Floor Coverings, Australia</i> (8360.0)	8	<i>Miscellaneous Products, Australia</i> (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).

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ABS publications

Census of Manufacturing Establishments: Summary of Operations by Industry Subdivision, 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 above) (8357.0–8364.0)