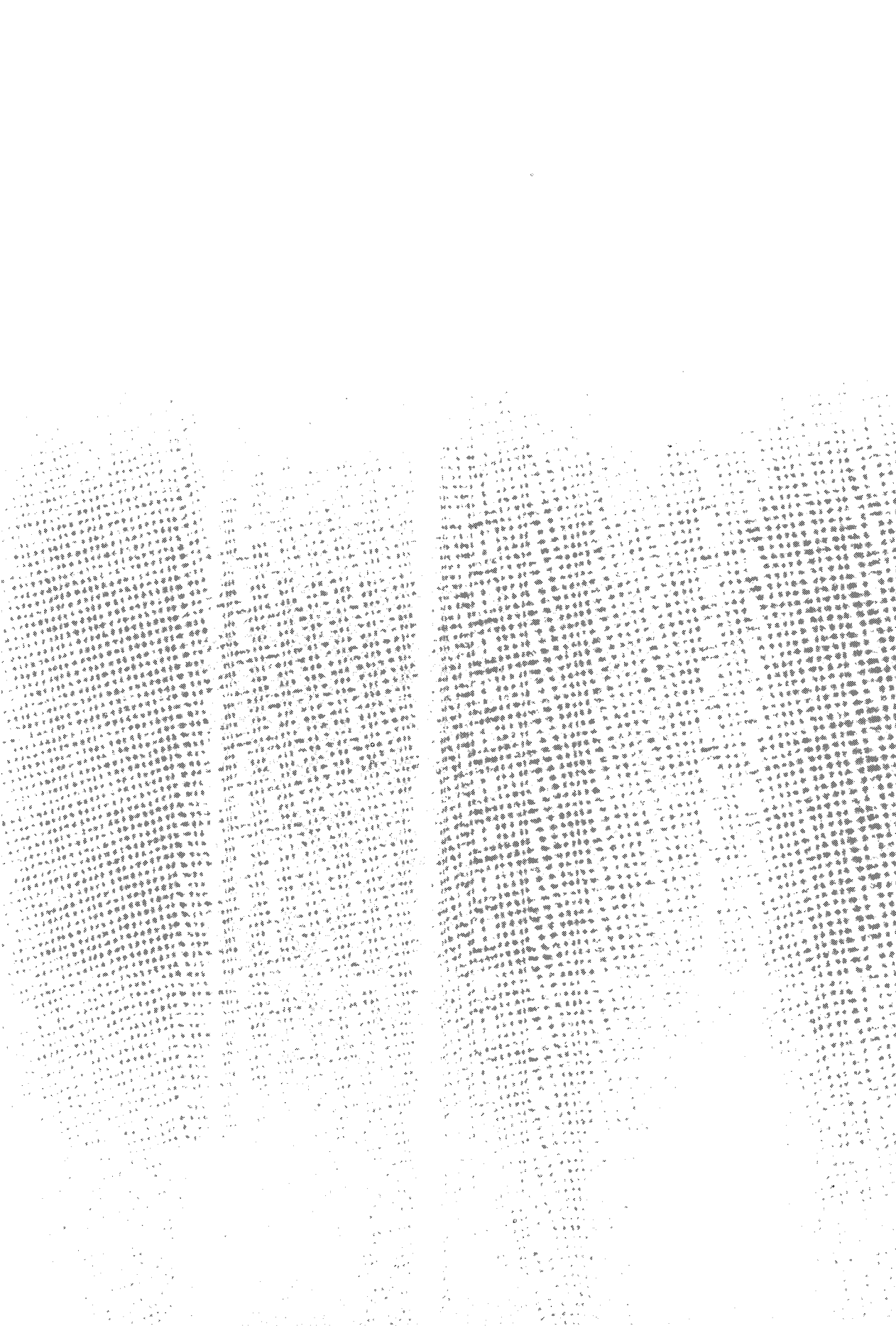


Manufacturing and Retail

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MANUFACTURING

Contribution of the Manufacturing Industry to gross product and employment

Manufacturing sector contribution to gross product fell consistently between 1980–81 and

1985–86, before flattening out in subsequent years. The proportion of employed wage and salary earners attributable to the manufacturing industry has shown a consistent decline since 1983–84, falling from 20.0 per cent in that year to a low of 17.3 per cent in 1989–90.

MANUFACTURING INDUSTRY: CONTRIBUTION TO ALL INDUSTRY AGGREGATES

Year	Gross product at constant (average 1984–85) market prices		Manufacturing sector contribution to all industry aggregates for	
	Manufacturing	All industries	Constant price gross product	Employment
	\$m	\$m	%	%
1980–81	37,955	192,412	19.7	n.a.
1981–82	38,895	200,024	19.4	n.a.
1982–83	35,697	193,149	18.5	n.a.
1983–84	36,234	202,460	17.9	20.0
1984–85	38,088	214,665	17.7	19.4
1985–86	39,007	224,886	17.3	19.0
1986–87	39,528	227,948	17.3	18.5
1987–88	42,016	239,903	17.5	18.1
1988–89	44,510	251,638	17.7	17.5
1989–90	46,137	262,530	17.6	17.3

Source: Australian National Accounts: Gross Product, Employment and Hours Worked (5211.0); Employed Wage and Salary Earners, Australia (6248.0).

Manufacturing trends

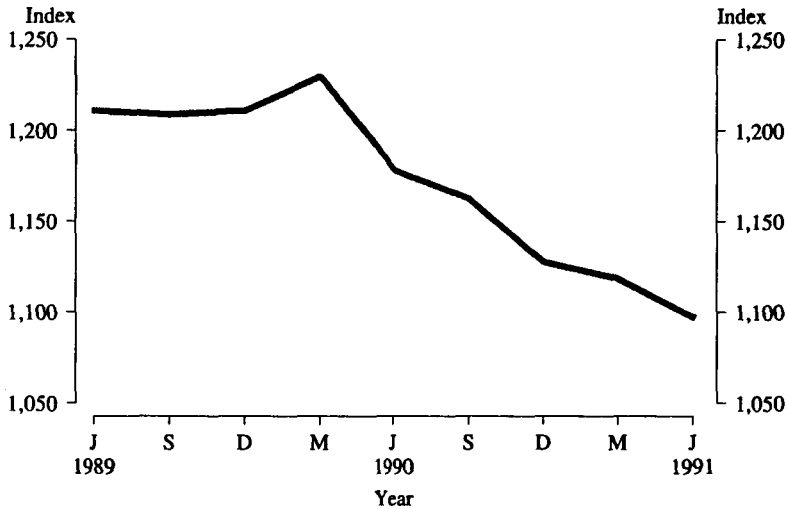
For the June quarter 1991 the index of manufacturing production recorded its fifth consecutive quarterly fall (1.9%), with the index for this quarter being 6.9 per cent below the level for the June quarter 1990 (see graph on next page). The index for June quarter 1991 was the lowest recorded since September quarter 1987.

Over the period 1981–82 to 1990–91 the index of manufacturing production increased by 10.4 per cent (see table on next page). After a fall of 8.2 per cent in 1982–83, the

index increased every year until 1990–91 when it again fell by 6.6 per cent.

The largest increases over the period 1981–82 to 1990–91 occurred in Food, beverages and tobacco (+28.8%), Paper, paper products, printing and publishing (+28.6%) and Chemical, petroleum and coal products (+19.1%). Falls occurred in Transport equipment (-24.6%), Clothing and footwear (-18.7%), Non-metallic mineral products (-5.5%) and Other machinery and equipment (-0.7%).

**INDEX OF TOTAL MANUFACTURING GROSS PRODUCT
AT AVERAGE 1984-85 PRICES, SEASONALLY ADJUSTED**
(Base: 1984-85 = 1,000)



Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

INDEXES OF MANUFACTURING INDUSTRY GROSS PRODUCT AT AVERAGE 1984-85 PRICES
Index numbers (Base: 1984-85 = 1,000)

Industry subdivision	1981 -82	1982 -83	1983 -84	1984 -85	1985 -86	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91
Food, beverages and tobacco	996	992	989	1,000	1,015	1,041	1,104	1,141	1,208	1,283
Textiles	944	870	908	1,000	1,020	1,090	1,097	1,105	1,174	1,051
Clothing and footwear	960	896	968	1,000	1,124	1,041	1,063	1,102	847	780
Wood, wood products and furniture	1,028	909	953	1,000	1,138	1,031	1,156	1,200	1,300	1,176
Paper, paper products, printing and publishing	930	881	919	1,000	1,033	1,086	1,176	1,252	1,324	1,196
Chemical, petroleum and coal products	968	941	975	1,000	984	1,030	1,105	1,129	1,182	1,153
Non-metallic mineral products	1,069	920	925	1,000	1,137	1,034	1,090	1,233	1,196	1,010
Basic metal products	954	826	916	1,000	985	997	1,019	1,070	1,098	1,029
Fabricated metal products	1,201	1,026	998	1,000	1,096	1,086	1,226	1,343	1,558	1,406
Transport equipment	980	932	916	1,000	990	933	956	1,039	983	739
Other machinery and equipment	1,197	1,002	950	1,000	1,990	1,080	1,143	1,251	1,266	1,189
Miscellaneous manufacturing	1,011	920	944	1,000	912	1,052	1,130	1,185	1,219	1,117
Total manufacturing	1,021	937	951	1,000	1,024	1,038	1,103	1,169	1,206	1,127

Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

Structure of the Manufacturing Industry

The following table of statistics, obtained from the annual Manufacturing Census, provides an

overview of the structure and operations of the manufacturing industry.

SUMMARY OF OPERATIONS OF THE MANUFACTURING INDUSTRY

<i>Industry subdivision</i>	<i>Estab- lishments operating at 30 June (no.)</i>	<i>Employ- ment at 30 June(a) ('000)</i>	<i>Wages and salaries (b) (\$m)</i>	<i>Turnover (\$m)</i>	<i>Persons employed per estab- lishment (no.)</i>	<i>Turnover per person employed (\$'000)</i>
1986-87						
Food, beverages and tobacco	4,278	170.4	3,458	24,967	40	146.5
Textiles	923	34.7	672	3,409	38	98.2
Clothing and footwear	2,715	75.6	1,139	4,327	28	57.2
Wood, wood products and furniture	7,506	82.3	1,325	6,117	11	74.3
Paper, paper products, printing and publishing	4,396	109.9	2,397	10,552	25	96.0
Chemical, petroleum and coal products	1,094	54.1	1,419	11,311	49	209.1
Non-metallic mineral products	2,344	40.3	932	5,460	17	135.4
Basic metal products	716	73.8	2,022	14,068	103	190.6
Fabricated metal products	6,541	102.0	1,975	8,695	16	85.2
Transport equipment	2,104	113.3	2,490	11,156	54	98.5
Other machinery and equipment	5,487	131.7	2,692	11,793	24	89.5
Miscellaneous manufacturing	4,074	64.1	1,221	6,262	15	97.7
Total manufacturing	42,178	1,052.2	21,743	118,116	25	112.2
1989-90(c)						
Food, beverages and tobacco	4,177	171.7	4,206	33,256	41	193.7
Textiles	914	29.0	738	4,126	32	142.3
Clothing and footwear	2,683	65.8	1,283	5,052	25	76.8
Wood, wood products and furniture	6,945	83.6	1,856	8,287	12	99.1
Paper, paper products, printing and publishing	4,737	106.8	3,030	13,590	23	127.2
Chemical, petroleum and coal products	1,141	51.7	1,720	18,883	45	365.2
Non-metallic mineral products	1,877	42.8	1,258	7,856	23	183.6
Basic metal products	820	67.1	2,326	20,578	82	306.7
Fabricated metal products	6,686	104.9	2,649	12,778	16	121.8
Transport equipment	2,125	106.0	2,932	16,677	50	157.3
Other machinery equipment	5,716	134.6	3,602	15,902	24	118.1
Miscellaneous manufacturing	3,976	64.0	1,620	8,059	16	125.9
Total manufacturing	41,797	1,028.0	27,220	165,045	25	160.5

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors. (c) Comparability between statistics from the 1989-90 census and previous census has been affected by a number of factors (see *Manufacturing Industry, Australia, Preliminary (8201.0)* for 1989-90). Care should be taken in interpreting movements in statistical aggregates between 1986-87 and 1989-90.

Source: *Manufacturing Industry, Australia, Preliminary (8201.0)*.

In 1989-90, the industries with the most persons employed at 30 June were Food, beverages and tobacco (171,700), Other machinery and equipment (134,680), Paper, paper products, printing and publishing (106,800) and Transport equipment (106,000). The industries with the fewest persons employed were Textiles (29,000) and

Non-metallic mineral products (42,800). The industry with the largest number of persons employed per establishment was Basic metal products (82), while Wood, wood products and furniture (12) had the lowest. Food, beverages and tobacco (\$33,256 million) recorded the largest turnover, while Textiles (\$4,126 million) and Clothing and footwear

(\$5,052 million) recorded the smallest. Turnover per person employed was greatest for Chemical, petroleum and coal products (\$365,200) and Basic metal products (\$306,700) and lowest for Clothing and footwear (\$76,800) and Wood, wood products and furniture (\$99,100).

Between 1986-87 and 1989-90, the number of manufacturing establishments decreased slightly from 42,178 to 41,797. (Note: changes to unit rules, scope, etc. of the Manufacturing Census have significantly affected establishment counts for 1989-90. See footnote (c) in table above). Persons employed fell by 2.3 per cent from 1,052,209 to 1,028,000 with 7 of the 12

industry subdivisions showing a fall over the period. Textiles (down 16%) and Clothing and footwear (down 13%) recorded the largest percentage falls while Non-metallic mineral products (up 6%) recorded the biggest percentage increase.

Employment

The statistics on the number of persons employed shown in the following table relate to end of June employment, including working proprietors and those persons working at separately located administrative offices and ancillary units in the State.

EMPLOYMENT IN MANUFACTURING AT 30 JUNE 1990
('000)

Industry subdivision	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Food, beverages and tobacco	50.7	49.1	35.7	16.3	12.5	6.3	0.5	0.6	171.7
Textiles	7.5	14.0	1.3	2.9	1.7	1.6	n.p.	n.p.	29.0
Clothing and footwear	20.2	35.0	4.7	3.9	1.6	0.3	n.p.	n.p.	65.8
Wood, wood products and furniture	25.2	22.5	15.2	8.1	8.0	3.8	0.2	0.7	83.6
Paper, paper products, printing and publishing	38.3	35.6	12.7	7.3	6.6	4.7	0.4	1.3	106.8
Chemical, petroleum and coal products	21.5	18.4	5.1	2.1	3.8	n.p.	n.p.	—	51.7
Non-metallic mineral products	14.1	11.8	7.2	3.9	4.7	0.9	0.2	0.2	42.8
Basic metal products	30.8	11.9	7.5	7.1	5.6	n.p.	1.3	n.p.	67.1
Fabricated metal products	36.5	33.3	14.9	8.4	9.4	1.6	0.1	n.p.	104.9
Transport equipment	24.0	50.3	10.2	16.6	3.5	1.3	0.1	0.1	106.0
Other machinery and equipment	54.2	43.3	10.8	16.4	8.5	0.9	0.1	0.4	134.6
Miscellaneous manufacturing	21.7	24.6	6.4	7.4	3.1	0.7	0.1	0.1	64.0
Total manufacturing	344.6	349.8	131.7	100.3	69.0	26.0	2.9	3.7	1,028.0

Source: *Manufacturing Industry, Australia, Preliminary (8201.0)*.

New South Wales and Victoria dominate manufacturing in Australia, comprising over two-thirds of employment in 1989-90. However, the industry distribution of employment across States does not follow this pattern. Textiles, Clothing and footwear and Transport equipment industries are particularly significant in Victoria; Food beverages and tobacco dominate in Queensland; while Transport equipment is important in South Australia.

The quarterly Survey of Employment and Earnings is the ABS's major source of

statistics on employed wage and salary earners. For further information refer to the chapter, Labour.

Labour costs

Major labour costs in the manufacturing industry increased by approximately 15 per cent between 1987-88 and 1989-90. For each year in the period, earnings comprised approximately 89 per cent of total costs. This ratio is consistent with the average for all industries.

MAJOR LABOUR COSTS OF MANUFACTURING INDUSTRY

Type of labour cost	1987-88	1988-89	1989-90	1989-90 Percentage distribution of labour costs by type	
				Manufacturing	All industries
	\$m	\$m	\$m	%	%
Earnings	24,353	27,281	28,032	88.6	89.0
Other labour costs	3,105	3,316	3,596	11.4	11.0
Payroll tax	1,157	1,312	1,342	4.2	3.3
Superannuation	896	918	1,086	3.4	5.0
Workers' compensation	923	936	1,009	3.2	2.2
Fringe benefits tax	129	150	159	0.5	0.6
Total major labour costs	27,458	30,597	31,628	100.0	100.0

Source: Labour Costs, Australia (6348.0).

Average total labour costs per employee in 1989-90 of \$30,809 represented an increase of nearly 17 per cent over 1987-88 costs and was 8 per cent above 1988-89 costs. For

1989-90, the average labour costs in the manufacturing industry were significantly higher than the average of \$27,777 per employee for all industries.

 AVERAGE LABOUR COST PER EMPLOYEE IN MANUFACTURING INDUSTRY, BY TYPE
 (\$)

Type of labour cost	1987-88	1988-89	1989-90	
			Manufacturing	All industries
Earnings	23,406	25,374	27,306	24,709
Other labour costs	2,984	3,084	3,503	3,068
Payroll tax	1,112	1,220	1,307	904
Superannuation	861	853	1,058	1,391
Workers' compensation	887	871	983	605
Fringe benefits tax	124	140	155	169
Total major labour costs	26,389	28,457	30,809	27,777

Source: Labour Costs, Australia (6348.0).

Capital expenditure

New capital expenditure in the manufacturing industry fell significantly between 1989-90 and 1990-91 (down 12%), with only Food, beverages and tobacco (up 10%) and Basic metal products (up 14%) registering increases over the period. Textiles, Clothing and

footwear (down 48%) and Paper, paper products, printing and publishing (down 39%) experienced large falls in new capital expenditure in 1990-91. After a fall of 13 per cent in new capital expenditure in 1988-89, Basic metal products showed consecutive increases in 1989-90 and 1990-91.

PRIVATE NEW CAPITAL EXPENDITURE IN MANUFACTURING INDUSTRY
(\$ million)

<i>Industry subdivision</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Food, beverages and tobacco	1,240	1,321	1,428
Textiles; Clothing and footwear	378	373	176
Paper, paper products, printing and publishing	957	896	545
Chemical, petroleum and coal products	975	1,202	1,195
Basic metal products	881	1,168	1,323
Transport equipment	822	779	717
Fabricated metal products and other machinery and equipment	1,089	1,061	854
Other manufacturing(a)	1,319	1,706	1,266
Total manufacturing	7,661	8,506	7,503

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.

Source: *Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0)*.

Turnover

The following table shows the value of turnover of manufacturing establishments. The figures include sales of goods whether produced by the establishment or not; transfers out of goods to other establishments of the same enterprise; bounties and subsidies on

production; plus all other operating revenue from outside the enterprise (such as commission, repair and service revenue and rent, leasing and hiring revenue), plus capital work for own use, or for rental or lease. Receipts from interest, royalties, dividends, and sales of fixed tangible assets are excluded.

TURNOVER BY MANUFACTURING INDUSTRY, 1989-90
(\$ million)

<i>Industry subdivision</i>	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
Food, beverages and tobacco	9,839	10,261	6,921	2,645	2,325	1,103	105	59	33,256
Textiles	1,223	1,997	221	359	157	166	n.p.	n.p.	4,126
Clothing and footwear	1,781	2,579	287	292	85	23	n.p.	n.p.	5,052
Wood, wood products and furniture	2,668	2,139	1,345	718	796	528	18	74	8,287
Paper, paper products, printing and publishing	5,170	4,617	1,425	832	676	733	29	108	13,590
Chemical, petroleum and coal products	6,863	6,342	2,746	490	2,247	n.p.	n.p.	—	18,883
Non-metallic mineral products	2,627	2,134	1,447	604	807	152	40	45	7,856
Basic metal products	8,214	3,880	3,392	1,491	2,510	n.p.	} 360	n.p.	20,578
Fabricated metal products	4,494	4,088	1,855	833	1,212	155		n.p.	12,778
Transport equipment	2,498	7,890	1,584	4,175	395	121	7	7	16,677
Other machinery and equipment	6,679	5,527	1,182	1,458	945	70	6	35	15,902
Miscellaneous manufacturing	2,861	3,128	745	775	478	59	9	5	8,059
Total manufacturing	54,915	54,582	23,151	14,671	12,634	4,083	578	430	165,045

Source: *Manufacturing Industry, Australia, Preliminary (8201.0)*.

The Clothing and footwear, Textiles and Transport equipment industries are concentrated in Victoria with that State accounting for 51.0 per cent, 48.4 per cent and 47.3 per cent respectively of the Australian turnover for those industries. The Basic metal products industry is concentrated in New

South Wales with 39.9 per cent of the Australian turnover being generated in that State. Although Queensland accounts for only 14.0 per cent of total manufacturing turnover in Australia, it has 20.8 per cent of the Australian turnover for the Food, beverages and tobacco industry. Similarly, South

Australia has 25.0 per cent of the Australian turnover for the Transport equipment industry compared with only 8.9 per cent of total manufacturing turnover for Australia.

Price indexes of articles produced

From 1988–89 to 1990–91, the price index of articles produced by the manufacturing industry rose by 11.2 per cent (over the same period, the Consumer Price Index rose by 13.7%). The largest increase occurred in the price index of articles produced by the Petroleum products industry (50.1%). The Textiles industry had the smallest increase (3.4%).

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Base of each index: Year 1988–90 = 100.0)

<i>Industry subdivision</i>	<i>1989–90</i>	<i>p1990–91</i>
Food, beverages and tobacco	106.9	109.5
Textiles	103.2	103.4
Clothing and footwear	107.3	112.0
Wood, wood products and furniture	107.6	112.7
Paper, paper products printing and publishing	104.3	111.0
Chemicals and chemical products	104.4	109.3
Petroleum products	118.4	150.1
Non-metallic mineral products	108.7	117.2
Basic metal products	105.6	106.2
Fabricated metal products	107.9	113.7
Transport equipment	105.6	109.9
Other machinery and equipment	104.2	107.0
Miscellaneous manufacturing	103.7	106.4
All manufacturing industry	106.5	111.2

(a) These indexes relate only to articles produced in the industry for sale or transfer outside the industry.
Source: *Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)*.

Company profits

Profits before income tax earned by manufacturing companies have shown consecutive falls over the two years since 1988–89, with profit registered for 1990–91 being 39 per cent lower than for 1988–89. Profits in the Transport equipment industry dropped sharply over the period, from \$413 million to a loss of \$165 million. Food

beverages and tobacco was the only industry to record an increase in profit over the period (36%).

Over the 12 months to June 1991 profits in the manufacturing industry fell by 32 per cent compared with a 21 per cent fall for other selected main industries (principally mining, manufacturing, retail, wholesale and construction) over the same period.

MANUFACTURING COMPANIES: PROFIT BEFORE INCOME TAX BY INDUSTRY
(\$ million)

<i>Industry subdivision</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Food, beverages and tobacco	1,172	1,316	1,543
Textiles; Clothing and footwear	324	268	181
Paper, paper products, printing and publishing	331	376	263
Chemical, petroleum and coal products	1,206	1,022	711
Basic metal products	1,905	1,454	705
Transport equipment	413	457	-209
Fabricated metal products and Other machinery and equipment	1,248	1,015	615
Other manufacturing(a)	2,018	1,860	1,163
Total manufacturing	8,616	7,766	4,972

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.

Source: *Company Profits, Australia (5651.0)*.

Foreign investment

The level of foreign investment in manufacturing industry in Australia was \$48,301 million at 30 June 1990. The industries with the highest levels of foreign investment were Food, beverages and tobacco (\$12,825 million) and Basic metal products

(\$10,625 million). Between 30 June 1988 and 30 June 1990 the industries with the largest percentage increases in levels of foreign investment were Paper, paper products, printing and publishing (up 71%), Miscellaneous manufacturing (up 70%) and Non-metallic mineral products (up 49%).

FOREIGN INVESTMENT IN MANUFACTURING INDUSTRY(a) AT 30 JUNE
(\$ million)

<i>Industry subdivision</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Food, beverages and tobacco	9,757	12,532	12,825
Textiles	383	552	429
Clothing and footwear	85	211	112
Wood, wood products and furniture	81	56	73
Paper, paper products, printing and publishing	2,280	3,532	3,906
Chemical, petroleum and coal products	4,692	5,183	5,281
Non-metallic mineral products	643	537	959
Basic metal products	10,417	11,242	10,625
Fabricated metal products	979	843	1,178
Transport equipment	2,198	2,231	2,392
Other machinery and equipment	2,868	4,395	2,685
Miscellaneous manufacturing	4,613	6,040	7,836
Total manufacturing	38,996	47,354	48,301

(a) The industry categories shown relate to the predominant activity of the enterprise group receiving the investment funds. This is not necessarily the industry of end use of the funds.

Source: *International Investment Position, Australia (5305.0)*.

Principal manufacturing commodities

The following table shows the total recorded production of some selected articles manufactured in Australia.

Of the twenty-seven selected articles produced by manufacturing establishments, twenty had lower levels of production in 1990-91 than in 1989-90. The production levels in 1990-91 were less than in 1988-89 for twenty two of the articles produced.

QUANTITIES OF SELECTED ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS

Article	Unit of quantity	1988-89	1989-90	1990-91
Basic iron, spiegeleisen and sponge iron	'000 tonnes	5,875	6,188	5,600
Iron and steel ingots or other primary forms(a)	tonnes	6,651	6,681	6,219
Blooms and slabs(b)	tonnes	2,578	2,440	2,521
Gas(c)	terajoules	548,454	591,193	536,193
Electricity	mil.kWh	144,853	152,956	155,759
Bricks, clay	million	2,175	2,077	1,765
Cement, portland	'000 tonnes	6,901	7,075	6,110
Particle boards and similar boards(d)	'000 cu m	n.a.	768	625
Plastics in primary forms(e)	'000 tonnes	986	985	948
Sulphuric acid, oleum	'000 tonnes	1,904	1,464	986
Refrigerators, domestic	'000	380	346	363
Clothes washing machines, domestic	'000	397	330	326
Colour television sets(f)	'000	162	158	167
Electric motors	'000	3,076	2,528	2,480
Lawn mowers, rotary petrol type	'000	298	247	213
Motor vehicles				
Cars and station wagons	'000	333	386	311
Vehicles for goods and materials(g)	'000	30	26	18
Yarn(h)				
Cotton	tonnes	20,364	20,603	23,781
Wool	tonnes	21,458	19,758	18,809
Woven fabric(h)				
Cotton (incl. towelling)	'000 sq. m	36,316	40,452	35,687
Wool (incl. blanketing)	'000 sq. m	9,803	8,459	7,641
Man-made fibre	'000 sq. m	191,596	173,848	178,498
Textile floor coverings	'000 sq. m	45,923	45,101	42,837
Confectionery				
Chocolate base	tonnes	93,418	92,626	93,449
Other	tonnes	64,655	63,890	63,603
Beer(i)	'000 litres	1,951	1,939	1,911
Tobacco and cigarettes(j)	tonnes	27,158	27,318	26,833

(a) Includes ingots, puddled bars, pilings, blocks or lumps and steel in the molten state. (b) From rolling and forging of iron and steel (primary mills output). Excludes from continuous casting. (c) Available for issue through mains. Includes natural gas. (d) Not laminated. (e) Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. (f) Excludes combination with radio etc. (g) Includes utilities, panel vans and prime movers for semi-trailers. (h) Includes mixtures predominantly of the fibre named. (i) Includes ale and stout. (j) Source: Australian Customs Service.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: ABS manufacturing production publications (8357.0 to 8369.0).

Concentration of enterprises in the Manufacturing Industry

Concentration statistics provide information on the extent to which a few enterprise groups

predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

**CONCENTRATION OF ENTERPRISES IN MANUFACTURING INDUSTRY, IN TERMS OF
EMPLOYMENT(a)**

Enterprise groups ranked by turnover	1972-73		1977-78		1982-83		1987-88		1988-89	
	'000	Ratio	'000	Ratio	'000	Ratio	'000	Ratio	'000	Ratio
4 largest	89.4	0.07	88.1	0.08	82.4	0.08	64.7	0.06	67.4	0.06
8 largest	135.9	0.11	117.0	0.11	103.9	0.10	93.6	0.09	106.3	0.10
12 largest	161.0	0.12	147.7	0.13	137.3	0.14	120.6	0.11	137.4	0.13
16 largest	185.1	0.14	163.9	0.14	158.5	0.15	139.5	0.13	167.3	0.16
20 largest	204.6	0.15	183.0	0.16	166.7	0.16	154.7	0.15	183.0	0.17
25 largest	229.9	0.17	201.2	0.18	194.2	0.19	181.5	0.17	202.1	0.19
50 largest	326.8	0.25	283.3	0.25	281.7	0.28	250.2	0.24	284.7	0.27
100 largest	442.3	0.33	395.8	0.35	374.0	0.37	339.4	0.32	370.9	0.35
200 largest	581.4	0.44	520.4	0.46	475.3	0.47	431.9	0.41	459.5	0.43
All enterprise groups	1,325.6	1.00	1,132.7	1.00	1,011.6	1.00	1,063.8	1.00	1,072.6	1.00

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: *Manufacturing Industry, Concentration Statistics, Australia (8207.0)* and *Manufacturing Industry: Details of Operations, Australia (8203.0)*.

**CONCENTRATION OF ENTERPRISES IN MANUFACTURING IN TERMS OF EMPLOYMENT(a)
BY INDUSTRY, 1988-89**

Industry subdivision	Enterprise groups ranked by turnover									
	Largest 4		5-8		9-12		13-16		Remainder	
	'000	Ratio	'000	Ratio	'000	Ratio	'000	Ratio	'000	Ratio
Food, beverages and tobacco	25.9	0.15	15.4	0.09	11.4	0.06	9.1	0.05	114.5	0.65
Textiles	5.6	0.17	2.4	0.08	2.1	0.07	0.9	0.03	21.2	0.66
Clothing and footwear	12.2	0.17	3.7	0.05	2.7	0.04	1.6	0.02	53.1	0.72
Wood, wood products and furniture	6.3	0.08	2.3	0.03	2.3	0.03	1.9	0.02	71.7	0.85
Paper, paper products, printing and publishing	23.5	0.21	9.6	0.09	5.6	0.05	5.4	0.05	68.1	0.61
Chemical, petroleum and coal products	8.2	0.15	4.0	0.08	2.4	0.05	1.4	0.03	37.3	0.70
Non-metallic mineral products	15.8	0.37	5.4	0.13	3.3	0.08	1.9	0.04	16.0	0.38
Basic metal products	37.1	0.52	8.0	0.11	3.8	0.05	4.1	0.06	17.8	0.26
Fabricated metal products	10.0	0.09	7.2	0.07	4.6	0.04	1.9	0.02	84.3	0.78
Transport equipment	25.8	0.22	9.1	0.08	11.3	0.10	7.8	0.07	62.3	0.54
Other machinery and equipment	12.0	0.09	6.3	0.05	6.4	0.05	4.6	0.03	108.1	0.79
Miscellaneous manufacturing	10.6	0.16	4.3	0.06	2.0	0.03	1.7	0.03	47.5	0.72
Total manufacturing	67.4	0.06	38.9	0.04	31.0	0.03	29.8	0.03	905.5	0.84

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: *Manufacturing Industry, Concentration Statistics, Australia (8207.0)* and *Manufacturing Industry: Details of Operations, Australia (8203.0)*.

In 1988-89, the most concentrated industries, in terms of the share of employment accounted for by the largest four enterprise groups, were Basic metal products (52%) and Non-metallic mineral products (37%). The

industries with the lowest levels of concentration were Wood, wood products and furniture (8%), Fabricated metal products (9%) and Other machinery and equipment (9%).

Research and experimental development

Research and experimental development (R&D) activity in the business context is systematic investigation or experimentation involving

innovation or technical risk, the outcome of which is *new knowledge*, with or without a specific practical application or *new or improved* products, processes, materials, devices or services. R&D activity extends to modifications to existing products/processes.

EXPENDITURE ON RESEARCH AND EXPERIMENTAL DEVELOPMENT BY MANUFACTURING ENTERPRISES (\$ million)

Industry subdivision	1988-89					
	1984-85	1986-87	Total	Capital expenditure	Labour costs(a)	Other current expenditure
Food, beverages and tobacco	30.9	56.7	82.7	22.7	36.1	24.0
Textiles; Clothing and footwear	5.6	12.9	7.8	1.5	3.9	2.5
Wood, wood products and furniture	3.4	6.4	9.8	1.9	4.1	3.8
Paper, paper products, printing and publishing	6.4	10.0	24.1	7.2	9.4	7.5
Chemical, petroleum and coal products	91.1	120.1	148.0	18.2	65.3	64.5
Non-metallic mineral products	12.9	15.3	22.3	5.9	8.7	7.8
Basic metal products	46.1	63.7	91.7	17.0	39.9	34.9
Fabricated metal products	15.6	23.0	25.7	3.0	13.5	9.2
Transport equipment	90.1	127.9	159.6	11.3	85.2	63.0
Photographic, professional and scientific equipment(b)	16.5	25.7	37.5	3.2	20.2	14.1
Appliances and electrical equipment(b)	84.4	174.5	228.3	28.7	128.0	71.7
Industrial machinery and equipment(b)	28.5	43.3	54.9	4.7	28.3	21.9
Miscellaneous manufacturing	8.5	21.6	26.1	3.4	14.4	8.3
Total manufacturing	440.1	701.1	918.5	128.6	456.8	333.1

(a) Includes wages and salaries, payroll tax, payments to contract staff on the payroll, fringe benefits tax and workers compensation, holiday pay, long service leave payments, sick pay, employer contributions to superannuation and pension schemes. (b) Photographic, professional and scientific equipment, Appliances and electrical equipment, and Industrial machinery and equipment comprise subdivision 33 (Other machinery and equipment) of ASIC.

Source: *Research and Experimental Development, Business Enterprises, Australia (8104.0)*.

Business enterprises classified to the Other machinery and equipment industry (see footnote (b) above) accounted for 35 per cent of all manufacturing research and development expenditure in 1988-89. Transport equipment (17%) and Chemical, petroleum and coal products (16%) were also major contributors to R&D expenditure.

Expenditure on R&D by manufacturing business enterprises more than doubled between 1984-85 and 1988-89. Paper, paper products, printing and publishing (up 277%) displayed the largest percentage increase over the period, while Textiles, Clothing and footwear (up 39%) showed the least.

Commonwealth government authorities Industry Commission

The Industry Commission is the Commonwealth Government's major review and inquiry body in industry matters. It is an advisory body with an economy-wide perspective, a broad industry charter and public inquiry processes. The principal function of the Industry Commission is to hold public inquiries and report on the industry matters referred to it. In order to ensure the widest possible scope for its inquiries, industry matters include legislative or administrative actions of the Commonwealth, States or Territories, and industry is defined to cover industry of any kind or grouping.

The Commission is required to report annually on the economic performance of industry, the principal factors affecting that performance, and the effects of assistance and regulation on industry and the economy generally. The Commission also has a role advising on business regulations and preparing occasional research and information papers that enhance community understanding of industry policy issues.

The Commission operates under general policy guidelines which are specified in the Industry Commission Act. These guidelines are cast in terms of encouraging the development of efficient industries, facilitating structural adjustment, reducing unnecessary industry regulation and recognising the interests of other industries and the community generally. In addition, the Commission must report on the social and environmental consequences of any recommendations it makes.

The legislation contains provisions similar to those in the IAC Act which constrain Commonwealth Ministers from changing certain forms of assistance without a prior report from the Commission unless Parliament passes overriding legislation. However, the Government is not obliged to accept the Commission's advice. Final responsibility for determining industry arrangements rests with the Commonwealth Government and the State and Territory Governments.

References with the Commission in early 1992 are:

- exports of education services;
- rail transport;
- the Australian dairy industry;
- greenhouse gases emission targets;
- cost recovery for fisheries management;
- availability of capital;
- exports of health services;
- the Australian sugar industry;
- review of overseas export enhancement measure;
- raw material pricing for domestic use;
- commercial restrictions on exporting (including franchising);
- water resources and waste water disposal; and
- regulation of intrastate aviation.

Other references scheduled on the work program are:

- mail, courier and parcel services;
- national procurement development program;
- implications for Australia of firms locating offshore;
- land use planning;
- horticulture;
- regional impediments to industry restructuring;
- book bounty;
- end-use by-laws for chemicals, plastics and inputs to paper and printing;
- urban public transport including rail;
- National Industry Extension Service (NIES);
- meat processing;
- Grants for Industry Research and Development (GIRD);
- workers' compensation;
- competition in the professions;
- provision of public housing;
- tobacco; and
- long-term agreements.

Bureau of Industry Economics

The Australian Government established the Bureau of Industry Economics in 1977 as a major centre for research into the manufacturing and commerce sectors. In recent years this role has been expanded to include science and technology and building issues. Formally attached to the Department of Industry, Technology and Commerce, the Bureau has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- increase community and industry understanding of economic developments and industry policy issues in the manufacturing and services sectors by conducting and publishing objective research;
- carry out applied economic research to assist the evaluation and formulation of industry policies and programs; and
- foster basic and applied economic research into industry policy issues at Australian tertiary institutions and research institutes.

The recent expansion in the Bureau's responsibilities means that its research now encompasses the full range of factors affecting the performance of the industry and commerce sectors, from infrastructural constraints and

research and development through to the final marketing and distribution of products.

In order to ensure the continuing relevance of its research, the Bureau seeks suggestions from interested parties in the private and public sectors on the most pressing economic issues requiring analysis. In formulating the final research program, the Bureau has regard to the priorities of the Minister and Department, and the view of its own Council of Advice.

The members of the Council are drawn from a wide range of backgrounds, including the universities, industries and the trade union movement. In this way the Council of Advice provides a major link between the Bureau and the community. The Council assists with the development of the work of the Bureau and the effective dissemination of the results of the Bureau's work.

In addition to its research work, the Bureau provides specialist economic advice to the Department of Industry, Technology and Commerce on matters of immediate importance. The Bureau is also responsible for providing specialist macro-economic and statistical advice to the Minister and the Department.

RETAIL TRADE

Estimates of the value of retail turnover (excluding motor vehicles, parts, petrol, etc.) by industry are obtained by means of sample surveys. Retail turnover, at current prices, increased by only 2.7 per cent during 1990-91. In the previous year the increase was 7.7 per cent. This weak increase in turnover was spread across all industries.

TURNOVER OF RETAIL ESTABLISHMENTS (EXCLUDING MOTOR VEHICLES, PARTS, PETROL, ETC.) AT CURRENT PRICES
(\$ million)

<i>Industry</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Grocers, confectioners, tobacconists	21,598.6	23,635.5	25,468.1
Butchers	2,044.5	2,220.4	2,237.2
Other food stores	5,085.3	5,769.2	5,938.3
Hotels, liquor stores, licensed clubs	10,768.1	11,730.9	11,985.7
Cafes and restaurants	3,590.1	4,327.6	4,295.7
Clothing and fabric stores	6,584.6	6,376.4	6,496.2
Department and general stores	9,284.8	9,726.0	9,734.1
Footwear stores	1,029.2	1,146.7	1,200.1
Domestic hardware stores, jewellers	2,852.8	2,767.8	2,591.9
Electrical goods stores	4,663.7	5,339.3	5,217.3
Furniture stores	1,735.3	1,822.2	1,828.0
Floor coverings stores	787.8	781.5	745.7
Pharmacies	2,897.6	3,324.0	3,688.8
Newsagents	2,895.8	3,166.8	3,079.8
Other stores	4,146.1	4,525.4	4,588.2
Total	79,963.6	86,659.7	89,094.9

Source: Retail Trade, Australia (8501.0).

**TURNOVER OF RETAIL ESTABLISHMENTS (EXCLUDING MOTOR VEHICLES, PARTS,
PETROL, ETC.) AT CONSTANT (AVERAGE 1984-85) PRICES**
(\$ million)

<i>Industry</i>	<i>1988-89</i>	<i>1989-90</i>	<i>1990-91</i>
Grocers, confectioners, tobacconists	16,415.7	16,784.4	17,355.8
Butchers	1,613.0	1,627.6	1,621.5
Other food stores	3,527.8	3,726.1	3,775.3
Hotels, liquor stores, licensed clubs	7,943.2	8,092.6	7,738.5
Cafes and restaurants	2,697.8	3,042.1	2,854.2
Clothing and fabric stores	4,766.6	4,378.7	4,264.5
Department and general stores	6,963.0	6,970.7	6,687.8
Footwear stores	767.5	828.0	838.6
Domestic hardware stores, jewellers	2,253.2	2,143.8	1,976.4
Electrical goods stores	3,969.8	4,502.7	4,349.6
Furniture stores	1,314.2	1,291.4	1,217.0
Floor coverings stores	547.9	513.5	470.7
Pharmacies	2,229.6	2,455.5	2,554.1
Newsagents	1,936.2	2,098.1	1,935.7
Other stores	3,093.2	3,220.9	3,114.9
Total	60,066.7	61,676.1	60,755.0

Source: *Retail Trade, Australia (8501.0)*.

SERVICE INDUSTRIES

industries covered in the Services Industries Surveys for 1986-87 and 1987-88.

The following table provides a summary of operational characteristics of certain service

SELECTED SERVICE INDUSTRIES: SUMMARY OF OPERATIONS
1986-87 AND 1987-88

<i>Industry (ASIC Class)</i>	<i>Enterprises operating at end June</i>	<i>Persons employed at end June</i>	<i>Wages and salaries(a)</i>	<i>Turnover</i>	<i>Gross product</i>	<i>Net operating surplus</i>
	no.	no.	\$m	\$m	\$m	\$m
<i>1986-87</i>						
Motor vehicle hire (5711)	281	3,173	54.8	446.8	102.1	20.6
Travel agency services (5741)(b)	1,494	11,632	191.5	428.8	207.2	-0.2
Motion picture theatres (9133)	202	4,472	56.6	256.5	96.2	29.2
Cafes and restaurants (9231)	8,489	85,974	646.7	2,583.9	942.2	221.5
Hotels and bars (9232)	4,986	82,644	814.8	4,807.6	1,270.0	370.5
Accommodation (9233)	4,841	56,364	640.3	2,281.5	1,078.8	310.7
Licensed clubs (9241-3)	3,927	52,336	687.8	2,636.1	1,059.4	229.0
Laundries and dry cleaners (9340)(c)	1,581	12,452	142.0	400.1	228.4	52.6
Hairdressers and beauty salons (9351-2)	11,027	39,628	300.0	790.0	433.0	113.1
Photography services (9361)	1,547	4,290	36.5	183.3	67.6	23.3

For footnotes see end of table.

SELECTED SERVICE INDUSTRIES: SUMMARY OF OPERATIONS
1986-87 AND 1987-88 — continued

<i>Industry (ASIC Class)</i>	<i>Enterprises operating at end June</i>	<i>Persons employed at end June</i>	<i>Wages and salaries(a)</i>	<i>Turnover</i>	<i>Gross product</i>	<i>Net operating surplus</i>
	no.	no.	\$m	\$m	\$m	\$m
<i>1987-88</i>						
Real estate agents (6310)	5,741	42,196	835	2,201	1,262	356
Architectural services (6334)	4,534	17,717	354	1,030	584	185
Surveying services (6335)	1,104	6,872	116	309	178	46
Engineering and technical services (6336)(d)	5,190	28,326	682	1,716	1,000	223
Legal services (6371)	6,459	55,363	500	3,069	1,427	884
Accounting services (6372)	6,048	49,479	503	2,334	1,050	497
Computing services (6381)	3,691	24,067	585	1,628	775	78
Advertising services (6382)	2,390	16,048	423	4,675	619	147
Debt collecting and credit reporting services (6385)	234	2,658	52	142	69	12
Pest control services (6386)	565	2,902	44	135	76	25
Cleaning services (6387)(e)	4,181	44,322	330	622	434	81
Security/protection and business services n.e.c. (6388 and 6389)(f)	1,087	25,483	365	839	515	120

(a) Gross earnings of all employees before taxation and other deductions. Drawings of working proprietors and partners are excluded.
 (b) Includes Australian branch offices of foreign resident airlines and the travel agency divisions of the major financial institutions (mainly banks). (c) Excludes carpet cleaning services. (d) Includes quantity surveyors. (e) Includes carpet cleaning services.
 (f) Excludes quantity surveyors.

Source: ABS Service Industry survey publications (8652.0 to 8660.0 and 8663.0 to 8673.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.
