



1997–98

8221.0

MANUFACTURING INDUSTRY

AUSTRALIA

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CONTENTS

	<i>page</i>
Notes.....	2
Summary of findings	3

TABLES

MANUFACTURING ESTABLISHMENTS

1 Summary of operations—1992–93 to 1997–98	13
2 Effect of changes to definitions	15
3 Summary of operations—industry class	16
4 Summary data—States, Territories and Australia	22
5 Percentage change in industry value added— 1992–93 to 1997–98	25
6 Summary of operations—employment size	26
7 Exported goods produced—broad employment size	30
8 Summary of operations—proportion of exports	31
9 Components of industry value added	32
10 Acquisition and disposal of assets	32
11 Selected labour costs	33

ADDITIONAL INFORMATION

Explanatory notes	34
Appendix—data items collected and selected derived data items	42
Technical note	44
Standard errors	45
Glossary	46

- For further information about these and related statistics, contact John Ridley on Sydney 02 9268 4541, or Client Services in any ABS office as shown on the back cover of this publication.

NOTES

ANNUAL MANUFACTURING INDUSTRY COLLECTION

The 1997–98 collection was conducted as a sample survey of approximately 19,000 manufacturing establishments, which were requested to provide data on employment, wages and salaries, turnover, purchases and whether their products were exported. A sub-sample of approximately 7,000 establishments was also asked to provide detailed structural and performance data, and value of sales for commodities produced. In total, over 90 data items were collected, details of which are listed in the Appendix.

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ABOUT THIS ISSUE

This issue includes estimates for 'Industry value added' (IVA) which measures the value added by an industry to the intermediate inputs used by the industry. Under new international standards, this measure replaces 'Industry gross product' (IGP) in manufacturing industry statistics as the measure of the industry's contribution to gross domestic product. Table 1 presents estimates for 1997–98 for both IGP and IVA. It should also be noted that IVA is not the same variable as 'Value added' which was published for manufacturing establishments until 1992–93.

Estimates for turnover in this publication have also been affected (but only to a minor extent) by the new international standards. Table 2 presents percentage differences between estimates for turnover calculated on the basis of the most recent international standards and corresponding estimates calculated on the basis of the standards which applied previously, and percentage differences between IVA and IGP.

See paragraphs 11–14 of the Explanatory Notes and the Glossary for details of the composition of the relevant variables described above and for explanations of the differences between the new and previous standards as they apply to estimates in this publication.

Some additional tables have now been included in this publication, together with an Appendix detailing all of the data items included in the 1997–98 manufacturing collection and selected derived data items.

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DATA TO BE RELEASED IN OTHER PUBLICATIONS

More detailed manufacturing industry statistics for each State will be released shortly in a series of publications *Manufacturing Industry, [State], 1997–98* (Cat. nos 8221.1–8221.6). The publication for New South Wales (Cat. no. 8221.1) will also contain selected data for the Australian Capital Territory.

Commodity data will be released in *Manufacturing Production, Commodities Produced, Australia, 1997–98* (Cat. no. 8365.0), to be released in December 1999.

Management unit data and a wide range of manufacturing related ABS data, as well as data from other sources, will be presented in the compendium publication *Manufacturing, Australia, 1999* (Cat. no. 8225.0), to be released in December 1999. Management unit data at the total manufacturing level are also included in *Business Operations and Industry Performance, Australia, Preliminary, 1997–98* (Cat. no. 8142.0).

W. McLennan
Australian Statistician

SUMMARY OF FINDINGS

OVERVIEW

Turnover for the year 1997–98 by manufacturing establishments operating in Australia was \$213,000m, which resulted in an industry value added (IVA) for the year of \$68,718m. For turnover, this represents a 2.5% increase in current price terms from the \$207,816m recorded for 1996–97. However, using chain volume measures (see paragraphs 19 to 24 of the Explanatory Notes), IVA only increased by 0.5%. Manufacturing establishments employed 953,700 persons at the end of June 1998 and paid \$33,870m in wages and salaries in 1997–98.

INDUSTRY VALUE ADDED

IVA (see the Glossary for its definition) for 1997–98 was \$68,718m. This represents, using chain volume measures, a 0.5% increase on the figure for 1996–97 and an 11.9% increase over the five year period from 1992–93. Since 1992–93, IVA per person employed rose by 10.5% indicating that, with the effects of price changes removed, IVA per person employed increased more slowly than IVA.

CHAIN VOLUME MEASURES OF IVA



Five of the nine industry subdivisions recorded an increase in chain volume measures of IVA over the period 1996–97 to 1997–98. The largest percentage increases were recorded by Food, beverage and tobacco manufacturing (up 3.6%), Wood and paper product manufacturing (up 3.3%) and Non-metallic mineral product manufacturing (up 2.1%). The largest percentage decreases were recorded by Metal product manufacturing (down 2.6%) and Textile, clothing, footwear and leather manufacturing (down 1.6%).

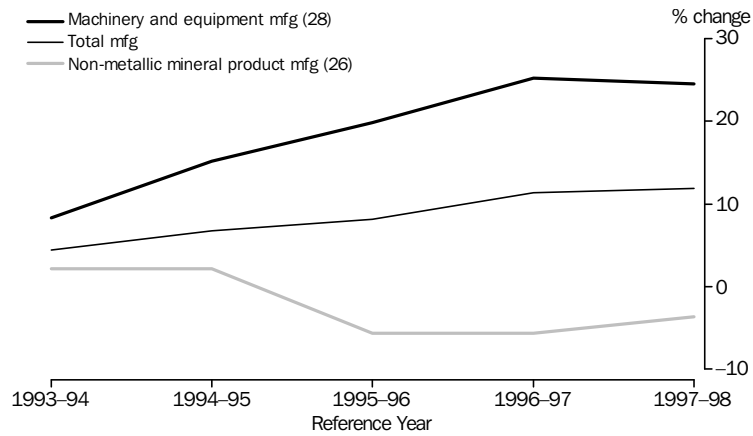
Longer-term trends (1992–93 to 1997–98)—chain volume measures

Over the period 1992–93 to 1997–98, chain volume measures of IVA increased by 11.9%. Seven industry subdivisions recorded increases while the other two recorded decreases. The largest percentage increases were recorded by Machinery and equipment manufacturing (up 24.5%), Petroleum, coal, chemical and associated product manufacturing (up 16.5%) and Food, beverage and tobacco manufacturing (up 13.1%). The decreases were recorded by Non-metallic mineral product manufacturing (down 3.7%) and Textile, clothing, footwear and leather manufacturing (down 2.4%).

SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED *continued*

CHAIN VOLUME MEASURES OF IVA – GREATEST AND LEAST GROWTH (percentage change from 1992–93)



Over the period 1992–93 to 1997–98, there was an increase of 10.5% in chain volume measures of IVA per person employed. Eight industry subdivisions recorded an increase, with the largest percentage increases being Machinery and equipment manufacturing (up 20.9%) and Petroleum, coal, chemical and associated product manufacturing (up 14.6%). The decrease was recorded by Printing, publishing and recorded media (down 2.9%).

Since 1992–93, growth in IVA for the total manufacturing industry was 1.4 percentage points higher than growth in IVA per person employed, although this was not a consistent pattern across all industry subdivisions.

In some subdivisions, growth in IVA was greater than growth in IVA per person employed. For these subdivisions, the industry subdivision with the biggest difference between the two was Printing, publishing and recorded media (10.6 percentage points difference). This was partly due to the increase in employment (10.9%) being greater than that for IVA (7.7%), causing IVA per person to decrease by 2.9%.

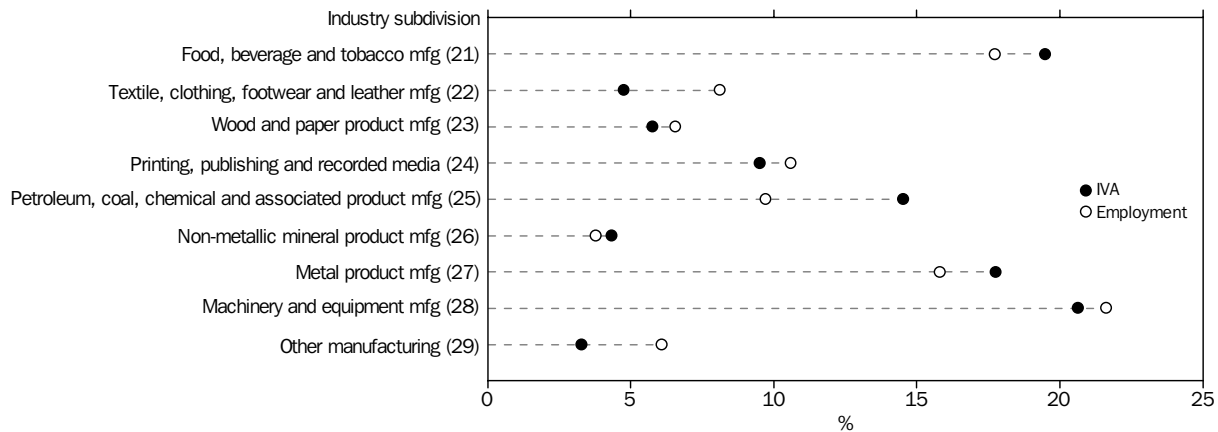
In other subdivisions, growth in IVA per person employed was greater than growth in IVA. For these subdivisions, Non-metallic mineral product manufacturing was the industry subdivision with the biggest difference (10.5 percentage points). This was partly due to the decrease in employment (9.8%) being greater than that for IVA (3.7%), causing IVA per person employed to increase by 6.8%.

SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED *continued*

Current year analysis

DISTRIBUTION OF IVA AND EMPLOYMENT



For 1997–98, Machinery and equipment manufacturing, Food, beverage and tobacco manufacturing, Metal product manufacturing and Petroleum, coal, chemical and associated product manufacturing were the subdivisions with the largest contribution to IVA in the manufacturing industry. In combination, these four industry subdivisions accounted for 72% of total IVA in the manufacturing industry.

The contribution of these industry subdivisions to total manufacturing IVA and the most notable industry classes within those subdivisions (as a percentage of total manufacturing IVA) were:

- Machinery and equipment manufacturing (20.6%), where the industry classes Motor vehicle manufacturing (ANZSIC Class 2811 at 4.6%) and Automotive component manufacturing n.e.c. (ANZSIC Class 2819 at 2.0%) were the most substantial.
- Food, beverage and tobacco manufacturing (19.5%), where the industry classes Meat processing (ANZSIC Class 2111 at 2.2%), Food manufacturing n.e.c. (ANZSIC Class 2179 at 1.8%) and Wine manufacturing (ANZSIC Class 2183 at 1.6%) were the most substantial.
- Metal product manufacturing (17.7%), where the industry classes Basic iron and steel manufacturing (ANZSIC Class 2711 at 4.1%), Alumina production (ANZSIC Class 2721 at 1.9%) and Structural steel fabricating (ANZSIC Class 2741 at 1.7%) were the most substantial.
- Petroleum, coal, chemical and associated product manufacturing (14.5%), where the industry classes Petroleum refining (ANZSIC Class 2510 at 2.2%) and Medicinal and pharmaceutical product manufacturing (ANZSIC Class 2543 at 2.2%) were the most substantial.

Industry classes making a notable contribution to industry value added and not included in the subdivisions listed above included Newspaper printing or publishing (ANZSIC Class 2421 at 3.5%) and Printing (ANZSIC Class 2412 at 3.2%).

SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED *continued*

Between them, Victoria (at 33.2%) and New South Wales (at 32.3%) contributed nearly two-thirds of manufacturing industry value added for Australia in 1997–98. The contribution of the other States and Territories in 1997–98 was: Queensland (13.7%), South Australia (10.0%), Western Australia (7.6%), Tasmania (2.3%), Northern Territory (0.6%) and Australian Capital Territory (0.3%).

The industry subdivision where industry value added was most heavily concentrated in a State or Territory was Textile, clothing, footwear and leather manufacturing in Victoria (at 49.4%). This was followed by Printing, publishing and recorded media in New South Wales (at 43.8%) and Machinery and equipment manufacturing in Victoria (at 40.2%). The industry subdivision where industry value added was heavily concentrated in a State relative to the State's proportion of total Australian manufacturing industry value added was Wood and paper product manufacturing in Tasmania. These manufacturers contributed 10.5% of industry value added for this industry in Australia, compared to the total Tasmanian contribution to Australian manufacturing of 2.3%. This was followed by Machinery and equipment manufacturing in South Australia (17.7% compared to 10.0%) and Non-metallic mineral product manufacturing and Metal product manufacturing in Western Australia (12.4% and 11.6% respectively compared to 7.6%).

EMPLOYMENT

The Australian manufacturing industry employed 953,700 persons at the end of June 1998. As in previous years, Machinery and equipment manufacturing (21.6%), Food, beverage and tobacco manufacturing (17.7%) and Metal product manufacturing (15.8%) were the major contributors to employment at the end of June 1998. Non-metallic mineral product manufacturing (3.8%) and Other manufacturing (6.1%) remain the smallest contributors.

Manufacturing employment increased by 0.9% between June 1997 and June 1998. Six of the nine industry subdivisions recorded increases in the level of employment over this period. The largest percentage increases were recorded by Printing, publishing and recorded media (up 4.6% from 96,500 persons to 100,900 persons) and Food, beverage and tobacco manufacturing (up 3.2% from 163,800 persons to 169,000 persons). The largest decrease was recorded by Non-metallic mineral product manufacturing (down 3.0% from 37,100 persons to 36,000 persons).

As in previous years, Victoria and New South Wales were the States in which manufacturing employment was concentrated at the end of June 1998. Victoria accounted for 33.0% of Australian manufacturing employment, with the corresponding figure for New South Wales being 31.8%. This is the first time since June 1990 that employment in the Victorian manufacturing industry has exceeded that for New South Wales. This represents an increase of 0.6 percentage points for Victoria, but a decrease of 1.0 percentage points for New South Wales on the contributions that they recorded 12 months earlier. Queensland and Western Australia both increased their contributions by 0.2 percentage points (to 15.1% and 8.0% respectively).

SUMMARY OF FINDINGS *continued*

EMPLOYMENT *continued*

Longer-term trends (June 1993 to June 1998)

EMPLOYMENT



Employment in the Australian manufacturing industry increased by 12,100 persons (up 1.3% from 941,600 persons to 953,700 persons) over the period June 1993 to June 1998. However, employment at June 1998 was still less than the peak in June 1995 of 956,900 persons.

Between June 1993 and June 1998, five industry subdivisions recorded increases, three recorded decreases and one recorded the same level of employment. The largest percentage and absolute increase was recorded by Printing, publishing and recorded media (up 10.9% from 91,000 persons to 100,900 persons), followed by Machinery and equipment manufacturing (up 3.0% from 200,300 persons to 206,300 persons). The largest decreases were recorded by Non-metallic mineral product manufacturing (down 9.8% from 39,900 persons to 36,000 persons) and Textile, clothing, footwear and leather manufacturing (down 6.3% from 82,600 persons to 77,400 persons).

Between June 1993 and June 1998, four of the States and Territories recorded increases in employment and four recorded decreases. The increases were recorded in the Northern Territory (up 20.5% from 3,100 persons to 3,700 persons), Western Australia (up 10.5% from 68,800 persons to 76,000 persons), Queensland (up 5.7% from 136,500 persons to 144,300 persons) and Victoria (up 3.7% from 303,500 persons to 314,800 persons). The largest percentage decrease was recorded in the Australian Capital Territory (down 8.0% from 4,200 persons to 3,900 persons). Decreases were also recorded in Tasmania (down 7.7% from 22,600 persons to 20,900 persons), New South Wales (down 3.6% from 315,000 persons to 303,600 persons) and South Australia (down 1.6% from 88,000 persons to 86,600 persons).

The percentage of Australian manufacturing employment in New South Wales has declined since June 1993 (decreasing by 1.6 percentage points to 31.8%), as has that for South Australia (down 0.2 percentage points to 9.1%) and Tasmania (down 0.2 percentage points to 2.2%). Victoria has increased its proportion of employment over this period (up 0.8 percentage points to 33.0%), as did Western Australia (up 0.7 percentage points to 8.0%), Queensland (up 0.6 percentage points to 15.1%) and the Northern

SUMMARY OF FINDINGS *continued*

EMPLOYMENT *continued*

Territory (up 0.1 percentage points to 0.4%). The Australian Capital Territory maintained its proportion of Australian manufacturing employment over the period (at 0.4%).

EMPLOYMENT AND WAGES

The Australian manufacturing industry employed 953,700 persons at the end of June 1998 and paid \$33,870m in wages and salaries in 1997–98. This represents an average of \$35,500 paid in annual wages and salaries per person employed at the end of June 1998, an increase of 2.6% on the \$34,600 recorded twelve months earlier.

Average wages and salaries paid per person employed at the end of June rose in seven of the nine manufacturing industry subdivisions, remained the same in one and fell in the other between 1996–97 and 1997–98. The three industry subdivisions which recorded falls in employment were also the subdivisions recording the largest percentage increases in average wages and salaries paid.

The industry subdivisions to record the largest percentage increases in wages and salaries paid per person employed were:

- Machinery and equipment manufacturing (up 5.1%—\$36,200 to \$38,000), where 22 (out of 28) industry classes recorded an increase, with the largest being:
 - ◆ Telecommunication, broadcasting and transceiving equipment manufacturing (ANZSIC Class 2842) (up 14.4%—\$42,500 to \$48,600);
 - ◆ Railway equipment manufacturing (ANZSIC Class 2823) (up 12.2%—\$38,600 to \$43,300); and
 - ◆ Motor vehicle manufacturing (ANZSIC Class 2811) (up 12.0%—\$41,600 to \$46,600).
- Non-metallic mineral product manufacturing (up 4.6%—\$36,900 to \$38,600), where 8 (out of 11) industry classes recorded an increase, with the largest being:
 - ◆ Concrete pipe and box culvert manufacturing (ANZSIC Class 2634) (up 18.5%—\$37,900 to \$44,900);
 - ◆ Glass and glass product manufacturing (ANZSIC Class 2610) (up 15.0%—\$40,700 to \$46,800);
 - ◆ Ceramic product manufacturing (ANZSIC Class 2622) (up 14.7%—\$36,600 to \$42,000); and
 - ◆ Clay brick manufacturing (ANZSIC Class 2621) (up 13.6%—\$35,700 to \$40,500).

The industry subdivision to record the decrease in wages and salaries paid per person employed at the end of June between 1996–97 and 1997–98 was:

- Textile, clothing, footwear and leather manufacturing (down 1.9%—\$26,100 to \$25,600), where ten industry classes recorded increases and nine recorded decreases, with the largest decreases being:
 - ◆ Textile finishing (ANZSIC Class 2215) (down 24.8%—\$34,000 to \$25,500); and
 - ◆ Knitting mill product manufacturing n.e.c. (ANZSIC Class 2239) (down 16.4%—\$37,600 to \$31,400).

SUMMARY OF FINDINGS *continued*

EMPLOYMENT AND WAGES *continued*

The industry classes which had the highest wages and salaries paid per person employed in 1997–98 were Petroleum refining (ANZSIC Class 2510) (\$76,700), Copper, silver, lead and zinc smelting, refining (ANZSIC Class 2723) (\$58,600), Basic iron and steel manufacturing (ANZSIC Class 2711) (\$57,300) and Tobacco product manufacturing (ANZSIC Class 2190) (\$57,100). The industry classes which had the lowest wages and salaries paid per person employed in 1997–98 were Clothing manufacturing n.e.c. (ANZSIC Class 2249) (\$15,600), Wood product manufacturing n.e.c. (ANZSIC Class 2329) (\$19,400), Prefabricated building manufacturing n.e.c. (ANZSIC Class 2919) (\$20,100) and Women's and girls' wear manufacturing (ANZSIC Class 2242) (\$20,700).

TURNOVER

Note: Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. The effect on the data following the adoption of the new international standards is shown in table 2. These factors need to be taken into consideration in interpreting the following commentary.

Turnover rose, in current pricing terms, by \$5,184m to \$213,000m for 1997–98. This represents a 2.5% increase on the \$207,816m recorded for 1996–97.

Eight of the nine manufacturing industry subdivisions recorded an increase in turnover between 1996–97 and 1997–98. Food, beverage and tobacco manufacturing remained the largest contributor to total manufacturing turnover, and also recorded the largest increase in both dollar (up \$2,813m) and percentage (up 6.3%) terms. Other large percentage increases between 1996–97 and 1997–98 were recorded by Non-metallic mineral product manufacturing (up 3.7%), Other manufacturing (up 2.9%) and Wood and paper product manufacturing (up 2.8%). Textile, clothing, footwear and leather manufacturing (down 0.4%) was the only industry subdivision to record a fall in turnover.

The industry classes with the largest percentage increases between 1996–97 and 1997–98 were:

- Cardigan and pullover manufacturing (ANZSIC Class 2232) (up 61.7% or \$88m);
- Spirit manufacturing (ANZSIC Class 2184) (up 58.2% or \$59m);
- Plastic product, rigid fibre reinforced, manufacturing (ANZSIC Class 2564) (up 48.7% or \$202m); and
- Biscuit manufacturing (ANZSIC Class 2163) (up 40.6% or \$293m).

The industry classes with the largest dollar increases between 1996–97 and 1997–98 were:

- Meat processing (ANZSIC Class 2111) (up \$794m or 14.0%);
- Medicinal and pharmaceutical product manufacturing (ANZSIC Class 2543) (up \$531m or 13.1%); and
- Aluminium smelting (ANZSIC Class 2722) (up \$480m or 15.2%).

SUMMARY OF FINDINGS *continued*

TURNOVER *continued*

The industry classes with the largest percentage decreases between 1996–97 and 1997–98 were:

- Textile finishing (ANZSIC Class 2215) (down 23.6% or \$66m);
- Plastic foam product manufacturing (ANZSIC Class 2565) (down 19.5% or \$79m); and
- Wool textile manufacturing (ANZSIC Class 2214) (down 19.2% or \$50m).

The industry classes with the largest dollar decreases between 1996–97 and 1997–98 were:

- Basic iron and steel manufacturing (ANZSIC Class 2711) (down \$584m or 6.5%);
- Telecommunication, broadcasting and transceiving equipment manufacturing (ANZSIC Class 2842) (down \$296m or 13.1%);
- Fabricated metal product manufacturing n.e.c. (ANZSIC Class 2769) (down \$234m or 8.3%); and
- Flour mill product manufacturing (ANZSIC Class 2151) (down \$200m or 14.9%).

WINE AND BEER

For the first time since the introduction of integrated economic statistics with the 1968–69 collection, turnover for Wine manufacturing (ANZSIC Class 2183 at \$2,595m) has exceeded that for Beer and malt manufacturing (ANZSIC Class 2182 at \$2,497m). The difference between these estimates is greater than one standard error, but less than two standard errors. Therefore, some caution needs to be used in interpreting this result.

EMPLOYMENT SIZE

Note: In interpreting the commentary by employment size, reference should be made to paragraphs 25 and 26 of the Explanatory Notes. This particularly affects the smallest size categories.

Establishments employing 100 or more persons accounted for 47.1% of employment at the end of June 1998 and 57.3% of industry value added for 1997–98. Establishments employing 20–99 persons accounted for 27.3% of employment and 24.1% of industry value added. Small establishments (i.e. those employing 0–19 persons) accounted for 25.6% of employment and 18.5% of industry value added. Manufacturing establishments employing 1,000 or more persons at the end of June 1998 employed 8.0% of all persons working in the manufacturing industry in Australia and contributed 11.7% to industry value added.

These proportions were reflected in the ratios of IVA per person employed at the end of June 1998. Small establishments (employing 0–19 persons) had a lower ratio (\$52,000) than establishments in the larger size categories. Establishments employing 100 or more persons recorded an average industry value added per person employed of \$87,300, with establishments employing 1,000 or more persons having a ratio of \$104,700.

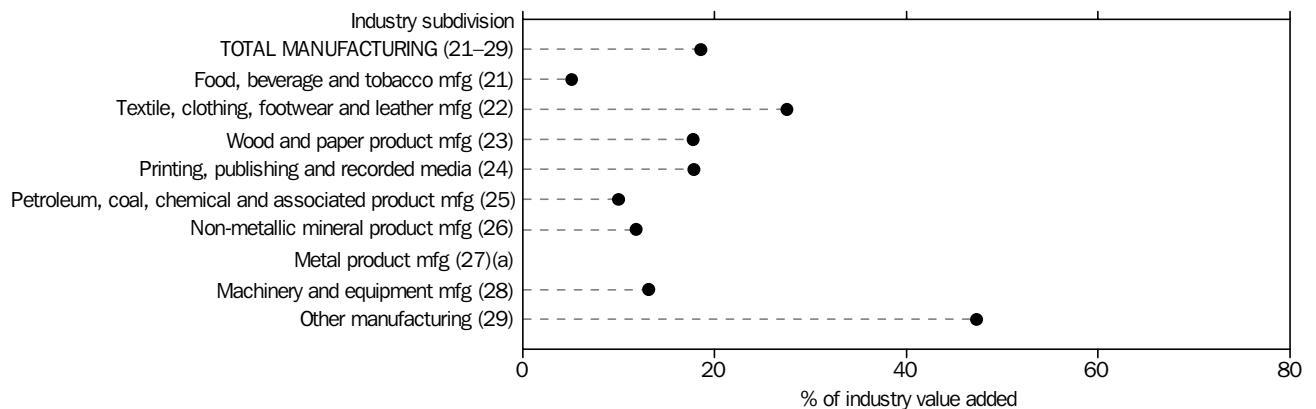
SUMMARY OF FINDINGS *continued*

EMPLOYMENT SIZE *continued*

Omitting Metal product manufacturing (see paragraph 26 of the Explanatory Notes), six of the other eight industry subdivisions had more than 50% of industry value added contributed by establishments employing 100 or more persons. The industries where these larger establishments contributed most to industry value added were Food, beverage and tobacco manufacturing (75.9%) and Machinery and equipment manufacturing (67.5%).

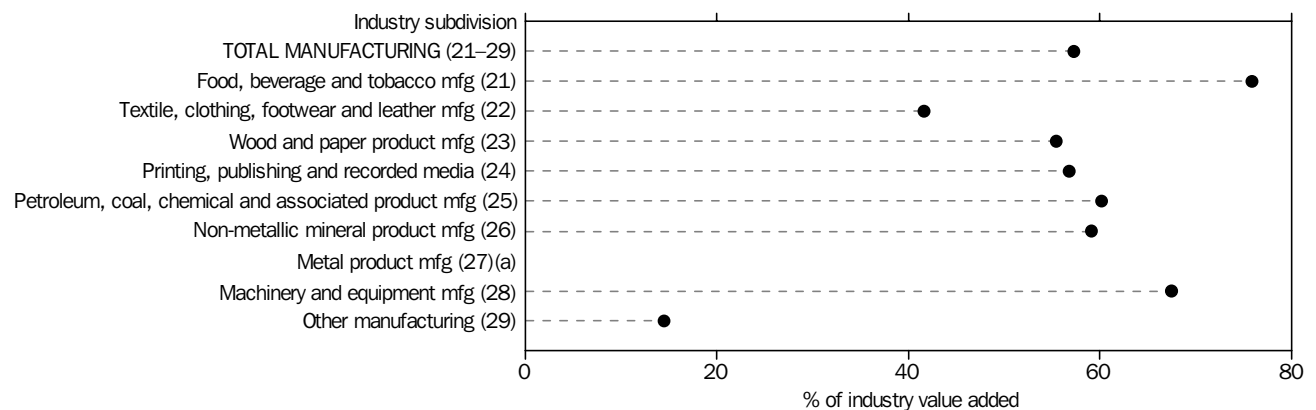
Small establishments (employing 0–19 persons) made relatively significant contributions to industry value added for Other manufacturing (47.4%) and Textile, clothing, footwear and leather manufacturing (27.5%).

DISTRIBUTION OF INDUSTRY VALUE ADDED, 0–19 PERSONS



(a) Data for Metal product manufacturing have not been included in this graph. See paragraph 26 of the Explanatory Notes.

DISTRIBUTION OF INDUSTRY VALUE ADDED, 100 OR MORE PERSONS



(a) Data for Metal product manufacturing have not been included in this graph. See paragraph 26 of the Explanatory Notes.

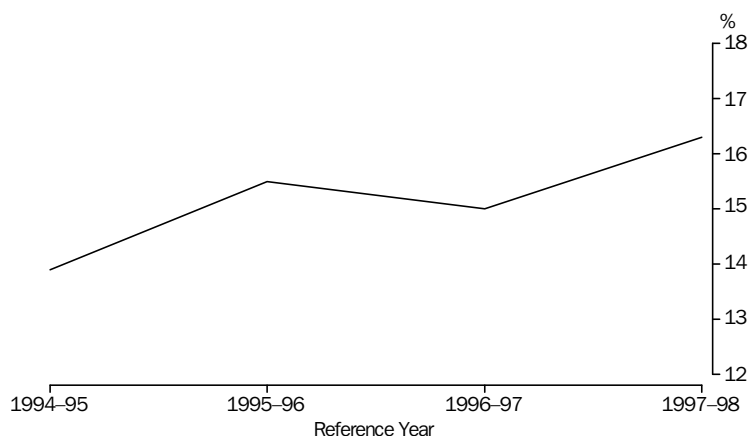
SUMMARY OF FINDINGS *continued*

EXPORTS

For 1997–98, Australian manufacturers directly exported \$32,079m of the goods that they produced. This represents a 10.8% increase on the \$28,964m recorded for 1996–97. Exports as a percentage of the total sales and transfers out of goods for sale produced also increased (from 15.0% for 1996–97 to 16.3% for 1997–98).

Manufacturers' direct exports increased in all nine industry subdivisions between 1996–97 and 1997–98. The Food, beverage and tobacco manufacturing subdivision's increase of \$1,283m (up 16.7%—from \$7,701m for 1996–97 to \$8,984m for 1997–98) was, by far, the most significant contributor to the overall increase. This subdivision alone accounted for 41.2% of the total increase over the 12 months period. Industry subdivisions to record the largest percentage increases in direct exports between 1996–97 and 1997–98 were Wood and paper product manufacturing (up 19.5%—\$704m to \$841m), Food, beverage and tobacco manufacturing (see figures above) and Textile, clothing, footwear and leather manufacturing (up 16.2%—\$1,255m to \$1,458m).

EXPORTS AS A PROPORTION OF GOODS PRODUCED



Commencing with the 1994–95 manufacturing collection, data on exports have been consistently collected as part of the annual manufacturing collection. Exports as a proportion of sales and transfers out of goods for sale produced has increased from 13.9% for 1994–95 to 16.3% for 1997–98. There was a decrease (0.5%) in this proportion between 1995–96 (15.5%) and 1996–97 (15.0%).

STATE COMPARISON

For the second consecutive year, for 1997–98, the contribution to Australian turnover by Victorian manufacturers (\$69,517m) has exceeded that of manufacturers located in New South Wales (\$68,273m). When this first occurred, for 1996–97, it was the first time that this had happened since the commencement of integrated economic statistics with the 1968–69 collection. Nevertheless, more people were still employed in manufacturing at the end of June 1997 in New South Wales (310,200 persons) than in Victoria (306,500 persons). However, at the end of June 1998, employment in manufacturing in Victoria (314,800 persons) was also higher than employment in New South Wales (303,600 persons). This is the first time that this has happened since June 1990.

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MANUFACTURING ESTABLISHMENTS(a), Summary of Operations(b)

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)(e)	Turnover(e)	Industry gross product(e)	Industry value added(e)	Ratio of wages and salaries to turnover(e)	Turnover per person employed (e)(f)	
ANZSIC code	Description	'000	\$m	\$m	\$m	\$m	ratio	\$'000	
21	Food, beverage and tobacco mfg	1997-98	169.0	5 978.1	(g)47 620.4	(h)13 047.4	(h)13 390.4	0.13	281.7
		1996-97r	163.8	5 591.5	44 807.6	11 468.2	..	0.12	273.6
		1995-96	162.9	(i)5 148.1	43 287.4	11 392.4	..	0.12	265.7
		1994-95	166.6	5 111.6	41 763.1	..	..	0.12	250.6
		1993-94	167.0	5 020.3	40 427.5	..	..	0.12	242.0
		1992-93	164.9	4 855.2	37 770.1	9 725.1	..	0.13	229.1
22	Textile, clothing, footwear and leather mfg	1997-98	77.4	1 983.9	(g)9 864.5	(h)3 155.3	(h)3 258.7	0.20	127.4
		1996-97r	77.0	2 014.0	9 901.0	3 254.4	..	0.20	128.5
		1995-96	78.0	(i)1 894.6	9 908.9	3 192.0	..	0.19	127.0
		1994-95	80.1	1 972.9	9 757.9	..	..	0.20	121.9
		1993-94	79.9	1 868.3	9 669.0	..	..	0.19	121.0
		1992-93	82.6	1 961.0	9 350.9	3 080.0	..	0.21	113.2
23	Wood and paper product mfg	1997-98	62.6	2 088.9	(g)11 497.5	(h)3 813.3	(h)3 953.1	0.18	183.6
		1996-97r	61.7	2 027.6	11 182.1	3 722.7	..	0.18	181.2
		1995-96	65.8	(i)2 001.8	11 539.1	4 045.3	..	0.17	175.3
		1994-95	66.0	2 010.5	11 598.1	..	..	0.17	175.8
		1993-94	64.8	1 834.9	10 925.6	..	..	0.17	168.7
		1992-93	62.6	1 824.1	10 315.1	3 384.3	..	0.18	164.8
24	Printing, publishing and recorded media	1997-98	100.9	3 534.1	(g)15 123.0	(h)6 799.8	(h)6 551.1	0.23	149.9
		1996-97r	96.5	3 325.6	14 850.5	6 716.0	..	0.22	153.9
		1995-96	92.2	(i)3 084.3	13 805.9	6 427.8	..	0.22	149.8
		1994-95	95.8	3 141.6	13 645.9	..	..	0.23	142.4
		1993-94	92.3	2 876.4	12 515.4	..	..	0.23	135.6
		1992-93	91.0	2 828.2	11 891.9	5 184.1	..	0.24	130.7
25	Petroleum, coal, chemical and associated product mfg	1997-98	92.6	3 909.7	(g)33 363.8	(h)9 667.1	(h)9 981.4	0.12	360.1
		1996-97r	93.0	3 787.5	32 762.5	9 108.7	..	0.12	352.4
		1995-96	94.3	(i)3 588.6	31 455.8	9 049.3	..	0.11	333.7
		1994-95	92.1	3 453.3	30 120.7	..	..	0.11	326.9
		1993-94	91.2	3 301.3	29 615.6	..	..	0.11	324.7
		1992-93	91.1	3 191.1	28 634.8	7 227.2	..	0.11	314.4
26	Non-metallic mineral product mfg	1997-98	36.0	1 387.8	(g)8 927.7	(h)2 839.2	(h)2 964.9	0.16	248.1
		1996-97r	37.1	1 367.1	8 606.6	2 642.8	..	0.16	232.1
		1995-96	36.4	(i)1 250.7	8 383.7	2 902.2	..	0.15	230.6
		1994-95	39.0	1 332.5	8 869.0	..	..	0.15	227.3
		1993-94	38.9	1 299.5	8 663.0	..	..	0.15	222.8
		1992-93	39.9	1 298.6	8 322.2	2 678.7	..	0.16	208.6

(a) See paragraph 5 of the Explanatory Notes.

(b) For factors affecting comparability of data over the time periods shown, see paragraphs 11-18 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Value data are at current prices and, therefore, do not discount the impact of price changes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Commencing with the 1997-98 manufacturing collection, new international standards apply to the calculation of turnover. The effect on the data following the adoption of the new international standards is shown in table 2. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(h) Commencing with the 1997-98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. Industry gross product is also shown for 1997-98. The effect on the data following the adoption of the new international standards is shown in table 2. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(i) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 18 of the Explanatory Notes.

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)(e)	Turnover(e)	Industry gross product(e)	Industry value added(e)	Ratio of wages and salaries to turnover(e)	Turnover per person employed (e)(f)	
ANZSIC code	Description	'000	\$m	\$m	\$m	\$m	ratio	\$'000	
27	Metal product mfg	1997-98	150.7	5 695.9	(g)38 330.0	(h)11 802.6	(h)12 189.6	0.15	254.4
		1996-97r	150.0	5 664.6	37 790.1	11 117.3	..	0.15	251.9
		1995-96	150.1	(i)5 246.3	38 154.0	11 722.8	..	0.14	254.2
		1994-95	150.3	5 203.4	35 349.3	..	..	0.15	235.2
		1993-94	151.3	4 960.5	33 908.8	..	..	0.15	224.1
		1992-93	152.7	4 934.8	32 896.1	9 138.8	..	0.15	215.4
28	Machinery and equipment mfg	1997-98	206.3	7 841.9	(g)41 567.6	(h)13 792.0	(h)14 184.3	0.19	201.4
		1996-97r	208.1	7 524.2	41 400.9	13 628.0	..	0.18	199.0
		1995-96	210.0	(i)6 979.2	39 719.7	12 312.6	..	0.18	189.1
		1994-95	208.8	6 829.2	38 018.6	..	..	0.18	182.0
		1993-94	202.7	6 337.7	35 569.1	..	..	0.18	175.4
		1992-93	200.3	6 248.5	31 975.7	9 653.0	..	0.20	159.7
29	Other manufacturing	1997-98	58.1	1 450.1	(g)6 705.5	(h)2 179.3	(h)2 244.5	0.22	115.4
		1996-97r	57.9	1 413.4	6 515.0	2 547.8	..	0.22	112.6
		1995-96	55.2	(i)1 321.2	5 907.7	2 186.0	..	0.22	107.0
		1994-95	58.1	1 324.9	6 079.9	..	..	0.22	104.6
		1993-94	58.8	1 280.7	5 895.5	..	..	0.22	100.3
		1992-93	56.6	1 254.3	5 423.4	1 868.1	..	0.23	95.9
21-29	Total manufacturing	1997-98	953.7	33 870.4	(g)213 000.0	(h)67 096.1	(h)68 717.9	0.16	223.3
		1996-97r	945.1	32 715.4	207 816.4	64 205.9	..	0.16	219.9
		1995-96	944.8	(i)30 515.0	202 162.3	63 230.5	..	0.15	214.0
		1994-95	956.9	30 380.0	195 202.4	..	..	0.16	204.0
		1993-94	946.9	28 779.7	187 189.5	..	..	0.15	197.7
		1992-93	941.6	28 395.7	176 580.1	51 939.3	..	0.16	187.5

(a) See paragraph 5 of the Explanatory Notes.

(b) For factors affecting comparability of data over the time periods shown, see paragraphs 11-18 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Value data are at current prices and, therefore, do not discount the impact of price changes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Commencing with the 1997-98 manufacturing collection, new international standards apply to the calculation of turnover. The effect on the data following the adoption of the new international standards is shown in table 2. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(h) Commencing with the 1997-98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. Industry gross product is also shown for 1997-98. The effect on the data following the adoption of the new international standards is shown in table 2. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(i) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 18 of the Explanatory Notes.

2

EFFECT OF CHANGES TO DEFINITIONS(a), Australia(b)

INDUSTRY SUBDIVISION		Effect on estimates of turnover	Difference between IVA estimates and IGP estimates
ANZSIC code	Description	%	%
21	Food, beverage and tobacco mfg	—	2.6
22	Textile, clothing, footwear and leather mfg	—	3.2
23	Wood and paper product mfg	—	3.7
24	Printing, publishing and recorded media	0.1	-3.6
25	Petroleum, coal, chemical and associated product mfg	0.3	3.2
26	Non-metallic mineral product mfg	0.1	4.4
27	Metal product mfg	—	3.3
28	Machinery and equipment mfg	0.1	2.8
29	Other manufacturing	—	3.0
21–29 Total manufacturing		0.1	2.4

- (a) This table presents percentage differences between estimates for turnover calculated on the basis of the most recent international standards and corresponding estimates calculated on the basis of the standards which applied previously, and percentage differences between IVA and IGP (the previous measure of an industry's contribution to GDP). Paragraphs 11–14 of the Explanatory Notes provide details of the changes to the international standards.
- (b) State and Territory industry subdivision estimates for turnover and IVA have been affected by the changes in a very similar manner to national estimates. Industry group and industry class estimates for Australia have also been affected similarly, with one exception. IVA for Book and other publishing (ANZSIC Class 2423) is 55.2% lower than IGP for 1997–98.

3

MANUFACTURING ESTABLISHMENTS(a), Summary of Operations—Industry class

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
FOOD, BEVERAGE AND TOBACCO MFG							
Meat and meat product mfg							
2111	Meat processing	31 488	1 004.8	6 449.7	1 532.2	204.8	48.7
2112	Poultry processing	12 637	372.7	2 229.4	573.6	176.4	45.4
2113	Bacon, ham and smallgood mfg	6 686	201.1	1 260.0	369.7	188.4	55.3
211	<i>Total</i>	50 811	1 578.6	9 939.1	2 475.4	195.6	48.7
Dairy product mfg							
2121	Milk and cream processing	6 851	285.8	3 009.9	661.4	439.3	96.5
2122	Ice cream mfg	2 887	115.9	654.5	187.7	226.7	65.0
2129	Dairy product mfg n.e.c.	7 638	308.6	3 697.4	714.8	484.1	93.6
212	<i>Total</i>	17 377	710.3	7 361.8	1 563.9	423.7	90.0
213	Fruit and vegetable processing	10 281	426.1	3 202.2	833.5	311.5	81.1
214	Oil and fat mfg	1 884	89.0	913.7	283.4	485.0	150.4
Flour mill and cereal food mfg							
2151	Flour mill product mfg	2 196	99.9	1 143.2	276.9	520.5	126.1
2152	Cereal food and baking mix mfg	4 996	186.6	2 099.1	606.9	420.2	121.5
215	<i>Total</i>	7 192	286.5	3 242.3	883.7	450.8	122.9
Bakery product mfg							
2161	Bread mfg	9 616	342.3	1 265.1	410.1	131.6	42.7
2162	Cake and pastry mfg	9 848	243.0	1 035.0	343.3	105.1	34.9
2163	Biscuit mfg	5 384	169.4	1 014.0	574.1	188.3	106.6
216	<i>Total</i>	24 847	754.7	3 314.1	1 327.5	133.4	53.4
Other food mfg							
2171	Sugar mfg	6 306	280.0	2 551.2	612.5	404.6	97.1
2172	Confectionery mfg	6 511	274.6	1 266.2	424.0	194.5	65.1
2173	Seafood processing	4 087	99.7	1 129.9	208.6	276.4	51.0
2174	Prepared animal and bird feed mfg	4 229	171.7	2 526.9	447.7	597.4	105.9
2179	Food mfg n.e.c.	17 145	579.9	3 498.6	1 212.8	204.1	70.7
217	<i>Total</i>	38 279	1 405.9	10 972.8	2 905.7	286.7	75.9
Beverage and malt mfg							
2181	Soft drink, cordial and syrup mfg	6 081	244.5	2 442.6	643.8	401.7	105.9
2182	Beer and malt mfg	2 855	159.7	2 496.5	886.1	874.4	310.4
2183	Wine mfg	7 788	229.4	2 595.1	1 084.3	333.2	139.2
2184	Spirit mfg	380	21.3	160.0	52.5	421.4	138.1
218	<i>Total</i>	17 105	654.9	7 694.2	2 666.7	449.8	155.9
219	Tobacco product mfg	1 263	72.1	980.3	450.6	776.2	356.8
21	Total food, beverage and tobacco mfg	169 037	5 978.1	47 620.4	13 390.4	281.7	79.2

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG							
Textile fibre, yarn and woven fabric mfg							
2211	Wool scouring	1 767	82.0	512.2	180.5	289.8	102.1
2212	Synthetic fibre textile mfg	3 520	124.1	670.7	219.3	190.5	62.3
2213	Cotton textile mfg	2 961	109.9	535.6	189.2	180.9	63.9
2214	Wool textile mfg	1 959	61.7	209.6	75.5	107.0	38.5
2215	Textile finishing	1 933	49.4	212.7	78.0	110.0	40.3
221	<i>Total</i>	12 140	427.1	2 140.7	742.4	176.3	61.1
Textile product mfg							
2221	Made-up textile product mfg	6 545	149.1	744.1	236.8	113.7	36.2
2222	Textile floor covering mfg	2 925	102.7	621.7	189.8	212.6	64.9
2223	Rope, cordage and twine mfg	753	28.2	109.1	47.1	145.0	62.6
2229	Textile product mfg n.e.c.	2 641	66.9	290.1	114.3	109.8	43.3
222	<i>Total</i>	12 863	346.9	1 765.0	588.0	137.2	45.7
Knitting mills							
2231	Hosiery mfg	2 259	64.3	235.9	102.7	104.4	45.4
2232	Cardigan and pullover mfg	2 001	44.1	229.5	66.3	114.7	33.1
2239	Knitting mill product mfg n.e.c.	2 783	87.5	541.1	146.7	194.4	52.7
223	<i>Total</i>	7 043	195.9	1 006.5	315.6	142.9	44.8
Clothing mfg							
2241	Men's and boys' wear mfg	8 491	224.2	790.3	270.4	93.1	31.8
2242	Women's and girls' wear mfg	11 292	233.6	1 400.8	464.2	124.1	41.1
2243	Sleepwear, underwear and infant clothing mfg	3 408	95.4	527.3	145.7	154.7	42.8
2249	Clothing mfg n.e.c.	12 710	198.2	830.5	344.9	65.3	27.1
224	<i>Total</i>	35 901	751.4	3 548.9	1 225.2	98.9	34.1
225	Footwear mfg	5 798	153.8	582.6	211.3	100.5	36.4
Leather and leather product mfg							
2261	Leather tanning and fur dressing	2 864	89.9	730.1	145.4	254.9	50.8
2262	Leather and leather substitute product mfg	792	19.0	90.8	30.8	114.6	38.9
226	<i>Total</i>	3 656	108.8	820.8	176.2	224.5	48.2
22	Total textile, clothing, footwear and leather mfg	77 402	1 983.9	9 864.5	3 258.7	127.4	42.1
WOOD AND PAPER PRODUCT MFG							
Log sawmilling and timber dressing							
2311	Log sawmilling	7 007	178.8	771.3	317.5	110.1	45.3
2312	Wood chipping	912	36.2	506.8	192.3	555.5	210.8
2313	Timber resawing and dressing	7 361	240.6	1 215.3	425.6	165.1	57.8
231	<i>Total</i>	15 280	455.6	2 493.3	935.4	163.2	61.2
Other wood product mfg							
2321	Plywood and veneer mfg	1 542	50.2	237.7	91.9	154.2	59.6
2322	Fabricated wood mfg	3 385	148.3	842.9	265.4	249.0	78.4
2323	Wooden structural component mfg	18 737	479.3	2 184.3	677.7	116.6	36.2
2329	Wood product mfg n.e.c.	6 489	125.9	560.4	201.3	86.4	31.0
232	<i>Total</i>	30 154	803.7	3 825.3	1 236.5	126.9	41.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
Paper and paper product mfg							
2331	Pulp, paper and paperboard mfg	4 800	260.3	1 961.2	612.9	408.5	127.7
2332	Solid paperboard container mfg	2 374	108.5	506.4	201.9	213.3	85.0
2333	Corrugated paperboard container mfg	5 369	265.5	1 440.2	576.9	268.2	107.5
2334	Paper bag and sack mfg	1 177	47.4	278.2	75.4	236.4	64.0
2339	Paper product mfg n.e.c.	3 470	147.9	993.1	314.2	286.2	90.5
233	<i>Total</i>	17 190	829.6	5 179.0	1 781.2	301.3	103.6
23	Total wood and paper product mfg	62 624	2 088.9	11 497.5	3 953.1	183.6	63.1
PRINTING, PUBLISHING AND RECORDED MEDIA							
Printing and services to printing							
2411	Paper stationery mfg	8 485	260.1	1 207.5	453.1	142.3	53.4
2412	Printing	40 592	1 299.5	5 383.3	2 215.6	132.6	54.6
2413	Services to printing	7 458	236.1	696.9	372.5	93.4	49.9
241	<i>Total</i>	56 536	1 795.7	7 287.7	3 041.2	128.9	53.8
Publishing							
2421	Newspaper printing or publishing	29 762	1 204.4	4 753.5	2 410.5	159.7	81.0
2422	Other periodical publishing	6 753	242.0	1 124.3	387.2	166.5	57.3
2423	Book and other publishing	5 406	192.9	1 283.1	328.8	237.4	60.8
242	<i>Total</i>	41 921	1 639.3	7 160.9	3 126.4	170.8	74.6
243	Recorded media manufacturing and publishing	2 457	99.1	674.3	383.4	274.5	156.1
24	Total printing, publishing and recorded media	100 913	3 534.1	15 123.0	6 551.1	149.9	64.9
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG							
251	Petroleum refining	3 518	269.9	8 116.9	1 505.4	2 307.4	427.9
252	Petroleum and coal product mfg n.e.c.	573	28.7	334.5	80.9	583.5	141.0
Basic chemical mfg							
2531	Fertiliser mfg	2 475	n.p.	n.p.	n.p.	n.p.	n.p.
2532	Industrial gas mfg	1 359	n.p.	n.p.	n.p.	n.p.	n.p.
2533	Synthetic resin mfg	4 356	240.9	1 937.5	510.5	444.8	117.2
2534	Organic industrial chemical mfg n.e.c.	1 627	91.6	991.9	231.6	609.8	142.4
2535	Inorganic industrial chemical mfg n.e.c.	3 151	169.1	1 437.7	517.2	456.3	164.2
253	<i>Total</i>	12 968	672.3	5 981.2	1 856.2	461.2	143.1
Other chemical product mfg							
2541	Explosive mfg	1 474	80.5	716.9	295.9	486.3	200.7
2542	Paint mfg	5 377	218.6	1 633.4	610.3	303.7	113.5
2543	Medicinal and pharmaceutical product mfg	12 500	578.8	4 594.1	1 521.2	367.5	121.7
2544	Pesticide mfg	1 435	65.9	1 145.8	298.9	798.6	208.3
2545	Soap and other detergent mfg	3 387	138.7	1 078.7	314.4	318.5	92.8
2546	Cosmetic and toiletry preparation mfg	3 753	154.3	875.5	241.1	233.3	64.2
2547	Ink mfg	796	36.4	219.7	82.2	276.0	103.2
2549	Chemical product mfg n.e.c.	3 495	141.1	924.8	263.1	264.6	75.3
254	<i>Total</i>	32 218	1 414.3	11 189.0	3 627.1	347.3	112.6

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
Rubber product mfg							
2551	Rubber tyre mfg	3 858	172.6	896.1	316.0	232.3	81.9
2559	Rubber product mfg n.e.c.	4 634	160.7	692.5	277.1	149.4	59.8
255	<i>Total</i>	8 492	333.3	1 588.6	593.1	187.1	69.8
Plastic product mfg							
2561	Plastic blow moulded product mfg	3 081	132.4	717.8	268.2	232.9	87.1
2562	Plastic extruded product mfg	3 565	132.1	852.0	295.9	239.0	83.0
2563	Plastic bag and film mfg	6 137	235.3	1 357.6	483.1	221.2	78.7
2564	Plastic product, rigid fibre reinforced, mfg	4 138	121.1	617.8	222.6	149.3	53.8
2565	Plastic foam product mfg	1 751	55.7	327.0	118.2	186.8	67.5
2566	Plastic injection moulded product mfg	16 197	514.5	2 281.4	930.7	140.9	57.5
256	<i>Total</i>	34 870	1 191.2	6 153.6	2 318.8	176.5	66.5
25	Total petroleum, coal, chemical and associated product mfg	92 639	3 909.7	33 363.8	9 981.4	360.1	107.7
NON-METALLIC MINERAL PRODUCT MFG							
261	Glass and glass product mfg	4 552	212.9	1 009.2	388.1	221.7	85.3
Ceramic mfg							
2621	Clay brick mfg	3 784	153.3	731.0	327.1	193.2	86.4
2622	Ceramic product mfg	1 065	44.7	193.5	56.7	181.8	53.3
2623	Ceramic tile and pipe mfg	940	35.9	170.2	80.6	181.0	85.8
2629	Ceramic product mfg n.e.c.	2 007	46.3	212.0	104.9	105.6	52.3
262	<i>Total</i>	7 796	280.3	1 306.7	569.3	167.6	73.0
Cement, lime, plaster and concrete product mfg							
2631	Cement and lime mfg	2 350	127.4	1 279.2	468.6	544.4	199.4
2632	Plaster product mfg	1 713	70.2	536.4	207.5	313.1	121.1
2633	Concrete slurry mfg	5 861	213.3	2 319.7	420.3	395.8	71.7
2634	Concrete pipe and box culvert mfg	1 483	66.6	288.4	129.5	194.4	87.3
2635	Concrete product mfg n.e.c.	6 117	200.2	1 104.8	386.8	180.6	63.2
263	<i>Total</i>	17 525	677.8	5 528.6	1 612.8	315.5	92.0
264	Non-metallic mineral product mfg n.e.c.	6 112	216.8	1 083.1	394.7	177.2	64.6
26	Total non-metallic mineral product mfg	35 984	1 387.8	8 927.7	2 964.9	248.1	82.4
METAL PRODUCT MFG							
Iron and steel mfg							
2711	Basic iron and steel mfg	19 760	1 132.6	8 413.6	2 848.4	425.8	144.2
2712	Iron and steel casting and forging	5 870	224.2	923.7	386.2	157.4	65.8
2713	Steel pipe and tube mfg	2 345	110.3	834.8	242.2	356.0	103.3
271	<i>Total</i>	27 975	1 467.0	10 172.0	3 476.9	363.6	124.3
Basic non-ferrous metal mfg							
2721	Alumina production	5 650	291.7	3 236.2	1 314.9	572.8	232.7
2722	Aluminium smelting	5 462	285.7	3 636.4	873.2	665.7	159.9
2723	Copper, silver, lead and zinc smelting, refining	2 943	172.6	2 362.5	587.6	802.9	199.7
2729	Basic non-ferrous metal mfg n.e.c.	1 312	64.9	1 617.1	169.6	1 232.2	129.2
272	<i>Total</i>	15 367	814.8	10 852.3	2 945.2	706.2	191.7

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
Non-ferrous basic metal product mfg							
2731	Aluminium rolling, drawing, extruding	3 314	154.1	1 246.1	243.7	376.1	73.5
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	1 957	82.5	1 029.9	193.5	526.3	98.9
2733	Non-ferrous metal casting	1 283	36.0	136.5	60.5	106.4	47.2
273	<i>Total</i>	6 553	272.5	2 412.5	497.7	368.2	76.0
Structural metal product mfg							
2741	Structural steel fabricating	19 911	664.7	3 607.7	1 152.1	181.2	57.9
2742	Architectural aluminium product mfg	14 304	406.7	2 035.0	649.3	142.3	45.4
2749	Structural metal product mfg n.e.c.	5 590	146.1	785.7	284.6	140.6	50.9
274	<i>Total</i>	39 805	1 217.5	6 428.3	2 086.0	161.5	52.4
Sheet metal product mfg							
2751	Metal container mfg	4 203	167.5	1 076.4	302.4	256.1	71.9
2759	Sheet metal product mfg n.e.c.	14 953	476.4	2 114.3	787.3	141.4	52.6
275	<i>Total</i>	19 156	643.9	3 190.7	1 089.6	166.6	56.9
Fabricated metal product mfg							
2761	Hand tool and general hardware mfg	2 661	75.9	251.6	117.9	94.6	44.3
2762	Spring and wire product mfg	5 854	201.6	1 040.1	381.4	177.7	65.2
2763	Nut, bolt, screw and rivet mfg	2 025	75.6	351.4	143.5	173.5	70.9
2764	Metal coating and finishing	6 597	199.1	637.0	313.2	96.6	47.5
2765	Non-ferrous pipe fitting mfg	2 754	96.1	400.3	155.7	145.3	56.5
2769	Fabricated metal product mfg n.e.c.	21 910	631.9	2 593.8	982.3	118.4	44.8
276	<i>Total</i>	41 799	1 280.1	5 274.1	2 094.2	126.2	50.1
27	Total metal product mfg	150 655	5 695.9	38 330.0	12 189.6	254.4	80.9
MACHINERY AND EQUIPMENT MFG							
Motor vehicle and part mfg							
2811	Motor vehicle mfg	19 896	927.2	10 085.2	3 127.9	506.9	157.2
2812	Motor vehicle body mfg	8 548	235.7	1 103.8	322.7	129.1	37.8
2813	Automotive electrical and instrument mfg	4 714	196.4	931.3	272.1	197.5	57.7
2819	Automotive component mfg n.e.c.	22 357	795.6	3 385.3	1 354.8	151.4	60.6
281	<i>Total</i>	55 515	2 154.8	15 505.6	5 077.5	279.3	91.5
Other transport equipment mfg							
2821	Shipbuilding	6 979	309.0	1 662.2	570.8	238.2	81.8
2822	Boatbuilding	3 973	91.7	441.9	131.1	111.2	33.0
2823	Railway equipment mfg	4 931	213.6	894.9	280.4	181.5	56.9
2824	Aircraft mfg	12 569	634.7	1 551.8	718.4	123.5	57.2
2829	Transport equipment mfg n.e.c.	599	16.1	75.1	26.8	125.4	44.8
282	<i>Total</i>	29 050	1 265.2	4 625.9	1 727.5	159.2	59.5
Photographic and scientific equipment mfg							
2831	Photographic and optical good mfg	2 661	101.8	725.4	270.8	272.6	101.8
2832	Medical and surgical equipment mfg	4 727	137.4	556.0	184.8	117.6	39.1
2839	Professional and scientific equipment mfg n.e.c.	3 801	141.1	516.2	219.5	135.8	57.8
283	<i>Total</i>	11 189	380.2	1 797.6	675.1	160.7	60.3

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
Electronic equipment mfg							
2841	Computer and business machine mfg	2 965	115.1	1 304.2	189.8	439.9	64.0
2842	Telecommunication, broadcasting and transceiving equipment mfg	6 583	320.2	1 961.5	756.6	298.0	114.9
2849	Electronic equipment mfg n.e.c.	11 024	425.9	1 945.6	690.3	176.5	62.6
284	<i>Total</i>	20 572	861.1	5 211.2	1 636.7	253.3	79.6
Electrical equipment and appliance mfg							
2851	Household appliance mfg	12 544	415.4	2 137.4	639.3	170.4	51.0
2852	Electric cable and wire mfg	4 084	196.7	1 197.5	367.6	293.2	90.0
2853	Battery mfg	677	20.9	166.2	61.2	245.5	90.4
2854	Electric light and sign mfg	4 428	122.5	523.7	189.7	118.3	42.8
2859	Electrical equipment mfg n.e.c.	14 761	533.8	2 506.4	928.6	169.8	62.9
285	<i>Total</i>	36 493	1 289.4	6 531.0	2 186.3	179.0	59.9
Industrial machinery and equipment mfg							
2861	Agricultural machinery mfg	7 247	198.7	959.3	326.7	132.4	45.1
2862	Mining and construction machinery mfg	8 906	355.3	1 725.5	501.1	193.7	56.3
2863	Food processing machinery mfg	2 174	76.7	336.7	113.6	154.9	52.2
2864	Machine tool and part mfg	7 491	254.4	797.9	389.8	106.5	52.0
2865	Lifting and material handling equipment mfg	7 915	321.9	1 302.1	459.6	164.5	58.1
2866	Pump and compressor mfg	3 279	129.7	584.9	216.8	178.4	66.1
2867	Commercial space heating and cooling equipment mfg	3 027	103.7	519.9	148.3	171.7	49.0
2869	Industrial machinery and equipment mfg n.e.c.	13 490	450.7	1 670.1	725.3	123.8	53.8
286	<i>Total</i>	53 529	1 891.2	7 896.3	2 881.2	147.5	53.8
28	Total machinery and equipment mfg	206 348	7 841.9	41 567.6	14 184.3	201.4	68.7
OTHER MANUFACTURING							
Prefabricated building mfg							
2911	Prefabricated metal building mfg	2 346	66.1	525.2	134.3	223.9	57.2
2919	Prefabricated building mfg n.e.c.	575	11.6	59.4	15.8	103.3	27.5
291	<i>Total</i>	2 921	77.7	584.5	150.1	200.1	51.4
Furniture mfg							
2921	Wooden furniture and upholstered seat mfg	29 101	665.7	2 697.7	925.2	92.7	31.8
2922	Sheet metal furniture mfg	3 506	104.8	466.1	167.0	132.9	47.6
2923	Mattress mfg (except rubber)	2 939	79.0	437.8	141.5	149.0	48.2
2929	Furniture mfg n.e.c.	7 517	215.9	1 036.0	383.0	137.8	50.9
292	<i>Total</i>	43 062	1 065.4	4 637.6	1 616.7	107.7	37.5
Miscellaneous manufacturing							
2941	Jewellery and silverware mfg	3 071	72.8	357.9	104.5	116.5	34.0
2942	Toy and sporting good mfg	2 764	72.1	321.2	104.8	116.2	37.9
2949	Manufacturing n.e.c.	6 304	162.2	804.3	268.5	127.6	42.6
294	<i>Total</i>	12 139	307.0	1 483.4	477.7	122.2	39.4
29	Total other manufacturing	58 122	1 450.1	6 705.5	2 244.5	115.4	38.6
21–29	TOTAL MANUFACTURING	953 725	33 870.4	213 000.0	68 717.9	223.3	72.1

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

4

MANUFACTURING ESTABLISHMENTS(a), Summary Data—States, Territories & Australia

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NEW SOUTH WALES							
21	Food, beverage and tobacco mfg	49.0	1 825.5	14 098.4	3 909.7	287.9	79.8
22	Textile, clothing, footwear and leather mfg	22.7	584.9	3 129.0	1 014.3	137.9	44.7
23	Wood and paper product mfg	19.2	638.7	3 464.5	1 207.9	180.3	62.9
24	Printing, publishing and recorded media	41.1	1 556.9	6 869.1	2 867.3	167.0	69.7
25	Petroleum, coal, chemical and associated product mfg	31.8	1 364.4	11 886.4	3 382.4	374.3	106.5
26	Non-metallic mineral product mfg	10.6	420.2	2 782.9	902.8	262.3	85.1
27	Metal product mfg	51.9	2 157.8	13 584.6	4 420.5	261.8	85.2
28	Machinery and equipment mfg	61.0	2 432.1	10 472.2	3 788.3	171.7	62.1
29	Other manufacturing	16.3	435.5	1 985.8	693.2	121.6	42.4
21–29	<i>Total manufacturing</i>	303.6	11 415.9	68 272.9	22 186.4	224.9	73.1
VICTORIA							
21	Food, beverage and tobacco mfg	48.5	1 823.9	14 550.7	4 212.3	299.9	86.8
22	Textile, clothing, footwear and leather mfg	38.4	1 008.4	4 802.9	1 608.7	125.1	41.9
23	Wood and paper product mfg	17.5	617.2	3 250.6	1 056.8	185.7	60.4
24	Printing, publishing and recorded media	31.3	1 088.6	4 698.2	2 000.1	149.9	63.8
25	Petroleum, coal, chemical and associated product mfg	36.1	1 574.8	11 599.6	3 814.5	321.7	105.8
26	Non-metallic mineral product mfg	9.1	364.2	2 232.5	765.0	245.0	83.9
27	Metal product mfg	40.5	1 418.6	8 684.4	2 924.8	214.3	72.2
28	Machinery and equipment mfg	74.2	2 944.4	17 403.6	5 695.9	234.5	76.7
29	Other manufacturing	19.2	477.5	2 294.4	724.1	119.7	37.8
21–29	<i>Total manufacturing</i>	314.8	11 317.4	69 516.7	22 802.0	220.8	72.4
QUEENSLAND							
21	Food, beverage and tobacco mfg	35.2	1 181.0	9 633.3	2 505.2	273.5	71.1
22	Textile, clothing, footwear and leather mfg	6.8	132.5	611.6	208.5	89.6	30.5
23	Wood and paper product mfg	11.3	353.6	1 795.2	613.2	159.6	54.5
24	Printing, publishing and recorded media	12.5	377.7	1 499.3	718.7	119.8	57.4
25	Petroleum, coal, chemical and associated product mfg	10.5	404.6	4 760.1	1 189.7	455.1	113.7
26	Non-metallic mineral product mfg	7.8	280.5	1 949.6	585.2	250.9	75.3
27	Metal product mfg	25.1	855.4	6 589.5	1 986.7	262.9	79.3
28	Machinery and equipment mfg	25.1	815.3	3 523.5	1 218.5	140.3	48.5
29	Other manufacturing	10.1	241.4	1 071.3	396.6	106.6	39.5
21–29	<i>Total manufacturing</i>	144.3	4 642.1	31 433.2	9 422.3	217.9	65.3

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

4

MANUFACTURING ESTABLISHMENTS(a), Summary Data—States, Territories & Australia *continued*

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
SOUTH AUSTRALIA							
21	Food, beverage and tobacco mfg	16.0	496.7	4 436.4	1 452.4	278.0	91.0
22	Textile, clothing, footwear and leather mfg	4.5	133.3	772.9	230.8	172.5	51.5
23	Wood and paper product mfg	5.6	198.5	1 006.1	365.1	179.0	65.0
24	Printing, publishing and recorded media	5.7	188.4	774.4	349.0	135.4	61.0
25	Petroleum, coal, chemical and associated product mfg	6.9	251.2	1 552.3	637.9	226.0	92.8
26	Non-metallic mineral product mfg	2.8	102.0	612.8	209.6	221.5	75.8
27	Metal product mfg	11.5	438.3	2 627.3	944.7	227.8	81.9
28	Machinery and equipment mfg	28.3	1 057.0	7 302.6	2 517.3	258.4	89.1
29	Other manufacturing	5.4	131.5	579.2	176.4	107.4	32.7
21–29	<i>Total manufacturing</i>	86.6	2 997.0	19 664.1	6 883.2	227.1	79.5
WESTERN AUSTRALIA							
21	Food, beverage and tobacco mfg	13.8	438.1	3 267.2	877.5	236.1	63.4
22	Textile, clothing, footwear and leather mfg	3.4	81.7	339.4	120.6	100.4	35.7
23	Wood and paper product mfg	4.8	127.8	726.8	270.4	151.2	56.3
24	Printing, publishing and recorded media	6.8	210.4	871.2	429.8	127.8	63.1
25	Petroleum, coal, chemical and associated product mfg	6.5	279.0	3 335.3	877.2	515.1	135.5
26	Non-metallic mineral product mfg	4.7	185.5	1 001.8	366.7	212.3	77.7
27	Metal product mfg	16.5	608.8	5 095.3	1 410.1	308.7	85.4
28	Machinery and equipment mfg	13.6	447.1	2 234.8	671.6	164.0	49.3
29	Other manufacturing	5.8	134.9	657.5	216.0	113.5	37.3
21–29	<i>Total manufacturing</i>	76.0	2 513.2	17 529.2	5 240.1	230.8	69.0
TASMANIA							
21	Food, beverage and tobacco mfg	5.6	184.5	1 416.3	373.9	251.8	66.5
22	Textile, clothing, footwear and leather mfg	1.4	39.4	191.3	68.4	138.8	49.6
23	Wood and paper product mfg	3.8	139.0	1 183.4	415.6	315.4	110.8
24	Printing, publishing and recorded media	1.5	52.1	182.3	73.8	119.0	48.2
25	Petroleum, coal, chemical and associated product mfg	0.9	31.3	198.6	68.7	222.9	77.1
26	Non-metallic mineral product mfg	0.6	22.6	226.1	102.3	376.3	170.3
27	Metal product mfg	3.5	140.1	1 085.8	236.7	313.7	68.4
28	Machinery and equipment mfg	2.8	103.9	454.6	219.0	165.2	79.6
29	Other manufacturing	0.9	15.9	59.5	22.5	67.2	25.4
21–29	<i>Total manufacturing</i>	20.9	728.8	4 997.9	1 581.0	239.4	75.7

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover(d)	Industry value added(e)	Turnover per person employed(f)	Industry value added per person employed(g)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NORTHERN TERRITORY							
21	Food, beverage and tobacco mfg	0.5	14.3	98.8	29.1	202.7	59.6
22	Textile, clothing, footwear and leather mfg	0.1	1.7	6.3	2.0	78.6	24.7
23	Wood and paper product mfg	0.2	6.7	30.3	11.2	142.9	52.8
24	Printing, publishing and recorded media	0.3	10.5	35.8	23.6	102.2	67.5
25	Petroleum, coal, chemical and associated product mfg	0.1	3.6	28.8	9.8	287.4	98.2
26	Non-metallic mineral product mfg	0.3	9.4	81.3	23.9	299.3	88.0
27	Metal product mfg	1.4	69.1	631.4	254.9	452.2	182.5
28	Machinery and equipment mfg	0.6	17.2	68.2	28.7	108.0	45.4
29	Other manufacturing	0.2	3.2	14.8	4.9	90.5	30.0
21–29	Total manufacturing	3.7	135.8	995.8	388.1	269.7	105.1
AUSTRALIAN CAPITAL TERRITORY							
21	Food, beverage and tobacco mfg	0.4	14.2	119.3	30.4	277.3	70.6
22	Textile, clothing, footwear and leather mfg	0.2	2.1	11.2	5.4	70.4	34.0
23	Wood and paper product mfg	0.3	7.4	40.6	12.8	153.5	48.3
24	Printing, publishing and recorded media	1.5	49.5	192.8	88.7	129.0	59.4
25	Petroleum, coal, chemical and associated product mfg	—	0.8	2.8	1.2	100.2	43.2
26	Non-metallic mineral product mfg	0.1	3.4	40.7	9.3	296.6	68.2
27	Metal product mfg	0.3	7.8	31.6	11.2	117.2	41.7
28	Machinery and equipment mfg	0.7	24.8	108.1	45.0	144.2	59.9
29	Other manufacturing	0.3	10.2	43.0	10.8	127.6	31.9
21–29	Total manufacturing	3.9	120.2	590.1	214.8	152.5	55.5
AUSTRALIA							
21	Food, beverage and tobacco mfg	169.0	5 978.1	47 620.4	13 390.4	281.7	79.2
22	Textile, clothing, footwear and leather mfg	77.4	1 983.9	9 864.5	3 258.7	127.4	42.1
23	Wood and paper product mfg	62.6	2 088.9	11 497.5	3 953.1	183.6	63.1
24	Printing, publishing and recorded media	100.9	3 534.1	15 123.0	6 551.1	149.9	64.9
25	Petroleum, coal, chemical and associated product mfg	92.6	3 909.7	33 363.8	9 981.4	360.1	107.7
26	Non-metallic mineral product mfg	36.0	1 387.8	8 927.7	2 964.9	248.1	82.4
27	Metal product mfg	150.7	5 695.9	38 330.0	12 189.6	254.4	80.9
28	Machinery and equipment mfg	206.3	7 841.9	41 567.6	14 184.3	201.4	68.7
29	Other manufacturing	58.1	1 450.1	6 705.5	2 244.5	115.4	38.6
21–29	Total manufacturing	953.7	33 870.4	213 000.0	68 717.9	223.3	72.1

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(e) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(g) Industry value added divided by the number of persons employed at the end of June. Includes working proprietors.

5

MANUFACTURING ESTABLISHMENTS(a), Change(b) in Industry Value Added(c)

INDUSTRY SUBDIVISION		1992-93 TO 1997-98			
		1992-93 to 1996-97	1996-97 to 1997-98	Change	Change in IVA per person employed(d)
ANZSIC Code	Description	%	%	%	%
21	Food, beverage and tobacco mfg	9.2	3.6	13.1	10.2
22	Textile, clothing, footwear and leather mfg	-0.8	-1.6	-2.4	4.1
23	Wood and paper product mfg	0.5	3.3	3.8	3.8
24	Printing, publishing and recorded media	8.2	-0.4	7.7	-2.9
25	Petroleum, coal, chemical and associated product mfg	15.5	0.9	16.5	14.6
26	Non-metallic mineral product mfg	-5.7	2.1	-3.7	6.8
27	Metal product mfg	10.5	-2.6	7.7	9.1
28	Machinery and equipment mfg	25.3	-0.6	24.5	20.9
29	Other manufacturing	10.9	1.3	12.3	9.3
21-29 Total manufacturing		11.4	0.5	11.9	10.5

(a) See paragraph 5 of the Explanatory Notes.

(b) Percentage changes are calculated using chain volume data. For an explanation of chain volume measures, see paragraphs 19 to 24 of the Explanatory Notes.

(c) Commencing with the 1997-98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(d) Based on employment at the end of June of the reference year. Includes working proprietors.

Employment size group	Employment at end of June(c).....		Wages and salaries(d)(e).....		Turnover(e)(f).....		Industry value added(e)(g).....	
	'000	%	\$m	%	\$m	%	\$m	%
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
0–4 persons	3.3	1.9	46.8	0.8	313.4	0.7	83.8	0.6
5–9 persons	5.5	3.3	105.4	1.8	712.1	1.5	207.4	1.6
10–19 persons	8.4	5.0	203.5	3.4	1 685.9	3.6	388.5	2.9
20–49 persons	18.4	10.9	532.2	9.0	4 563.4	9.7	1 146.6	8.6
50–99 persons	19.2	11.4	609.9	10.3	5 076.8	10.8	1 369.6	10.3
<i>Total less than 100 persons</i>	<i>54.8</i>	<i>32.4</i>	<i>1 497.9</i>	<i>25.3</i>	<i>12 351.6</i>	<i>26.2</i>	<i>3 196.0</i>	<i>24.1</i>
100–199 persons	22.7	13.4	774.9	13.1	6 660.1	14.1	1 848.8	13.9
200–499 persons	52.8	31.2	2 102.0	35.5	17 813.6	37.8	5 237.4	39.5
500–999 persons	27.0	16.0	1 069.6	18.0	6 519.9	13.8	2 120.2	16.0
1 000 or more persons	11.8	7.0	481.7	8.1	3 782.4	8.0	870.1	6.6
<i>Total 100 or more persons</i>	<i>114.3</i>	<i>67.6</i>	<i>4 428.3</i>	<i>74.7</i>	<i>34 776.0</i>	<i>73.8</i>	<i>10 076.5</i>	<i>75.9</i>
Total	169.0	100.0	5 926.2	100.0	47 127.6	100.0	13 272.4	100.0
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
0–4 persons	11.5	14.9	134.6	6.9	822.0	8.4	288.9	8.9
5–9 persons	10.5	13.6	184.0	9.4	880.7	9.0	339.7	10.5
10–19 persons	8.3	10.8	183.5	9.4	725.0	7.4	264.3	8.2
20–49 persons	11.5	14.9	296.5	15.1	1 529.0	15.6	494.8	15.3
50–99 persons	10.3	13.3	316.8	16.2	1 650.8	16.8	503.2	15.5
<i>Total less than 100 persons</i>	<i>52.2</i>	<i>67.4</i>	<i>1 115.4</i>	<i>56.9</i>	<i>5 607.5</i>	<i>57.2</i>	<i>1 890.8</i>	<i>58.3</i>
100–199 persons	11.3	14.6	366.3	18.7	1 932.1	19.7	594.9	18.3
200–499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500–999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>25.2</i>	<i>32.6</i>	<i>845.2</i>	<i>43.1</i>	<i>4 195.2</i>	<i>42.8</i>	<i>1 352.1</i>	<i>41.7</i>
Total	77.4	100.0	1 960.6	100.0	9 802.7	100.0	3 243.0	100.0
WOOD AND PAPER PRODUCT MANUFACTURING								
0–4 persons	6.6	10.6	103.5	5.0	597.2	5.2	188.4	4.8
5–9 persons	7.2	11.5	159.0	7.7	692.2	6.0	196.4	5.0
10–19 persons	7.7	12.3	196.9	9.5	839.6	7.3	315.8	8.0
20–49 persons	10.9	17.3	321.3	15.5	1 665.6	14.5	548.3	13.9
50–99 persons	7.2	11.5	241.0	11.6	1 436.5	12.5	508.7	12.9
<i>Total less than 100 persons</i>	<i>39.6</i>	<i>63.2</i>	<i>1 021.7</i>	<i>49.2</i>	<i>5 231.1</i>	<i>45.7</i>	<i>1 757.6</i>	<i>44.5</i>
100–199 persons	9.1	14.5	359.4	17.3	2 004.0	17.5	722.9	18.3
200–499 persons	9.5	15.1	438.1	21.1	2 609.1	22.8	948.7	24.0
500–999 persons	4.5	7.2	255.8	12.3	1 609.8	14.1	516.4	13.1
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>23.0</i>	<i>36.8</i>	<i>1 053.4</i>	<i>50.8</i>	<i>6 223.0</i>	<i>54.3</i>	<i>2 188.0</i>	<i>55.5</i>
Total	62.6	100.0	2 075.1	100.0	11 454.0	100.0	3 945.6	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 26 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1997–98 but were not operating at 30 June 1998. See paragraph 25 of the Explanatory Notes.

(f) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(g) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

Employment size group	Employment at end of June(c).....		Wages and salaries(d)(e).....		Turnover(e)(f).....		Industry value added(e)(g).....	
	'000	%	\$m	%	\$m	%	\$m	%
PRINTING, PUBLISHING AND RECORDED MEDIA								
0–4 persons	10.3	10.2	185.1	5.2	877.6	5.8	352.1	5.4
5–9 persons	9.7	9.6	238.7	6.8	844.7	5.6	365.8	5.6
10–19 persons	10.3	10.2	306.9	8.7	1 108.1	7.3	453.6	6.9
20–49 persons	15.4	15.2	547.0	15.5	1 776.4	11.8	777.5	11.9
50–99 persons	11.7	11.6	433.5	12.3	1 967.2	13.0	878.5	13.4
<i>Total less than 100 persons</i>	<i>57.4</i>	<i>56.9</i>	<i>1 711.1</i>	<i>48.5</i>	<i>6 574.2</i>	<i>43.5</i>	<i>2 827.6</i>	<i>43.2</i>
100–199 persons	12.7	12.6	478.9	13.6	2 174.8	14.4	824.2	12.6
200–499 persons	12.9	12.8	509.8	14.4	2 028.9	13.4	975.1	14.9
500–999 persons	5.8	5.7	237.9	6.7	1 480.6	9.8	536.9	8.2
1 000 or more persons	12.1	12.0	592.1	16.8	2 848.2	18.9	1 380.1	21.1
<i>Total 100 or more persons</i>	<i>43.5</i>	<i>43.1</i>	<i>1 818.6</i>	<i>51.5</i>	<i>8 532.5</i>	<i>56.5</i>	<i>3 716.2</i>	<i>56.8</i>
Total	100.9	100.0	3 529.8	100.0	15 106.7	100.0	6 543.8	100.0
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
0–4 persons	3.3	3.5	60.3	1.6	525.8	1.6	229.0	2.3
5–9 persons	5.0	5.4	140.0	3.6	786.1	2.4	263.8	2.6
10–19 persons	7.6	8.2	232.6	6.0	1 492.7	4.5	505.0	5.1
20–49 persons	13.9	15.0	493.3	12.7	3 743.9	11.3	1 277.1	12.8
50–99 persons	17.2	18.5	711.6	18.3	5 124.8	15.4	1 692.7	17.0
<i>Total less than 100 persons</i>	<i>47.0</i>	<i>50.7</i>	<i>1 637.9</i>	<i>42.2</i>	<i>11 673.3</i>	<i>35.1</i>	<i>3 967.7</i>	<i>39.8</i>
100–199 persons	18.7	20.2	830.1	21.4	5 829.6	17.5	1 957.5	19.7
200–499 persons	22.3	24.1	1 107.8	28.5	12 337.1	37.1	2 958.1	29.7
500–999 persons	4.7	5.0	306.6	7.9	3 378.7	10.2	1 077.2	10.8
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>45.7</i>	<i>49.3</i>	<i>2 244.5</i>	<i>57.8</i>	<i>21 545.4</i>	<i>64.9</i>	<i>5 992.9</i>	<i>60.2</i>
Total	92.6	100.0	3 882.4	100.0	33 218.7	100.0	9 960.5	100.0
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
0–4 persons	2.6	7.3	44.7	3.2	202.6	2.3	70.0	2.4
5–9 persons	3.0	8.2	69.8	5.1	358.4	4.0	111.6	3.8
10–19 persons	3.1	8.5	97.7	7.1	616.9	6.9	169.3	5.7
20–49 persons	4.9	13.7	172.2	12.5	1 081.8	12.1	338.3	11.4
50–99 persons	5.2	14.5	220.3	15.9	1 584.3	17.8	521.6	17.6
<i>Total less than 100 persons</i>	<i>18.8</i>	<i>52.2</i>	<i>604.6</i>	<i>43.8</i>	<i>3 843.9</i>	<i>43.2</i>	<i>1 210.8</i>	<i>40.9</i>
100–199 persons	8.5	23.6	381.4	27.6	2 924.5	32.8	983.7	33.2
200–499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500–999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>17.2</i>	<i>47.8</i>	<i>776.8</i>	<i>56.2</i>	<i>5 062.2</i>	<i>56.8</i>	<i>1 749.5</i>	<i>59.1</i>
Total	36.0	100.0	1 381.3	100.0	8 906.1	100.0	2 960.2	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 26 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1997–98 but were not operating at 30 June 1998. See paragraph 25 of the Explanatory Notes.

(f) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(g) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

Employment size group	Employment at end of June(c).....		Wages and salaries(d)(e).....		Turnover(e)(f).....		Industry value added(e)(g).....	
	'000	%	\$m	%	\$m	%	\$m	%
METAL PRODUCT MANUFACTURING								
0–4 persons	12.3	8.2	216.2	3.8	5 051.6	13.2	3 593.7	..
5–9 persons	13.2	8.7	340.7	6.0	1 494.2	3.9	572.2	..
10–19 persons	18.1	12.0	527.7	9.3	2 277.2	6.0	823.8	..
20–49 persons	25.5	16.9	841.2	14.8	4 547.8	11.9	1 504.2	..
50–99 persons	19.7	13.1	746.4	13.2	4 188.8	11.0	1 383.9	..
<i>Total less than 100 persons</i>	<i>88.8</i>	<i>59.0</i>	<i>2 672.2</i>	<i>47.1</i>	<i>17 559.6</i>	<i>45.9</i>	<i>7 877.8</i>	<i>..</i>
100–199 persons	18.2	12.1	718.7	12.7	5 721.8	15.0	1 477.5	..
200–499 persons	16.6	11.0	732.5	12.9	5 872.0	15.4	1 277.3	..
500–999 persons	9.3	6.2	485.9	8.6	3 024.7	7.9	-169.2	..
1 000 or more persons	17.8	11.8	1 062.9	18.7	6 064.2	15.9	1 710.5	..
<i>Total 100 or more persons</i>	<i>61.8</i>	<i>41.0</i>	<i>3 000.0</i>	<i>52.9</i>	<i>20 682.7</i>	<i>54.1</i>	<i>4 296.1</i>	<i>..</i>
Total	150.7	100.0	5 672.2	100.0	38 242.2	100.0	12 173.9	100.0
MACHINERY AND EQUIPMENT MANUFACTURING								
0–4 persons	13.1	6.3	263.5	3.4	1 065.7	2.6	416.8	2.9
5–9 persons	15.1	7.3	393.0	5.0	1 658.5	4.0	627.8	4.4
10–19 persons	16.9	8.2	536.3	6.9	2 165.8	5.2	814.8	5.8
20–49 persons	25.8	12.5	864.3	11.1	3 724.3	9.0	1 387.0	9.8
50–99 persons	23.0	11.1	861.5	11.0	4 198.7	10.1	1 352.4	9.6
<i>Total less than 100 persons</i>	<i>93.9</i>	<i>45.5</i>	<i>2 918.6</i>	<i>37.4</i>	<i>12 813.1</i>	<i>30.9</i>	<i>4 598.8</i>	<i>32.5</i>
100–199 persons	27.2	13.2	1 056.6	13.5	5 310.8	12.8	1 683.1	11.9
200–499 persons	32.6	15.8	1 417.4	18.1	7 484.4	18.1	2 338.6	16.5
500–999 persons	17.8	8.6	785.0	10.1	3 823.1	9.2	1 482.3	10.5
1 000 or more persons	34.7	16.8	1 631.7	20.9	12 004.4	29.0	4 042.6	28.6
<i>Total 100 or more persons</i>	<i>112.4</i>	<i>54.5</i>	<i>4 890.6</i>	<i>62.6</i>	<i>28 622.7</i>	<i>69.1</i>	<i>9 546.6</i>	<i>67.5</i>
Total	206.3	100.0	7 809.2	100.0	41 435.8	100.0	14 145.5	100.0
OTHER MANUFACTURING								
0–4 persons	10.9	18.7	173.5	12.0	901.1	13.5	289.7	13.0
5–9 persons	9.6	16.6	212.2	14.7	910.1	13.6	322.3	14.4
10–19 persons	10.9	18.8	275.4	19.1	1 243.6	18.6	446.4	20.0
20–49 persons	12.9	22.1	349.3	24.2	1 565.1	23.5	506.0	22.6
50–99 persons	7.5	12.8	225.2	15.6	1 064.0	16.0	346.2	15.5
<i>Total less than 100 persons</i>	<i>51.7</i>	<i>89.0</i>	<i>1 235.6</i>	<i>85.8</i>	<i>5 683.9</i>	<i>85.2</i>	<i>1 910.6</i>	<i>85.5</i>
100–199 persons	4.8	8.3	147.6	10.2	720.6	10.8	245.5	11.0
200–499 persons	1.6	2.7	57.6	4.0	263.7	4.0	77.8	3.5
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>6.4</i>	<i>11.0</i>	<i>205.2</i>	<i>14.2</i>	<i>984.3</i>	<i>14.8</i>	<i>323.3</i>	<i>14.5</i>
Total	58.1	100.0	1 440.7	100.0	6 668.2	100.0	2 234.0	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 26 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1997–98 but were not operating at 30 June 1998. See paragraph 25 of the Explanatory Notes.

(f) Commencing with the 1997–98 manufacturing, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(g) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

Employment size group	Employment at end of June(c).....		Wages and salaries(d)(e).....		Turnover(e)(f).....		Industry value added(e)(g).....	
	'000	%	\$m	%	\$m	%	\$m	%
TOTAL MANUFACTURING								
0–4 persons	73.9	7.7	1 228.2	3.6	10 357.1	4.9	5 512.5	8.0
5–9 persons	78.9	8.3	1 842.8	5.5	8 337.0	3.9	3 007.1	4.4
10–19 persons	91.3	9.6	2 560.6	7.6	12 154.8	5.7	4 181.4	6.1
20–49 persons	139.2	14.6	4 417.2	13.1	24 197.3	11.4	7 979.8	11.7
50–99 persons	121.0	12.7	4 366.1	13.0	26 291.9	12.4	8 557.0	12.5
<i>Total less than 100 persons</i>	<i>504.2</i>	<i>52.9</i>	<i>14 414.9</i>	<i>42.8</i>	<i>81 338.1</i>	<i>38.4</i>	<i>29 237.7</i>	<i>42.7</i>
100–199 persons	133.2	14.0	5 113.9	15.2	33 278.4	15.7	10 338.1	15.1
200–499 persons	166.9	17.5	7 106.8	21.1	52 269.9	24.7	15 133.2	22.1
500–999 persons	73.0	7.7	3 273.6	9.7	20 376.5	9.6	5 766.6	8.4
1 000 or more persons	76.4	8.0	3 768.4	11.2	24 699.1	11.7	8 003.3	11.7
<i>Total 100 or more persons</i>	<i>449.5</i>	<i>47.1</i>	<i>19 262.6</i>	<i>57.2</i>	<i>130 623.9</i>	<i>61.6</i>	<i>39 241.3</i>	<i>57.3</i>
Total	953.7	100.0	33 677.5	100.0	211 962.0	100.0	68 479.0	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 26 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1997–98 but were not operating at 30 June 1998. See paragraph 25 of the Explanatory Notes.

(f) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(g) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

INDUSTRY SUBDIVISION		Sales and transfers out of goods for sale produced by this establishment	Amount exported by this business unit or by its agent	Exports as a proportion of sales and transfers out of goods for sale produced by this establishment
ANZSIC code	Description	\$m	\$m	%
0-49 PERSONS				
21	Food, beverage and tobacco mfg	6 933.1	920.9	13.3
22	Textile, clothing, footwear and leather mfg	3 517.5	178.2	5.1
23	Wood and paper product mfg	3 608.8	164.8	4.6
24	Printing, publishing and recorded media	4 116.6	97.2	2.4
25	Petroleum, coal, chemical and associated product mfg	6 234.3	592.1	9.5
26	Non-metallic mineral product mfg	2 145.7	58.7	2.7
27	Metal product mfg	12 607.6	3 927.4	31.2
28	Machinery and equipment mfg	7 241.7	659.7	9.1
29	Other manufacturing	4 298.6	103.3	2.4
21-29	Total manufacturing	50 703.8	6 702.1	13.2
50-99 PERSONS				
21	Food, beverage and tobacco mfg	4 882.8	633.1	13.0
22	Textile, clothing, footwear and leather mfg	1 487.0	306.2	20.6
23	Wood and paper product mfg	1 392.7	330.5	23.7
24	Printing, publishing and recorded media	1 746.1	258.4	14.8
25	Petroleum, coal, chemical and associated product mfg	4 844.1	281.4	5.8
26	Non-metallic mineral product mfg	1 522.1	42.0	2.8
27	Metal product mfg	3 875.1	252.7	6.5
28	Machinery and equipment mfg	3 752.8	616.1	16.4
29	Other manufacturing	1 011.2	51.8	5.1
21-29	Total manufacturing	24 513.9	2 772.2	11.3
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	33 826.4	7 430.2	22.0
22	Textile, clothing, footwear and leather mfg	3 931.9	973.9	24.8
23	Wood and paper product mfg	6 103.5	345.6	5.7
24	Printing, publishing and recorded media	4 849.4	134.3	2.8
25	Petroleum, coal, chemical and associated product mfg	20 931.5	2 326.0	11.1
26	Non-metallic mineral product mfg	4 879.2	200.7	4.1
27	Metal product mfg	20 174.9	5 694.3	28.2
28	Machinery and equipment mfg	26 406.5	5 455.6	20.7
29	Other manufacturing	890.4	44.4	5.0
21-29	Total manufacturing	121 993.8	22 604.9	18.5
TOTAL				
21	Food, beverage and tobacco mfg	45 642.3	8 984.1	19.7
22	Textile, clothing, footwear and leather mfg	8 936.4	1 458.2	16.3
23	Wood and paper product mfg	11 105.0	840.9	7.6
24	Printing, publishing and recorded media	10 712.1	489.9	4.6
25	Petroleum, coal, chemical and associated product mfg	32 009.8	3 199.4	10.0
26	Non-metallic mineral product mfg	8 547.1	301.4	3.5
27	Metal product mfg	36 657.6	9 874.4	26.9
28	Machinery and equipment mfg	37 401.1	6 731.4	18.0
29	Other manufacturing	6 200.1	199.4	3.2
21-29	Total manufacturing	197 211.6	32 079.2	16.3

(a) See paragraph 5 of the Explanatory Notes.

(b) See paragraphs 27-29 of the Explanatory Notes.

(c) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 26 of the Explanatory Notes. Also, this table excludes those manufacturing establishments which operated during 1997-98 but were not operating at 30 June 1998. See paragraph 25 of the Explanatory Notes.

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)	Turnover(e)	Industry value added(f)
ANZSIC code	Description	%	%	%	%
ESTABLISHMENTS THAT DO NOT EXPORT					
21	Food, beverage and tobacco mfg	45.4	41.6	37.3	36.7
22	Textile, clothing, footwear and leather mfg	60.1	49.0	43.4	47.0
23	Wood and paper product mfg	71.2	64.4	57.9	60.0
24	Printing, publishing and recorded media	80.2	78.3	72.6	75.4
25	Petroleum, coal, chemical and associated product mfg	38.9	34.6	25.5	30.0
26	Non-metallic mineral product mfg	66.2	63.9	69.2	64.2
27	Metal product mfg	56.1	45.1	35.0	35.6
28	Machinery and equipment mfg	43.4	39.9	28.8	30.7
29	Other manufacturing	79.7	75.8	74.0	75.0
21–29 Total manufacturing		55.5	49.0	39.8	42.3
ESTABLISHMENTS WITH EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	40.3	44.8	47.6	52.5
22	Textile, clothing, footwear and leather mfg	33.7	42.1	43.2	42.5
23	Wood and paper product mfg	27.9	34.4	38.1	35.7
24	Printing, publishing and recorded media	19.3	21.2	25.1	21.1
25	Petroleum, coal, chemical and associated product mfg	58.8	62.8	72.0	67.1
26	Non-metallic mineral product mfg	32.1	34.5	29.3	34.1
27	Metal product mfg	35.0	43.1	43.5	43.7
28	Machinery and equipment mfg	47.8	50.0	59.5	58.9
29	Other manufacturing	19.2	22.3	24.4	22.9
21–29 Total manufacturing		37.7	43.1	49.2	48.2
ESTABLISHMENTS WITH EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	14.3	13.6	15.1	10.7
22	Textile, clothing, footwear and leather mfg	6.2	8.9	13.4	10.5
23	Wood and paper product mfg	0.9	1.2	4.0	4.3
24	Printing, publishing and recorded media	0.5	0.5	2.2	3.5
25	Petroleum, coal, chemical and associated product mfg	2.3	2.6	2.5	2.8
26	Non-metallic mineral product mfg	1.7	1.6	1.4	1.7
27	Metal product mfg	8.9	11.8	21.4	20.6
28	Machinery and equipment mfg	8.8	10.1	11.7	10.5
29	Other manufacturing	1.1	1.9	1.6	2.0
21–29 Total manufacturing		6.8	7.8	11.0	9.5

(a) See paragraph 5 of the Explanatory Notes.

(b) See paragraphs 27–29 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(f) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

9

MANUFACTURING ESTABLISHMENTS(a), Components of Industry Value Added(b)(c)

INDUSTRY SUBDIVISION		Turnover(d)	Change in inventories	Purchases and transfers in	Other intermediate input expenses	Industry value added
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	47 620.4	407.9	27 335.2	7 302.8	13 390.4
22	Textile, clothing, footwear and leather mfg	9 864.5	-2.8	4 913.7	1 689.2	3 258.7
23	Wood and paper product mfg	11 497.5	64.3	5 634.6	1 974.1	3 953.1
24	Printing, publishing and recorded media	15 123.0	29.4	5 014.6	3 586.7	6 551.1
25	Petroleum, coal, chemical and associated product mfg	33 363.8	230.9	18 609.4	5 003.9	9 981.4
26	Non-metallic mineral product mfg	8 927.7	3.9	3 890.2	2 076.5	2 964.9
27	Metal product mfg	38 330.0	325.3	20 233.0	6 232.7	12 189.6
28	Machinery and equipment mfg	41 567.6	380.6	22 499.2	5 264.7	14 184.3
29	Other manufacturing	6 705.5	14.9	3 328.5	1 147.4	2 244.5
21-29 Total manufacturing		213 000.0	1 454.3	111 458.3	34 278.1	68 717.9

(a) See paragraph 5 of the Explanatory Notes.

(b) Commencing with the 1997-98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

(c) Industry value added is derived as follows – turnover plus change in inventories less purchases and transfers in less other intermediate input expenses equals industry value added.

(d) Commencing with the 1997-98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

10

MANUFACTURING ESTABLISHMENTS(a), Acquisition and Disposal of Assets

ACQUISITION OF.....

INDUSTRY SUBDIVISION		Plant, machinery and equipment	Dwellings, other buildings and structures	Other (including land and intangible assets)	Total capital expenditure	Total disposal of assets	Net capital expenditure
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	2 228.2	291.2	155.3	2 674.7	220.2	2 454.5
22	Textile, clothing, footwear and leather mfg	300.2	21.7	87.7	409.5	32.1	377.4
23	Wood and paper product mfg	638.3	34.3	27.6	700.4	47.8	652.6
24	Printing, publishing and recorded media	*628.1	52.7	*92.9	*773.5	*179.6	593.9
25	Petroleum, coal, chemical and associated product mfg	1 095.3	145.0	198.0	1 438.2	134.0	1 304.3
26	Non-metallic mineral product mfg	552.8	39.9	71.3	664.0	142.3	521.7
27	Metal product mfg	3 729.7	65.5	117.6	3 912.8	69.1	3 843.6
28	Machinery and equipment mfg	1 415.0	278.9	187.5	1 881.3	448.3	1 433.0
29	Other manufacturing	130.7	*37.7	36.4	204.7	21.0	183.7
21-29 Total manufacturing		10 718.1	966.8	974.1	12 659.0	1 294.3	11 364.7

(a) See paragraph 5 of the Explanatory Notes.

11

MANUFACTURING ESTABLISHMENTS(a), Selected Labour Costs(b)

AS A RATIO OF WAGES AND SALARIES(c).....

INDUSTRY SUBDIVISION		<i>Employer contributions to superannuation funds</i>	<i>Workers' compensation costs</i>	<i>Fringe benefits tax</i>	<i>Payroll tax</i>	<i>Total</i>
<i>ANZSIC code</i>	<i>Description</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
21	Food, beverage and tobacco mfg	5.9	4.1	1.4	5.4	16.9
22	Textile, clothing, footwear and leather mfg	5.6	3.1	1.1	4.3	14.2
23	Wood and paper product mfg	6.2	3.9	1.2	4.8	16.1
24	Printing, publishing and recorded media	6.9	1.4	1.3	5.6	15.2
25	Petroleum, coal, chemical and associated product mfg	6.5	2.6	2.2	5.4	16.7
26	Non-metallic mineral product mfg	6.6	3.9	1.5	5.5	17.4
27	Metal product mfg	6.6	3.6	1.2	4.8	16.3
28	Machinery and equipment mfg	6.0	2.9	1.2	5.3	15.4
29	Other manufacturing	7.5	3.3	0.7	3.0	14.5
21-29 Total manufacturing		6.3	3.2	1.3	5.1	16.0

(a) See paragraph 5 of the Explanatory Notes.

(b) See paragraph 30 of the Explanatory Notes.

(c) This table shows the value of selected labour costs per \$1.00 of wages and salaries.

EXPLANATORY NOTES

INTRODUCTION

- 1** This publication presents final statistics compiled from a survey of manufacturing establishments for 1997–98, with some comparative statistics relating to preceding years. The emphasis of this publication is on the release of statistics for the main data items included in the survey.
- 2** Manufacturing, as specified in Division C of the Australian and New Zealand Standard Industrial Classification (ANZSIC), 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.
- 3** The manufacturing collection is conducted on an annual basis. For the 1997–98 collection, a sample of approximately 19,000 establishments were asked to provide data on employment, wages and salaries, turnover, purchases and whether their products were exported. Data on IVA are also available from this collection. In addition, a variety of samples was selected to produce data on a range of other variables. The next manufacturing census will be conducted in respect of 2001–02, with sample surveys conducted for the next three years.
- 4** Estimates of IVA were compiled using data from the 19,000 sample population and a sub-sample of approximately 7,000 establishments which were asked to provide detailed structural and performance data. These 7,000 establishments were also asked to supply value of sales for commodities produced. (These commodity data will be published in the publication *Manufacturing Production, Commodities Produced, Australia, 1997–98* (Cat. no. 8365.0).) A sample of approximately 5,200 manufacturing management units was asked the detailed information required to derive operating profit before tax. Selected data from the annual manufacturing collection and data from other collections are included in the compendium publication *Manufacturing, Australia, 1999* (Cat. no. 8225.0).

SCOPE AND COVERAGE

- 5** The business unit for which statistics are presented in this publication is the establishment. A manufacturing establishment is one predominantly engaged in manufacturing activities, but the data collected for it cover all activities of the establishment (including non-manufacturing activities). Conversely, there are some establishments predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities; these are excluded from the collection.
- 6** A small number of manufacturing establishments engage, in a significant way, in a variety of activities which are normally carried out by different industries. For example, a predominantly manufacturing establishment may also undertake significant amounts of wholesaling. Similarly, a manufacturing establishment may produce significant volumes of a variety of goods which are normally produced in different manufacturing industries. In such cases, the original establishment is 'split' into a separate establishment for each significant activity which belongs to a separate industry. For the 1997–98 manufacturing collection, 'significant' was defined as turnover of \$7.3 million or more.
- 7** The statistics in this publication exclude some very small manufacturers. Those excluded are manufacturers not employing staff at 30 June of the reference year (such as sole proprietorships or family partnerships) which had not registered as group employers with the Australian Taxation Office. Though a substantial number, these businesses would contribute only marginally to aggregate data were they to be included. In addition, the ABS attempts to obtain data for those businesses which ceased operation during the year, but it is not possible to obtain data for all of them.

EXPLANATORY NOTES *continued*

STANDARD UNITS

8 For the definition of the standard business units now in use, see the Glossary.

RELIABILITY OF ESTIMATES

9 For information on this subject, see the Technical Note.

DATA ADJUSTED

10 Data in this issue have been adjusted to allow for lags in processing new businesses to the ABS business register, i.e. adjustments have been made to allow for new businesses which had commenced operations but for which details had not been processed to the ABS business register in time for inclusion in the annual manufacturing industry collection. Adjustments of this type will continue to be applied in future periods. The majority of businesses affected by these lags are small in size. The effect of these adjustments on 1997–98 Australian turnover is an increase of 0.2% while the effect on employment is an increase of 1.2%. Most States and Territories and most industries were affected to a similar degree. The exception is the Northern Territory (for which the adjustment for employment is 3.1%).

COMPARABILITY WITH PREVIOUS STATISTICS

11 Commencing with estimates for 1997–98, the definition of turnover has changed in line with new international standards for measuring economic variables. The composition of turnover estimates under the new standards is as follows:

Turnover (as previously defined)
plus Income from intellectual property royalties
equals Turnover (new standards)

12 Conceptually, some further differences exist between turnover on the old and new bases (particularly in relation to own account production of computer software, own account mineral exploration, and own account production of literary, entertainment or artistic originals). However, as these activities are relatively unimportant for manufacturing industries, no attempt has been made to measure them.

13 Commencing with estimates for 1997–98, under new international standards, contribution to gross domestic product (GDP) by manufacturing industries will be measured by the variable 'Industry value added' (IVA). Estimates for IVA measure the value added by an industry to the intermediate inputs used by that industry. Previously, the corresponding contribution to GDP was measured by the variable 'Industry gross product' (IGP). It should also be noted that IVA is not the same variable as 'Value added' which was published for manufacturing establishments until 1992–93.

EXPLANATORY NOTES *continued*

COMPARABILITY WITH PREVIOUS STATISTICS *continued*

14 Composition of IVA estimates and their relationship to IGP estimates are:

Turnover (new standards)
plus Closing inventories
less Opening inventories
less Intermediate input expenses (see the operating expenses entry in the Glossary)
equals IVA

IVA
plus Intellectual property royalty expenses
less Intellectual property royalty income
less Computer software expenses not capitalised by the business
less Selected indirect taxes (For manufacturing industries, the main types are fringe benefits tax, payroll tax, land rates and land taxes.)
equals IGP

15 Commencing with the 1993–94 manufacturing collection, manufacturers not employing staff at 30 June of the reference year (such as sole proprietorships or family partnerships) which had registered as group employers with the Australian Taxation Office have been included in the manufacturing collection. Data in respect of these 'non-employers' were excluded from the scope of the manufacturing collection for the 1988–89 to 1992–93 (inclusive) reference years. However, the inclusion of these types of businesses has only had a marginal affect on statistical aggregates.

16 Commencing with the 1994–95 manufacturing collection, multi-establishment management units have been 'collapsed' for reporting purposes into single establishment management units, unless they had significant activity in more than one industry and/or State or Territory. The effect of this process is that most manufacturing businesses which previously reported for more than one establishment were asked to combine operations by those establishments into a single reporting unit. The effect of this on manufacturing statistics as contained in this publication has been minimal.

17 As explained above, about 7,000 establishments included in the 1997–98 collection were asked to supply value of sales for commodities produced. A similar sampling procedure has been followed since the 1993–94 collection. The availability of this fine level commodity/activity data for these units has enabled ABS survey processing staff to better identify those establishments which were actually in the scope of the manufacturing collection and those which should not be included in the manufacturing collection, because (for example) they were actually wholesalers or retailers. These fine level commodity/activity data have also enabled an objective industry code to be determined for the responding units in the samples, compared to the more subjective industry coding which occurred for all units in the 1992–93 manufacturing collection. The industry code for the units not responding or not included in any of these commodity samples has continued to be a subjectively determined code.

18 For the 1995–96 collection only, provision expenses for employee entitlements were excluded from wages and salaries. For all other years, these provision expenses are included in wages and salaries.

INTRODUCTION OF CHAIN VOLUME MEASURES

19 Chain volume measures have now been included in this publication as a measure of growth in volume. Chain volume measures provide a better measure of growth than the constant price estimates published up until the 1994–95 issue.

20 Changes in price relativities adversely affect the usefulness of constant price estimates, particularly for periods distant from the base year. Consequently, the base year used to derive constant price estimates needs to be changed from time to time. It was ABS practice to change the base year every five years, but it was found that better estimates of growth in volume can be obtained by rebasing every year and linking the resulting indexes to form annually reweighted chain volume measures. The ABS, therefore, decided to replace constant price estimates with annually reweighted chain Laspeyres volume measures. They are formed in a multi-stage process of which the major steps are described in Section 15 of the *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0).

21 Part of the process of calculating chain volume measures of manufacturing value added has been to update the turnover–value added ratios annually.

22 The impact of the change from constant price estimates to chain volume measures of manufacturing value added largely depends on the extent of differences in growth rates between the prices and volumes of the components. In the case of manufacturing value added, the introduction of chain volume measures has not had a dramatic effect on growth rates from 1989–90 to the present. (Constant price estimates as previously published had 1989–90 as the base year.)

23 Chain volume measures are not generally additive. In other words, in general, component chain volume measures do not sum to a total in the way that current price components do. However, by choosing the reference year to coincide with the latest base year, additivity for the reference year and the following year is ensured. This implies advancing the reference year each year and while this changes the levels of the estimates it does not of itself change the growth rates.

24 In this year's issue, there is a departure from the norm due to the fact that current price IVA was not available for 1996–97 (only IGP). IVA is available for 1997–98 so the reference year has been chosen to be the latest year, 1997–98. In next year's issue, chain volume estimates will extend to 1998–99 and the reference year will coincide with the latest base year, 1997–98.

EMPLOYMENT SIZE DATA

25 Summary of operations data at the industry subdivision level classified by the employment size of individual manufacturing establishments (see the Glossary for its definition) are presented in table 6. Similarly, exports of goods produced data at the industry subdivision level classified by the broad employment size of individual manufacturing establishments are presented in table 7. The statistics in these two tables relate only to those manufacturing establishments operating at 30 June 1998. As such, the figures presented represent a slightly different population from those presented in the other tables from the manufacturing collection. These other tables include data for those manufacturing establishments which operated at any time during 1997–98.

EMPLOYMENT SIZE DATA *continued*

26 The treatment of unincorporated joint ventures according to the ABS's standard units definitions has an effect on the data when the data are classified by employment size. This is because joint venture participants report details of turnover, but often have few or no employees or operating expenses. The labour for such operations is usually employed and paid for by the joint venture operator. Similarly, the operating expenses are usually reported by the joint venture operator. On the other hand, the operator does not report any details of turnover (unless it also happens to be a participant). If each of these joint venture operations were to be treated as a single business unit in the statistics, it is highly probable that the Metal product manufacturing industry and to a lesser extent the Petroleum, coal, chemical and associated product manufacturing industry would reflect a similar dominance pattern to the other manufacturing industries. In other words, in the statistics in tables 6 and 7, the participants in unincorporated joint ventures are recorded in the 0–4 persons employment size category, whereas the operators of the unincorporated joint ventures are recorded in larger employment size categories. This treatment affects the relative contribution of the various employment size categories for these two industries.

EXPORTS BY MANUFACTURERS

27 All establishments included in the manufacturing collection were asked whether they exported and, if so, what percentage of their sales of goods produced plus transfers out of goods produced by the establishment for sale were exported by their business or an agent on their behalf. The data presented in table 7 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. The data in table 7 exclude those manufacturing establishments which operated during 1997–98 but were not operating at 30 June 1998.

28 The statistics presented in table 7 for the value of exports by manufacturers or their agents are not intended to be the same as the value of exports classified by manufacturing industry of origin as published by the ABS in international trade statistics. These latter statistics are intended to measure total exports regardless of which business or organisation does the exporting (and to identify the probable industry from which the goods originated), whereas the statistics in tables 7 and 8 only include exports directly undertaken by the manufacturer or by its agent.

29 The data in table 7 showing exports by manufacturers or their agents can be expected to show a much lower value than the exports data from the international trade series. The main reason is that for many exports of goods manufactured in Australia, the actual exporting activity is undertaken by a business other than the manufacturer. Also, the value of goods produced on a commission or fee basis for non-manufacturing businesses and which are then exported is not included in the data in tables 7 and 8. Examples of relevant commission work are the 'slaughtering fee' charged by an abattoir for processing livestock owned by a meat exporter and the 'tolling fee' charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from tables 7 and 8 are any exports by manufacturers of goods which were not produced by that manufacturer. These and other goods exported (e.g. re-exports) are included in the international trade data. Finally, differences in valuation of exports arise because the value of exports in the international trade series would include the value to the manufacturer plus profit margins for the exporter and for any intermediaries between the manufacturer and the exporter.

SELECTED LABOUR COSTS

30 The data shown in table 11 have been derived using information collected from individual manufacturing establishments and manufacturing businesses (management units) as a whole. In the vast majority of cases, manufacturing businesses relate to a single establishment and, therefore, data collected for the business also represent data about the establishment. However, there are approximately 500 manufacturing businesses that have more than one establishment (in total, these 500 businesses have approximately 2,000 establishments). These businesses are called multi-establishment management units. In the case of these multi-establishment management units, data collected for the business as a whole have been apportioned to each establishment to derive estimates at the establishment level for employer contributions to superannuation funds, workers' compensation costs, fringe benefits tax and payroll tax. These estimates have been divided by estimates of wages and salaries to calculate the ratios shown in table 11.

ACKNOWLEDGMENT

31 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

INFORMATION PAPER

32 The *Information Paper: Availability of Statistics Related to Manufacturing* (Cat. no. 8205.0) outlines the vast amount of published and unpublished data available from the annual manufacturing industry collection, as well as data from other ABS collections.

RELATED PUBLICATIONS

33 A series of publications *Manufacturing Industry, [State], 1997–98* (Cat. nos 8221.1–8221.6) will be produced for each State. The publication for New South Wales (Cat. no. 8221.1) also contains selected data for the Australian Capital Territory. These publications will all be released shortly.

34 Users may also wish to refer to the following publications:

- *Business Operations and Industry Performance, Australia, 1997–98* (Cat. no. 8140.0), to be released in December 1999—Annual publication
- *Business Operations and Industry Performance, Australia, Preliminary, 1997–98* (Cat. no. 8142.0), released on 27 May 1999—Annual publication
- *Environment Protection Expenditure, Australia, 1995–96 and 1996–97* (Cat. no. 4603.0), released on 2 July 1999—Biennial publication
- *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (Cat. no. 8205.0), released on 21 March 1996—Irregular publication
- *Information Paper: Availability of Statistics Related to Manufacturing, 1997* (Cat. no. 8205.0), released on 16 January 1998—Irregular publication
- *Information Paper: Improvements to ABS Economic Statistics, 1997* (Cat. no. 1357.0), released on 22 August 1997—Irregular publication
- *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (Cat. no. 5248.0), released on 19 March 1998—Irregular publication
- *Inventories and Sales, Selected Industries, Australia* (Cat. no. 5629.0)—Quarterly publication

EXPLANATORY NOTES *continued*

RELATED PUBLICATIONS *continued*

- *Labour Costs, Australia, 1996–97* (Cat. no. 6348.0), released on 2 July 1998—Quinquennial publication
- *Labour Force, Australia* (Cat. no. 6203.0)—Monthly publication
- *Manufacturing, Australia, 1999* (Cat. no. 8225.0), to be released in December 1999—Annual publication
- *Manufacturing Industry, Australia, Preliminary, 1998–99* (Cat. no. 8201.0), to be released in March 2000—Annual publication
- *Manufacturing Production, Commodities Produced, Australia, 1997–98* (Cat. no. 8365.0), to be released in December 1999—Annual publication
- *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (Cat. no. 6412.0)—Quarterly publication
- *Private New Capital Expenditure and Expected Expenditure, Australia* (Cat. no. 5625.0)—Quarterly publication

BACK DATA AND UNPUBLISHED STATISTICS

35 A range of manufacturing industry statistics publications is available for previous years. As well, a considerable amount of data from the annual manufacturing collection exists in unpublished form. More detailed information to satisfy individual user requirements may be available on request. In general, unpublished data consist of finer industry dissections of the published data. Other more detailed data may also be available. As a guide, a list of data items included on the 1997–98 manufacturing survey forms and a selection of data variables that can be derived from them are shown in the Appendix. A charge is made for providing unpublished information. The information paper (Cat. no. 8205.0) referred to in paragraphs 32 and 34 also provides more details.

36 Chain volume measures of industry value added on an ANZSIC basis are available back to 1984–85. However, chain volume measures on a true ANZSIC basis are only available from 1989–90. Nevertheless, an exercise has been undertaken to convert estimates for earlier years onto an ANZSIC basis using the relationships that applied between the previous Australian Standard Industrial Classification (ASIC) and ANZSIC in the years 1990–91 and 1991–92. These estimates are available for Australia back to 1984–85. It should be noted that the relationships that applied in 1990–91 and 1991–92 are less likely to apply the earlier the reference year. Also, annual chain volume measures of industry value added for the period 1989–90 to 1996–97 (inclusive) by ANZSIC class are available as unpublished data.

ROUNDING

37 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS business register (see paragraph 10), this 'rounding rule' also applies to employment counts.

38 Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

EXPLANATORY NOTES *continued*

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
GDP	Gross Domestic Product
IGP	Industry Gross Product
IVA	Industry Value Added
mfg	manufacturing
n.e.c.	not elsewhere classified
n.p.	not available for publication but included in totals where applicable
r	figure or series revised since previous issue
*	data subject to sampling variability of between 25% and 50%
..	not applicable
—	nil or rounded to zero

APPENDIX DATA ITEMS 1997–98

INTRODUCTION

This Appendix lists items included in the 1997–98 manufacturing collection, and selected items derived from those directly collected.

AVAILABILITY OF DATA

The 1997–98 manufacturing collection was conducted as a sample survey of approximately 19,000 manufacturing establishments, which were requested to provide data on employment, wages and salaries, turnover, purchases and whether their products were exported. A sub-sample of approximately 7,000 establishments was also asked to provide detailed structural and performance data, and value of sales for commodities produced. A sample of approximately 5,200 manufacturing management units was asked the detailed information required to derive operating profit before tax.

Due to the nature of the collection, some restrictions apply to the availability of data for dissemination:

- Detailed structural and performance data (e.g. income from services, motor vehicle running expenses, capital expenditure) collected from the sample of approximately 7,000 manufacturing establishments are generally available at industry group (3 digit ANZSIC) level for Australia and (subject to the data being of sufficient quality) industry subdivision (2 digit ANZSIC) level for States as a special data service. Data on value of sales for commodities produced are not available for States and Territories.
- Selected management unit data from the manufacturing collection as well as data from other collections are included in the compendium publication *Manufacturing, Australia, 1999* (Cat. no. 8225.0). These data are also generally available at industry group (3 digit ANZSIC) level for Australia as a special data service. Management unit data are not available for States and Territories.

Both management unit and detailed establishment data may be available in some cases (subject to the data being of sufficient quality) at the industry class (4 digit ANZSIC) level for Australia.

DATA ITEMS COLLECTED AND SELECTED DERIVED DATA ITEMS, 1997–98

Description

Description

Employment

Total employment at the end of June

Income items

Sales of goods

Produced by this establishment (or for it on commission)

Percentage of above sales exported (or intended for export) outside Australia by this business unit or by its agent

Not produced by this establishment

Income from services

Income from work done on a commission basis (excluding sales and agency commissions)

Repair, maintenance and service income and fees

Advertising income

Other income (including sales and agency commissions)

Income items *continued*

Income from rent, leasing and hiring

Land, buildings and other structures

Other income from rent, leasing and hiring

Interest income

Funding from Federal, State and/or Local Government

Funding for operational costs (e.g. wages and salaries, rent)

Funding provided for specific capital items

Dividend income

Royalties income

Natural resource royalties income

Other royalties income

Other income

Total income

APPENDIX DATA ITEMS 1997–98 *continued*

DATA ITEMS COLLECTED AND SELECTED DERIVED DATA ITEMS, 1997–98 *continued*

<i>Description</i>	<i>Description</i>
Transfers of goods	Assets and liabilities <i>continued</i>
Transfers out of goods for sale	Current assets – other than trading stocks
Produced by this establishment for sale	Non-current assets
Percentage of above transfers exported (or intended for export) outside Australia by this business unit or by its agent	Total provisions for employee entitlements
Other transfers out of goods	Beginning of reporting period
Produced by this establishment for further processing, assembly or installation	End of reporting period
Bought in by this establishment (valued at cost)	Current liabilities (including provisions for employee entitlements)
Transfers in of goods	Non-current liabilities (including provisions for employee entitlements)
Produced by other establishments for sale	Owners' equity
Produced by other establishments for further processing, assembly or installation	Capital expenditure and disposal of assets
Bought in by other establishments (valued at cost)	Capitalised work done by own employees for own use or for rental or lease
Goods for resale	Capitalised wages and salaries
Materials, containers, fuels, etc.	Capitalised purchases of materials
Expense items	Capital expenditure (including capitalised work done by own employees as listed above)
Wages and salaries including provision expenses for employee entitlements	Plant, machinery and equipment
Employer contributions to superannuation funds	Computer software capitalised
Workers' compensation costs	Land
Fringe benefits tax	Dwellings, other buildings and structures
Payroll tax	Intangible assets
Insurance premiums	Total disposal of plant, machinery, equipment, land, dwellings, other buildings and structures and intangible assets
Interest expenses	Selected derived data items
Bank charges other than interest	Amount exported by the business unit or by its agent
Depreciation and amortisation	Exports as a proportion of sales and transfers out of goods for sale produced by this establishment
Bad and doubtful debts	Sales and transfers out of goods for sale produced by this establishment
Purchases	Purchases and transfers in
Materials, components, containers, packaging materials, electricity, fuels and water	Selected expenses
Finished goods for resale	Purchases, transfers in and selected expenses
Royalties expenses	Other intermediate input expenses
Natural resource royalties expenses	Change in stocks (inventories)
Other royalties expenses	Cost of goods sold
Motor vehicle running expenses	Cost of inputs
Freight and cartage expenses	Net capital expenditure
Repair and maintenance expenses	Total capital expenditure
Rent, leasing and hiring expenses	Operating profit before tax
Commission expenses	Turnover
Sales commission expenses	Turnover per person employed at the end of June
Commission expenses for work done on materials provided by this business unit	Industry gross product
Ex-house printing expenses for material published by this business unit	Industry gross product per person employed at the end of June
Other operating expenses	Industry value added
Total expenses	Industry value added per person employed at the end of June
Assets and liabilities	Wages and salaries per employee at the end of June
Current assets – trading stocks (inventories)	Ratio of wages and salaries to industry value added
Opening trading stocks	Ratio of wages and salaries to turnover
Raw materials, fuels, containers, etc.	
Work-in-progress	
Finished goods (including stocks for resale)	
Total opening trading stocks	
Closing trading stocks (inventories)	
Raw materials, fuels, containers, etc.	
Work-in-progress	
Finished goods (including stocks for resale)	
Total closing trading stocks	

TECHNICAL NOTE DATA RELIABILITY

SAMPLE ERROR

1 The 1997–98 manufacturing survey was designed primarily to deliver industry class estimates for Australia and States for the data items employment, wages and salaries, turnover and IVA. For the two Territories, the sample was designed to deliver industry subdivision data only.

2 All 1997–98 (and 1992–93, 1994–95 and 1995–96) data contained in this publication have been obtained from samples of manufacturers. As such, these data are subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all manufacturers in the population. The measure of the likely difference as used by the ABS is given by the standard error, which indicates the extent to which an estimate might have varied by chance because the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.

3 The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error. The relative standard errors for the 1997–98 employment, wages and salaries, turnover and IVA Australian data presented in this publication are all 2% or less for industry subdivisions (see page 45) and most are 3% or less for industry classes. The relative standard errors for the industry subdivision estimates for the States are nearly all 3% or less (with most industry class estimates 3.5% or less), whilst those for the Territories are mainly 6% or less.

4 Relative standard errors at the industry subdivision level for Australia for selected data items representing the full range of data contained in this publication are shown in the section Standard Errors. Detailed relative standard errors can be made available on request.

NON-SAMPLE ERROR

5 The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of inadequacies in available sources from which the population frame was compiled, imperfections in reporting by providers, errors made in collection such as in recording and coding data, and errors made in processing data. Inaccuracies of this kind are referred to collectively as non-sampling error and they may occur in any enumeration, whether it be a full census or a sample.

6 While it is not possible to quantify non-sampling error, every effort is made to reduce it to a minimum. Collection forms are designed to be easy to complete and assist businesses to report accurately. Efficient and effective operating procedures and systems are used to compile the statistics.

STANDARD ERRORS SELECTED DATA ITEMS

INDUSTRY SUBDIVISION		Employment at end of June(a)	Wages and salaries(b)	Turnover(c)	Purchases and transfers in	Industry value added(d)	Amount exported by this business unit or by its agent	Acquisition of plant, machinery and equipment
ANZSIC code	Description	%	%	%	%	%	%	%
21	Food, beverage and tobacco mfg	0.6	0.5	0.3	0.4	0.4	0.6	18.8
22	Textile, clothing, footwear and leather mfg	1.7	1.5	1.8	2.9	1.5	1.2	13.0
23	Wood and paper product mfg	1.7	1.2	0.9	1.2	1.0	0.6	2.2
24	Printing, publishing and recorded media	1.9	1.6	1.1	1.3	1.3	4.9	31.1
25	Petroleum, coal, chemical and associated product mfg	0.8	0.5	0.3	0.3	0.5	0.5	3.4
26	Non-metallic mineral product mfg	1.3	0.9	0.6	0.6	0.5	3.1	6.5
27	Metal product mfg	1.1	0.8	0.5	0.5	0.6	0.4	6.4
28	Machinery and equipment mfg	0.7	0.5	0.5	0.6	0.6	0.5	4.3
29	Other manufacturing	2.1	1.9	1.8	2.0	2.1	9.2	15.4
21–29	Total manufacturing	0.4	0.3	0.2	0.2	0.2	0.3	4.9

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Commencing with the 1997–98 manufacturing collection, new international standards apply to the calculation of turnover. For more details, see paragraphs 11 and 12 of the Explanatory Notes.

(d) Commencing with the 1997–98 manufacturing collection, industry value added replaces industry gross product as the measure of an industry's contribution to gross domestic product. For more details, see paragraphs 13 and 14 of the Explanatory Notes.

G L O S S A R Y

ABS	Australian Bureau of Statistics
Acquisition of dwellings, other buildings and structures	Capital expenditure incurred acquiring dwellings, other buildings and structures. Note that this category includes purchases of both new and second-hand buildings and structures. It also includes purchases of roads, factories, warehouses, offices, bridges, etc.
Acquisition of other assets (including land and intangible assets)	Capital expenditure incurred acquiring other assets (including land and intangible assets). Intangible asset purchases may include items such as patents, copyrights, licences and goodwill. Also included is capitalised computer software, including installation costs, the purchase or development of large data bases and software developed in-house (but excluded is software maintenance expenditure). Note that if software and hardware costs cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.
Acquisition of plant, machinery and equipment	Capital expenditure incurred in acquiring plant, machinery and other equipment. Note that this category includes the purchase of motor vehicles.
Amount exported by this business unit or by its agent	This represents the sales value of goods produced by an establishment (or for it on commission), including the value of manufactured goods transferred to other establishments of the business unit for sale, that are exported (or are intended for export) outside Australia by the business unit or by its agent.
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
Capitalised work done for own use	Capitalised work done by the employees or proprietors of an establishment for use by the business unit or for rental or lease to other businesses. The main types of work are manufacturing, constructing, installing or repairing assets and development of computer software. This work is valued at the capitalised costs of the materials and the wages and salaries involved. Conceptually, this item should also include own account mineral exploration and own account production of literary, entertainment or artistic originals. However, these activities are relatively unimportant for manufacturers and have not been measured for manufacturing industries.
Change in inventories	The value of total closing inventories minus total opening inventories.
Closing inventories	The value of all inventories of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the end of the reference period.
Commission manufacturing	Significant amounts of manufacturing are undertaken on a commission basis by one manufacturer on behalf of another manufacturer or by a manufacturer on behalf of a non-manufacturer. Typically, a commission manufacturing transaction will involve a client commissioning the production of goods by a producing establishment from materials provided by the client. Ownership of those materials remains with the client. Similarly, the goods made from those materials are owned by the client. For the purposes of the estimates in this publication, the producing establishment reports the commission fee as service income along with wages and salaries and any other expenses incurred.

Commission manufacturing <i>continued</i>	If the client is a manufacturing establishment, then in addition to data for their own manufacturing operations, the client reports the sales and stocks of the commissioned goods, the cost of the materials provided to the producing establishment, the commission fee paid and the value of any other intermediate inputs related to the commission transaction. If the client is not a manufacturing establishment, no data are reported by the client.
Employer contributions to superannuation funds	Included in this item are all employer contributions to superannuation funds (including the employer productivity contribution) and provisions for employer contributions to superannuation funds. Employee contributions are excluded.
Employment at end of June	The number of working proprietors, working partners, permanent, part-time, temporary and casual employees, and managerial and executive employees working for an establishment during the last pay period ending in June each year. Employees absent on paid or prepaid leave are included, as are employees on workers' compensation who continue to be paid through the payroll system. Non-salaried directors, self-employed persons such as consultants, contractors and persons paid solely by commission without a retainer, and volunteer workers are excluded.
Enterprise group	A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the <i>Corporations Legislation Amendment Act 1991</i>). These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised.
Establishment	The establishment is the smallest accounting unit of a business, within a State or Territory, controlling its productive activities and maintaining a specified range of detailed data i.e. the data needed to compile turnover, opening and closing inventories, purchases and transfers in, motor vehicle running expenses, freight and cartage expenses, commission expenses, rent, leasing and hiring expenses, and repair and maintenance expenses. In general, an establishment covers all operations at a physical location, but may consist of groups of locations provided they are within the same State or Territory. The majority of establishments operate at one location only.
Establishments that do not export	Establishments that reported no exports (either by their business unit or for them by an agent) of goods that they produced.
Establishments with exports of more than 50% of sales	Establishments that reported exports (either by their business unit or for them by an agent) of more than 50% of sales and transfers out of goods for sale that they produced.
Establishments with exports up to and including 50% of sales	Establishments that reported exports (either by their business unit or for them by an agent) of up to and including 50% of sales and transfers out of goods for sale that they produced.
Exports as a proportion of sales and transfers out of goods for sale produced by this establishment (Table 7)	For an individual establishment, this represents the percentage of the total sales and transfers out of goods for sale produced by the establishment (or for it on commission) which are exported (or are intended for export) outside Australia by the business unit or by its agent. In table 7, the ratio is calculated by dividing the total value of goods exported by the total value of sales and transfers out of goods for sale produced by all establishments, not just the aggregated value for those units which exported.

Funding by Federal, State or Local Governments for operational costs Funding by Federal, State or Local Governments for operational costs (e.g. wages and salaries, rent). Included are bounties, subsidies, export grants, Jobstart and apprenticeship schemes.

Industry class Within ANZSIC, there is a structure comprising four levels ranging from industry division (broadest level) to the industry class (finest level). At the industry class level, the activities are narrowly defined and recognised by a four-digit code, e.g. industry class 2331 for Pulp, paper and paperboard manufacturing. Usually, an activity is primarily confined to one class. However, some activities may be primary to more than one class.

Industry gross product (IGP) For periods prior to 1997–98, estimates of IGP represented the measure of the contribution by manufacturing industries to gross domestic product (GDP). However, commencing with estimates for 1997–98 following introduction of new international standards for measuring economic variables, IGP has been replaced by the variable industry value added (IVA) for the purpose of measuring industry contribution to GDP.

The relationship between IVA estimates and IGP estimates is:

$$\begin{array}{rcl}
 & & \text{IVA} \\
 \text{plus} & & \text{Intellectual property royalty expenses} \\
 \text{less} & & \text{Intellectual property royalty income} \\
 \text{less} & & \text{Computer software expenses not capitalised by the business} \\
 \text{less} & & \text{Selected indirect taxes (For manufacturing industries, the main} \\
 & & \text{types are fringe benefits tax, payroll tax, land rates and land taxes.)} \\
 \text{equals} & & \text{IGP}
 \end{array}$$

Industry group This is the intermediate level within the manufacturing industry division of ANZSIC and is recognised by a three-digit code, e.g. industry group 233 for Paper and paper product manufacturing. It gives more detail than the industry subdivision and is created in a way that groups like industry classes together.

Industry subdivision This is the broadest level category within the manufacturing industry division of ANZSIC and is recognised by a two-digit code, e.g. industry subdivision 23 for Wood and paper product manufacturing. Industry subdivisions are built up from industry groups which, in turn, are built up from industry classes. The following list gives the manufacturing industry subdivision codes and their descriptions:

- 21 Food, beverage and tobacco mfg
- 22 Textile, clothing, footwear and leather mfg
- 23 Wood and paper product mfg
- 24 Printing, publishing and recorded media
- 25 Petroleum, coal, chemical and associated product mfg
- 26 Non-metallic mineral product mfg
- 27 Metal product mfg
- 28 Machinery and equipment mfg
- 29 Other manufacturing

Industry value added (IVA) IVA represents the value added by an industry to the intermediate inputs used by the industry. Commencing with estimates for 1997–98, IVA has replaced industry gross product (IGP) as the measure of the contribution by manufacturing industries to gross domestic product. See the entry for industry gross product for an explanation of the differences between IVA and IGP.

The derivation of IVA is as follows:

	Turnover (new standards)
plus	Closing inventories
less	Opening inventories
less	Intermediate input expenses (for details, see the entry for operating expenses)
equals	IVA

However, it should be noted that IVA is not a measure of operating profits before tax. Wages, salaries and most other labour costs are not taken into account in its calculation and nor are most insurance premiums, interest expenses or depreciation and a number of lesser expenses (see the entry for operating expenses for further detail).

Industry value added (IVA) per person employed IVA of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.

Intermediate inputs Intermediate inputs consist of materials and certain services which are used up in the production process. Definitions of relevant component items are also included in this Glossary. It is calculated as:

	Intermediate input expenses (for details, see the entry for operating expenses)
plus	Opening inventories
less	Closing inventories

Management unit The management unit is the highest-level unit within a business, having regard to industry homogeneity, for which accounts are maintained; in nearly all cases, it coincides with the legal entity owning the business (that is, company, partnership, trust, sole operator, etc.). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it.

Manufacturing establishment An establishment predominantly engaged in manufacturing activities. The data collected for such establishments cover all activities of the establishment (including non-manufacturing activities). Conversely, there are some establishments predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities and which are excluded.

Manufacturing management unit A management unit predominantly engaged in manufacturing activities. The data collected for such management units cover all activities of the management unit (including in respect of non-manufacturing activities). Conversely, there are some management units predominantly engaged in non-manufacturing activities which have establishments engaged in manufacturing activities and which are excluded.

Net capital expenditure	The value of total capital expenditure less proceeds received from the disposal of assets.
Opening inventories	The value of all inventories of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the beginning of the reference period.
Operating expenses	For the purposes of calculating economic and accounting variables for manufacturing industries, operating expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations. These expenses are abnormal expenses, capitalised expenses, income tax and other direct taxes, sales taxes and excise payable to Governments, capital repayments or losses on asset sales, dividends, donations or foreign exchange losses.

Remaining expenses are categorised as follows:

Intermediate input expenses

Intermediate input expenses cover the major expenses incurred by manufacturers in producing and distributing goods and services produced (except labour costs), namely:

- purchases and transfers in of materials, components, containers and packaging materials, electricity, fuels and water, and purchases of goods for resale
- motor vehicle running expenses, freight and cartage expenses, repair and maintenance expenses
- rent, leasing and hiring expenses (except for finance lease payments)
- contract, subcontract and commission expenses

Also included in the calculation of intermediate inputs are advertising expenses, audit and other accounting expenses, bank fees and charges (except interest), cleaning expenses, environmental protection expenses, intellectual property royalty expenses, legal fees, management fees, paper, printing and stationery expenses, postal and telecommunication expenses, staff training expenses, and travelling, accommodation and entertainment expenses.

Excluded from this category are selected labour costs and other operating expenses as defined below:

Selected labour costs

Wages and salaries including provision expenses for employee entitlements
 Employer contributions to superannuation funds
 Workers' compensation costs
 Payroll tax and Fringe benefits tax

Other operating expenses

This group of expenses is not included in the calculation of the above economic variables but is included in the calculation of the accounting variable operating profit before tax. Included in this group of expenses are bad and doubtful debts, computer software expenses not capitalised by businesses, depreciation and amortisation, insurance premiums (except workers' compensation and compulsory third party motor vehicle insurance premiums), interest expenses, land rates and taxes, mineral/petroleum expenses not capitalised by businesses, and natural resource royalties expenses.

Other intermediate input expenses	Intermediate input expenses less purchases and transfers in.
Own account capital work	Capitalised work done by the employees or proprietors of an establishment for use by the business unit or for rental or lease to other businesses. The main types of work are manufacturing, constructing, installing or repairing assets and development of computer software. This work is valued at the capitalised costs of the materials and the wages and salaries involved. Conceptually, this item should also include own account mineral exploration and own account production of literary, entertainment or artistic originals. However, these activities are relatively unimportant for manufacturers and have not been measured for manufacturing industries.
Purchases	Purchases of materials, components, containers and packaging materials, electricity, fuels and water, and of goods for resale. The purchase of parts and fuel for motor vehicles is excluded.
Purchases and transfers in	Purchases of materials, components, containers and packaging materials, electricity, fuels and water, and of goods for resale, plus transfers in of goods from other establishments of the same business for further processing, assembly, installation or for sale or resale. Transfers in are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership, i.e. at commercial selling price. The purchase of parts and fuel for motor vehicles is excluded.
Reference period	Businesses are asked to report data for the financial year ended 30 June. However, if a business has a different financial year, it is asked to report for the 12-month period which ends between 1 October of the previous year and 30 September of the current year. This period is then used as a substitute for the financial year ended 30 June. For example, for the 1997–98 collection, a business may have reported data for the year ended 31 December 1997.
Sales and transfers out of goods	Includes sales of goods whether or not produced by the business and sales of goods produced for the business on a commission basis (see the entry for commission manufacturing). Also includes transfers of goods to other establishments of the same business or to related businesses and installation and delivery charges not separately invoiced to customers. Sales are valued net of discounts given and exclusive of excise, sales tax and duties receivable on behalf of the Government. Exports are valued f.o.b. (export freight charges are excluded). Transfers to other establishments of the same business are valued, for statistical purposes, at commercial value (i.e. the value which would have applied had the establishments concerned been under separate ownership).
Sales and transfers out of goods for sale produced by this establishment (Table 7)	Sales as defined in sales and transfers out of goods, plus transfers out of goods produced by this establishment for sale. Transfers to other establishments of the same business are valued, for statistical purposes, at commercial value (i.e. the value which would have applied had the establishments concerned been under separate ownership).



Service income Income received from service activities. Included are income from work done or sales made on a commission basis, income from repair, maintenance or servicing, installation and delivery charges separately invoiced to customers, advertising income and management fees/charges received from related or unrelated businesses. Service income is valued net of discounts given. For periods commencing with 1997–98, under new international standards, income from intellectual property royalties and rent, leasing and hiring income (except from finance leases) have also been classified as service income. Rent, leasing and hiring income is income derived from the ownership of land, buildings, vehicles, machinery or equipment, excluding any income from finance leases.

For further explanation on the treatment of commission manufacturing activities, see the entry for commission manufacturing.

Total capital expenditure The total capital expenditure on the acquisition of plant, machinery and equipment, dwellings, other buildings and structures, and of other assets (including land and intangible assets). Also included is capitalised work done for own use.

Total disposal of assets Proceeds received from the disposal of plant, machinery, equipment, land, dwellings, other buildings and structures, and intangible assets.

Turnover Turnover comprises sales (exclusive of excise and sales tax) of goods whether or not produced by the establishment and transfers of goods to other establishments of the same business, plus service income, funding by Federal, State or Local Governments for operational costs, and own account capital work. Definitions of the various component items appear in this Glossary.

Excluded from turnover are interest income, income from natural resource royalties, funding by Federal, State or Local Governments for specific capital items, dividends, and receipts from the sale of fixed tangible assets.

There are some conceptual differences between turnover as estimated in this publication and turnover as defined by the new international standards. These differences are explained as part of the definition of the component item own account capital work. Full compliance with the new standards would make very little difference to estimates of turnover.

Note (a): The above definition of turnover is used in calculating the variable industry value added. A slightly different definition of turnover was used prior to 1997–98 to calculate the now superseded variable industry gross product. This earlier definition excluded income from intellectual property royalties and the value of computer software developed in-house for use by the business or for rental or lease to other businesses.

Note (b): Transfers to other establishments of the same business referred to in the definition of turnover are valued, for statistical purposes, at prices commensurate with the prices which would have been received if the establishments concerned had been under separate ownership, i.e. at commercial selling price. A significant proportion of the commodities manufactured by some industries is manufactured on commission for non-manufacturing businesses from materials owned and supplied by those businesses. As a consequence, the turnover figures do not reflect the gross value of those commodities but only the commission earned relating to them.

G L O S S A R Y *continued*

Turnover per person employed	Turnover of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.
Wages and salaries	The gross wages and salaries (including capitalised wages and salaries) of all employees of the establishment. The item includes severance, termination and redundancy payments, but excludes reimbursements or allowances to employees for travel, entertainment, etc. For the 1995–96 collection only, provision expenses for employee entitlements (e.g. provisions for annual leave and leave bonus, long service leave, sick leave, and severance, termination and redundancy payments) are excluded. The drawings of working proprietors are also excluded.
Wages and salaries to turnover ratio	The wages and salaries paid by manufacturing establishments which operated during the year ended 30 June as a proportion of the turnover of manufacturing establishments which operated during the same year.
Workers' compensation costs	Included in this item are workers' compensation insurance premiums and levies, non-payroll costs (e.g. medical costs) not reimbursed, workers' compensation expenses at common law, and provisions for workers' compensation costs.

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	Perth	08 9360 5140	08 9360 5955
	Adelaide	08 8237 7400	08 8237 7566
	Hobart	03 6222 5800	03 6222 5995
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POST Client Services, ABS, PO Box 10, Belconnen ACT 2616

EMAIL client.services@abs.gov.au



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