



MANUFACTURING INDUSTRY

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) FRI 22 SEPT 2000

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- For further information about these and related statistics, contact the National Information Service on 1300 135 070 or John Ridley on Sydney 02 9268 4541.

NOTES

ANNUAL MANUFACTURING INDUSTRY COLLECTION The 1998–99 collection was conducted as a sample survey of approximately 17,000 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.

ABOUT THIS ISSUE For some time now, the ABS has been using Australian Taxation Office (ATO) information on group employer (GE) registrations to add new businesses to the ABS business register. After detailed investigation, it has now been decided to use GE information to delete from the business register those businesses which have ceased trading or are no longer employing staff. As a result, a large number of businesses have been removed from the ABS business register which has had a small impact on published aggregates. For more details, see paragraphs 11–13 of the Explanatory Notes.

DATA REVISIONS The process of using GE information to delete businesses from the ABS business register has been introduced for the 1998–99 manufacturing survey. This has had an impact on previous years' data. Estimates in Table 1, for the previous three manufacturing collections (covering 1995–96 to 1997–98 inclusive) have been adjusted in such a way as to phase in the impact over this time.

REGIONAL DATA For information about the availability of sub-State estimates from the 1998–99 collection, see paragraph 31 of the Explanatory Notes.

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], 1998–99* (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.

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, 2000* (Cat. no. 8225.0), to be released in December 2000. Management unit data at the total manufacturing level are also included in *Business Operations and Industry Performance, Australia, Preliminary, 1998–99* (Cat. no. 8142.0).

T.J. Skinner
Acting Australian Statistician

SUMMARY OF FINDINGS

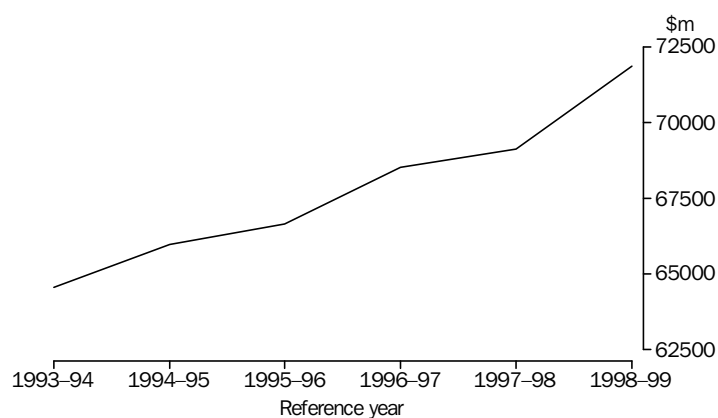
OVERVIEW

Turnover for the year 1998–99 by manufacturing establishments operating in Australia was \$220,848m, which resulted in an industry value added (IVA) for the year of \$68,930m. In current price terms, this represents a 3.7% increase in turnover from the \$212,975m recorded for 1997–98 and a decrease of 0.3% in IVA. However, using volume measures to remove the effects of price changes (see paragraphs 21–24 of the Explanatory Notes), IVA and turnover both increased by 4.0%. Manufacturing establishments employed 923,400 persons at the end of June 1999 and paid \$35,016m in wages and salaries in 1998–99.

INDUSTRY VALUE ADDED

IVA for 1998–99 was \$68,930m. This represents, using volume measures, a 4.0% increase on the figure for 1997–98 and an 11.4% increase over the five year period from 1993–94. Since 1993–94, IVA per person employed rose by 14.2% indicating that IVA per person employed increased more quickly than IVA.

VOLUME MEASURES OF IVA



All nine industry subdivisions recorded an increase in volume measures of IVA over the period 1997–98 to 1998–99. The largest percentage increases were recorded by NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 11.1%), PRINTING, PUBLISHING AND RECORDED MEDIA (up 4.8%) and FOOD, BEVERAGE AND TOBACCO MANUFACTURING and METAL PRODUCT MANUFACTURING (both up 4.4%). The smallest percentage increases were recorded by OTHER MANUFACTURING (up 0.4%) and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (up 1.4%).

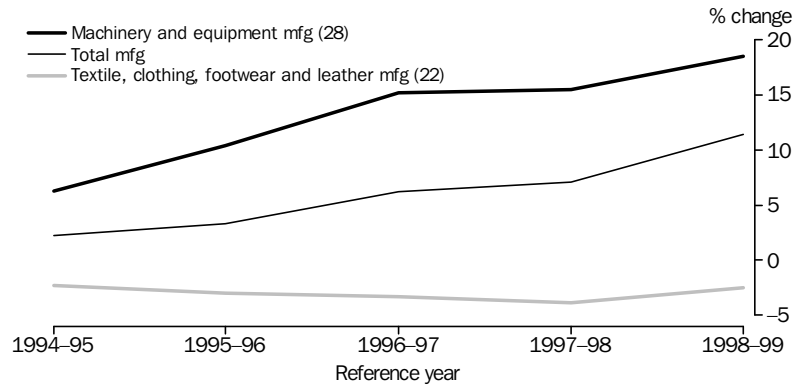
Longer-term trends (1993–94 to 1998–99)—volume measures

Over the period 1993–94 to 1998–99, volume measures of IVA increased by 11.4%. Eight industry subdivisions recorded increases while the other recorded a decrease. The largest percentage increases were recorded by MACHINERY AND EQUIPMENT MANUFACTURING (up 18.5%), PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 15.7%) and FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 15.0%). The decrease was recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 2.5%) while NON-METALLIC MINERAL PRODUCT MANUFACTURING recorded the smallest increase (up 3.8%).

SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED *continued*

VOLUME MEASURES OF IVA – GREATEST AND LEAST GROWTH, percentage change from 1993–94



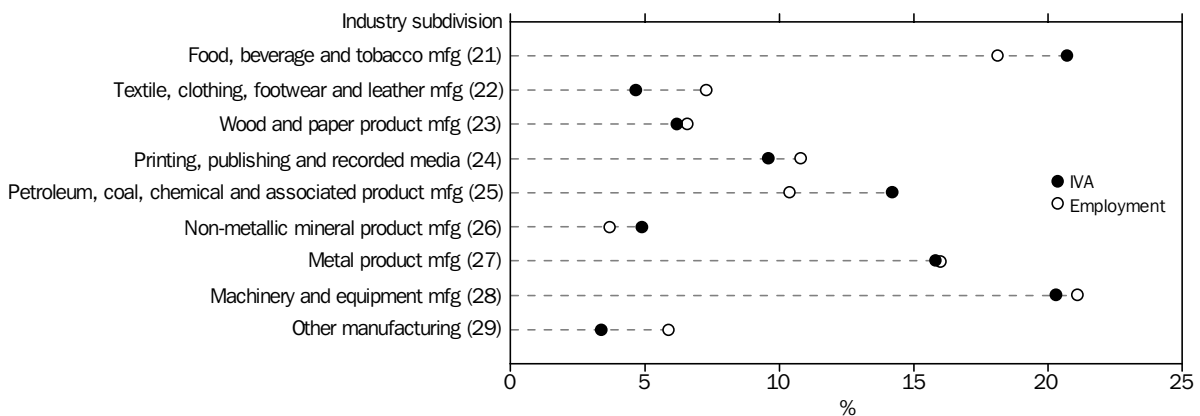
Over the period 1993–94 to 1998–99, there was an increase of 14.2% in volume measures of IVA per person employed. All nine industry subdivisions recorded an increase, with the largest percentage increases being for MACHINERY AND EQUIPMENT MANUFACTURING (up 23.2%) and NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 16.2%), TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (up 15.1%), and FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 14.8%). The smallest increase was recorded by PRINTING, PUBLISHING AND RECORDED MEDIA (up 1.3%).

Since 1993–94, growth in IVA per person employed for the total manufacturing industry was 2.8 percentage points higher than growth in IVA, although this is not a consistent pattern across all industry subdivisions.

The six manufacturing subdivisions for which growth in IVA per person employed was greater than the growth in IVA were the same six subdivisions to show a fall in employment from 1993–94 to 1998–99. Moreover, they occur in exactly the same order when ranked by size of the percentage points difference between IVA and IVA per person employed and by the size of the percentage decrease in employment. This indicates a strong relationship between growth in IVA per person employed and decreasing employment, in this period.

Current year analysis

DISTRIBUTION OF IVA AND EMPLOYMENT



SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED

continued

For 1998–99, FOOD, BEVERAGE AND TOBACCO MANUFACTURING, MACHINERY AND EQUIPMENT 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 71% of total IVA in the manufacturing industry, down from 73% the year before.

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:

FOOD, BEVERAGE AND TOBACCO MANUFACTURING (20.7%), where the industry classes MEAT PROCESSING (ANZSIC Class 2111 at 2.3%), WINE MANUFACTURING (ANZSIC Class 2183 at 1.9%) and FOOD MANUFACTURING N.E.C. (ANZSIC Class 2179 at 1.5%) were the most substantial.

- MACHINERY AND EQUIPMENT MANUFACTURING (20.3%), where the industry classes MOTOR VEHICLE MANUFACTURING (ANZSIC Class 2811 at 4.2%) and AUTOMOTIVE COMPONENT MANUFACTURING N.E.C. (ANZSIC Class 2819 at 1.9%) were the most substantial.
- METAL PRODUCT MANUFACTURING (15.8%), where the industry classes BASIC IRON AND STEEL MANUFACTURING (ANZSIC Class 2711 at 3.0%), STRUCTURAL STEEL FABRICATING (ANZSIC Class 2741 at 1.8%) and FABRICATED METAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2769 at 1.5%) were the most substantial.
- PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (14.2%), where the industry classes MEDICINAL AND PHARMACEUTICAL PRODUCT MANUFACTURING (ANZSIC Class 2543 at 2.4%), PETROLEUM REFINING (ANZSIC Class 2510 at 1.8%) and PLASTIC INJECTION MOULDED PRODUCT MANUFACTURING (ANZSIC Class 2566 at 1.5%) were the most substantial.

Industry classes making a notable contribution to IVA and not included in the subdivisions listed above included NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421 at 3.7%) and PRINTING (ANZSIC Class 2412 at 3.1%).

EMPLOYMENT

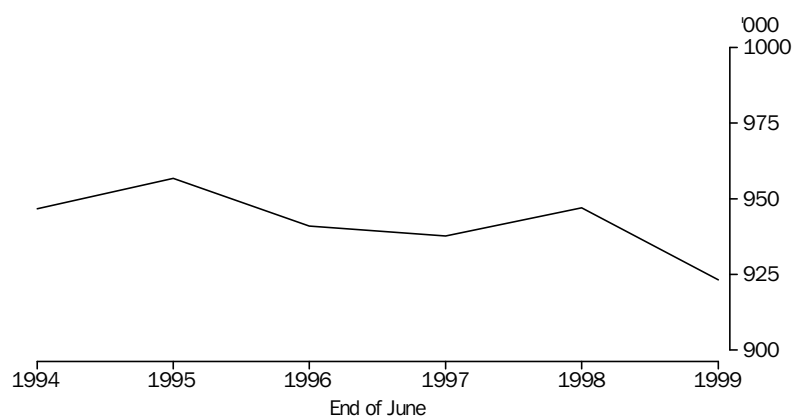
The Australian manufacturing industry employed 923,400 persons at the end of June 1999. As in previous years, MACHINERY AND EQUIPMENT MANUFACTURING (21.1%), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (18.1%) and METAL PRODUCT MANUFACTURING (16.0%) were the major contributors to employment at the end of June 1999. NON-METALLIC MINERAL PRODUCT MANUFACTURING (3.7%) and OTHER MANUFACTURING (5.9%) remain the smallest contributors.

Manufacturing employment decreased by 2.5% between June 1998 and June 1999. Eight of the nine industry subdivisions recorded decreases in the level of employment over this period. The largest percentage decreases were recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 10.6% from 75,700 persons to 67,700 persons) and MACHINERY AND EQUIPMENT MANUFACTURING (down 5.5% from 206,400 persons to 195,000 persons). The increase was recorded by PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 4.2% from 92,100 persons to 96,000 persons).

SUMMARY OF FINDINGS *continued*

Longer-term trends (June 1994 to June 1999)

EMPLOYMENT



Employment in the Australian manufacturing industry decreased by 23,500 persons (down 2.5% from 946,900 persons to 923,400 persons) over the period June 1994 to June 1999. This employment figure is the lowest for any year for which ANZSIC data are available i.e. from 1989–90 onwards.

Between June 1994 and June 1999, six industry subdivisions recorded decreases and three recorded increases in the level of employment. The largest percentage and absolute decrease was recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 15.3% from 79,900 persons to 67,700 persons). The second largest percentage decrease was for NON-METALLIC MINERAL PRODUCT MANUFACTURING (down 11.0% from 38,900 persons to 34,600 persons). The second largest absolute decrease in employment was for MACHINERY AND EQUIPMENT MANUFACTURING (down 7,800 persons from 202,700 persons to 195,000 persons).

The largest percentage and absolute increases were recorded by PRINTING, PUBLISHING AND RECORDED MEDIA (up 7.7% from 92,300 persons to 99,300 persons) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 5.2% from 91,200 persons to 96,000 persons).

EMPLOYMENT AND WAGES

The Australian manufacturing industry employed 923,400 persons at the end of June 1999 and paid employees \$35,016m in wages and salaries in 1998–99. This represents an average of \$37,900 paid in annual wages and salaries per person employed, an increase of 6.4% on the \$35,600 recorded twelve months earlier. (Readers should note that the employment figure in this average measures the number of persons employed at the end of June and includes working proprietors. The wages and salaries figure excludes the drawings of working proprietors).

Average wages and salaries paid per person employed at the end of June rose in all nine manufacturing industry subdivisions between 1997–98 and 1998–99. TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING had the largest percentage increase in wages and salaries paid per person employed as well as the largest fall in employment (down 10.6%).

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

SUMMARY OF FINDINGS *continued*

EMPLOYMENT AND WAGES *continued*

- TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (up 10.1%—\$26,100 to \$28,800), where 18 (out of 19) industry classes recorded an increase, with the largest being:
 - CLOTHING MANUFACTURING N.E.C. (ANZSIC Class 2249) (up 39.3%—\$15,800 to \$22,000);
 - ROPE, CORDAGE AND TWINE MANUFACTURING (ANZSIC Class 2223) (up 16.4%—\$37,800 to \$44,100); and
 - SLEEPWEAR, UNDERWEAR AND INFANT CLOTHING MANUFACTURING (ANZSIC Class 2243) (up 13.7%—\$28,100 to \$32,000).
- OTHER MANUFACTURING (up 8.5%—\$25,100 to \$27,200), where 7 (out of 9) industry classes recorded an increase, with the largest being:
 - PREFABRICATED BUILDING MANUFACTURING N.E.C. (ANZSIC Class 2919) (up 23.9%—\$20,100 to \$24,900);
 - PREFABRICATED METAL BUILDING MANUFACTURING (ANZSIC Class 2911) (up 22.2%—\$28,200 to \$34,400); and
 - WOODEN FURNITURE AND UPHOLSTERED SEAT MANUFACTURING (ANZSIC Class 2921) (up 11.8%—\$23,000 to \$25,700). With 49% of the subdivision's employment, this class was the most influential in producing the overall subdivision result.
- PRINTING, PUBLISHING AND RECORDED MEDIA (up 8.4%—\$35,000 to \$38,000), where 6 (out of 7) industry classes recorded an increase, with the largest being:
 - BOOK AND OTHER PUBLISHING (ANZSIC Class 2423) (up 18.0%—\$35,600 to \$42,000);
 - OTHER PERIODICAL PUBLISHING (ANZSIC Class 2422) (up 15.4%—\$36,100 to \$41,600); and
 - PRINTING (ANZSIC Class 2412) (up 9.4%—\$32,000 to \$35,000). With 40% of the subdivision's employment, this class was the most influential in producing the subdivision result.

The industry classes which had the highest wages and salaries paid per person employed in 1998–99 were PETROLEUM REFINING (ANZSIC Class 2510) (\$67,500), BASIC IRON AND STEEL MANUFACTURING (ANZSIC Class 2711) (\$63,600), EXPLOSIVE MANUFACTURING (ANZSIC Class 2541) (\$63,300) and TOBACCO PRODUCT MANUFACTURING (ANZSIC Class 2190) (\$62,000). The industry classes which had the lowest wages and salaries paid per person employed in 1998–99 were CLOTHING MANUFACTURING N.E.C. (ANZSIC Class 2249) (\$22,000), WOMEN'S AND GIRLS' WEAR MANUFACTURING (ANZSIC Class 2242) (\$22,300) and WOOD PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2329) (\$23,900).

TURNOVER

Turnover rose, in current price terms, by \$7,873m to \$220,848m for 1998–99. This represents a 3.7% increase on the \$212,975m recorded for 1997–98. In volume terms turnover rose by 4.0%.

Eight of the nine manufacturing industry subdivisions recorded an increase in turnover (current prices) between 1997–98 and 1998–99. FOOD, BEVERAGE AND TOBACCO MANUFACTURING remained the largest contributor to total manufacturing turnover, and also recorded the largest increase in dollar terms (\$2,319m). The largest percentage increases between 1997–98 and 1998–99, however, were recorded by NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 11.5%), PRINTING, PUBLISHING AND RECORDED MEDIA (up 7.2%) and WOOD AND PAPER PRODUCT MANUFACTURING (up 6.1%). TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 1.2%) was the only industry subdivision to record a fall in turnover.

SUMMARY OF FINDINGS *continued*

TURNOVER *continued*

The industry classes with large percentage increases between 1997–98 and 1998–99 were:

- PREFABRICATED BUILDING MANUFACTURING N.E.C. (ANZSIC Class 2919) (up 49.5% or \$28m);
- NON-FERROUS METAL CASTING (ANZSIC Class 2733) (up 39.3% or \$53m); and
- CLOTHING MANUFACTURING N.E.C. (ANZSIC Class 2249) (up 32.2% or \$246m).

The industry classes with the largest dollar increases between 1997–98 and 1998–99 were:

- MOTOR VEHICLE MANUFACTURING (ANZSIC Class 2811) (up \$702m or 7.0%);
- DAIRY PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2129) (up \$669m or 18.1%);
- WINE MANUFACTURING (ANZSIC Class 2183) (up \$661m or 24.8%);
- MEDICINAL AND PHARMACEUTICAL PRODUCT MANUFACTURING (ANZSIC Class 2543) (up \$569m or 12.1%); and
- NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421) (up \$550m or 11.5%).

The industry classes with the largest percentage decreases between 1997–98 and 1998–99 were:

- SLEEPWEAR, UNDERWEAR AND INFANT CLOTHING MANUFACTURING (ANZSIC Class 2243) (down 28.2% or \$148m);
- COMMERCIAL SPACE HEATING AND COOLING EQUIPMENT MANUFACTURING (ANZSIC Class 2867) (down 28.0% or \$151m); and
- TOY AND SPORTING GOOD MANUFACTURING (ANZSIC Class 2942) (down 26.8% or \$84m).

The industry classes with the largest dollar decreases between 1997–98 and 1998–99 were:

- PETROLEUM REFINING (ANZSIC Class 2510) (down \$903m or 11.2%);
- TELECOMMUNICATION, BROADCASTING AND TRANSMISSION EQUIPMENT MANUFACTURING (ANZSIC Class 2842) (down \$416m or 21.3%); and
- FOOD MANUFACTURING N.E.C. (ANZSIC Class 2179) (down \$341m or 9.8%).

Beverages

For the second consecutive year and for only the second time since the introduction of integrated economic statistics with the 1968–69 collection, turnover for WINE MANUFACTURING (ANZSIC Class 2183 at \$3,323m) has exceeded that for BEER AND MALT MANUFACTURING (ANZSIC Class 2182 at \$2,518m). In 1998–99 turnover for SOFT DRINK, CORDIAL AND SYRUP MANUFACTURING (ANZSIC Class 2181 at \$2,589m) has also exceeded that for BEER AND MALT MANUFACTURING for the first time since the introduction of integrated economic statistics with the 1968–69 collection. BEER AND MALT MANUFACTURING is now the third ranked industry class within the ANZSIC Group BEVERAGE AND MALT MANUFACTURING.

STATE COMPARISON

For the third consecutive year, for 1998–99, the contribution to Australian turnover by Victorian manufacturers (\$71,984m) has exceeded that of manufacturers located in New South Wales (\$71,876m). 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.

IVA

Between them, New South Wales (at 33.2%) and Victoria (at 33.1%) contributed nearly two-thirds of manufacturing IVA for Australia in 1998–99. The contribution of the other States and Territories in 1998–99 was: Queensland (13.8%), South Australia (9.3%), Western Australia (7.2%), Tasmania (2.5%), Northern Territory (0.5%) and Australian

SUMMARY OF FINDINGS *continued*

STATE COMPARISON

continued

Capital Territory (0.3%). In 1997–98, Victoria had the largest share of IVA (at 33.2%) followed by New South Wales (at 32.4%). This was the only change in the order of the States and Territories in this period.

The industry subdivision where IVA was most heavily concentrated in a State or Territory was TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING in Victoria (at 54.8%). This was followed by PRINTING, PUBLISHING AND RECORDED MEDIA in New South Wales (at 42.4%) and MACHINERY AND EQUIPMENT MANUFACTURING in Victoria (at 38.9%).

The industry subdivision where IVA 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 10.0% of IVA for this industry in Australia, compared to the total Tasmanian contribution to Australian manufacturing of 2.5%. This was followed by NON-METALLIC MINERAL PRODUCT MANUFACTURING in Western Australia (13.0% compared to 7.2%) and MACHINERY AND EQUIPMENT MANUFACTURING in South Australia (16.5% compared to 9.3%).

Employment

As in previous years, Victoria and New South Wales were the States in which manufacturing employment was concentrated at the end of June 1999. Victoria accounted for 32.3% of Australian manufacturing employment, with the corresponding figure for New South Wales being 32.2%.

This is the second consecutive year that employment in the Victorian manufacturing industry has exceeded that for New South Wales. This is, however, a decrease of 0.8 percentage points for Victoria, and an increase of 0.4 percentage points for New South Wales on the contributions that they recorded 12 months earlier. Queensland increased its contribution by 0.6 percentage points (to 15.7%) and South Australia decreased its contribution by 0.1 percentage points (to 9.0%). The contribution of all other States and Territories remained the same over this period.

Between June 1994 and June 1999, five of the States and Territories recorded decreases in employment and three recorded increases. The decreases were recorded in the Australian Capital Territory (down 24.1% from 4,400 persons to 3,300 persons), Tasmania (down 7.5% from 21,800 persons to 20,200 persons), New South Wales (down 6.2% from 316,600 persons to 297,000 persons), South Australia (down 5.4% from 88,100 persons to 83,400 persons) and Victoria (down 0.4% from 299,900 persons to 298,700 persons). The largest percentage increase was recorded in the Northern Territory (up 12.9% from 3,000 persons to 3,400 persons). Increases were also recorded in Western Australia (up 4.0% from 66,900 persons to 72,700 persons) and Queensland (up 1.1% from 143,100 persons to 144,600 persons).

The percentage of Australian manufacturing employment in New South Wales has declined since June 1994 (decreasing by 1.3 percentage points to 32.2%), as has that for South Australia (down 0.3 percentage points to 9.0%), Tasmania (down 0.1 percentage points to 2.2%) and the Australian Capital Territory (down 0.1 percentage points to 0.4%). Victoria has increased its proportion of employment over this period (up 0.6 percentage points to 32.3%), as did Queensland (up 0.6 percentage points to 15.7%), Western Australia (up 0.5 percentage points to 7.9%) and the Northern Territory (up 0.1 percentage points to 0.4%).

SUMMARY OF FINDINGS *continued*

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 48.3% of employment at the end of June 1999 and 56.6% of IVA for 1998–99. Establishments employing 20–99 persons accounted for 27.6% of employment and 24.5% of IVA. Small establishments (i.e. those employing 0–19 persons) accounted for 24.1% of employment and 18.9% of IVA. Manufacturing establishments employing 1,000 or more persons at the end of June 1999 employed 7.9% of all persons working in the manufacturing industry in Australia and contributed 10.0% to IVA.

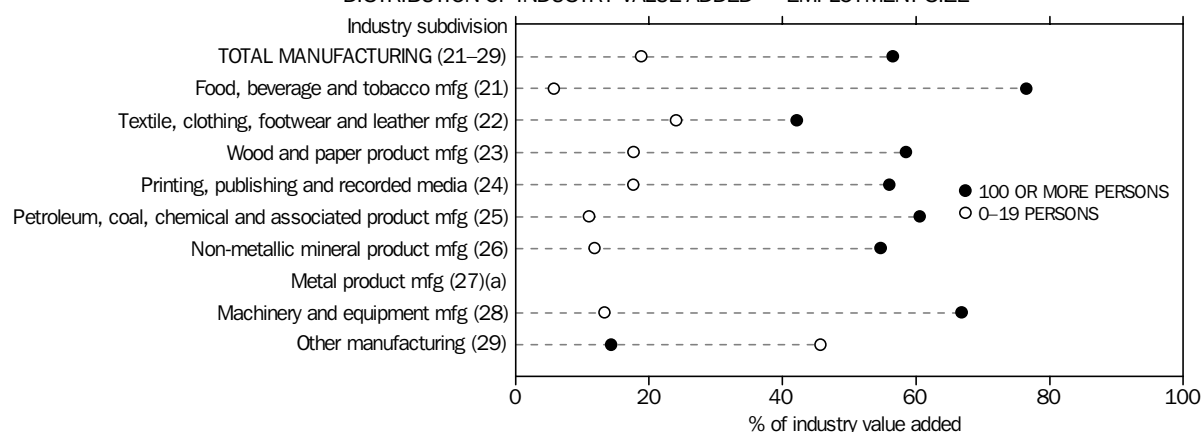
These proportions were reflected in the ratios of IVA per person employed at the end of June 1999. Small establishments (employing 0–19 persons) had a lower ratio (\$58,600) than establishments in the larger size categories. Establishments employing 100 or more persons recorded an average IVA per person employed of \$87,300, with establishments employing 1,000 or more persons having a ratio of \$94,500.

Omitting METAL PRODUCT MANUFACTURING (see paragraph 26 of the Explanatory Notes), six of the other eight industry subdivisions had more than 50% of IVA contributed by establishments employing 100 or more persons. The industries where these larger establishments contributed most to IVA were FOOD, BEVERAGE AND TOBACCO MANUFACTURING (75.5%), MACHINERY AND EQUIPMENT MANUFACTURING (66.8%) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (60.5%).

Small establishments (employing 0–19 persons) made relatively significant contributions to IVA for OTHER MANUFACTURING (45.7%) and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (24.1%).

EXPORTS

DISTRIBUTION OF INDUSTRY VALUE ADDED — EMPLOYMENT SIZE



(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 *continued*

For 1998–99, Australian manufacturers directly exported \$31,956m of the goods that they produced. This represents a 1.0% decrease on the \$32,286m recorded for 1997–98. Exports as a percentage of the total sales and transfers out of goods for sale produced also decreased (from 16.2% for 1997–98 to 15.7% for 1998–99).

Manufacturers' direct exports decreased in five industry subdivisions between 1997–98 and 1998–99 and rose in the other four. Industry subdivisions to record the largest percentage decreases in direct exports between 1997–98 and 1998–99 were WOOD AND PAPER PRODUCT MANUFACTURING (down 17.4%—\$837m to \$691m), TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 16.1%—\$1,479m to \$1,240m) and MACHINERY AND EQUIPMENT MANUFACTURING (down 4.1%—\$6,737m to \$6,463m).

EXPORTS AS A PROPORTION OF GOODS PRODUCED



Direct exports by establishments employing 100 or more persons fell by \$769m (or 3.4%) while rises in direct exports were recorded by establishments employing 50 to 99 persons (up \$357m or 12.9%) and by establishments employing 0 to 49 persons (up \$83m or 1.3%).

Exports as a proportion of sales and transfers out of goods for sale produced has increased from 13.9% for 1994–95 to 15.7% for 1998–99 but fell by 0.5 percentage points (from 16.2% to 15.7%) between 1997–98 and 1998–99.

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

Reference year	Employment at end of June(d)	Wages and salaries(e)(f)	Turnover(f)	Industry gross product(f)	Industry value added(f)	Wages and salaries to turnover(f)	Turnover per person employed (f)(g)	Industry value added per person employed (f)(h)
	'000	\$m	\$m	\$m	\$m	ratio	\$'000	\$'000
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
1998-99	167.4	6 171.9	50 283.5	..	14 299.3	0.12	300.5	85.4
1997-98	168.6	5 949.9	(i)47 964.9	(j)13 523.2	(j)13 890.4	0.12	284.4	82.4
1996-97	163.3	5 581.1	44 725.1	11 448.7	..	0.12	273.8	..
1995-96	162.7	(k)5 143.3	43 247.1	11 381.9	..	0.12	265.9	..
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	..
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
1998-99	67.7	1 948.6	9 788.2	..	3 268.1	0.20	144.6	48.3
1997-98	75.7	1 980.1	(i)9 906.8	(j)3 199.6	(j)3 308.4	0.20	130.8	43.7
1996-97	75.5	1 989.8	9 785.1	3 212.3	..	0.20	129.5	..
1995-96	77.2	(k)1 883.4	9 845.0	3 169.0	..	0.19	127.5	..
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	..
WOOD AND PAPER PRODUCT MANUFACTURING								
1998-99	60.7	2 145.7	12 200.6	..	4 294.6	0.18	200.9	70.7
1997-98	62.0	2 062.4	(i)11 499.6	(j)3 808.1	(j)3 951.5	0.18	185.4	63.7
1996-97	61.0	2 013.8	11 116.0	3 701.3	..	0.18	182.1	..
1995-96	65.5	(k)1 994.4	11 504.2	4 033.1	..	0.17	175.8	..
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	..
PRINTING, PUBLISHING AND RECORDED MEDIA								
1998-99	99.3	3 770.1	15 997.7	..	6 629.0	0.24	161.0	66.7
1997-98	99.8	3 494.2	(i)14 917.8	(j)6 720.0	(j)6 477.3	0.23	149.4	64.9
1996-97	95.7	3 305.9	14 768.9	6 680.8	..	0.22	154.3	..
1995-96	91.8	(k)3 074.4	13 763.6	6 408.9	..	0.22	150.0	..
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	..
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
1998-99	96.0	4 252.4	33 732.7	..	9 800.7	0.13	351.5	102.1
1997-98	92.1	3 894.4	(i)33 362.3	(j)9 574.0	(j)9 897.2	0.12	362.2	107.5
1996-97	92.7	3 778.5	32 706.3	9 090.2	..	0.12	353.0	..
1995-96	94.1	(k)3 584.0	31 428.5	9 040.6	..	0.11	334.1	..
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	..

.. not applicable

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

(c) For factors affecting comparability of data over the time period shown, see paragraphs 14-20 of the Explanatory Notes.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

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

(g) Turnover divided by the number of persons employed at the end of June.

(h) Industry value added divided by the number of persons employed at the end of June.

(i) From the 1997-98 manufacturing collection and onwards, new international standards apply to the calculation of turnover. For more details see paragraphs 14 and 15 of the Explanatory Notes.

(j) From the 1997-98 manufacturing collection and onwards, industry value added (IVA) replaces industry gross product (IGP) as the measure of an industry's contribution to gross domestic product. IGP has also been shown for 1997-98. For more details, see paragraphs 16 and 17 of the Explanatory Notes.

(k) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 19 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS(a)(b), Summary of Operations(c) *continued*

Reference year	Employment at end of June(d) '000	Wages and salaries(e)(f) \$m	Turnover(f) \$m	Industry gross product(f) \$m	Industry value added(f) \$m	Wages and salaries to turnover(f) ratio	Turnover per person employed (f)(g) \$'000	Industry value added per person employed (f)(h) \$'000
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
1998-99	34.6	1 434.8	9 861.6	..	3 402.1	0.15	285.1	98.4
1997-98	35.5	1 375.5	(i)8 846.4	(j)2 814.0	(j)2 944.6	0.16	249.5	83.0
1996-97	36.8	1 361.9	8 579.9	2 634.9	..	0.16	232.8	..
1995-96	36.2	(k)1 248.4	8 371.4	2 898.1	..	0.15	231.1	..
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	..
METAL PRODUCT MANUFACTURING								
1998-99	147.9	5 954.1	38 923.3	..	10 914.8	0.15	263.2	73.8
1997-98	150.2	5 712.1	(i)38 165.5	(j)11 681.5	(j)12 099.5	0.15	254.1	80.6
1996-97	148.9	5 638.4	37 658.8	11 062.1	..	0.15	252.9	..
1995-96	149.5	(k)5 233.4	38 076.6	11 690.3	..	0.14	254.7	..
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	..
MACHINERY AND EQUIPMENT MANUFACTURING								
1998-99	195.0	7 846.1	43 362.6	..	13 996.4	0.18	222.4	71.8
1997-98	206.4	7 854.6	(i)41 732.1	(j)13 927.4	(j)14 360.9	0.19	202.2	69.6
1996-97	206.9	7 495.9	41 276.7	13 581.3	..	0.18	199.5	..
1995-96	209.4	(k)6 965.0	39 658.2	12 289.0	..	0.18	189.4	..
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	..
OTHER MANUFACTURING								
1998-99	54.8	1 492.3	6 697.7	..	2 324.5	0.22	122.1	42.4
1997-98	56.8	1 423.8	(i)6 579.5	(j)2 137.0	(j)2 211.1	0.22	115.9	39.0
1996-97	56.8	1 393.3	6 433.1	2 224.8	..	0.22	113.2	..
1995-96	54.7	(k)1 311.5	5 865.2	2 168.9	..	0.22	107.3	..
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	..
TOTAL MANUFACTURING								
1998-99	923.4	35 016.0	220 847.9	..	68 929.5	0.16	239.2	74.6
1997-98	947.1	33 747.2	(i)212 975.0	(j)67 384.8	(j)69 140.9	0.16	224.9	73.0
1996-97	937.8	32 558.7	207 049.9	63 636.4	..	0.16	220.8	..
1995-96	941.0	(k)30 437.8	201 759.7	63 079.7	..	0.15	214.4	..
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	..

.. not applicable

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

(c) For factors affecting comparability of data over the time period shown, see paragraphs 14-20 of the Explanatory Notes.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

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

(g) Turnover divided by the number of persons employed at the end of June.

(h) Industry value added divided by the number of persons employed at the end of June.

(i) From the 1997-98 manufacturing collection and onwards, new international standards apply to the calculation of turnover. For more details see paragraphs 14 and 15 of the Explanatory Notes.

(j) From the 1997-98 manufacturing collection and onwards, industry value added (IVA) replaces industry gross product (IGP) as the measure of an industry's contribution to gross domestic product. IGP has also been shown for 1997-98. For more details, see paragraphs 16 and 17 of the Explanatory Notes.

(k) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 19 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS(a)(b), Industry class

INDUSTRY CLASS ANZSIC code	Description	Employment at end of June(c) no.	Wages and salaries(d) \$m	Turnover \$m	Industry value added \$m	Turnover per person employed(e) \$'000	Industry value added per person employed(f) \$'000
21	FOOD, BEVERAGE AND TOBACCO MFG						
211	Meat and meat product mfg						
2111	Meat processing	30 049.0	1 012.6	6 868.2	1 553.6	228.6	51.7
2112	Poultry processing	13 282.0	414.6	2 405.1	680.9	181.1	51.3
2113	Bacon, ham and smallgood mfg	7 504.0	226.3	1 404.4	419.2	187.2	55.9
	<i>Total</i>	<i>50 835.0</i>	<i>1 653.5</i>	<i>10 677.7</i>	<i>2 653.7</i>	<i>210.0</i>	<i>52.2</i>
212	Dairy product mfg						
2121	Milk and cream processing	5 959.0	274.9	2 797.7	595.6	469.5	99.9
2122	Ice cream mfg	2 682.0	111.1	689.8	204.3	257.2	76.2
2129	Dairy product mfg n.e.c.	8 219.0	367.5	4 361.6	857.1	530.7	104.3
	<i>Total</i>	<i>16 860.0</i>	<i>753.6</i>	<i>7 849.1</i>	<i>1 656.9</i>	<i>465.5</i>	<i>98.3</i>
213	Fruit and vegetable processing	11 194.0	445.9	3 531.9	924.3	315.5	82.6
214	Oil and fat mfg	1 687.0	84.8	1 047.8	224.6	621.2	133.2
215	Flour mill and cereal food mfg						
2151	Flour mill product mfg	2 189.0	102.9	1 272.7	277.9	581.3	126.9
2152	Cereal food and baking mix mfg	5 911.0	205.9	2 088.5	668.5	353.3	113.1
	<i>Total</i>	<i>8 101.0</i>	<i>308.8</i>	<i>3 361.2</i>	<i>946.4</i>	<i>414.9</i>	<i>116.8</i>
216	Bakery product mfg						
2161	Bread mfg	9 416.0	370.9	1 309.2	475.3	139.0	50.5
2162	Cake and pastry mfg	9 300.0	255.7	1 070.8	388.4	115.1	41.8
2163	Biscuit mfg	4 736.0	154.1	1 031.2	514.9	217.8	108.7
	<i>Total</i>	<i>23 451.0</i>	<i>780.8</i>	<i>3 411.2</i>	<i>1 378.6</i>	<i>145.5</i>	<i>58.8</i>
217	Other food mfg						
2171	Sugar mfg	6 717.0	260.0	2 478.8	594.3	369.0	88.5
2172	Confectionery mfg	5 920.0	264.3	1 469.4	615.6	248.2	104.0
2173	Seafood processing	3 950.0	99.9	1 110.9	194.6	281.3	49.3
2174	Prepared animal and bird feed mfg	4 493.0	185.5	2 549.0	519.2	567.4	115.6
2179	Food mfg n.e.c.	15 232.0	554.7	3 144.7	1 011.0	206.4	66.4
	<i>Total</i>	<i>36 312.0</i>	<i>1 364.4</i>	<i>10 752.9</i>	<i>2 934.7</i>	<i>296.1</i>	<i>80.8</i>
218	Beverage and malt mfg						
2181	Soft drink, cordial and syrup mfg	5 869.0	262.8	2 589.4	806.7	441.2	137.4
2182	Beer and malt mfg	2 894.0	165.4	2 518.4	891.5	870.3	308.1
2183	Wine mfg	8 726.0	268.4	3 323.1	1 325.7	380.8	151.9
2184	Spirit mfg	244.0	10.3	193.3	50.4	791.0	206.1
	<i>Total</i>	<i>17 733.0</i>	<i>706.8</i>	<i>8 624.2</i>	<i>3 074.2</i>	<i>486.3</i>	<i>173.4</i>
219	Tobacco product mfg	1 181.0	73.2	1 027.5	505.8	869.9	428.2
	Total food, beverage and tobacco mfg	167 355.0	6 171.9	50 283.5	14 299.3	300.5	85.4
22	TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG						
221	Textile fibre, yarn and woven fabric mfg						
2211	Wool scouring	1 652.0	79.0	454.9	131.7	275.4	79.7
2212	Synthetic fibre textile mfg	3 618.0	130.7	718.9	246.4	198.7	68.1
2213	Cotton textile mfg	2 705.0	103.5	480.2	150.5	177.5	55.6
2214	Wool textile mfg	1 918.0	61.8	198.9	81.1	103.7	42.3
2215	Textile finishing	1 725.0	50.3	192.4	79.1	111.5	45.8
	<i>Total</i>	<i>11 618.0</i>	<i>425.3</i>	<i>2 045.4</i>	<i>688.8</i>	<i>176.0</i>	<i>59.3</i>

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11–13 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

INDUSTRY CLASS ANZSIC code	Description	Employment at end of June(c) no.	Wages and salaries(d) \$m	Turnover \$m	Industry value added \$m	Turnover per person employed(e) \$'000	Industry value added per person employed(f) \$'000
22 cont.							
222	Textile product mfg						
2221	Made-up textile product mfg	5 196.0	124.7	625.4	203.6	120.4	39.2
2222	Textile floor covering mfg	3 274.0	118.4	726.4	229.8	221.9	70.2
2223	Rope, cordage and twine mfg	674.0	29.7	105.8	46.4	157.1	68.9
2229	Textile product mfg n.e.c.	2 650.0	72.6	338.3	121.5	127.7	45.9
	<i>Total</i>	11 793.0	345.4	1 795.9	601.4	152.3	51.0
223	Knitting mills						
2231	Hosiery mfg	2 501.0	77.7	277.3	114.4	110.9	45.7
2232	Cardigan and pullover mfg	1 614.0	40.4	170.5	54.9	105.7	34.0
2239	Knitting mill product mfg n.e.c.	3 814.0	127.0	811.7	284.9	212.8	74.7
	<i>Total</i>	7 929.0	245.0	1 259.5	454.2	158.9	57.3
224	Clothing mfg						
2241	Men's and boys' wear mfg	6 831.0	194.6	814.4	277.9	119.2	40.7
2242	Women's and girls' wear mfg	9 706.0	216.7	1 204.5	379.0	124.1	39.1
2243	Sleepwear, underwear and infant clothing mfg	2 469.0	79.0	376.0	121.0	152.3	49.0
2249	Clothing mfg n.e.c.	9 422.0	206.8	1 011.2	426.8	107.3	45.3
	<i>Total</i>	28 428.0	697.1	3 406.1	1 204.7	119.8	42.4
225	Footwear mfg	4 964.0	139.5	600.5	198.3	121.0	39.9
226	Leather and leather product mfg						
2261	Leather tanning and fur dressing	2 407.0	82.1	599.1	96.2	248.9	40.0
2262	Leather and leather substitute product mfg	573.0	14.2	81.8	24.6	142.8	42.9
	<i>Total</i>	2 980.0	96.3	680.9	120.8	228.5	40.5
	Total textile, clothing, footwear and leather mfg	67 712.0	1 948.6	9 788.2	3 268.1	144.6	48.3
23	WOOD AND PAPER PRODUCT MFG						
231	Log sawmilling and timber dressing						
2311	Log sawmilling	5 550.0	156.2	729.4	318.5	131.4	57.4
2312	Wood chipping	737.0	37.2	448.0	168.2	607.4	228.1
2313	Timber resawing and dressing	6 242.0	222.3	1 177.3	495.1	188.6	79.3
	<i>Total</i>	12 529.0	415.8	2 354.7	981.8	187.9	78.4
232	Other wood product mfg						
2321	Plywood and veneer mfg	1 517.0	52.8	253.0	101.2	166.8	66.7
2322	Fabricated wood mfg	3 522.0	143.3	890.0	278.9	252.7	79.2
2323	Wooden structural component mfg	20 134.0	533.0	2 512.4	806.2	124.8	40.0
2329	Wood product mfg n.e.c.	5 723.0	136.9	589.0	202.6	102.9	35.4
	<i>Total</i>	30 896.0	866.0	4 244.5	1 388.9	137.4	45.0
233	Paper and paper product mfg						
2331	Pulp, paper and paperboard mfg	4 382.0	265.2	2 114.2	711.0	482.5	162.3
2332	Solid paperboard container mfg	2 491.0	106.5	555.6	211.9	223.1	85.1
2333	Corrugated paperboard container mfg	5 473.0	np	np	np	np	np
2334	Paper bag and sack mfg	1 267.0	np	np	np	np	np
2339	Paper product mfg n.e.c.	3 681.0	141.6	1 085.0	301.8	294.8	82.0
	<i>Total</i>	17 293.0	864.0	5 601.5	1 923.8	323.9	111.2

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(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

MANUFACTURING ESTABLISHMENTS (a)(b), Industry class *continued*

INDUSTRY CLASS ANZSIC code	Description	Employment at end of June(c) no.	Wages and salaries(d) \$m	Turnover \$m	Industry value added \$m	Turnover per person employed(e) \$'000	Industry value added per person employed(f) \$'000
23 cont.							
	Total wood and paper product mfg	60 718.0	2 145.7	12 200.6	4 294.6	200.9	70.7
24	PRINTING, PUBLISHING AND RECORDED MEDIA						
241	Printing and services to printing						
2411	Paper stationery mfg	10 157.0	332.8	1 432.5	534.8	141.0	52.7
2412	Printing	39 902.0	1 398.1	5 613.4	2 189.5	140.7	54.9
2413	Services to printing	5 910.0	202.2	551.9	287.3	93.4	48.6
	<i>Total</i>	55 969.0	1 933.0	7 597.7	3 011.5	135.7	53.8
242	Publishing						
2421	Newspaper printing or publishing	29 696.0	1 276.2	5 326.2	2 574.1	179.4	86.7
2422	Other periodical publishing	5 956.0	248.0	1 124.9	371.2	188.9	62.3
2423	Book and other publishing	5 368.0	225.3	1 256.1	362.9	234.0	67.6
	<i>Total</i>	41 020.0	1 749.5	7 707.2	3 308.1	187.9	80.6
243	Recorded media manufacturing and publishing	2 350.0	87.6	692.9	309.3	294.8	131.6
	Total printing, publishing and recorded media	99 339.0	3 770.1	15 997.7	6 629.0	161.0	66.7
25	PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG						
251	Petroleum refining	4 050.0	273.3	7 190.7	1 259.1	1 775.6	310.9
252	Petroleum and coal product mfg n.e.c.	451.0	26.6	267.9	66.2	594.7	146.9
253	Basic chemical mfg						
2531	Fertiliser mfg	2 197.0	np	np	np	np	np
2532	Industrial gas mfg	1 356.0	np	np	np	np	np
2533	Synthetic resin mfg	4 050.0	238.2	1 841.5	410.8	454.7	101.5
2534	Organic industrial chemical mfg n.e.c.	1 501.0	84.4	853.9	175.8	569.0	117.1
2535	Inorganic industrial chemical mfg n.e.c.	3 779.0	214.3	1 744.4	599.3	461.6	158.6
	<i>Total</i>	12 882.0	712.4	5 902.4	1 691.8	458.2	131.3
254	Other chemical product mfg						
2541	Explosive mfg	1 282.0	81.1	638.1	197.3	497.6	153.9
2542	Paint mfg	5 760.0	249.5	1 589.3	563.0	275.9	97.7
2543	Medicinal and pharmaceutical product mfg	13 939.0	661.0	5 260.7	1 680.9	377.4	120.6
2544	Pesticide mfg	1 843.0	97.5	1 446.9	308.9	785.1	167.6
2545	Soap and other detergent mfg	3 793.0	152.5	1 262.9	420.4	332.9	110.8
2546	Cosmetic and toiletry preparation mfg	4 741.0	167.9	940.9	278.6	198.4	58.8
2547	Ink mfg	709.0	31.6	216.8	72.8	305.7	102.6
2549	Chemical product mfg n.e.c.	3 172.0	140.8	972.4	267.8	306.5	84.4
	<i>Total</i>	35 240.0	1 581.9	12 327.9	3 789.6	349.8	107.5
255	Rubber product mfg						
2551	Rubber tyre mfg	3 524.0	185.5	792.4	315.4	224.9	89.5
2559	Rubber product mfg n.e.c.	4 051.0	165.5	684.3	279.8	168.9	69.1
	<i>Total</i>	7 575.0	351.1	1 476.7	595.2	194.9	78.6

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(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

INDUSTRY CLASS		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry value added	Turnover per person employed(e)	Industry value added per person employed(f)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
25 cont.							
256	Plastic product mfg						
2561	Plastic blow moulded product mfg	2 909.0	126.5	762.4	274.7	262.1	94.4
2562	Plastic extruded product mfg	3 876.0	162.9	994.5	270.7	256.6	69.8
2563	Plastic bag and film mfg	5 942.0	250.2	1 334.0	465.8	224.5	78.4
2564	Plastic product rigid fibre reinforced mfg	3 775.0	132.9	565.8	202.4	149.9	53.6
2565	Plastic foam product mfg	2 897.0	100.5	556.2	188.7	192.0	65.1
2566	Plastic injection moulded product mfg	16 380.0	534.2	2 354.1	996.5	143.7	60.8
	<i>Total</i>	<i>35 779.0</i>	<i>1 307.2</i>	<i>6 567.1</i>	<i>2 398.9</i>	<i>183.5</i>	<i>67.0</i>
	Total petroleum, coal, chemical and associated product mfg	<i>95 976.0</i>	<i>4 252.4</i>	<i>33 732.7</i>	<i>9 800.7</i>	<i>351.5</i>	<i>102.1</i>
26	NON-METALLIC MINERAL PRODUCT MFG						
261	Glass and glass product mfg	4 932.0	224.2	1 106.1	460.2	224.3	93.3
262	Ceramic mfg						
2621	Clay brick mfg	3 672.0	165.3	831.1	377.5	226.4	102.8
2622	Ceramic product mfg	746.0	31.3	167.9	62.2	225.0	83.3
2623	Ceramic tile and pipe mfg	917.0	37.9	166.2	79.4	181.2	86.6
2629	Ceramic product mfg n.e.c.	1 822.0	50.6	228.8	108.4	125.6	59.5
	<i>Total</i>	<i>7 157.0</i>	<i>285.2</i>	<i>1 394.0</i>	<i>627.6</i>	<i>194.8</i>	<i>87.7</i>
263	Cement, lime, plaster and concrete product mfg						
2631	Cement and lime mfg	1 959.0	119.0	1 338.3	493.8	683.2	252.1
2632	Plaster product mfg	1 887.0	71.3	561.9	248.8	297.8	131.8
2633	Concrete slurry mfg	5 314.0	208.8	2 539.5	508.0	477.9	95.6
2634	Concrete pipe and box culvert mfg	1 405.0	65.3	290.1	125.2	206.5	89.1
2635	Concrete product mfg n.e.c.	5 716.0	209.5	1 360.7	480.3	238.0	84.0
	<i>Total</i>	<i>16 281.0</i>	<i>673.9</i>	<i>6 090.4</i>	<i>1 856.1</i>	<i>374.1</i>	<i>114.0</i>
264	Non-metallic mineral product mfg n.e.c.	6 221.0	251.5	1 271.1	458.2	204.3	73.7
	Total non-metallic mineral product mfg	<i>34 591.0</i>	<i>1 434.8</i>	<i>9 861.6</i>	<i>3 402.1</i>	<i>285.1</i>	<i>98.4</i>
27	METAL PRODUCT MFG						
271	Iron and steel mfg						
2711	Basic iron and steel mfg	18 838.0	1 197.3	8 605.4	2 092.5	456.8	111.1
2712	Iron and steel casting and forging	6 248.0	242.6	1 013.0	402.7	162.1	64.5
2713	Steel pipe and tube mfg	4 040.0	177.0	1 089.1	347.3	269.6	86.0
	<i>Total</i>	<i>29 125.0</i>	<i>1 616.9</i>	<i>10 707.6</i>	<i>2 842.5</i>	<i>367.6</i>	<i>97.6</i>
272	Basic non-ferrous metal mfg						
2721	Alumina production	5 518.0	289.9	3 273.7	994.5	593.3	180.2
2722	Aluminium smelting	5 440.0	296.2	3 665.8	817.0	673.8	150.2
2723	Copper, silver, lead and zinc smelting, refining	2 821.0	169.1	2 246.5	365.8	796.5	129.7
2729	Basic non-ferrous metal mfg n.e.c.	1 378.0	67.1	1 567.1	119.9	1 137.3	87.0
	<i>Total</i>	<i>15 157.0</i>	<i>822.3</i>	<i>10 753.1</i>	<i>2 297.2</i>	<i>709.4</i>	<i>151.6</i>

(a) See paragraph 5 of the Explanatory Notes.

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(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

MANUFACTURING ESTABLISHMENTS(a)(b), Industry class *continued*

INDUSTRY CLASS ANZSIC code	Description	Employment at end of June(c) no.	Wages and salaries(d) \$m	Turnover \$m	Industry value added \$m	Turnover per person employed(e) \$'000	Industry value added per person employed(f) \$'000
27 cont.							
273	Non-ferrous basic metal product mfg						
2731	Aluminium rolling, drawing, extruding	3 230.0	166.0	1 417.6	274.5	438.9	85.0
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	1 606.0	72.4	750.4	177.2	467.2	110.3
2733	Non-ferrous metal casting	1 729.0	54.4	187.5	80.4	108.5	46.5
	<i>Total</i>	6 565.0	292.8	2 355.6	532.0	358.8	81.0
274	Structural metal product mfg						
2741	Structural steel fabricating	20 634.0	737.9	3 864.5	1 234.1	187.3	59.8
2742	Architectural aluminium product mfg	13 644.0	414.3	2 163.8	668.8	158.6	49.0
2749	Structural metal product mfg n.e.c.	5 935.0	181.0	945.2	317.5	159.3	53.5
	<i>Total</i>	40 213.0	1 333.2	6 973.5	2 220.4	173.4	55.2
275	Sheet metal product mfg						
2751	Metal container mfg	4 151.0	170.8	1 232.1	311.9	296.8	75.1
2759	Sheet metal product mfg n.e.c.	12 920.0	419.9	1 889.2	695.1	146.2	53.8
	<i>Total</i>	17 071.0	590.7	3 121.3	1 007.0	182.8	59.0
276	Fabricated metal product mfg						
2761	Hand tool and general hardware mfg	2 046.0	65.7	220.0	99.5	107.6	48.7
2762	Spring and wire product mfg	5 273.0	189.0	975.2	330.8	184.9	62.7
2763	Nut, bolt, screw and rivet mfg	1 710.0	68.2	273.9	87.5	160.2	51.1
2764	Metal coating and finishing	7 423.0	239.5	697.4	360.7	93.9	48.6
2765	Non-ferrous pipe fitting mfg	2 017.0	72.6	300.4	107.2	148.9	53.2
2769	Fabricated metal product mfg n.e.c.	21 310.0	663.2	2 545.4	1 030.0	119.4	48.3
	<i>Total</i>	39 779.0	1 298.2	5 012.3	2 015.7	126.0	50.7
	Total metal product mfg	147 910.0	5 954.1	38 923.3	10 914.8	263.2	73.8
28	MACHINERY AND EQUIPMENT MFG						
281	Motor vehicle and part mfg						
2811	Motor vehicle mfg	17 837.0	776.4	10 795.5	2 875.9	605.2	161.2
2812	Motor vehicle body mfg	8 207.0	262.5	1 281.6	408.0	156.2	49.7
2813	Automotive electrical and instrument mfg	5 189.0	225.7	1 168.0	278.3	225.1	53.6
2819	Automotive component mfg n.e.c.	20 461.0	759.9	3 478.6	1 319.2	170.0	64.5
	<i>Total</i>	51 694.0	2 024.5	16 723.8	4 881.4	323.5	94.4
282	Other transport equipment mfg						
2821	Shipbuilding	7 063.0	312.1	1 544.8	507.8	218.7	71.9
2822	Boatbuilding	3 624.0	93.2	459.4	147.7	126.8	40.7
2823	Railway equipment mfg	5 415.0	274.8	1 005.1	362.9	185.6	67.0
2824	Aircraft mfg	12 079.0	690.0	1 922.3	900.3	159.1	74.5
2829	Transport equipment mfg n.e.c.	477.0	14.1	63.1	25.8	132.3	54.0
	<i>Total</i>	28 658.0	1 384.2	4 994.8	1 944.4	174.3	67.8
283	Photographic and scientific equipment mfg						
2831	Photographic and optical good mfg	2 457.0	109.0	733.3	271.9	298.4	110.6
2832	Medical and surgical equipment mfg	4 714.0	141.8	630.5	251.1	133.7	53.3
2839	Professional and scientific equipment mfg n.e.c.	4 155.0	168.5	625.4	258.8	150.5	62.3
	<i>Total</i>	11 326.0	419.3	1 989.2	781.7	175.6	69.0

(a) See paragraph 5 of the Explanatory Notes.

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(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

MANUFACTURING ESTABLISHMENTS(a)(b), Industry class *continued*

INDUSTRY CLASS ANZSIC code	Description	Employment at end of June(c) no.	Wages and salaries(d) \$m	Turnover \$m	Industry value added \$m	Turnover per person employed(e) \$'000	Industry value added per person employed(f) \$'000
28 cont.							
284	Electronic equipment mfg						
2841	Computer and business machine mfg	2 777.0	126.0	1 319.1	225.5	475.0	81.2
2842	Telecommunication, broadcasting and transceiving equipment mfg	5 886.0	301.0	1 532.9	436.6	260.4	74.2
2849	Electronic equipment mfg n.e.c.	10 275.0	415.0	2 177.1	641.6	211.9	62.4
	<i>Total</i>	18 938.0	842.0	5 029.1	1 303.7	265.6	68.8
285	Electrical equipment and appliance mfg						
2851	Household appliance mfg	11 412.0	407.7	2 188.8	630.8	191.8	55.3
2852	Electric cable and wire mfg	3 820.0	187.0	1 253.6	348.2	328.1	91.1
2853	Battery mfg	504.0	20.8	140.1	62.0	278.1	123.1
2854	Electric light and sign mfg	4 324.0	129.0	577.3	211.3	133.5	48.9
2859	Electrical equipment mfg n.e.c.	14 453.0	541.1	2 398.2	821.8	165.9	56.9
	<i>Total</i>	34 512.0	1 285.5	6 557.9	2 074.0	190.0	60.1
286	Industrial machinery and equipment mfg						
2861	Agricultural machinery mfg	6 511.0	191.8	915.2	342.3	140.5	52.6
2862	Mining and construction machinery mfg	8 685.0	378.2	1 828.8	556.4	210.6	64.1
2863	Food processing machinery mfg	2 183.0	83.5	352.9	124.9	161.7	57.2
2864	Machine tool and part mfg	7 286.0	254.7	772.0	378.5	106.0	51.9
2865	Lifting and material handling equipment mfg	7 933.0	344.3	1 457.8	546.8	183.8	68.9
2866	Pump and compressor mfg	3 289.0	134.8	649.8	236.3	197.6	71.8
2867	Commercial space heating and cooling equipment mfg	2 079.0	80.6	386.8	131.5	186.1	63.3
2869	Industrial machinery and equipment mfg n.e.c.	11 875.0	422.5	1 704.4	694.5	143.5	58.5
	<i>Total</i>	49 840.0	1 890.5	8 067.7	3 011.2	161.9	60.4
	Total machinery and equipment mfg	194 969.0	7 846.1	43 362.6	13 996.4	222.4	71.8
29	OTHER MANUFACTURING						
291	Prefabricated building mfg						
2911	Prefabricated metal building mfg	2 285.0	78.7	492.2	164.0	215.4	71.8
2919	Prefabricated building mfg n.e.c.	528.0	13.1	84.5	29.1	160.0	55.2
	<i>Total</i>	2 814.0	91.8	576.7	193.2	205.0	68.7
292	Furniture mfg						
2921	Wooden furniture and upholstered seat mfg	26 883.0	691.4	2 761.4	956.6	102.7	35.6
2922	Sheet metal furniture mfg	3 930.0	113.3	474.7	194.2	120.8	49.4
2923	Mattress mfg (except rubber)	2 842.0	80.2	432.8	149.4	152.3	52.6
2929	Furniture mfg n.e.c.	7 721.0	227.7	1 060.9	396.4	137.4	51.3
	<i>Total</i>	41 376.0	1 112.6	4 729.9	1 696.6	114.3	41.0
294	Miscellaneous manufacturing						
2941	Jewellery and silverware mfg	3 481.0	90.8	453.7	123.1	130.4	35.4
2942	Toy and sporting good mfg	1 920.0	48.7	230.7	76.8	120.2	40.0
2949	Manufacturing n.e.c.	5 250.0	148.4	706.6	234.8	134.6	44.7
	<i>Total</i>	10 650.0	287.9	1 391.0	434.7	130.6	40.8
	Total other manufacturing	54 839.0	1 492.3	6 697.7	2 324.5	122.1	42.4
21-29	TOTAL MANUFACTURING	923 411.0	35 016.0	220 847.9	68 929.5	239.2	74.6

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

MANUFACTURING ESTABLISHMENTS(a)(b), States, Territories and Australia

INDUSTRY SUBDIVISION ANZSIC		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry value added	Turnover per person employed(e)	Industry value added per person employed(f)
Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NEW SOUTH WALES							
21	Food, beverage and tobacco mfg	47.7	1 913.3	14 827.1	4 202.1	310.6	88.0
22	Textile, clothing, footwear and leather mfg	19.4	553.9	2 956.0	935.0	152.2	48.1
23	Wood and paper product mfg	17.1	617.6	3 682.0	1 299.9	215.2	76.0
24	Printing, publishing and recorded media	40.4	1 659.2	7 201.1	2 811.0	178.1	69.5
25	Petroleum, coal, chemical and associated product mfg	34.5	1 527.7	12 836.7	3 665.9	372.3	106.3
26	Non-metallic mineral product mfg	10.4	463.5	3 302.6	1 152.3	317.0	110.6
27	Metal product mfg	51.8	2 286.9	13 601.6	4 100.7	262.5	79.1
28	Machinery and equipment mfg	59.5	2 505.9	11 499.5	4 002.4	193.3	67.3
29	Other manufacturing	16.1	444.5	1 969.6	733.3	122.4	45.6
21-29	Total manufacturing	297.0	11 972.5	71 876.2	22 902.5	242.0	77.1
VICTORIA							
21	Food, beverage and tobacco mfg	47.0	1 877.7	15 558.8	4 529.2	331.1	96.4
22	Textile, clothing, footwear and leather mfg	34.0	1 010.3	4 992.0	1 791.4	146.7	52.6
23	Wood and paper product mfg	17.6	658.3	3 488.3	1 201.7	198.5	68.4
24	Printing, publishing and recorded media	31.3	1 176.8	5 102.1	2 058.0	162.8	65.7
25	Petroleum, coal, chemical and associated product mfg	35.5	1 657.0	11 180.1	3 511.0	315.1	98.9
26	Non-metallic mineral product mfg	9.8	380.2	2 520.4	869.6	257.9	89.0
27	Metal product mfg	38.1	1 458.0	8 972.2	2 687.2	235.5	70.5
28	Machinery and equipment mfg	67.1	2 854.3	17 843.2	5 437.6	265.9	81.0
29	Other manufacturing	18.3	515.0	2 326.7	761.1	127.0	41.5
21-29	Total manufacturing	298.7	11 587.6	71 983.9	22 846.8	241.0	76.5
QUEENSLAND							
21	Food, beverage and tobacco mfg	37.2	1 228.1	10 227.4	2 592.4	275.0	69.7
22	Textile, clothing, footwear and leather mfg	5.6	132.1	644.3	199.3	115.5	35.7
23	Wood and paper product mfg	12.4	372.1	1 837.4	656.9	148.4	53.0
24	Printing, publishing and recorded media	11.7	394.3	1 543.8	720.5	132.2	61.7
25	Petroleum, coal, chemical and associated product mfg	12.0	468.6	4 458.4	1 137.0	372.6	95.0
26	Non-metallic mineral product mfg	6.5	262.8	1 907.4	591.2	292.0	90.5
27	Metal product mfg	26.2	909.8	6 933.5	1 931.3	264.7	73.7
28	Machinery and equipment mfg	23.6	829.9	3 593.5	1 296.5	152.2	54.9
29	Other manufacturing	9.5	245.0	1 099.2	402.8	115.9	42.5
21-29	Total manufacturing	144.6	4 842.6	32 244.9	9 528.0	223.0	65.9

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(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

MANUFACTURING ESTABLISHMENTS(a)(b), States, Territories and Australia *continued*

INDUSTRY SUBDIVISION ANZSIC		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry value added	Turnover per person employed(e)	Industry value added per person employed(f)
Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
SOUTH AUSTRALIA							
21	Food, beverage and tobacco mfg	15.6	517.8	4 630.7	1 556.3	297.1	99.8
22	Textile, clothing, footwear and leather mfg	3.9	124.8	659.1	150.3	168.9	38.5
23	Wood and paper product mfg	5.6	189.2	1 129.5	382.9	201.1	68.2
24	Printing, publishing and recorded media	5.3	180.8	732.3	342.9	139.3	65.2
25	Petroleum, coal, chemical and associated product mfg	7.0	274.2	1 607.5	627.2	229.5	89.5
26	Non-metallic mineral product mfg	2.4	99.3	597.3	192.7	246.5	79.5
27	Metal product mfg	10.5	431.6	2 639.4	696.5	250.3	66.0
28	Machinery and equipment mfg	28.5	1 088.6	7 595.4	2 311.3	266.2	81.0
29	Other manufacturing	4.5	124.3	589.7	153.5	131.5	34.2
21-29	Total manufacturing	83.4	3 030.6	20 180.9	6 413.6	242.1	76.9
WESTERN AUSTRALIA							
21	Food, beverage and tobacco mfg	12.9	422.9	3 215.9	837.7	248.9	64.8
22	Textile, clothing, footwear and leather mfg	3.2	81.3	337.4	117.1	106.8	37.1
23	Wood and paper product mfg	4.1	136.5	790.1	287.7	193.0	70.3
24	Printing, publishing and recorded media	7.7	253.5	1 027.7	503.9	133.0	65.2
25	Petroleum, coal, chemical and associated product mfg	6.0	285.2	3 389.6	769.1	561.1	127.3
26	Non-metallic mineral product mfg	4.6	193.6	1 182.9	442.6	259.3	97.0
27	Metal product mfg	16.4	656.2	5 058.0	1 097.5	308.8	67.0
28	Machinery and equipment mfg	12.5	434.6	2 172.4	683.8	173.8	54.7
29	Other manufacturing	5.3	136.7	596.7	232.4	111.9	43.6
21-29	Total manufacturing	72.7	2 600.3	17 770.5	4 971.6	244.4	68.4
TASMANIA							
21	Food, beverage and tobacco mfg	6.0	182.7	1 610.8	525.0	268.0	87.4
22	Textile, clothing, footwear and leather mfg	1.4	43.0	184.8	68.7	128.6	47.8
23	Wood and paper product mfg	3.4	153.7	1 187.6	429.0	345.1	124.6
24	Printing, publishing and recorded media	1.3	47.9	151.8	70.9	115.8	54.1
25	Petroleum, coal, chemical and associated product mfg	0.9	35.0	223.0	79.7	257.3	92.0
26	Non-metallic mineral product mfg	0.6	23.1	250.4	120.4	446.6	214.7
27	Metal product mfg	3.3	139.6	1 108.8	197.7	340.7	60.7
28	Machinery and equipment mfg	2.7	99.1	508.1	209.5	186.8	77.0
29	Other manufacturing	0.6	12.9	52.9	19.1	85.6	30.9
21-29	Total manufacturing	20.2	736.9	5 278.3	1 720.0	261.0	85.1

(a) See paragraph 5 of the Explanatory Notes.

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(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

INDUSTRY SUBDIVISION ANZSIC		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry value added	Turnover per person employed(e)	Industry value added per person employed(f)
Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NORTHERN TERRITORY							
21	Food, beverage and tobacco mfg	0.5	15.1	95.6	30.7	193.4	62.1
22	Textile, clothing, footwear and leather mfg	0.1	1.2	4.5	1.9	81.5	34.6
23	Wood and paper product mfg	0.2	8.4	33.2	13.6	145.4	59.8
24	Printing, publishing and recorded media	0.4	11.6	39.6	25.0	104.2	65.7
25	Petroleum, coal, chemical and associated product mfg	0.1	4.0	34.5	9.3	311.1	83.4
26	Non-metallic mineral product mfg	0.2	9.0	72.3	24.1	327.6	109.3
27	Metal product mfg	1.4	65.2	577.2	192.5	419.2	139.8
28	Machinery and equipment mfg	0.4	15.9	56.3	20.3	130.4	47.0
29	Other manufacturing	0.1	3.4	13.3	4.5	94.6	32.1
21-29	Total manufacturing	3.4	133.8	926.6	321.9	269.5	93.6
AUSTRALIAN CAPITAL TERRITORY							
21	Food, beverage and tobacco mfg	0.4	14.3	117.1	25.9	280.4	62.0
22	Textile, clothing, footwear and leather mfg	0.1	2.1	10.2	4.5	76.0	33.4
23	Wood and paper product mfg	0.3	10.0	52.5	22.9	195.5	85.3
24	Printing, publishing and recorded media	1.2	46.0	199.4	96.8	163.8	79.5
25	Petroleum, coal, chemical and associated product mfg	—	0.8	2.8	1.5	109.4	60.1
26	Non-metallic mineral product mfg	0.1	3.3	28.4	9.2	284.1	92.5
27	Metal product mfg	0.2	6.9	32.5	11.5	137.4	48.7
28	Machinery and equipment mfg	0.6	17.9	94.3	35.0	161.9	60.2
29	Other manufacturing	0.4	10.4	49.5	17.8	138.6	49.7
21-29	Total manufacturing	3.3	111.7	586.6	225.1	175.7	67.4
AUSTRALIA							
21	Food, beverage and tobacco mfg	167.4	6 171.9	50 283.5	14 299.3	300.5	85.4
22	Textile, clothing, footwear and leather mfg	67.7	1 948.6	9 788.2	3 268.1	144.6	48.3
23	Wood and paper product mfg	60.7	2 145.7	12 200.6	4 294.6	200.9	70.7
24	Printing, publishing and recorded media	99.3	3 770.1	15 997.7	6 629.0	161.0	66.7
25	Petroleum, coal, chemical and associated product mfg	96.0	4 252.4	33 732.7	9 800.7	351.5	102.1
26	Non-metallic mineral product mfg	34.6	1 434.8	9 861.6	3 402.1	285.1	98.4
27	Metal product mfg	147.9	5 954.1	38 923.3	10 914.8	263.2	73.8
28	Machinery and equipment mfg	195.0	7 846.1	43 362.6	13 996.4	222.4	71.8
29	Other manufacturing	54.8	1 492.3	6 697.7	2 324.5	122.1	42.4
21-29	Total manufacturing	923.4	35 016.0	220 847.9	68 929.5	239.2	74.6

— nil or rounded to zero (including null cells)

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Turnover divided by the number of persons employed at the end of June.

(f) Industry value added divided by the number of persons employed at the end of June.

4

MANUFACTURING ESTABLISHMENTS(a), Change in Industry Value added(b)

		1993-94 TO 1998-99			
		1993-94 to 1997-98	1997-98 to 1998-99	Change in IVA per person employed (c)	
INDUSTRY SUBDIVISION ANZSIC				Change	
Code	Description	%	%	%	%
21	Food, beverage and tobacco mfg	10.1	4.4	15.0	14.8
22	Textile, clothing, footwear and leather mfg	-3.9	1.4	-2.5	15.1
23	Wood and paper product mfg	1.9	3.5	5.5	12.5
24	Printing, publishing and recorded media	4.1	4.8	9.1	1.3
25	Petroleum, coal, chemical and associated product mfg	11.3	4.0	15.7	10.0
26	Non-metallic mineral product mfg	-6.6	11.1	3.8	16.6
27	Metal product mfg	2.8	4.4	7.3	9.7
28	Machinery and equipment mfg	15.5	2.6	18.5	23.2
29	Other manufacturing	3.7	0.4	4.1	11.5
21-29	Total manufacturing	7.1	4.0	11.4	14.2

(a) See paragraph 5 of Explanatory Notes.

(b) Percentage changes are calculated using chain volume data. For an explanation of chain volume measures, see paragraphs 21-24 of the Explanatory Notes.

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

MANUFACTURING ESTABLISHMENTS(a)(b), Employment Size(c)

Employment size group	Employment at end of June(d)		Wages and salaries(e)(f)		Turnover(f)		Industry value added(f)	
	'000	%	\$m	%	\$m	%	\$m	%
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
0-4 persons	2.8	1.7	43.7	0.7	332.0	0.7	101.3	0.7
5-9 persons	5.5	3.3	109.2	1.8	885.1	1.8	225.0	1.6
10-19 persons	8.4	5.0	206.7	3.4	1 983.3	4.0	484.8	3.4
20-49 persons	18.1	10.8	557.1	9.1	4 825.4	9.6	1 246.1	8.7
50-99 persons	18.5	11.0	615.3	10.0	5 457.5	10.9	1 300.6	9.1
<i>Total less than 100 persons</i>	<i>53.3</i>	<i>31.9</i>	<i>1 532.1</i>	<i>24.9</i>	<i>13 483.4</i>	<i>26.9</i>	<i>3 357.9</i>	<i>23.5</i>
100-199 persons	23.8	14.2	878.4	14.3	7 427.2	14.8	1 984.3	13.9
200-499 persons	49.1	29.3	2 003.5	32.6	17 612.5	35.2	5 463.1	38.2
500-999 persons	28.6	17.1	1 198.0	19.5	7 983.5	15.9	2 630.6	18.4
1 000 or more persons	12.5	7.5	530.9	8.6	3 590.2	7.2	873.4	6.1
<i>Total 100 or more persons</i>	<i>114.0</i>	<i>68.1</i>	<i>4 610.8</i>	<i>75.1</i>	<i>36 613.3</i>	<i>73.1</i>	<i>10 951.4</i>	<i>76.5</i>
Total	167.4	100.0	6 142.9	100.0	50 096.7	100.0	14 309.3	100.0
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
0-4 persons	6.3	9.3	103.5	5.4	564.7	5.8	212.8	6.5
5-9 persons	7.5	11.0	148.5	7.7	723.9	7.4	259.8	8.0
10-19 persons	7.8	11.5	182.7	9.5	847.2	8.7	310.2	9.5
20-49 persons	11.3	16.8	304.5	15.8	1 442.5	14.8	495.3	15.2
50-99 persons	10.4	15.3	337.1	17.4	1 978.7	20.4	600.4	18.5
<i>Total less than 100 persons</i>	<i>43.3</i>	<i>63.9</i>	<i>1 076.2</i>	<i>55.7</i>	<i>5 557.0</i>	<i>57.2</i>	<i>1 878.5</i>	<i>57.8</i>
100-199 persons	10.6	15.7	362.2	18.7	1 776.5	18.3	560.0	17.2
200-499 persons	np	np	np	np	np	np	np	np
500-999 persons	np	np	np	np	np	np	np	np
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>24.5</i>	<i>36.1</i>	<i>856.7</i>	<i>44.3</i>	<i>4 161.2</i>	<i>42.8</i>	<i>1 373.8</i>	<i>42.2</i>
Total	67.7	100.0	1 932.9	100.0	9 718.2	100.0	3 252.3	100.0
WOOD AND PAPER PRODUCT MANUFACTURING								
0-4 persons	6.6	10.9	124.1	5.8	644.6	5.3	217.7	5.1
5-9 persons	5.7	9.4	140.6	6.6	532.1	4.4	183.3	4.3
10-19 persons	8.9	14.6	234.1	11.0	909.7	7.5	356.1	8.3
20-49 persons	9.6	15.8	296.4	13.9	1 691.3	13.9	528.8	12.4
50-99 persons	6.4	10.5	221.0	10.4	1 396.4	11.5	487.7	11.4
<i>Total less than 100 persons</i>	<i>37.2</i>	<i>61.2</i>	<i>1 016.2</i>	<i>47.7</i>	<i>5 174.1</i>	<i>42.6</i>	<i>1 773.5</i>	<i>41.5</i>
100-199 persons	10.2	16.8	422.6	19.8	2 435.4	20.1	950.0	22.2
200-499 persons	9.1	15.0	455.3	21.4	3 047.8	25.1	1 086.1	25.4
500-999 persons	4.3	7.0	237.5	11.1	1 476.4	12.2	463.0	10.8
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>23.5</i>	<i>38.8</i>	<i>1 115.3</i>	<i>52.3</i>	<i>6 959.6</i>	<i>57.4</i>	<i>2 499.2</i>	<i>58.5</i>
Total	60.7	100.0	2 131.5	100.0	12 133.7	100.0	4 272.7	100.0

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 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.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

(f) Figures may differ slightly from those presented in other tables because they exclude those manufacturing establishments which operated during 1998-99 but were not operating at 30 June 1999. See paragraph 25 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS(a)(b), Employment Size(c) *continued*

Employment size group	Employment at end of June(d)		Wages and salaries(e)(f)		Turnover(f)		Industry value added(f)	
	'000	%	\$m	%	\$m	%	\$m	%
PRINTING, PUBLISHING AND RECORDED MEDIA								
0-4 persons	7.7	7.7	176.7	4.7	615.1	3.9	246.0	3.7
5-9 persons	9.3	9.3	256.0	6.8	967.6	6.1	393.9	6.0
10-19 persons	11.0	11.1	346.6	9.2	1 208.8	7.6	525.4	8.0
20-49 persons	15.9	16.0	559.9	14.9	2 051.3	12.9	795.7	12.0
50-99 persons	12.3	12.4	492.6	13.1	2 206.7	13.8	947.3	14.3
<i>Total less than 100 persons</i>	56.2	56.6	1 831.8	48.8	7 049.5	44.2	2 908.3	44.0
100-199 persons	15.0	15.1	602.4	16.0	2 688.0	16.9	994.6	15.1
200-499 persons	12.3	12.4	517.9	13.8	1 894.8	11.9	881.4	13.3
500-999 persons	6.8	6.9	294.4	7.8	1 888.9	11.8	647.8	9.8
1 000 or more persons	9.1	9.1	508.6	13.5	2 423.8	15.2	1 176.3	17.8
<i>Total 100 or more persons</i>	43.1	43.4	1 923.3	51.2	8 895.5	55.8	3 700.1	56.0
Total	99.3	100.0	3 755.1	100.0	15 944.9	100.0	6 608.4	100.0
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
0-4 persons	2.9	3.0	67.7	1.6	580.8	1.7	264.3	2.7
5-9 persons	4.9	5.1	132.9	3.1	760.2	2.3	251.8	2.6
10-19 persons	7.9	8.2	264.8	6.2	1 766.4	5.2	565.6	5.8
20-49 persons	15.3	15.9	583.9	13.8	3 890.1	11.6	1 253.0	12.8
50-99 persons	16.8	17.6	737.0	17.4	4 878.1	14.5	1 533.5	15.7
<i>Total less than 100 persons</i>	47.8	49.8	1 786.3	42.1	11 875.6	35.3	3 868.2	39.5
100-199 persons	18.5	19.3	878.2	20.7	6 135.6	18.2	1 807.0	18.5
200-499 persons	24.7	25.7	1 273.0	30.0	13 911.9	41.3	3 526.1	36.0
500-999 persons	5.0	5.2	301.2	7.1	1 747.7	5.2	587.6	6.0
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	48.1	50.2	2 452.4	57.9	21 795.3	64.7	5 920.7	60.5
Total	96.0	100.0	4 238.7	100.0	33 670.9	100.0	9 788.9	100.0
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
0-4 persons	2.1	6.1	39.4	2.8	234.8	2.4	75.1	2.2
5-9 persons	2.4	7.0	63.3	4.4	382.4	3.9	119.7	3.5
10-19 persons	3.9	11.3	113.9	8.0	615.1	6.2	208.6	6.1
20-49 persons	5.8	16.8	225.9	15.8	1 626.0	16.5	507.5	14.9
50-99 persons	5.0	14.5	231.5	16.2	1 855.9	18.8	624.5	18.4
<i>Total less than 100 persons</i>	19.3	55.7	674.0	47.1	4 714.2	47.9	1 535.4	45.2
100-199 persons	8.2	23.7	395.9	27.7	3 232.5	32.8	1 135.6	33.4
200-499 persons	np	np	np	np	np	np	np	np
500-999 persons	np	np	np	np	np	np	np	np
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	15.3	44.3	757.0	52.9	5 135.6	52.1	1 863.3	54.8
Total	34.6	100.0	1 431.0	100.0	9 849.8	100.0	3 398.7	100.0

— nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 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.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

(f) Figures may differ slightly from those presented in other tables because they exclude those manufacturing establishments which operated during 1998-99 but were not operating at 30 June 1999. See paragraph 25 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS (a)(b), Employment Size(c) *continued*

Employment size group	Employment at end of June(d)		Wages and salaries(e)(f)		Turnover(f)		Industry value added(f)	
	'000	%	\$m	%	\$m	%	\$m	%
METAL PRODUCT MANUFACTURING								
0-4 persons	9.5	6.5	204.3	3.5	5 070.0	13.1	3 598.2	..
5-9 persons	14.6	9.9	387.8	6.5	1 569.4	4.1	605.5	..
10-19 persons	17.2	11.6	529.9	8.9	2 483.0	6.4	903.5	..
20-49 persons	24.3	16.4	839.5	14.2	4 243.4	11.0	1 453.1	..
50-99 persons	19.6	13.3	772.3	13.0	4 509.5	11.7	1 372.9	..
<i>Total less than 100 persons</i>	<i>85.2</i>	<i>57.6</i>	<i>2 733.8</i>	<i>46.2</i>	<i>17 875.3</i>	<i>46.2</i>	<i>7 933.2</i>	<i>..</i>
100-199 persons	17.7	12.0	751.8	12.7	5 210.8	13.5	1 398.9	..
200-499 persons	16.5	11.1	751.7	12.7	5 667.5	14.6	900.6	..
500-999 persons	11.5	7.8	616.7	10.4	3 779.9	9.8	-262.9	..
1 000 or more persons	16.9	11.5	1 067.1	18.0	6 165.5	15.9	901.5	..
<i>Total 100 or more persons</i>	<i>62.7</i>	<i>42.4</i>	<i>3 187.3</i>	<i>53.8</i>	<i>20 823.7</i>	<i>53.8</i>	<i>2 938.1</i>	<i>..</i>
Total	147.9	100.0	5 921.1	100.0	38 699.0	100.0	10 871.3	100.0
MACHINERY AND EQUIPMENT MANUFACTURING								
0-4 persons	10.4	5.3	230.0	2.9	930.5	2.1	371.6	2.7
5-9 persons	14.0	7.2	391.3	5.0	1 635.7	3.8	642.7	4.6
10-19 persons	15.4	7.9	499.8	6.4	2 201.3	5.1	840.5	6.0
20-49 persons	25.5	13.1	925.4	11.8	4 232.6	9.8	1 476.7	10.6
50-99 persons	21.2	10.9	874.1	11.2	4 252.3	9.8	1 306.9	9.3
<i>Total less than 100 persons</i>	<i>86.5</i>	<i>44.4</i>	<i>2 920.6</i>	<i>37.3</i>	<i>13 252.4</i>	<i>30.6</i>	<i>4 638.4</i>	<i>33.2</i>
100-199 persons	27.1	13.9	1 126.0	14.4	5 619.8	13.0	1 706.1	12.2
200-499 persons	31.0	15.9	1 396.0	17.8	7 100.9	16.4	2 359.1	16.9
500-999 persons	16.0	8.2	764.6	9.8	4 055.2	9.4	1 349.8	9.7
1 000 or more persons	34.4	17.6	1 627.7	20.8	13 298.3	30.7	3 933.9	28.1
<i>Total 100 or more persons</i>	<i>108.4</i>	<i>55.6</i>	<i>4 914.4</i>	<i>62.7</i>	<i>30 074.2</i>	<i>69.4</i>	<i>9 348.9</i>	<i>66.8</i>
Total	195.0	100.0	7 835.0	100.0	43 326.6	100.0	13 987.3	100.0
OTHER MANUFACTURING								
0-4 persons	8.8	16.0	176.4	11.9	702.2	10.5	257.8	11.1
5-9 persons	9.4	17.1	223.0	15.1	965.4	14.5	342.7	14.8
10-19 persons	11.3	20.7	301.0	20.3	1 292.5	19.4	457.4	19.7
20-49 persons	11.5	21.0	327.6	22.1	1 533.1	23.0	520.2	22.5
50-99 persons	7.6	13.9	231.4	15.6	1 149.3	17.3	407.5	17.6
<i>Total less than 100 persons</i>	<i>48.6</i>	<i>88.6</i>	<i>1 259.4</i>	<i>85.0</i>	<i>5 642.5</i>	<i>84.7</i>	<i>1 985.5</i>	<i>85.7</i>
100-199 persons	4.4	8.0	147.5	10.0	657.5	9.9	238.9	10.3
200-499 persons	1.9	3.4	74.2	5.0	362.0	5.4	91.3	3.9
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>6.3</i>	<i>11.4</i>	<i>221.8</i>	<i>15.0</i>	<i>1 019.6</i>	<i>15.3</i>	<i>330.3</i>	<i>14.3</i>
Total	54.8	100.0	1 481.1	100.0	6 662.1	100.0	2 315.7	100.0

.. not applicable

— nil or rounded to zero (including null cells)

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 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.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

(f) Figures may differ slightly from those presented in other tables because they exclude those manufacturing establishments which operated during 1998-99 but were not operating at 30 June 1999. See paragraph 25 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS (a)(b), Employment Size(c) *continued*

Employment size group	Employment at end of June(d)		Wages and salaries(e)(f)		Turnover(f)		Industry value added(f)	
	'000	%	\$m	%	\$m	%	\$m	%
TOTAL MANUFACTURING								
0-4 persons	57.0	6.2	1 165.8	3.3	9 674.6	4.4	5 344.8	7.8
5-9 persons	73.3	7.9	1 852.5	5.3	8 421.8	3.8	3 024.4	4.4
10-19 persons	91.9	9.9	2 679.5	7.7	13 307.2	6.0	4 652.1	6.8
20-49 persons	137.3	14.9	4 620.3	13.3	25 535.7	11.6	8 276.3	12.0
50-99 persons	117.9	12.8	4 512.3	12.9	27 684.4	12.6	8 581.3	12.5
<i>Total less than 100 persons</i>	<i>477.4</i>	<i>51.7</i>	<i>14 830.4</i>	<i>42.5</i>	<i>84 623.7</i>	<i>38.4</i>	<i>29 878.8</i>	<i>43.4</i>
100-199 persons	135.5	14.7	5 565.2	16.0	35 183.3	16.0	10 775.4	15.7
200-499 persons	161.2	17.5	7 169.7	20.6	53 126.5	24.1	15 524.4	22.6
500-999 persons	76.4	8.3	3 569.8	10.2	21 690.4	9.9	5 740.8	8.3
1 000 or more persons	72.9	7.9	3 734.3	10.7	25 477.8	11.6	6 885.2	10.0
<i>Total 100 or more persons</i>	<i>446.0</i>	<i>48.3</i>	<i>20 039.0</i>	<i>57.5</i>	<i>135 478.0</i>	<i>61.6</i>	<i>38 925.8</i>	<i>56.6</i>
Total	923.4	100.0	34 869.3	100.0	220 101.7	100.0	68 804.5	100.0

- (a) See paragraph 5 of the Explanatory Notes.
- (b) Group employer information held by the the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 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.
- (d) Includes working proprietors.
- (e) Excludes the drawings of working proprietors.
- (f) Figures may differ slightly from those presented in other tables because they exclude those manufacturing establishments which operated during 1998-99 but were not operating at 30 June 1999. See paragraph 25 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS(a)(b), Exported Production—Employment Size(c)(d)

INDUSTRY SUBDIVISION ANZSIC		<i>Sales and transfers out of goods produced</i>	<i>Amount exported by this business or its agent</i>	<i>Exports as a proportion of sales and transfers out of goods produced</i>
code	Description	\$m	\$m	%
0-49 PERSONS				
21	Food, beverage and tobacco mfg	7 596.3	1 099.8	14.5
22	Textile, clothing, footwear and leather mfg	3 239.0	144.4	4.5
23	Wood and paper product mfg	3 581.4	121.7	3.4
24	Printing, publishing and recorded media	4 250.8	62.8	1.5
25	Petroleum, coal, chemical and associated product mfg	6 690.9	587.7	8.8
26	Non-metallic mineral product mfg	2 639.9	60.9	2.3
27	Metal product mfg	12 341.1	3 829.4	31.0
28	Machinery and equipment mfg	7 672.9	685.6	8.9
29	Other manufacturing	4 174.0	83.2	2.0
21-29	<i>Total manufacturing</i>	52 186.1	6 675.4	12.8
50-99 PERSONS				
21	Food, beverage and tobacco mfg	5 252.1	753.7	14.3
22	Textile, clothing, footwear and leather mfg	1 808.3	289.3	16.0
23	Wood and paper product mfg	1 360.7	305.4	22.4
24	Printing, publishing and recorded media	1 856.9	265.3	14.3
25	Petroleum, coal, chemical and associated product mfg	4 633.1	434.0	9.4
26	Non-metallic mineral product mfg	1 678.2	39.2	2.3
27	Metal product mfg	4 204.1	429.1	10.2
28	Machinery and equipment mfg	3 778.5	551.9	14.6
29	Other manufacturing	1 074.6	58.8	5.5
21-29	<i>Total manufacturing</i>	25 646.6	3 126.6	12.2
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	35 705.1	7 033.4	19.7
22	Textile, clothing, footwear and leather mfg	3 895.8	806.6	20.7
23	Wood and paper product mfg	6 841.2	264.0	3.9
24	Printing, publishing and recorded media	5 018.3	195.9	3.9
25	Petroleum, coal, chemical and associated product mfg	21 091.6	2 474.4	11.7
26	Non-metallic mineral product mfg	4 886.4	221.3	4.5
27	Metal product mfg	19 995.7	5 876.9	29.4
28	Machinery and equipment mfg	27 144.2	5 225.5	19.3
29	Other manufacturing	944.0	56.0	5.9
21-29	<i>Total manufacturing</i>	125 522.4	22 154.1	17.6
TOTAL				
21	Food, beverage and tobacco mfg	48 553.5	8 886.9	18.3
22	Textile, clothing, footwear and leather mfg	8 943.1	1 240.3	13.9
23	Wood and paper product mfg	11 783.3	691.1	5.9
24	Printing, publishing and recorded media	11 126.0	524.0	4.7
25	Petroleum, coal, chemical and associated product mfg	32 415.6	3 496.0	10.8
26	Non-metallic mineral product mfg	9 204.4	321.3	3.5
27	Metal product mfg	36 541.0	10 135.4	27.7
28	Machinery and equipment mfg	38 595.6	6 463.1	16.7
29	Other manufacturing	6 192.5	198.0	3.2
21-29	<i>Total manufacturing</i>	203 355.0	31 956.1	15.7

(a) See paragraph 5 of the Explanatory Notes.

(b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

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

(d) 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 1998-99 but were not operating at 30 June 1999. See paragraph 25 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS (a), Summary Data—Proportion of Exports(b)

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry value added
ANZSIC code	Description	%	%	%	%
DO NOT EXPORT					
21	Food, beverage and tobacco mfg	47.9	45.2	39.0	38.7
22	Textile, clothing, footwear and leather mfg	56.8	47.5	42.3	47.0
23	Wood and paper product mfg	74.4	67.9	59.9	61.7
24	Printing, publishing and recorded media	79.1	77.2	72.7	76.4
25	Petroleum, coal, chemical and associated product mfg	40.3	36.7	28.9	34.6
26	Non-metallic mineral product mfg	63.8	60.5	67.3	61.4
27	Metal product mfg	57.1	46.0	35.5	43.1
28	Machinery and equipment mfg	44.3	41.4	31.6	35.3
29	Other manufacturing	78.7	75.9	72.2	74.3
21-29	Total manufacturing	56.0	50.4	41.4	45.9
EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	38.4	41.7	46.0	50.1
22	Textile, clothing, footwear and leather mfg	38.0	45.4	47.2	46.3
23	Wood and paper product mfg	24.8	31.2	37.0	35.2
24	Printing, publishing and recorded media	19.7	21.4	24.4	20.5
25	Petroleum, coal, chemical and associated product mfg	56.5	59.7	67.5	61.4
26	Non-metallic mineral product mfg	34.8	37.9	31.5	37.5
27	Metal product mfg	33.9	41.3	40.3	37.4
28	Machinery and equipment mfg	47.2	48.5	57.9	54.9
29	Other manufacturing	20.1	22.8	26.2	23.9
21-29	Total manufacturing	37.3	41.8	47.4	45.2
EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	13.7	13.1	14.9	11.2
22	Textile, clothing, footwear and leather mfg	5.3	7.0	10.6	6.7
23	Wood and paper product mfg	0.8	1.0	3.1	3.1
24	Printing, publishing and recorded media	1.2	1.4	2.9	3.1
25	Petroleum, coal, chemical and associated product mfg	3.2	3.6	3.6	4.0
26	Non-metallic mineral product mfg	1.4	1.6	1.2	1.1
27	Metal product mfg	9.1	12.7	24.2	19.5
28	Machinery and equipment mfg	8.5	10.0	10.6	9.8
29	Other manufacturing	1.2	1.3	1.6	1.8
21-29	Total manufacturing	6.8	7.9	11.2	8.9

- (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.

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

INDUSTRY SUBDIVISION ANZSIC code	Description	Turnover	Change in inventories		Purchases and transfers in	Other intermediate input expenses	Industry value added
			\$m	\$m			
21	Food, beverage and tobacco mfg	50 283.5	367.0		28 777.3	7 573.9	14 299.3
22	Textile, clothing, footwear and leather mfg	9 788.2	-17.4		4 775.2	1 727.5	3 268.1
23	Wood and paper product mfg	12 200.6	38.4		5 957.2	1 987.3	4 294.6
24	Printing, publishing and recorded media	15 997.7	25.1		5 055.2	4 338.6	6 629.0
25	Petroleum, coal, chemical and associated product mfg	33 732.7	97.8		18 844.1	5 185.7	9 800.7
26	Non-metallic mineral product mfg	9 861.6	29.6		4 435.4	2 053.8	3 402.1
27	Metal product mfg	38 923.3	-140.8		21 028.1	6 839.6	10 914.8
28	Machinery and equipment mfg	43 362.6	369.6		24 414.1	5 321.7	13 996.4
29	Other manufacturing	6 697.7	50.6		3 338.4	1 085.4	2 324.5
21-29	Total manufacturing	220 847.9	820.0		116 624.9	36 113.4	68 929.5

- (a) See paragraph 5 of the Explanatory Notes.
- (b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 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.

MANUFACTURING ESTABLISHMENTS(a)(b), Acquisition and Disposal of Assets

ACQUISITION OF

INDUSTRY SUBDIVISION ANZSIC code	Description	ACQUISITION OF			Total capital expenditure	Total disposal of assets	Net capital expenditure
		Plant, machinery and equipment	Dwellings, other buildings and structures	Other (including land and intangible assets)			
21	Food, beverage and tobacco mfg	1 656.3	275.6	315.0	2 246.9	386.8	1 860.1
22	Textile, clothing, footwear and leather mfg	206.7	27.0	50.5	284.2	44.6	239.7
23	Wood and paper product mfg	563.7	41.1	49.7	654.5	42.2	612.3
24	Printing, publishing and recorded media	463.0	70.4	143.6	677.0	82.4	594.6
25	Petroleum, coal, chemical and associated product mfg	1 464.7	175.9	253.1	1 893.7	160.6	1 733.2
26	Non-metallic mineral product mfg	426.9	39.2	54.3	520.4	79.8	440.5
27	Metal product mfg	2 022.2	*188.2	229.9	2 440.3	178.7	2 261.6
28	Machinery and equipment mfg	1 288.4	142.4	270.2	1 701.0	226.4	1 474.6
29	Other manufacturing	175.8	49.1	59.3	284.2	30.0	254.3
21-29	Total manufacturing	8 267.7	1 008.9	1 425.7	10 702.3	1 231.4	9 470.8

* estimate has a relative standard error of between 25% and 50% and should be used with caution

- (a) See paragraph 5 of the Explanatory Notes.
- (b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.

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

AS A RATIO OF WAGES AND SALARIES(d)

INDUSTRY SUBDIVISION		Employer contributions to superannuation funds	Workers' compensation costs	Fringe benefits tax	Payroll tax	Total
ANZSIC Code	Description	%	%	%	%	%
21	Food, beverage and tobacco mfg	6.5	4.3	1.3	5.1	17.2
22	Textile, clothing, footwear and leather mfg	7.4	3.9	1.0	5.0	17.3
23	Wood and paper product mfg	6.6	3.5	1.1	4.1	15.2
24	Printing, publishing and recorded media	7.6	1.5	1.6	5.3	16.0
25	Petroleum, coal, chemical and associated product mfg	6.7	2.7	2.3	5.3	17.1
26	Non-metallic mineral product mfg	6.4	4.4	1.4	5.3	17.5
27	Metal product mfg	6.2	3.7	1.3	5.1	16.3
28	Machinery and equipment mfg	6.8	3.1	1.3	5.1	16.3
29	Other manufacturing	8.1	3.6	1.7	3.6	17.0
21-29	Total manufacturing	6.8	3.3	1.5	5.0	16.6

- (a) See paragraph 5 of the Explanatory Notes.
- (b) Group employer information held by the Australian Taxation Office is now being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 11-13 of the Explanatory Notes.
- (c) See paragraph 30 of the Explanatory Notes.
- (d) 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 1998–99, 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 1998–99 collection, a sample of approximately 17,000 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 two years.
- 4** Estimates of IVA were compiled using data from the 17,000 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. The availability of this fine level commodity/activity data for these units has enabled better identification of in-scope establishments as well as providing a basis for an objective industry code to be allocated to responding units. 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, 2000* (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 1998–99 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 (GE) with the Australian Taxation Office (ATO). 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 Technical Note 1.

DATA ADJUSTED

10 Data in this issue continue to be 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 1998–99 Australian employment is an increase of 0.8% while the effect on turnover is an increase of 0.4%. Most States and Territories and most industries were affected to a similar degree.

11 For some time now, the ABS has been using ATO information on GE registrations to add new businesses to the ABS business register. After detailed investigation, it has now been decided to use GE information to delete from the business register those businesses which have ceased trading or are no longer employing staff.

12 The process of using GE information to delete businesses from the ABS business register has been introduced for the 1998–99 manufacturing survey. The result is that a large number of businesses were removed from the business register and, therefore, from the population for the 1998–99 manufacturing survey. This process will now also be ongoing, but the number of businesses removed in future years will be relatively small.

13 The use of GE information to delete businesses from the ABS business register has also impacted on previous years' data. Estimates for the previous three manufacturing collections (covering 1995–96 to 1997–98 inclusive) have been adjusted in such a way as to phase in the impact over this time. The impact on survey results has been to reduce estimates slightly. For example, total Australian manufacturing employment for 1997–98 was reduced by 1.1% and turnover by 0.5%. Most States and Territories and most industries were affected to a similar degree. For periods before 1995–96, the impact is estimated to have been negligible. The impacts of the ongoing process are also expected to be negligible.

COMPARABILITY WITH PREVIOUS STATISTICS

14 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)

15 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.

EXPLANATORY NOTES *continued*

COMPARABILITY WITH PREVIOUS STATISTICS *continued*

16 Commencing with estimates for 1997–98, under new international standards, contribution to gross domestic product (GDP) by manufacturing industries is being 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.

17 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

18 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.

19 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.

20 Periodic collections of the Retail and Wholesale Divisions of ANZSIC, conducted for the 1998–99 reference year, identified a number of businesses which were predominately manufacturers. A small number of these cases were determined to be significant in some manufacturing industries and have therefore been added into the manufacturing collection for 1998–99. The effect of these additional units on published aggregates have been calculated as adding 0.6% to both employment and turnover estimates for Australia.

CHAIN VOLUME MEASURES

21 Chain volume measures are 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.

22 Chain volume measures compiled by the ABS are based on 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). Chain volume measures used in this publication have 1997–98 as the base year.

EXPLANATORY NOTES *continued*

CHAIN VOLUME MEASURES

continued

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

24 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.

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 5. 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 6. The statistics in these two tables relate only to those manufacturing establishments operating at 30 June 1999. 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 1998–99.

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 5 and 6, 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 6 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. The data in table 6 exclude those manufacturing establishments which operated during 1998–99 but were not operating at 30 June 1999.

28 The statistics presented in table 6 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

EXPLANATORY NOTES *continued*

EXPORTS BY MANUFACTURERS *continued*

tables 6 and 7 only include exports directly undertaken by the manufacturer or by its agent.

29 The data in table 6 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 6 and 7. 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 6 and 7 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 10 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 10.

REGIONAL DATA

31 Current investigations carried out by the ABS have shown that it is possible to produce some regional or sub-State estimates in survey collection years. The ABS proposes to make sub-State data available later this year, after the release of the *Manufacturing Industry, [State], 1998-99* publication series. For further information about the availability of sub-State data, please contact John Ridley on Sydney 02 9268 4541.

32 Sub-State data in census years will continue to be published in the *Manufacturing Industry, [State]* series or will be available as unpublished data.

ACKNOWLEDGMENT

33 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

34 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.

EXPLANATORY NOTES *continued*

RELATED PUBLICATIONS

35 A series of publications *Manufacturing Industry, [State], 1998–99* (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.

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

- *Business Operations and Industry Performance, Australia, 1998–99* (Cat. no. 8140.0), to be released in December 2000—Annual publication
- *Business Operations and Industry Performance, Australia, Preliminary, 1998–99* (Cat. no. 8142.0), released on 12 May 2000—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
- *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, 2000* (Cat. no. 8225.0), to be released in December 2000—Annual publication
- *Manufacturing Industry, Australia, Preliminary, 1999–2000* (Cat. no. 8201.0), to be released in March 2001—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

37 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 1998–99 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 34 and 36 also provides more details.

38 Chain volume measures on a true ANZSIC basis are only available from 1989–90. However, chain volume measures of industry value added on an ANZSIC basis are available back to 1984–85. This exercise involved converting 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

EXPLANATORY NOTES *continued*

BACK DATA AND UNPUBLISHED STATISTICS *continued*

1989–90 to 1997–98 (inclusive) by ANZSIC class are available as unpublished data.

ROUNDING

39 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.

40 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.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
ATO	Australian Taxation Office
f.o.b.	free on board
GDP	Gross Domestic Product
GE	group employer
IGP	industry gross product
IVA	industry value added
mfg	manufacturing
n.e.c.	not elsewhere classified

APPENDIX DATA ITEMS 1998–99

INTRODUCTION

This Appendix lists items included in the 1998–99 manufacturing collection, and selected items derived from those directly collected.

AVAILABILITY OF DATA

The 1998–99 manufacturing collection was conducted as a sample survey of approximately 17,000 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 available for Australia but not 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, 2000* (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, 1998–99

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 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

Income items *continued*

Dividend income

Royalties income

Natural resource royalties income

Other royalties income

Other income

Total income

Transfer of goods

Transfers out of goods for sale

Produced by this establishment for sale

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

Other transfers out of goods

Produced by this establishment for further processing, assembly or installation

Bought in by this establishment (valued at cost)

Transfers in of goods

Produced by other establishments for sale

Produced by other establishments for further processing, assembly or installation

Bought in by other establishments (valued at cost)

Goods for resale

Materials, containers, fuels etc.

APPENDIX DATA ITEMS 1998–99 *continued*

DATA ITEMS COLLECTED AND SELECTED DERIVED DATA ITEMS, 1998–99 *continued*

Expense items

Wages and salaries including provision expenses for employee entitlements
 Employer contributions to superannuation funds
 Workers' compensation costs
 Fringe benefits tax
 Payroll tax
 Insurance premiums
 Interest expenses
 Bank charges other than interest
 Depreciation and amortisation
 Bad and doubtful debts

Purchases
 Materials, components, containers, packaging materials, electricity, fuels and water
 Finished goods for resale

Royalties expenses
 Natural resource royalties expenses
 Other royalties expenses

Motor vehicle running expenses
 Freight and cartage expenses
 Repair and maintenance expenses
 Rent, leasing and hiring expenses

Commission expenses
 Sales commission expenses
 Commission expenses for work done on materials provided by this business unit
 Ex-house printing expenses for material published by this business unit

Other operating expenses
 Total expenses

Assets and liabilities

Current assets—trading stocks (inventories)
 Opening trading stocks
 Raw materials, fuels, containers, etc.
 Work-in-progress
 Finished goods (including stocks for resale)
 Total opening trading stocks

Closing trading stocks
 Raw materials, fuels, containers, etc.
 Work-in-progress
 Finished goods (including stocks for resale)
 Total closing trading stocks

Current assets—other than trading stocks
 Non-current assets

Total provisions for employee entitlements
 Beginning of reporting period
 End of reporting period

Current liabilities (including provisions for employee entitlements)
 Non-current liabilities (including provisions for employee entitlements)
 Owner's equity

Capital expenditure and disposal of assets

Capitalised work done by own employees for own use or for rental or lease
 Capitalised wages and salaries
 Capitalised purchases of materials

Capital expenditure (including capitalised work done by own employees as listed above)
 Plant machinery and equipment
 Computer software capitalised
 Land
 Dwellings, other buildings and structures
 Intangible assets

Total disposable plant, machinery, equipment, land, dwellings, other buildings and structures and intangible assets

Selected derived data items

Amount exported by the business unit or by its agent
 Exports as a proportion of sales and transfers out of goods for sale produced by this establishment
 Sales and transfers out of goods for sale produced by this establishment
 Purchases and transfers in
 Selected expenses
 Purchases, transfers in and selected expenses
 Other intermediate input expenses
 Changes in stocks (inventories)
 Cost of goods sold
 Cost of inputs
 Net capital expenditure
 Total capital expenditure
 Operating profit before tax
 Turnover
 Turnover per person employed at the end of June
 Industry gross product
 Industry gross product per person employed at the end of June
 Industry value added
 Industry value added per person employed at the end of June
 Wages and salaries per employee at the end of June
 Ratio of wages and salaries to industry value added
 Ratio of wages and salaries to turnover

TECHNICAL NOTE 1 DATA RELIABILITY

SAMPLE ERROR

1 The 1998–99 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 1998–99 (and 1992–93, 1994–95, 1995–96 and 1996–97) 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 2 chances in 3 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 1998–99 employment, wages and salaries, turnover and IVA Australian data presented in this publication are all 2% or less for industry subdivisions (see Technical Note 2) 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 Technical Note 2. 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.

TECHNICAL NOTE 2 STANDARD ERRORS

SELECTED DATA ITEMS

<i>INDUSTRY SUBDIVISION</i>	<i>Employment at end of June(a)</i>	<i>Wages and salaries (b)</i>	<i>Turnover</i>	<i>Purchases and transfers in</i>	<i>Industry value added</i>	<i>Amount exported by this business unit or by its agent</i>	<i>Acquisition of plant machinery and equipment</i>
<i>ANZSIC code</i>	%	%	%	%	%	%	%
21	0.7	0.5	0.5	0.7	0.4	1.0	3.6
22	1.5	1.1	1.0	1.1	1.2	1.3	9.4
23	2.0	1.7	0.8	1.3	1.1	0.9	4.7
24	1.9	1.6	1.2	2.1	1.5	12.8	5.4
25	1.0	0.6	0.4	0.4	0.5	1.4	3.4
26	1.2	0.7	0.6	0.9	0.6	2.0	2.8
27	1.3	1.0	0.6	0.5	1.1	0.4	12.7
28	0.7	0.6	0.4	0.5	0.6	0.6	2.6
29	2.2	2.0	2.0	2.2	2.3	4.4	9.9
21-29 Total manufacturing	0.4	0.3	0.2	0.3	0.3	0.4	3.3

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

GLOSSARY

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 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. 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.

GLOSSARY *continued*

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 produced (table 6)	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 6, 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 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.

GLOSSARY *continued*

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:

	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

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).

GLOSSARY *continued*

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	<p>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:</p> <p style="text-align: center;">Intermediate input expenses (for details, see the entry for operating expenses) plus Opening inventories equals Closing inventories</p>
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	<p>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 extraordinary 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.</p> <p>Remaining expenses are categorised as follows:</p> <p><i>Intermediate input expenses</i></p> <p>Intermediate input expenses cover the major expenses incurred by manufacturers in producing and distributing goods and services produced (except labour costs), namely:</p> <ul style="list-style-type: none">■ 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 <p>Also included in the calculation of intermediate inputs are advertising expenses, audit and other accounting expenses, bank fees and charges (except interest),</p>

GLOSSARY *continued*

Operating expenses <i>continued</i>	<p>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.</p> <p>Excluded from this category are selected labour costs and other operating expenses as defined below:</p> <p><i>Selected labour costs</i></p> <p>Wages and salaries including provision expenses for employee entitlements</p> <p>Employer contributions to superannuation funds</p> <p>Workers' compensation costs</p> <p>Payroll tax and Fringe benefits tax</p> <p><i>Other operating expenses</i></p> <p>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.</p>
Other intermediate input expenses	Intermediate input expenses less purchases and transfers in.
Own account capital work	<p>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.</p> <p>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.</p>
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	<p>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 1998-99 collection, a business may have reported data for the year ended 31 December 1998.</p>
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

GLOSSARY *continued*

Sales and transfers out of goods <i>continued</i>	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. Progress payments relating to long term contracts are included if they are billed in the period. 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 produced (table 6)	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	<p>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.</p> <p>For further explanation on the treatment of commission manufacturing activities, see the entry for commission manufacturing.</p>
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	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

GLOSSARY *continued*

Turnover <i>continued</i>	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.
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.

FOR MORE INFORMATION...

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
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2822100007981
ISSN 1036-2738

RRP \$21.00