



MANUFACTURING INDUSTRY AUSTRALIA

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

NOTES

ANNUAL MANUFACTURING INDUSTRY COLLECTION The 1999–2000 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 Appendix 1.

ABOUT THIS ISSUE The 1999–2000 series of these publications, *Manufacturing Industry, Australia* (Cat. no. 8221.0) and *Manufacturing Industry, [State]*, (Cat. nos 8221.1–8221.6) will be the last that present data for manufacturing establishments. Future manufacturing collections will no longer collect data from manufacturing establishments. Starting with the 2000–01 manufacturing collection, data will be sought from a sample of approximately 9,000 manufacturing businesses. For more details, see Appendix 2.

The ABS continues to use Australian Taxation Office (ATO) information on group employer (GE) registrations to delete from the ABS business register those businesses which have ceased trading or are no longer employing staff. The ABS has for some time used GE information to add new businesses to the business register; however, GE information to delete businesses from the business register was first used for the 1998–99 collection. For more details, see paragraphs 12–14 of the Explanatory Notes.

REGIONAL DATA For information about the availability of sub-State estimates from the 1999–2000 collection, see paragraph 30 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], 1999–2000* (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, 2001* (Cat. no. 8225.0), to be released in December 2001. Management unit data at the total manufacturing level are also included in *Business Operations and Industry Performance, Australia, 1999–2000* (Cat. no. 8140.0).

Dennis Trewin
Australian Statistician

SUMMARY OF FINDINGS

OVERVIEW

Manufacturing contributed more to Australian production in 1999–2000 than any other industry (see the following table on Industry shares of total production). Manufacturing was the largest industry in Victoria, Queensland, South Australia and Tasmania and accounted for a higher proportion of the economy in Victoria than in any other State and Territory.

INDUSTRY SHARES OF TOTAL PRODUCTION (a), 1999–2000

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
<i>Industry</i>	%	%	%	%	%	%	%	%	%
Agriculture, forestry and fishing	2.2	3.0	4.6	5.5	3.7	4.9	3.1	0.1	3.2
Mining	1.8	2.1	5.7	2.4	20.1	2.2	17.7	—	4.7
Manufacturing	13.4	16.4	10.8	16.1	9.2	15.7	4.1	1.9	13.1
Electricity, gas and water supply	1.8	1.8	2.5	3.0	2.0	5.6	1.9	2.0	2.1
Construction	6.6	5.5	7.0	6.1	7.5	5.1	5.6	6.8	6.4
Wholesale trade	5.7	6.2	5.8	4.6	4.4	3.9	2.9	2.2	5.5
Retail trade	5.1	5.4	6.9	5.6	5.0	6.5	5.1	4.4	5.5
Accommodation, cafes and restaurants	2.4	1.7	3.0	2.3	1.6	2.5	2.9	2.0	2.2
Transport and storage	5.2	5.1	6.4	5.2	5.8	5.5	5.8	3.1	5.4
Communication services	3.2	3.7	3.2	2.7	2.8	2.8	3.4	2.9	3.2
Finance and insurance	8.4	7.2	4.3	5.5	3.7	4.9	2.8	4.2	6.5
Property and business services	14.5	13.9	10.0	10.0	10.3	5.5	8.9	14.3	12.6
Government administration and defence	3.0	2.5	4.0	3.2	2.5	5.3	9.4	25.9	3.6
Education	4.2	4.9	4.7	5.1	3.5	5.2	5.4	5.7	4.5
Health and community services	5.3	6.0	5.8	7.0	5.6	8.5	6.4	5.6	5.8
Cultural and recreational services	1.8	1.9	1.5	1.7	1.4	1.5	2.7	2.8	1.8
Personal and other services	2.3	2.5	2.7	3.1	2.4	2.5	3.0	3.4	2.5
Ownership of dwellings	11.1	8.6	8.4	8.8	6.7	8.9	5.7	7.9	9.2
General government(b)	1.9	1.7	2.6	2.2	1.8	3.0	3.3	4.8	2.1

— nil or rounded to zero (including null cells)

(a) Gross factor incomes.

(b) State details for general government gross operating surplus by industry are not available.

Source: Australian National Accounts: State Accounts, 1999–2000 (Cat. no. 5220.0).

Nationally, the Property and business services industry is now almost as large as Manufacturing and has been growing at a much faster rate than Manufacturing for many years (see the following table on Production volumes).

Manufacturing was ranked last in terms of annualised growth rates over both the last 10 and 25 years, with increases of 1.8% for each. By comparison, the highest growth rates were recorded by the Communication services industry with annualised rates of 9.7% and 8.0% for the 10 year and 25 year periods.

SUMMARY OF FINDINGS *continued*

PRODUCTION VOLUMES (a)

	CHAIN VOLUME MEASURES			AVERAGE ANNUAL CHANGE FROM	
	1998-99	1999-2000	<i>Change from</i> 1998-99 to 1999-2000	1989-90 to 1999-2000	1974-75 to 1999-2000
<i>Industry</i>	\$m	\$m	%	%	%
Agriculture, forestry and fishing	17 964	19 212	6.9	3.8	3.4
Mining	25 486	28 129	10.4	4.4	4.5
Manufacturing	71 848	73 978	3.0	1.8	1.8
Electricity, gas and water supply	15 084	15 510	2.8	2.0	3.5
Construction	34 033	36 149	6.2	3.0	3.0
Wholesale trade	30 730	32 648	6.2	3.8	2.7
Retail trade	31 339	32 718	4.4	3.3	2.8
Accommodation, cafes and restaurants	13 584	14 479	6.6	3.5	3.0
Transport and storage	30 203	31 194	3.3	3.5	3.9
Communication services	16 719	18 477	10.5	9.7	8.0
Finance and insurance	37 614	38 657	2.8	3.2	4.5
Property and business services	62 645	67 773	8.2	5.2	5.0
Government administration and defence	24 019	24 070	0.2	2.5	2.5
Education	26 681	27 103	1.6	2.2	3.5
Health and community services	33 509	34 329	2.4	3.4	3.9
Cultural and recreational services	10 517	10 914	3.8	2.7	3.4
Personal and other services	12 689	14 417	13.6	3.9	3.1
Total all industries	494 664	519 757	5.1	3.4	3.3

(a) At 1999-2000 prices.

Source: Australian National Accounts: National Income, Expenditure and Product, June Quarter 2001 (Cat. no. 5206.0).

Note: The volume estimates contained in this table are derived from quarterly Business Surveys. Therefore, the estimates for Manufacturing are different to volume estimates based on the Annual Manufacturing Survey used elsewhere in this publication.

Within Manufacturing

Turnover for the year 1999-2000 by manufacturing establishments operating in Australia was \$228,951m, which resulted in an industry value added (IVA) for the year of \$68,462m. In current price terms, this represents a 4.0% increase in turnover from the \$220,084m recorded for 1998-99 and an increase of 2.2% in IVA. Manufacturing establishments employed 910,700 persons at the end of June 2000 and paid \$35,088m in wages and salaries in 1999-2000.

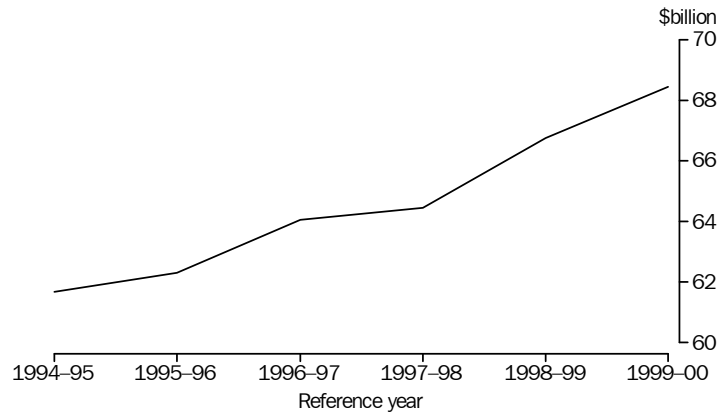
INDUSTRY VALUE ADDED

IVA for 1999-2000 was \$68,462m. This represents, using volume measures to remove the effects of price changes (see paragraphs 22 and 23 of the Explanatory Notes), a 2.5% increase on the figure for 1998-99 and an 11.0% increase over the five year period from 1994-95. Since 1994-95, IVA per person employed rose by 16.6% indicating that IVA per person employed increased more strongly than IVA.

SUMMARY OF FINDINGS *continued*

INDUSTRY VALUE ADDED *continued*

VOLUME MEASURES OF IVA

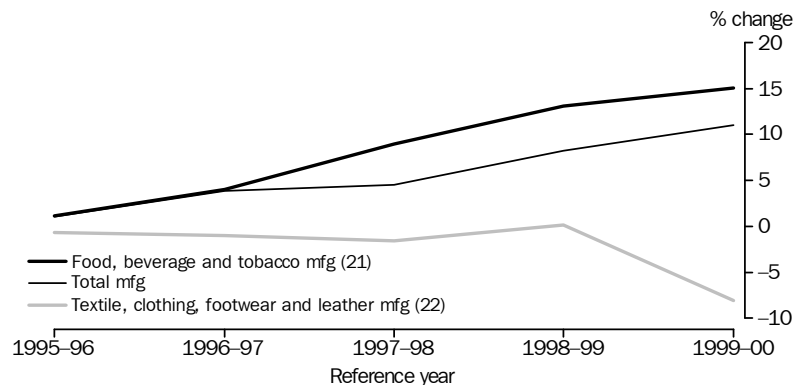


Eight of the nine industry subdivisions recorded an increase in volume measures of IVA over the period 1998–99 to 1999–2000. Significant percentage increases were recorded by WOOD AND PAPER PRODUCT MANUFACTURING (up 10.5%), PRINTING, PUBLISHING AND RECORDED MEDIA (up 6.0%), NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 5.6%) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 5.1%). A decrease was recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 8.2%).

Longer-term trends (1994–95 to 1999–2000)—volume measures

Over the period 1994–95 to 1999–2000, volume measures of IVA increased by 11.0%. Eight industry subdivisions recorded increases while the other recorded a decrease. The largest percentage increases were recorded by FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 15.1%), PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 14.9%), WOOD AND PAPER PRODUCT MANUFACTURING (up 12.7%) and MACHINERY AND EQUIPMENT MANUFACTURING (up 12.3%). The decrease was recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 8.1%) while OTHER MANUFACTURING recorded the smallest increase (up 3.5%).

VOLUME MEASURES OF IVA – GREATEST AND LEAST GROWTH, percentage change from 1994–95



Over the period 1994–95 to 1999–2000, there was an increase of 16.6% in volume measures of IVA per person employed. All nine industry subdivisions recorded an increase, with the largest percentage increases being for NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 22.1%), MACHINERY AND EQUIPMENT MANUFACTURING (up 19.9%) and WOOD AND PAPER PRODUCT MANUFACTURING (up 16.8%). The smallest increase was recorded by PRINTING, PUBLISHING AND RECORDED MEDIA (up 6.7%).

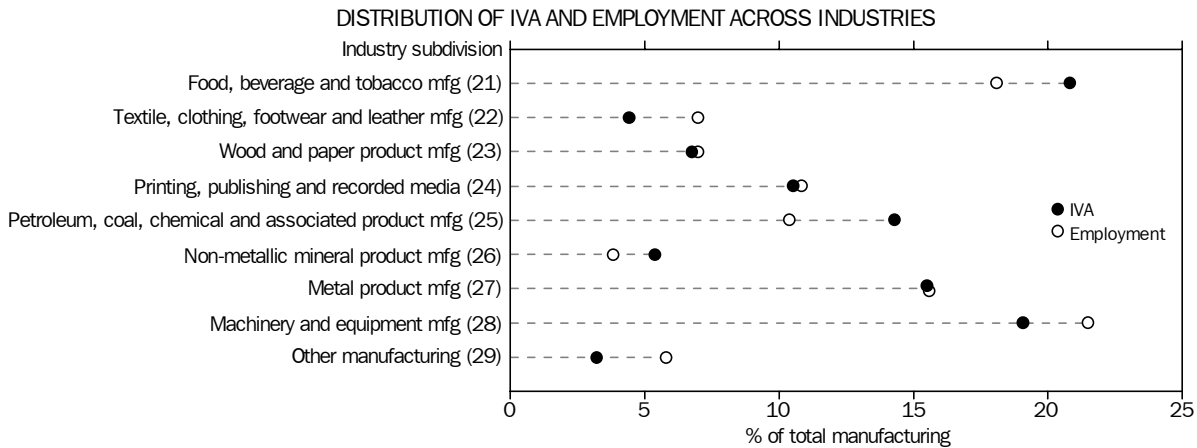
SUMMARY OF FINDINGS *continued*

*Longer-term trends
(1994–95 to
1999–2000)—volume
measures continued*

Since 1994–95, growth in IVA per person employed for the total manufacturing industry was 5.6 percentage points higher than growth in IVA, although this is not a consistent pattern across the industry subdivisions.

The seven manufacturing subdivisions for which growth in IVA per person employed was greater than the growth in IVA were the same seven subdivisions to show a fall in employment from 1994–95 to 1999–2000. Moreover, they occur in exactly the same order when ranked by size of the percentage points difference between the change in IVA and the change in 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



For 1999–2000, 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 aggregate, these four industry subdivisions accounted for 70% of total IVA in the manufacturing industry, the same as 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 (20.8%), where the industry classes MEAT PROCESSING (ANZSIC Class 2111 at 2.2%), WINE MANUFACTURING (ANZSIC Class 2183 at 2.2%) and DAIRY PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2129 at 1.5%) were the most substantial.
- MACHINERY AND EQUIPMENT MANUFACTURING (19.1%), where the industry classes MOTOR VEHICLE MANUFACTURING (ANZSIC Class 2811 at 2.4%) and AUTOMOTIVE COMPONENT MANUFACTURING N.E.C. (ANZSIC Class 2819 at 2.0%) were the most substantial.
- METAL PRODUCT MANUFACTURING (15.5%), where the industry classes BASIC IRON AND STEEL MANUFACTURING (ANZSIC Class 2711 at 2.5%) and STRUCTURAL STEEL FABRICATING (ANZSIC Class 2741 at 1.8%) were the most substantial.

SUMMARY OF FINDINGS *continued*

Current year analysis continued

- PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (14.3%), 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 4.4%), PRINTING (ANZSIC Class 2412 at 3.3%), WOODEN STRUCTURAL COMPONENT MANUFACTURING (ANZSIC Class 2323 at 1.6%) and WOODEN FURNITURE AND UPHOLSTERED SEAT MANUFACTURING (ANZSIC Class 2921 at 1.5%).

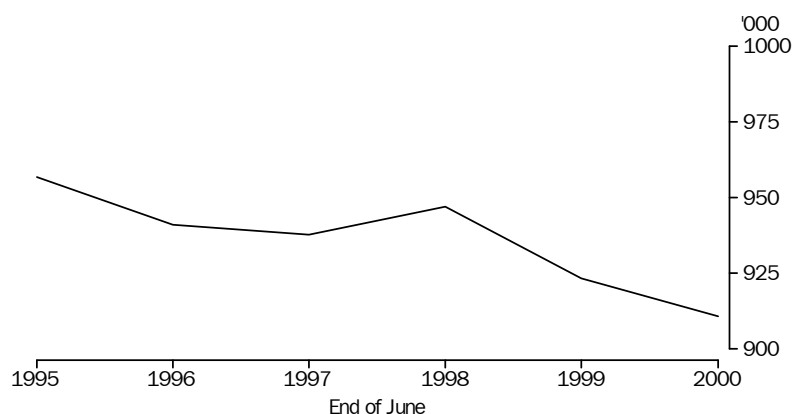
EMPLOYMENT

The Australian manufacturing industry employed 910,700 persons at the end of June 2000. As in previous years, MACHINERY AND EQUIPMENT MANUFACTURING (21.5%), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (18.1%) and METAL PRODUCT MANUFACTURING (15.6%) were the major contributors to employment at the end of June 2000. NON-METALLIC MINERAL PRODUCT MANUFACTURING (3.8%) and OTHER MANUFACTURING (5.8%) remain the smallest contributors.

Manufacturing employment decreased by 1.2% between June 1999 and June 2000. Six 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 6.0% from 67,700 persons to 63,600 persons), METAL PRODUCT MANUFACTURING (down 3.6% from 147,200 persons to 141,800 persons) and OTHER MANUFACTURING (down 3.3% from 54,800 persons to 53,000 persons). The largest percentage and absolute increase was recorded by WOOD AND PAPER PRODUCT MANUFACTURING (up 5.3% from 60,400 persons to 63,600 persons).

Longer-term trends (June 1995 to June 2000)

EMPLOYMENT



Employment in the Australian manufacturing industry decreased by 46,200 persons (down 4.8% from 956,900 persons to 910,700 persons) over the period June 1995 to June 2000. The June 2000 employment figure is the lowest for any year for which ANZSIC data are available i.e. from 1989–90 onwards.

SUMMARY OF FINDINGS *continued*

Longer-term trends (June 1995 to June 2000) continued

Between June 1995 and June 2000, seven industry subdivisions recorded decreases and two recorded increases in their level of employment. The largest percentage and absolute decrease was recorded by TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 20.5% from 80,100 persons to 63,600 persons). The second largest percentage decrease was for NON-METALLIC MINERAL PRODUCT MANUFACTURING (down 10.6% from 39,000 persons to 34,900 persons). The second largest absolute decrease in employment was for MACHINERY AND EQUIPMENT MANUFACTURING (down 13,200 persons from 208,800 persons to 195,600 persons).

Increases were recorded by PRINTING, PUBLISHING AND RECORDED MEDIA (up 3.0% from 95,800 persons to 98,700 persons) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 2.7% from 92,100 persons to 94,600 persons).

WAGES AND SALARIES

The Australian manufacturing industry paid \$35,088m in wages and salaries in 1999–2000. This represents an average of \$38,500 paid in annual wages and salaries per person employed, an increase of 1.7% on the \$37,900 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 eight of the nine manufacturing industry subdivisions between 1998–99 and 1999–2000 and fell in the other. NON-METALLIC MINERAL PRODUCT MANUFACTURING had the largest percentage increase in wages and salaries paid per person employed as well as the second largest percentage rise in both employment (up 1.8%) and wages and salaries (up 5.1%). OTHER MANUFACTURING fell by 0.7% with employment and wages and salaries down by 3.3% and 4.0% respectively.

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

- NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 3.2% — from \$41,500 to \$42,800), where 7 (out of 11) industry classes recorded an increase, with the largest being:
 - CERAMIC PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2629) (up 22.2% — from \$27,800 to \$34,000);
 - CERAMIC PRODUCT MANUFACTURING (ANZSIC Class 2622) (up 21.1% — from \$42,000 to \$50,800); and
 - CONCRETE SLURRY MANUFACTURING (ANZSIC Class 2633) (up 10.7% — from \$39,300 to \$43,500).
- PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 2.9% — from \$44,200 to \$45,500), where 15 (out of 23) industry classes recorded an increase, with the largest being:
 - SOAP AND OTHER DETERGENT MANUFACTURING (ANZSIC Class 2545) (up 15.1% — from \$40,100 to \$46,100);
 - MEDICINAL AND PHARMACEUTICAL PRODUCT MANUFACTURING (ANZSIC Class 2543) (up 11.4% — from \$47,100 to \$52,500); and
 - PESTICIDE MANUFACTURING (ANZSIC Class 2544) (up 10.6% — from \$49,000 to \$54,200).
- PRINTING, PUBLISHING AND RECORDED MEDIA (up 2.8% — from \$38,000 to \$39,000), where 5 (out of 7) industry classes recorded an increase, with the largest being:

SUMMARY OF FINDINGS *continued*

WAGES AND SALARIES

continued

- PAPER STATIONERY MANUFACTURING (ANZSIC Class 2411) (up 14.2% — from \$32,800 to \$37,400);
- RECORDED MEDIA MANUFACTURING AND PUBLISHING (ANZSIC Class 2430) (up 5.0% — from \$37,400 to \$39,200);
- PRINTING (ANZSIC Class 2412) (up 2.9% — from \$35,000 to \$36,000); and
- NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421) (up 2.9% — from \$43,000 to \$44,200).

These last two classes account for 70% of the employment in the subdivision and were the most influential classes in producing the subdivision result.

The industry classes which had the highest wages and salaries paid per person employed in 1999–2000 were EXPLOSIVE MANUFACTURING (ANZSIC Class 2541) (\$74,100), PETROLEUM REFINING (ANZSIC Class 2510) (\$65,100), SYNTHETIC RESIN MANUFACTURING (ANZSIC Class 2533) (\$62,500) and ORGANIC INDUSTRIAL CHEMICAL MANUFACTURING N.E.C. (ANZSIC Class 2534) (\$62,400). The industry classes which had the lowest wages and salaries paid per person employed in 1999–2000 were LEATHER AND LEATHER SUBSTITUTE PRODUCT MANUFACTURING (ANZSIC Class 2262) (\$21,000), CLOTHING MANUFACTURING N.E.C. (ANZSIC Class 2249) (\$21,200), and CARDIGAN AND PULLOVER MANUFACTURING (ANZSIC Class 2232) (\$23,100).

TURNOVER

Turnover rose, in current price terms, by \$8,867m to \$228,951m for 1999–2000. This represents a 4.0% increase on the \$220,084m recorded for 1998–99.

Eight of the nine manufacturing industry subdivisions recorded an increase in turnover (current prices) between 1998–99 and 1999–2000. FOOD, BEVERAGE AND TOBACCO MANUFACTURING remained the largest contributor to total manufacturing turnover while PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING recorded the largest increase in dollar terms (\$2,622m). The largest percentage increases between 1998–99 and 1999–2000, however, were recorded by WOOD AND PAPER PRODUCT MANUFACTURING (up 12.3%), PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 7.9%) and PRINTING, PUBLISHING AND RECORDED MEDIA (up 7.5%). For the second consecutive year, TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 6.7%) was the only industry subdivision to record a fall in turnover.

The industry classes with large percentage increases between 1998–99 and 1999–2000 were:

- CARDIGAN AND PULLOVER MANUFACTURING (ANZSIC Class 2232) (up 32.2% or \$55m);
- SERVICES TO PRINTING (ANZSIC Class 2413) (up 31.3% or \$173m); and
- CERAMIC PRODUCT MANUFACTURING (ANZSIC Class 2622) (up 30.7% or \$52m).

The industry classes with the largest dollar increases between 1998–99 and 1999–2000 were:

- PETROLEUM REFINING (ANZSIC Class 2510) (up \$1,375m or 20.3%);
- WOODEN STRUCTURAL COMPONENT MANUFACTURING (ANZSIC Class 2323) (up \$732m or 29.1%);
- COPPER, SILVER, LEAD AND ZINC SMELTING, REFINING (ANZSIC Class 2723) (up \$676m or 29.7%);
- PRINTING (ANZSIC Class 2412) (up \$559m or 10.0%); and
- NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421) (up \$529m or 9.9%).

SUMMARY OF FINDINGS *continued*

TURNOVER *continued*

The industry classes with the largest percentage decreases between 1998–99 and 1999–2000 were:

- SLEEPWEAR, UNDERWEAR AND INFANT CLOTHING MANUFACTURING (ANZSIC Class 2243) (down 27.4% or \$100m);
- MINING AND CONSTRUCTION MACHINERY MANUFACTURING (ANZSIC Class 2862) (down 23.5% or \$419m); and
- KNITTING MILL PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2239) (down 22.0% or \$176m).

The industry classes with the largest dollar decreases between 1998–99 and 1999–2000 were:

- SUGAR MANUFACTURING (ANZSIC Class 2171) (down \$483m or 19.5%); and
- MINING AND CONSTRUCTION MACHINERY MANUFACTURING (ANZSIC Class 2862) (down \$419m or 23.5%).

Beverages

The largest industry classes within the ANZSIC Group BEVERAGE AND MALT MANUFACTURING are WINE MANUFACTURING (ANZSIC Class 2183 at \$3,576m), SOFT DRINK, CORDIAL AND SYRUP MANUFACTURING (ANZSIC Class 2181 at \$2,702m) and BEER AND MALT MANUFACTURING (ANZSIC Class 2182 at \$2,461m). Since 1994–95, the percentage contribution of WINE MANUFACTURING to total manufacturing has nearly doubled, increasing 0.7 percentage points to 1.6% in 1999–2000.

STATE/TERRITORY COMPARISON

For the fourth consecutive year, for 1999–2000, the contribution to Australian turnover by Victorian manufacturers (\$74,312m) has exceeded that of manufacturers located in New South Wales (\$73,259m). When this initially 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.

Industry value added

Between them, New South Wales (at 33.7%) and Victoria (at 32.4%) contributed nearly two-thirds of manufacturing IVA for Australia in 1999–2000. The contribution of the other States and Territories in 1999–2000 was: Queensland (14.0%), South Australia (9.0%), Western Australia (7.4%), Tasmania (2.6%), Northern Territory (0.5%) and Australian Capital Territory (0.4%). This ranking of the States and Territories was unchanged from the previous year.

The industry subdivision where IVA was most heavily concentrated in a State or Territory was TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING in Victoria (at 52.3%). This was followed by PRINTING, PUBLISHING AND RECORDED MEDIA in New South Wales (at 43.5%) and, for Victoria, both PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (at 38.7%) and MACHINERY AND EQUIPMENT MANUFACTURING (at 38.0%).

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 8.6% of IVA for this industry in Australia, compared to the total Tasmanian contribution to Australian manufacturing IVA of 2.6%. This was followed by NON-METALLIC MINERAL PRODUCT MANUFACTURING in Western Australia (12.4% compared to 7.4%), TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING in Victoria (52.3% compared to 32.4%) and MACHINERY AND EQUIPMENT MANUFACTURING in South Australia (13.9% compared to 9.0%).

SUMMARY OF FINDINGS *continued*

Employment

As in previous years, Victoria and New South Wales were the States in which manufacturing employment was concentrated at the end of June 2000 with both contributing 32.1% of Australian manufacturing employment.

This is the third consecutive year that employment in the Victorian manufacturing industry has exceeded that for New South Wales. There is, however, a decrease of 0.3 percentage points for Victoria and a decrease of 0.1 percentage points for New South Wales on their contribution to total employment recorded 12 months earlier, such that the gap has now narrowed considerably. Queensland decreased its contribution by 0.1 percentage points (to 15.6%) and South Australia and Western Australia both increased their contribution by 0.2 percentage points (to 9.2% and 8.0% respectively). The contribution of Tasmania and the Territories remained the same over this period.

Between June 1995 and June 2000, seven of the States and Territories recorded decreases in employment and one remained steady. The decreases were recorded in Tasmania (down 10.0% from 22,400 persons to 20,200 persons), the Australian Capital Territory (down 9.7% from 4,300 persons to 3,900 persons), New South Wales (down 8.3% from 318,300 persons to 291,900 persons), South Australia (down 6.4% from 89,700 persons to 84,000 persons), Victoria (down 3.0% from 301,200 persons to 292,100 persons), Queensland (down 1.1% from 143,700 persons to 142,100 persons) and Western Australia (down 0.8% from 73,800 persons to 73,200 persons). The Northern Territory remained steady at 3,300 persons.

The percentage of Australian manufacturing employment in New South Wales has declined since June 1995 (decreasing by 1.2 percentage points to 32.1%), as has that for South Australia (down 0.2 percentage points to 9.2%) and Tasmania (down 0.1 percentage points to 2.2%). Victoria has increased its proportion of employment over this period (up 0.6 percentage points to 32.1%), as has Queensland (up 0.6 percentage points to 15.6%) and Western Australia (up 0.3 percentage points to 8.0%). Both the Australian Capital Territory and the Northern Territory maintained their proportion of manufacturing employment at 0.4% over this period.

EMPLOYMENT SIZE

Note: In interpreting the commentary by employment size, reference should be made to paragraphs 24 and 25 of the Explanatory Notes. This particularly affects the smallest size categories.

Establishments employing 100 or more persons accounted for 47.1% of employment at the end of June 2000 and 54.7% of IVA for 1999–2000. Establishments employing 20–99 persons accounted for 28.5% of employment and 26.0% of IVA. Small establishments (i.e. those employing 0–19 persons) accounted for 24.4% of employment and 19.3% of IVA. Manufacturing establishments employing 1,000 or more persons at the end of June 2000 employed 7.9% of all persons working in the manufacturing industry in Australia and contributed 8.5% to IVA.

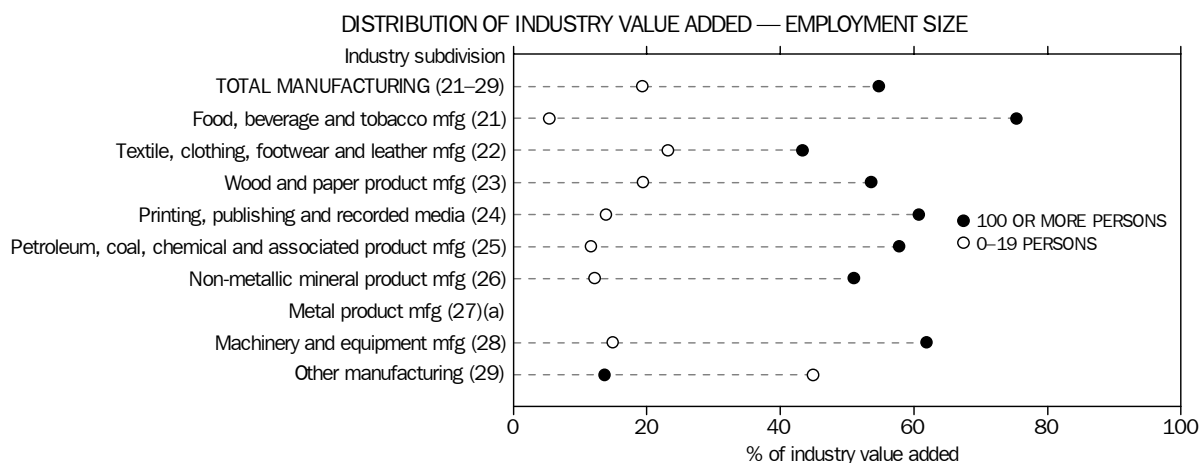
These proportions were reflected in the ratios of IVA per person employed at the end of June 2000. Small establishments (employing 0–19 persons) had a lower ratio (\$59,300) than establishments in the larger size categories. Establishments employing 100 or more persons recorded an average IVA per person employed of \$87,100, with establishments employing 1,000 or more persons having a ratio of \$80,800.

SUMMARY OF FINDINGS *continued*

EMPLOYMENT SIZE

continued

IVA per person employed for establishments employing 100 or more persons is now higher than that for establishments employing 1,000 or more persons. Last year, IVA per person employed was higher (at \$86,800) for establishments employing 1,000 or more persons than that recorded for establishments employing 100 or more persons (\$83,400).



(a) Data for Metal product manufacturing have not been included in this graph. See paragraph 25 of the Explanatory Notes.

Omitting METAL PRODUCT MANUFACTURING (see above and paragraph 25 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 significantly to IVA were FOOD, BEVERAGE AND TOBACCO MANUFACTURING (75.3%), MACHINERY AND EQUIPMENT MANUFACTURING (61.9%), PRINTING PUBLISHING AND RECORDED MEDIA (60.7%) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (57.8%).

Small establishments (employing 0–19 persons) made relatively significant contributions to IVA for OTHER MANUFACTURING (44.9%) and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (23.2%).

EXPORTS

For 1999–2000, Australian manufacturers directly exported \$36,834m of the goods that they produced. This represents a 13.9% increase on the \$32,333m recorded for 1998–99. Exports as a percentage of the total sales and transfers out of goods produced also increased (from 16.0% for 1998–99 to 17.5% for 1999–2000). Over the five year period from 1994–95, exports as a percentage of the total sales and transfers out of goods produced increased by 3.5 percentage points from 13.9% in 1994–95.

SUMMARY OF FINDINGS *continued*

EXPORTS *continued*

EXPORTS AS A PROPORTION OF GOODS PRODUCED



Manufacturers' direct exports increased in seven industry subdivisions between 1998-99 and 1999-2000 and fell in the other two. Industry subdivisions to record the largest percentage increases in direct exports between 1998-99 and 1999-2000 were OTHER MANUFACTURING (up 57.2% — from \$152m to \$239m), MACHINERY AND EQUIPMENT MANUFACTURING (up 19.9% — from \$6,503m to \$7,796m), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 18.0% — from \$9,290m to \$10,959m), TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (up 16.5% — from \$1,253m to \$1,459m) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 16.2% — from \$3,490m to \$4,056m).

Direct exports by establishments employing 100 or more persons increased by \$3,484m (or 15.5%), establishments employing 0 to 49 persons by \$925m (or 13.8%) and establishments employing 50 to 99 persons by \$92m (or 3.0%).

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

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
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
1999-2000	164.8	6 177.3	51 237.1	..	14 244.2	0.12	310.9	86.4
1998-99	167.4	r6 157.9	r50 105.8	..	r13 834.4	0.12	r299.4	r82.7
1997-98	168.6	5 949.9	(i)47 964.9	(j)13 523.1	(j)13 890.4	0.12	284.4	82.4
1996-97	163.3	5 581.1	44 725.0	11 448.7	..	0.12	273.8	..
1995-96	162.7	(k)5 143.3	43 247.0	11 381.9	..	0.12	265.9	..
1994-95	166.6	5 111.6	41 763.1	..	..	0.12	250.6	..
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
1999-2000	63.6	1 852.0	9 161.0	..	3 041.3	0.20	144.0	47.8
1998-99	67.7	r1 949.1	r9 823.6	..	r3 281.2	0.20	r145.1	r48.5
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	..
WOOD AND PAPER PRODUCT MANUFACTURING								
1999-2000	63.6	2 274.1	13 635.1	..	4 622.7	0.17	214.3	72.6
1998-99	r60.4	r2 135.8	r12 140.7	..	r4 254.5	0.18	200.9	r70.4
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	11 504.1	4 033.1	..	0.17	175.8	..
1994-95	66.0	2 010.5	11 598.1	..	..	0.17	175.8	..
PRINTING, PUBLISHING AND RECORDED MEDIA								
1999-2000	98.7	3 851.1	17 212.0	..	7 208.7	0.22	174.4	73.0
1998-99	99.3	r3 770.3	r16 006.6	..	r6 708.0	0.24	r161.1	r67.5
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	..
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
1999-2000	94.6	4 304.2	35 957.5	..	9 778.4	0.12	380.2	103.4
1998-99	r95.5	r4 223.0	r33 335.3	..	r9 004.9	0.13	r349.1	r94.3
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)3 583.9	31 428.5	9 040.6	..	0.11	334.1	..
1994-95	92.1	3 453.3	30 120.7	..	..	0.11	326.9	..

.. not applicable

r revised

(a) See paragraph 6 of the Explanatory Notes.

(b) Commencing from 1998-99, group employer information held by the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 12-14 of the Explanatory Notes.

(c) For factors affecting comparability of data over the time period shown, see paragraphs 15-21 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 15 and 16 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 17 and 18 of the Explanatory Notes.

(k) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 20 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								
1999-2000	34.9	1 494.7	10 484.2	..	3 688.3	0.14	300.5	105.7
1998-99	r34.3	r1 422.8	r9 831.2	..	r3 226.1	r0.14	r286.9	r94.2
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	..
METAL PRODUCT MANUFACTURING								
1999-2000	141.8	5 723.6	40 595.5	..	10 610.2	0.14	286.2	74.8
1998-99	r147.2	r5 924.9	r38 726.3	..	r10 950.2	0.15	263.2	r74.4
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	37 658.7	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	..
MACHINERY AND EQUIPMENT MANUFACTURING								
1999-2000	195.6	7 978.4	43 784.4	..	13 052.8	0.18	223.8	66.7
1998-99	r195.1	r7 849.0	r43 416.8	..	r13 383.3	0.18	r222.5	r68.6
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	..
OTHER MANUFACTURING								
1999-2000	53.0	1 432.3	6 884.4	..	2 215.2	0.21	129.9	41.8
1998-99	54.8	1 492.3	r6 697.6	..	r2 334.0	0.22	122.1	r42.6
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	..
TOTAL MANUFACTURING								
1999-2000	910.7	35 087.5	228 951.2	..	68 461.9	0.15	251.4	75.2
1998-99	r921.7	r34 925.1	r220 083.9	..	r66 976.6	0.16	r238.8	r72.7
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	32 558.6	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	..

.. not applicable

r revised

(a) See paragraph 6 of the Explanatory Notes.

(b) Commencing from 1998-99, group employer information held by the Australian Taxation Office is being used to delete those businesses which have ceased trading or are no longer employing staff. See paragraphs 12-14 of the Explanatory Notes.

(c) For factors affecting comparability of data over the time period shown, see paragraphs 15-21 of the Explanatory Notes.

(d) Includes working proprietors.

(e) Excludes the drawings of working proprietors.

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(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 15 and 16 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 17 and 18 of the Explanatory Notes.

(k) For 1995-96, excludes provision expenses for employee entitlements. See paragraph 20 of the Explanatory Notes.

MANUFACTURING ESTABLISHMENTS(a), Industry Class

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
FOOD, BEVERAGE AND TOBACCO MFG							
211	Meat and meat product mfg						
2111	Meat processing	27 784	947.8	7 037.6	1 522.8	253.3	54.8
2112	Poultry processing	13 241	439.5	2 543.5	750.1	192.1	56.6
2113	Bacon, ham and smallgood mfg	6 756	227.1	1 376.8	352.7	203.8	52.2
	<i>Total</i>	<i>47 781</i>	<i>1 614.3</i>	<i>10 958.0</i>	<i>2 625.6</i>	<i>229.3</i>	<i>55.0</i>
212	Dairy product mfg						
2121	Milk and cream processing	6 114	269.8	3 026.9	640.2	495.1	104.7
2122	Ice cream mfg	2 505	97.7	727.7	172.3	290.4	68.8
2129	Dairy product mfg n.e.c.	8 614	403.5	4 593.4	1 059.6	533.2	123.0
	<i>Total</i>	<i>17 233</i>	<i>771.0</i>	<i>8 347.9</i>	<i>1 872.1</i>	<i>484.4</i>	<i>108.6</i>
213	Fruit and vegetable processing	11 264	456.9	3 632.3	974.6	322.5	86.5
214	Oil and fat mfg	1 408	83.8	933.6	226.2	663.0	160.6
215	Flour mill and cereal food mfg						
2151	Flour mill product mfg	2 340	106.3	1 373.1	328.3	586.9	140.3
2152	Cereal food and baking mix mfg	5 477	191.3	2 188.2	724.0	399.5	132.2
	<i>Total</i>	<i>7 817</i>	<i>297.6</i>	<i>3 561.3</i>	<i>1 052.3</i>	<i>455.6</i>	<i>134.6</i>
216	Bakery product mfg						
2161	Bread mfg	10 272	375.7	1 370.5	537.3	133.4	52.3
2162	Cake and pastry mfg	9 810	263.3	1 077.8	400.6	109.9	40.8
2163	Biscuit mfg	4 529	127.6	991.1	370.4	218.9	81.8
	<i>Total</i>	<i>24 612</i>	<i>766.6</i>	<i>3 439.4</i>	<i>1 308.3</i>	<i>139.7</i>	<i>53.2</i>
217	Other food mfg						
2171	Sugar mfg	5 753	246.5	1 995.8	424.1	346.9	73.7
2172	Confectionery mfg	6 226	271.4	1 541.6	608.3	247.6	97.7
2173	Seafood processing	4 179	103.2	1 269.5	270.0	303.8	64.6
2174	Prepared animal and bird feed mfg	4 843	229.4	2 505.6	486.4	517.4	100.4
2179	Food mfg n.e.c.	14 460	525.4	3 164.2	953.7	218.8	66.0
	<i>Total</i>	<i>35 460</i>	<i>1 375.9</i>	<i>10 476.7</i>	<i>2 742.5</i>	<i>295.5</i>	<i>77.3</i>
218	Beverage and malt mfg						
2181	Soft drink, cordial and syrup mfg	5 933	254.9	2 701.8	722.3	455.4	121.7
2182	Beer and malt mfg	2 771	170.0	2 460.7	818.7	888.0	295.4
2183	Wine mfg	9 173	309.8	3 575.6	1 502.3	389.8	163.8
2184	Spirit mfg	243	8.6	234.0	71.1	962.8	292.7
	<i>Total</i>	<i>18 120</i>	<i>743.3</i>	<i>8 972.0</i>	<i>3 114.4</i>	<i>495.2</i>	<i>171.9</i>
219	Tobacco product mfg	1 105	67.8	915.9	328.3	828.9	297.1
21	Total food, beverage and tobacco mfg	164 800	6 177.3	51 237.1	14 244.2	310.9	86.4
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG							
221	Textile fibre, yarn and woven fabric mfg						
2211	Wool scouring	1 532	62.5	533.5	132.7	348.2	86.6
2212	Synthetic fibre textile mfg	3 438	125.1	721.3	233.0	209.8	67.8
2213	Cotton textile mfg	2 709	112.6	476.0	159.3	175.7	58.8
2214	Wool textile mfg	1 842	57.9	206.8	85.4	112.2	46.3
2215	Textile finishing	935	36.6	125.8	59.4	134.5	63.5
	<i>Total</i>	<i>10 457</i>	<i>394.7</i>	<i>2 063.3</i>	<i>669.8</i>	<i>197.3</i>	<i>64.1</i>

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), Industry Class *continued*

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG <i>cont.</i>							
222	Textile product mfg						
2221	Made-up textile product mfg	6 179	159.8	765.7	243.6	123.9	39.4
2222	Textile floor covering mfg	3 273	117.1	751.8	250.9	229.7	76.7
2223	Rope, cordage and twine mfg	637	23.1	100.9	40.1	158.5	63.0
2229	Textile product mfg n.e.c.	2 436	66.8	307.4	101.1	126.2	41.5
	<i>Total</i>	<i>12 525</i>	<i>366.9</i>	<i>1 925.9</i>	<i>635.7</i>	<i>153.8</i>	<i>50.8</i>
223	Knitting mills						
2231	Hosiery mfg	1 985	60.9	224.5	94.8	113.1	47.8
2232	Cardigan and pullover mfg	2 158	49.9	225.4	61.6	104.4	28.5
2239	Knitting mill product mfg n.e.c.	3 188	119.9	626.4	187.7	196.5	58.9
	<i>Total</i>	<i>7 331</i>	<i>230.7</i>	<i>1 076.2</i>	<i>344.1</i>	<i>146.8</i>	<i>46.9</i>
224	Clothing mfg						
2241	Men's and boys' wear mfg	7 113	189.4	669.5	254.5	94.1	35.8
2242	Women's and girls' wear mfg	7 502	193.9	1 039.2	328.5	138.5	43.8
2243	Sleepwear, underwear and infant clothing mfg	2 112	58.4	265.8	105.6	125.9	50.0
2249	Clothing mfg n.e.c.	8 889	188.2	873.8	327.8	98.3	36.9
	<i>Total</i>	<i>25 615</i>	<i>629.9</i>	<i>2 848.3</i>	<i>1 016.4</i>	<i>111.2</i>	<i>39.7</i>
225	Footwear mfg	4 644	125.5	514.9	187.8	110.9	40.4
226	Leather and leather product mfg						
2261	Leather tanning and fur dressing	2 460	92.0	656.2	162.3	266.8	66.0
2262	Leather and leather substitute product mfg	585	12.3	76.1	25.2	130.1	43.1
	<i>Total</i>	<i>3 045</i>	<i>104.3</i>	<i>732.3</i>	<i>187.5</i>	<i>240.5</i>	<i>61.6</i>
22	Total textile, clothing, footwear and leather mfg	63 616	1 852.0	9 161.0	3 041.3	144.0	47.8
WOOD AND PAPER PRODUCT MFG							
231	Log sawmilling and timber dressing						
2311	Log sawmilling	6 454	170.3	886.4	348.4	137.3	54.0
2312	Wood chipping	848	38.8	513.2	168.1	605.5	198.3
2313	Timber resawing and dressing	6 183	210.7	1 289.6	468.5	208.6	75.8
	<i>Total</i>	<i>13 485</i>	<i>419.9</i>	<i>2 689.2</i>	<i>985.1</i>	<i>199.4</i>	<i>73.1</i>
232	Other wood product mfg						
2321	Plywood and veneer mfg	1 529	53.1	272.1	102.9	178.0	67.3
2322	Fabricated wood mfg	3 376	137.7	966.9	289.7	286.4	85.8
2323	Wooden structural component mfg	22 203	654.2	3 244.7	1 061.9	146.1	47.8
2329	Wood product mfg n.e.c.	6 177	145.0	682.1	231.2	110.4	37.4
	<i>Total</i>	<i>33 285</i>	<i>990.0</i>	<i>5 165.8</i>	<i>1 685.7</i>	<i>155.2</i>	<i>50.6</i>
233	Paper and paper product mfg						
2331	Pulp, paper and paperboard mfg	4 327	269.7	2 276.8	807.5	526.2	186.6
2332	Solid paperboard container mfg	2 582	120.1	568.9	206.5	220.4	80.0
2333	Corrugated paperboard container mfg	4 891	273.1	1 571.1	537.9	321.3	110.0
2334	Paper bag and sack mfg	1 443	59.5	322.4	109.6	223.4	75.9
2339	Paper product mfg n.e.c.	3 619	141.7	1 040.9	290.4	287.6	80.2
	<i>Total</i>	<i>16 862</i>	<i>864.1</i>	<i>5 780.2</i>	<i>1 952.0</i>	<i>342.8</i>	<i>115.8</i>
23	Total wood and paper product mfg	63 631	2 274.1	13 635.1	4 622.7	214.3	72.6

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), Industry Class *continued*

INDUSTRY CLASS	Description	Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code		no.	\$m	\$m	\$m	\$'000	\$'000
PRINTING, PUBLISHING AND RECORDED MEDIA							
241	Printing and services to printing						
2411	Paper stationery mfg	6 986	261.3	1 233.6	448.3	176.6	64.2
2412	Printing	39 877	1 437.6	6 172.3	2 259.7	154.8	56.7
2413	Services to printing	6 910	230.2	724.5	328.5	104.8	47.5
	<i>Total</i>	53 773	1 929.1	8 130.3	3 036.5	151.2	56.5
242	Publishing						
2421	Newspaper printing or publishing	29 390	1 300.3	5 864.6	3 002.9	199.5	102.2
2422	Other periodical publishing	7 171	306.0	1 264.0	420.8	176.3	58.7
2423	Book and other publishing	5 931	220.2	1 267.5	374.8	213.7	63.2
	<i>Total</i>	42 491	1 826.5	8 396.2	3 798.5	197.6	89.4
243	Recorded media manufacturing and publishing	2 435	95.5	685.5	373.7	281.5	153.5
24	Total printing, publishing and recorded media	98 699	3 851.1	17 212.0	7 208.7	174.4	73.0
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG							
251	Petroleum refining	3 811	248.2	8 157.9	1 210.5	2 140.5	317.6
252	Petroleum and coal product mfg n.e.c.	947	51.8	515.5	142.5	544.5	150.5
253	Basic chemical mfg						
2531	Fertiliser mfg	2 303	np	np	np	np	np
2532	Industrial gas mfg	1 334	np	np	np	np	np
2533	Synthetic resin mfg	3 651	228.1	1 959.3	429.8	536.7	117.7
2534	Organic industrial chemical mfg n.e.c.	1 271	79.3	778.2	181.3	612.4	142.7
2535	Inorganic industrial chemical mfg n.e.c.	3 863	225.2	1 813.8	511.9	469.6	132.5
	<i>Total</i>	12 422	715.7	6 169.3	1 665.4	496.6	134.1
254	Other chemical product mfg						
2541	Explosive mfg	1 147	85.0	543.7	172.8	474.0	150.7
2542	Paint mfg	5 686	246.7	1 620.1	532.1	284.9	93.6
2543	Medicinal and pharmaceutical product mfg	12 722	667.4	5 359.8	1 625.4	421.3	127.8
2544	Pesticide mfg	1 373	74.3	1 379.6	333.8	1 004.8	243.1
2545	Soap and other detergent mfg	3 295	151.9	1 317.2	355.2	399.7	107.8
2546	Cosmetic and toiletry preparation mfg	4 387	168.7	1 059.4	270.6	241.5	61.7
2547	Ink mfg	958	43.3	323.6	95.5	337.7	99.6
2549	Chemical product mfg n.e.c.	3 242	145.6	1 023.3	285.7	315.6	88.1
	<i>Total</i>	32 810	1 582.9	12 626.8	3 670.9	384.8	111.9
255	Rubber product mfg						
2551	Rubber tyre mfg	3 491	172.9	755.2	336.4	216.3	96.4
2559	Rubber product mfg n.e.c.	3 795	142.0	600.4	234.9	158.2	61.9
	<i>Total</i>	7 286	314.9	1 355.6	571.3	186.1	78.4
256	Plastic product mfg						
2561	Plastic blow moulded product mfg	3 056	118.7	682.2	246.1	223.2	80.5
2562	Plastic extruded product mfg	3 532	149.6	910.5	281.0	257.8	79.6
2563	Plastic bag and film mfg	6 640	294.9	1 515.8	501.6	228.3	75.5
2564	Plastic product rigid fibre reinforced mfg	4 262	128.2	679.2	234.0	159.4	54.9
2565	Plastic foam product mfg	2 794	101.2	565.0	196.5	202.2	70.3
2566	Plastic injection moulded product mfg	17 016	598.0	2 779.6	1 058.5	163.4	62.2
	<i>Total</i>	37 300	1 390.7	7 132.4	2 517.7	191.2	67.5
25	Total petroleum, coal, chemical and associated product mfg	94 575	4 304.2	35 957.5	9 778.4	380.2	103.4

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

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), Industry Class *continued*

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
NON-METALLIC MINERAL PRODUCT MFG							
261	Glass and glass product mfg	4 943	228.7	1 062.9	397.3	215.0	80.4
262	Ceramic mfg						
2621	Clay brick mfg	3 674	169.9	934.4	412.8	254.3	112.4
2622	Ceramic product mfg	882	44.8	219.4	80.2	248.7	90.9
2623	Ceramic tile and pipe mfg	871	35.6	169.0	82.4	194.1	94.7
2629	Ceramic product mfg n.e.c.	1 776	60.3	256.6	103.5	144.5	58.2
	<i>Total</i>	7 203	310.6	1 579.4	678.8	219.3	94.2
263	Cement, lime, plaster and concrete product mfg						
2631	Cement and lime mfg	2 029	119.1	1 360.9	546.7	670.9	269.5
2632	Plaster product mfg	1 803	71.0	658.7	297.4	365.2	164.9
2633	Concrete slurry mfg	5 555	241.6	2 752.0	566.8	495.4	102.0
2634	Concrete pipe and box culvert mfg	1 367	np	np	np	np	np
2635	Concrete product mfg n.e.c.	6 756	np	np	np	np	np
	<i>Total</i>	17 510	748.9	6 656.6	2 164.0	380.2	123.6
264	Non-metallic mineral product mfg n.e.c.	5 234	206.5	1 185.4	448.2	226.5	85.6
26	Total non-metallic mineral product mfg	34 891	1 494.7	10 484.2	3 688.3	300.5	105.7
METAL PRODUCT MFG							
271	Iron and steel mfg						
2711	Basic iron and steel mfg	16 830	887.5	8 693.1	1 744.8	516.5	103.7
2712	Iron and steel casting and forging	5 987	247.9	1 049.1	447.0	175.2	74.7
2713	Steel pipe and tube mfg	3 229	159.1	1 150.9	345.9	356.4	107.1
	<i>Total</i>	26 046	1 294.4	10 893.1	2 537.7	418.2	97.4
272	Basic non-ferrous metal mfg						
2721	Alumina production	5 548	307.3	3 216.2	732.4	579.7	132.0
2722	Aluminium smelting	5 133	298.3	3 927.9	938.6	765.2	182.8
2723	Copper, silver, lead and zinc smelting, refining	3 770	220.4	2 952.8	499.2	783.2	132.4
2729	Basic non-ferrous metal mfg n.e.c.	1 405	76.9	1 730.8	189.3	1 232.1	134.7
	<i>Total</i>	15 856	903.0	11 827.6	2 359.5	745.9	148.8
273	Non-ferrous basic metal product mfg						
2731	Aluminium rolling, drawing, extruding	3 207	170.3	1 401.9	280.0	437.1	87.3
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	1 466	70.1	865.4	188.9	590.2	128.8
2733	Non-ferrous metal casting	1 354	43.0	166.2	60.3	122.8	44.5
	<i>Total</i>	6 027	283.4	2 433.5	529.2	403.8	87.8
274	Structural metal product mfg						
2741	Structural steel fabricating	19 162	708.7	3 798.0	1 214.0	198.2	63.4
2742	Architectural aluminium product mfg	15 289	507.7	2 592.8	794.0	169.6	51.9
2749	Structural metal product mfg n.e.c.	6 094	164.8	825.7	263.3	135.5	43.2
	<i>Total</i>	40 545	1 381.1	7 216.5	2 271.3	178.0	56.0
275	Sheet metal product mfg						
2751	Metal container mfg	3 621	177.8	1 124.1	308.9	310.4	85.3
2759	Sheet metal product mfg n.e.c.	13 788	462.5	2 090.3	707.2	151.6	51.3
	<i>Total</i>	17 409	640.3	3 214.4	1 016.0	184.6	58.4

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

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), Industry Class *continued*

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
METAL PRODUCT MFG cont.							
276	Fabricated metal product mfg						
2761	Hand tool and general hardware mfg	1 522	46.7	188.2	78.9	123.7	51.8
2762	Spring and wire product mfg	4 582	163.8	806.6	249.4	176.0	54.4
2763	Nut, bolt, screw and rivet mfg	1 687	72.5	285.9	115.6	169.5	68.6
2764	Metal coating and finishing	6 178	199.9	717.4	321.8	116.1	52.1
2765	Non-ferrous pipe fitting mfg	2 601	105.4	403.7	160.8	155.2	61.8
2769	Fabricated metal product mfg n.e.c.	19 388	633.1	2 608.7	970.1	134.5	50.0
	<i>Total</i>	35 960	1 221.3	5 010.5	1 896.5	139.3	52.7
27	Total metal product mfg	141 843	5 723.6	40 595.5	10 610.2	286.2	74.8
MACHINERY AND EQUIPMENT MFG							
281	Motor vehicle and part mfg						
2811	Motor vehicle mfg	16 519	756.5	10 737.3	1 662.0	650.0	100.6
2812	Motor vehicle body mfg	10 260	327.9	1 559.8	476.9	152.0	46.5
2813	Automotive electrical and instrument mfg	5 287	230.3	1 285.5	348.7	243.1	66.0
2819	Automotive component mfg n.e.c.	22 422	834.0	3 852.1	1 390.1	171.8	62.0
	<i>Total</i>	54 487	2 148.7	17 434.6	3 877.7	320.0	71.2
282	Other transport equipment mfg						
2821	Shipbuilding	8 164	392.3	1 763.0	601.3	215.9	73.6
2822	Boatbuilding	4 416	114.9	529.5	184.2	119.9	41.7
2823	Railway equipment mfg	4 761	254.4	876.6	350.2	184.1	73.6
2824	Aircraft mfg	11 678	677.7	1 831.7	852.1	156.9	73.0
2829	Transport equipment mfg n.e.c.	420	12.6	54.7	22.6	130.1	53.7
	<i>Total</i>	29 439	1 452.0	5 055.5	2 010.4	171.7	68.3
283	Photographic and scientific equipment mfg						
2831	Photographic and optical good mfg	2 464	102.2	768.6	283.5	311.9	115.0
2832	Medical and surgical equipment mfg	5 111	154.5	718.0	290.4	140.5	56.8
2839	Professional and scientific equipment mfg n.e.c.	4 635	193.6	766.6	288.7	165.4	62.3
	<i>Total</i>	12 210	450.3	2 253.3	862.5	184.6	70.6
284	Electronic equipment mfg						
2841	Computer and business machine mfg	2 600	117.3	1 214.9	183.6	467.2	70.6
2842	Telecommunication, broadcasting and transceiving equipment mfg	5 969	289.6	1 694.1	510.1	283.8	85.5
2849	Electronic equipment mfg n.e.c.	11 506	457.2	2 300.2	774.4	199.9	67.3
	<i>Total</i>	20 075	864.1	5 209.1	1 468.2	259.5	73.1
285	Electrical equipment and appliance mfg						
2851	Household appliance mfg	8 996	334.9	1 879.0	572.5	208.9	63.6
2852	Electric cable and wire mfg	3 408	162.2	1 118.1	322.4	328.0	94.6
2853	Battery mfg	602	22.8	139.1	65.1	231.0	108.2
2854	Electric light and sign mfg	4 629	146.2	554.6	203.3	119.8	43.9
2859	Electrical equipment mfg n.e.c.	13 261	519.4	2 370.5	831.3	178.8	62.7
	<i>Total</i>	30 897	1 185.5	6 061.2	1 994.6	196.2	64.6

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), Industry Class *continued*

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
MACHINERY AND EQUIPMENT MFG <i>cont.</i>							
286	Industrial machinery and equipment mfg						
2861	Agricultural machinery mfg	5 811	197.9	842.6	291.1	145.0	50.1
2862	Mining and construction machinery mfg	7 316	306.3	1 365.9	448.2	186.7	61.3
2863	Food processing machinery mfg	2 387	91.1	381.8	142.3	160.0	59.6
2864	Machine tool and part mfg	6 545	236.4	740.7	343.2	113.2	52.4
2865	Lifting and material handling equipment mfg	8 335	393.5	1 576.8	589.3	189.2	70.7
2866	Pump and compressor mfg	3 392	140.3	652.7	233.9	192.4	69.0
2867	Commercial space heating and cooling equipment mfg	2 090	90.9	397.4	146.2	190.2	70.0
2869	Industrial machinery and equipment mfg n.e.c.	12 646	421.5	1 812.9	645.1	143.4	51.0
	<i>Total</i>	48 520	1 877.7	7 770.7	2 839.4	160.2	58.5
28	Total machinery and equipment mfg	195 628	7 978.4	43 784.4	13 052.8	223.8	66.7
OTHER MANUFACTURING							
291	Prefabricated building mfg						
2911	Prefabricated metal building mfg	2 041	63.6	445.6	128.8	218.3	63.1
2919	Prefabricated building mfg n.e.c.	530	12.9	88.2	24.0	166.5	45.3
	<i>Total</i>	2 571	76.5	533.8	152.7	207.6	59.4
292	Furniture mfg						
2921	Wooden furniture and upholstered seat mfg	27 083	689.5	2 999.3	1 008.4	110.7	37.2
2922	Sheet metal furniture mfg	3 419	96.6	435.1	136.0	127.3	39.8
2923	Mattress mfg (except rubber)	2 729	78.3	482.5	165.5	176.8	60.6
2929	Furniture mfg n.e.c.	7 295	229.3	1 065.9	373.0	146.1	51.1
	<i>Total</i>	40 526	1 093.7	4 982.8	1 682.9	123.0	41.5
294	Miscellaneous mfg						
2941	Jewellery and silverware mfg	2 543	72.6	451.8	100.7	177.7	39.6
2942	Toy and sporting good mfg	2 237	59.1	276.3	91.7	123.5	41.0
2949	Manufacturing n.e.c.	5 132	130.4	639.7	187.2	124.6	36.5
	<i>Total</i>	9 912	262.0	1 367.8	379.6	138.0	38.3
29	Total other manufacturing	53 009	1 432.3	6 884.4	2 215.2	129.9	41.8
21-29	TOTAL MANUFACTURING	910 694	35 087.5	228 951.2	68 461.9	251.4	75.2

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

MANUFACTURING ESTABLISHMENTS(a), States, Territories and Australia

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NEW SOUTH WALES							
21	Food, beverage and tobacco mfg	47.6	1 880.9	14 982.1	4 438.8	314.6	93.2
22	Textile, clothing, footwear and leather mfg	17.5	532.7	2 812.9	882.9	160.8	50.5
23	Wood and paper product mfg	19.6	691.9	4 067.3	1 472.8	207.9	75.3
24	Printing, publishing and recorded media	40.8	1 662.7	7 834.3	3 137.0	191.8	76.8
25	Petroleum, coal, chemical and associated product mfg	32.4	1 499.4	12 561.9	3 388.4	387.3	104.5
26	Non-metallic mineral product mfg	10.9	491.8	3 499.7	1 229.0	322.4	113.2
27	Metal product mfg	48.1	2 011.8	14 126.5	3 934.3	293.6	81.8
28	Machinery and equipment mfg	58.4	2 442.7	11 306.9	3 928.6	193.6	67.3
29	Other manufacturing	16.6	446.3	2 067.4	691.4	124.4	41.6
21-29	<i>Total manufacturing</i>	291.9	11 660.1	73 259.1	23 103.1	250.9	79.1
VICTORIA							
21	Food, beverage and tobacco mfg	46.8	1 897.1	16 050.9	4 249.2	342.9	90.8
22	Textile, clothing, footwear and leather mfg	32.8	968.1	4 441.9	1 590.1	135.6	48.5
23	Wood and paper product mfg	17.3	670.9	3 876.8	1 232.0	224.5	71.3
24	Printing, publishing and recorded media	29.9	1 191.7	5 388.6	2 147.5	180.1	71.8
25	Petroleum, coal, chemical and associated product mfg	37.0	1 737.4	12 736.4	3 779.5	344.3	102.2
26	Non-metallic mineral product mfg	9.0	396.3	2 550.4	886.1	282.7	98.2
27	Metal product mfg	36.9	1 495.4	9 154.6	2 637.7	247.9	71.4
28	Machinery and equipment mfg	67.6	2 887.9	17 958.7	4 964.2	265.7	73.4
29	Other manufacturing	14.7	434.5	2 153.8	672.4	146.0	45.6
21-29	<i>Total manufacturing</i>	292.1	11 679.3	74 311.9	22 158.8	254.4	75.9
QUEENSLAND							
21	Food, beverage and tobacco mfg	35.2	1 199.3	9 940.9	2 342.5	282.7	66.6
22	Textile, clothing, footwear and leather mfg	5.2	121.3	600.8	200.0	115.5	38.4
23	Wood and paper product mfg	11.8	379.4	2 123.7	741.1	179.5	62.6
24	Printing, publishing and recorded media	12.1	446.8	1 736.6	817.4	143.0	67.3
25	Petroleum, coal, chemical and associated product mfg	11.1	471.4	4 915.9	1 069.2	441.1	95.9
26	Non-metallic mineral product mfg	6.7	259.0	2 102.5	718.5	315.5	107.8
27	Metal product mfg	25.5	960.7	7 681.0	1 962.8	301.6	77.1
28	Machinery and equipment mfg	24.5	891.6	3 871.8	1 344.9	158.3	55.0
29	Other manufacturing	10.0	257.3	1 135.6	400.6	113.5	40.0
21-29	<i>Total manufacturing</i>	142.1	4 986.8	34 108.8	9 597.0	240.0	67.5
SOUTH AUSTRALIA							
21	Food, beverage and tobacco mfg	15.3	533.0	4 881.2	1 698.0	318.4	110.8
22	Textile, clothing, footwear and leather mfg	3.4	98.1	716.1	151.1	209.8	44.3
23	Wood and paper product mfg	6.6	226.3	1 374.3	430.8	208.4	65.3
24	Printing, publishing and recorded media	5.4	198.3	833.3	397.4	154.9	73.9
25	Petroleum, coal, chemical and associated product mfg	6.4	253.1	1 614.0	552.1	253.7	86.8
26	Non-metallic mineral product mfg	2.8	110.5	710.1	250.5	255.7	90.2
27	Metal product mfg	11.0	404.6	2 827.8	709.9	258.1	64.8
28	Machinery and equipment mfg	28.1	1 138.5	7 814.0	1 819.4	278.5	64.8
29	Other manufacturing	5.1	122.4	671.2	169.7	131.0	33.1
21-29	<i>Total manufacturing</i>	84.0	3 084.8	21 442.0	6 178.9	255.3	73.6

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
WESTERN AUSTRALIA							
21	Food, beverage and tobacco mfg	13.6	447.0	3 508.5	921.8	258.8	68.0
22	Textile, clothing, footwear and leather mfg	3.2	86.2	386.6	139.8	121.0	43.7
23	Wood and paper product mfg	4.3	144.0	834.9	314.5	194.8	73.4
24	Printing, publishing and recorded media	7.0	232.0	958.0	488.6	136.9	69.8
25	Petroleum, coal, chemical and associated product mfg	6.7	301.1	3 847.3	893.8	576.7	134.0
26	Non-metallic mineral product mfg	4.6	199.4	1 250.9	458.7	272.1	99.8
27	Metal product mfg	15.7	634.8	4 960.3	876.6	316.8	56.0
28	Machinery and equipment mfg	12.9	468.3	2 202.1	727.1	170.3	56.2
29	Other manufacturing	5.4	142.6	703.0	237.3	131.3	44.3
21-29	<i>Total manufacturing</i>	73.2	2 655.3	18 651.6	5 058.3	254.6	69.1
TASMANIA							
21	Food, beverage and tobacco mfg	5.5	191.2	1 675.7	534.9	304.4	97.2
22	Textile, clothing, footwear and leather mfg	1.4	42.5	187.0	71.5	135.6	51.9
23	Wood and paper product mfg	3.6	144.1	1 271.3	399.0	349.3	109.6
24	Printing, publishing and recorded media	1.4	48.7	164.7	78.6	117.9	56.3
25	Petroleum, coal, chemical and associated product mfg	0.9	35.7	246.6	86.2	285.2	99.7
26	Non-metallic mineral product mfg	0.6	23.6	242.9	108.9	385.0	172.6
27	Metal product mfg	3.2	139.6	1 164.2	271.7	363.7	84.9
28	Machinery and equipment mfg	2.9	105.6	475.1	195.3	163.4	67.2
29	Other manufacturing	0.7	14.1	62.8	22.8	95.6	34.6
21-29	<i>Total manufacturing</i>	20.2	745.1	5 490.3	1 769.0	272.0	87.7
NORTHERN TERRITORY							
21	Food, beverage and tobacco mfg	0.4	13.5	100.4	36.0	230.7	82.7
22	Textile, clothing, footwear and leather mfg	0.1	1.1	4.5	1.5	90.9	30.7
23	Wood and paper product mfg	0.2	6.9	38.3	15.5	205.7	83.1
24	Printing, publishing and recorded media	0.4	14.2	52.5	30.9	120.7	71.1
25	Petroleum, coal, chemical and associated product mfg	0.1	5.1	32.2	8.0	394.1	97.6
26	Non-metallic mineral product mfg	0.3	10.2	78.3	25.8	309.5	101.9
27	Metal product mfg	1.2	69.0	633.4	200.5	527.6	167.0
28	Machinery and equipment mfg	0.5	21.5	66.1	28.8	131.8	57.3
29	Other manufacturing	0.1	3.3	14.4	4.6	107.1	34.5
21-29	<i>Total manufacturing</i>	3.3	144.9	1 020.2	351.5	311.3	107.3
AUSTRALIAN CAPITAL TERRITORY							
21	Food, beverage and tobacco mfg	0.4	15.2	97.5	23.1	258.3	61.1
22	Textile, clothing, footwear and leather mfg	0.1	2.1	11.2	4.4	98.1	38.4
23	Wood and paper product mfg	0.3	10.5	48.6	17.0	187.8	65.7
24	Printing, publishing and recorded media	1.6	56.8	244.2	111.2	153.8	70.1
25	Petroleum, coal, chemical and associated product mfg	—	0.8	3.1	1.1	109.6	40.4
26	Non-metallic mineral product mfg	*0.1	4.1	49.4	10.8	*547.4	*120.1
27	Metal product mfg	0.3	7.8	47.8	16.7	147.4	51.4
28	Machinery and equipment mfg	0.8	22.4	89.7	44.6	117.9	58.6
29	Other manufacturing	0.4	11.7	76.1	*16.4	202.9	*43.8
21-29	<i>Total manufacturing</i>	3.9	131.2	667.4	245.4	170.5	62.7

— nil or rounded to zero (including null cells)

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

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

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

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry value added	Turnover per person employed(d)	Industry value added per person employed(e)
ANZSIC code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
AUSTRALIA							
21	Food, beverage and tobacco mfg	164.8	6 177.3	51 237.1	14 244.2	310.9	86.4
22	Textile, clothing, footwear and leather mfg	63.6	1 852.0	9 161.0	3 041.3	144.0	47.8
23	Wood and paper product mfg	63.6	2 274.1	13 635.1	4 622.7	214.3	72.6
24	Printing, publishing and recorded media	98.7	3 851.1	17 212.0	7 208.7	174.4	73.0
25	Petroleum, coal, chemical and associated product mfg	94.6	4 304.2	35 957.5	9 778.4	380.2	103.4
26	Non-metallic mineral product mfg	34.9	1 494.7	10 484.2	3 688.3	300.5	105.7
27	Metal product mfg	141.8	5 723.6	40 595.5	10 610.2	286.2	74.8
28	Machinery and equipment mfg	195.6	7 978.4	43 784.4	13 052.8	223.8	66.7
29	Other manufacturing	53.0	1 432.3	6 884.4	2 215.2	129.9	41.8
21-29	Total manufacturing	910.7	35 087.5	228 951.2	68 461.9	251.4	75.2

(a) See paragraph 6 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

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

(e) 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)

				1994-95 TO 1999-2000 . . .	
INDUSTRY SUBDIVISION		1994-95 to 1998-99	1998-99 to 1999-2000	Change in IVA per person employed(c)	
ANZSIC code	Description	%	%	%	%
21	Food, beverage and tobacco mfg	13.1	1.8	15.1	16.3
22	Textile, clothing, footwear and leather mfg	0.1	-8.2	-8.1	15.7
23	Wood and paper product mfg	2.0	10.5	12.7	16.8
24	Printing, publishing and recorded media	3.7	6.0	9.9	6.7
25	Petroleum, coal, chemical and associated product mfg	9.4	5.1	14.9	11.9
26	Non-metallic mineral product mfg	3.4	5.6	9.2	22.1
27	Metal product mfg	7.8	1.6	9.5	16.0
28	Machinery and equipment mfg	11.8	0.5	12.3	19.9
29	Other manufacturing	3.0	0.5	3.5	13.4
21-29	Total manufacturing	8.2	2.5	11.0	16.6

(a) See paragraph 6 of the Explanatory Notes.

(c) Based on the employment at the end of June of the reference

(b) Percentage changes are calculated using chain volume measures, see paragraphs 22-23 of the Explanatory Notes.

year. Includes working proprietors.

MANUFACTURING ESTABLISHMENTS(a), Employment Size(b)

Employment size group	Employment at end of June(c) . . .		Wages and salaries(d)(e) .		Turnover(e) . .		Industry value added(e) . . .	
	'000	%	\$m	%	\$m	%	\$m	%
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
0-4 persons	3.4	2.1	59.6	1.0	506.9	1.0	135.0	0.9
5-9 persons	5.6	3.4	109.6	1.8	697.6	1.4	189.0	1.3
10-19 persons	9.3	5.7	237.5	3.9	2 101.4	4.1	450.7	3.2
20-49 persons	18.6	11.3	560.9	9.2	4 804.5	9.4	1 308.2	9.2
50-99 persons	18.8	11.4	637.9	10.4	5 761.0	11.3	1 438.8	10.1
Total less than 100 persons	55.8	33.8	1 605.5	26.2	13 871.3	27.2	3 521.8	24.7
100-199 persons	24.1	14.7	929.7	15.2	8 382.6	16.4	2 291.6	16.1
200-499 persons	43.6	26.5	1 875.8	30.6	16 872.6	33.1	5 050.5	35.4
500-999 persons	28.1	17.1	1 146.9	18.7	8 096.7	15.9	2 402.8	16.8
1 000 or more persons	13.2	8.0	565.5	9.2	3 780.5	7.4	996.4	7.0
Total 100 or more persons	109.0	66.2	4 518.0	73.8	37 132.4	72.8	10 741.3	75.3
Total	164.8	100.0	6 123.5	100.0	51 003.7	100.0	14 263.1	100.0
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
0-4 persons	7.3	11.4	125.3	6.8	648.6	7.1	236.5	7.8
5-9 persons	6.3	9.9	126.2	6.9	573.4	6.3	203.1	6.7
10-19 persons	6.4	10.1	155.7	8.5	733.9	8.1	260.3	8.6
20-49 persons	10.3	16.2	274.5	15.0	1 369.4	15.1	445.0	14.7
50-99 persons	10.4	16.4	351.0	19.1	1 790.3	19.7	568.4	18.8
Total less than 100 persons	40.7	64.0	1 032.7	56.2	5 115.6	56.3	1 713.2	56.7
100-199 persons	10.1	15.9	358.5	19.5	1 853.0	20.4	577.3	19.1
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	—	—	—	—	—	—	—	—
Total 100 or more persons	22.9	36.0	803.4	43.8	3 978.1	43.7	1 309.3	43.3
Total	63.6	100.0	1 836.2	100.0	9 093.7	100.0	3 022.5	100.0
WOOD AND PAPER PRODUCT MANUFACTURING								
0-4 persons	6.0	9.5	117.8	5.2	635.4	4.7	200.3	4.3
5-9 persons	7.2	11.3	183.3	8.1	873.0	6.4	292.8	6.3
10-19 persons	8.4	13.2	245.6	10.9	1 211.1	8.9	403.2	8.7
20-49 persons	11.3	17.8	347.8	15.4	1 882.3	13.9	640.4	13.9
50-99 persons	7.3	11.5	269.2	11.9	1 697.6	12.5	601.2	13.0
Total less than 100 persons	40.3	63.3	1 163.6	51.4	6 299.4	46.4	2 137.9	46.4
100-199 persons	8.4	13.2	359.0	15.9	2 202.2	16.2	823.0	17.8
200-499 persons	11.1	17.5	497.5	22.0	3 583.1	26.4	1 216.8	26.4
500-999 persons	3.8	6.0	242.1	10.7	1 481.8	10.9	434.2	9.4
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	23.3	36.7	1 098.5	48.6	7 267.0	53.6	2 474.0	53.6
Total	63.6	100.0	2 262.1	100.0	13 566.4	100.0	4 611.9	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 6 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These 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 25 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1999-2000 but were not operating at 30 June 2000. See paragraph 24 of the Explanatory Notes.

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

Employment size group	Employment at end of June(c) . . .		Wages and salaries(d)(e) .		Turnover(e) . .		Industry value added(e) . . .	
	'000	%	\$m	%	\$m	%	\$m	%
.....								
PRINTING, PUBLISHING AND RECORDED MEDIA								
0-4 persons	7.1	7.2	165.1	4.3	681.5	4.0	211.8	2.9
5-9 persons	8.8	8.9	268.1	7.0	1 020.7	5.9	383.3	5.3
10-19 persons	10.4	10.6	321.9	8.4	1 136.7	6.6	407.6	5.7
20-49 persons	13.9	14.0	483.2	12.6	2 108.5	12.3	918.0	12.8
50-99 persons	13.3	13.4	522.9	13.6	2 341.9	13.6	904.4	12.6
Total less than 100 persons	53.5	54.2	1 761.1	45.8	7 289.2	42.4	2 825.1	39.3
100-199 persons	13.7	13.9	585.2	15.2	2 633.3	15.3	1 062.5	14.8
200-499 persons	12.6	12.8	589.4	15.3	2 338.1	13.6	1 051.9	14.6
500-999 persons	7.3	7.4	309.4	8.1	2 020.6	11.8	730.5	10.2
1 000 or more persons	11.6	11.7	597.3	15.5	2 904.7	16.9	1 524.8	21.2
Total 100 or more persons	45.2	45.8	2 081.3	54.2	9 896.7	57.6	4 369.8	60.7
Total	98.7	100.0	3 842.4	100.0	17 185.9	100.0	7 194.9	100.0
.....								
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
0-4 persons	3.5	3.7	85.3	2.0	722.7	2.0	320.8	3.3
5-9 persons	4.4	4.7	133.2	3.1	945.1	2.6	263.9	2.7
10-19 persons	8.3	8.8	273.1	6.4	1 723.1	4.8	541.5	5.6
20-49 persons	15.6	16.5	593.7	14.0	4 245.9	11.9	1 373.1	14.1
50-99 persons	16.8	17.7	772.9	18.2	5 468.5	15.3	1 608.1	16.5
Total less than 100 persons	48.6	51.4	1 858.1	43.7	13 105.4	36.7	4 107.5	42.2
100-199 persons	18.4	19.4	886.4	20.8	5 992.9	16.8	1 810.7	18.6
200-499 persons	21.6	22.8	1 166.0	27.4	14 659.7	41.1	3 164.5	32.5
500-999 persons	6.0	6.4	343.5	8.1	1 912.5	5.4	654.4	6.7
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	46.0	48.6	2 395.8	56.3	22 565.0	63.3	5 629.6	57.8
Total	94.6	100.0	4 253.9	100.0	35 670.5	100.0	9 737.1	100.0
.....								
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
0-4 persons	2.5	7.1	42.8	2.9	207.1	2.0	66.7	1.8
5-9 persons	3.0	8.7	84.6	5.7	432.6	4.2	141.0	3.8
10-19 persons	3.4	9.7	113.7	7.7	749.2	7.2	241.2	6.6
20-49 persons	5.5	15.7	231.6	15.6	1 617.6	15.5	565.6	15.4
50-99 persons	6.1	17.5	281.0	19.0	2 330.3	22.4	781.8	21.3
Total less than 100 persons	20.5	58.7	753.7	50.8	5 336.8	51.2	1 796.4	49.0
100-199 persons	7.3	20.8	366.3	24.7	2 831.8	27.2	983.8	26.8
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	—	—	—	—	—	—	—	—
Total 100 or more persons	14.4	41.3	729.0	49.2	5 083.6	48.8	1 869.9	51.0
Total	34.9	100.0	1 482.7	100.0	10 420.4	100.0	3 666.2	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 6 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These 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 25 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1999-2000 but were not operating at 30 June 2000. See paragraph 24 of the Explanatory Notes.

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

Employment size group	Employment at end of June(c) . . .		Wages and salaries(d)(e) .		Turnover(e) . .		Industry value added(e) . . .	
	'000	%	\$m	%	\$m	%	\$m	%
METAL PRODUCT MANUFACTURING								
0-4 persons	11.3	8.0	250.6	4.4	5 655.7	14.0	3 847.3	..
5-9 persons	14.2	10.0	396.2	7.0	1 739.2	4.3	653.1	..
10-19 persons	15.8	11.1	499.4	8.8	2 415.1	6.0	791.0	..
20-49 persons	22.8	16.1	823.4	14.5	4 682.1	11.6	1 424.7	..
50-99 persons	18.3	12.9	746.2	13.1	4 339.8	10.7	1 257.2	..
Total less than 100 persons	82.4	58.1	2 715.7	47.8	18 831.9	46.6	7 973.4	..
100-199 persons	16.5	11.6	719.1	12.6	4 916.8	12.2	1 340.8	..
200-499 persons	16.9	11.9	834.0	14.7	6 427.3	15.9	1 236.3	..
500-999 persons	11.9	8.4	696.2	12.2	5 312.8	13.1	-337.9	..
1 000 or more persons	14.0	9.9	719.9	12.7	4 937.8	12.2	348.9	..
Total 100 or more persons	59.4	41.9	2 969.2	52.2	21 594.8	53.4	2 588.0	..
Total	141.8	100.0	5 685.0	100.0	40 426.7	100.0	10 561.5	100.0
MACHINERY AND EQUIPMENT MANUFACTURING								
0-4 persons	12.2	6.2	291.2	3.7	1 271.5	2.9	470.6	3.6
5-9 persons	14.4	7.4	386.8	4.9	1 702.2	3.9	655.2	5.0
10-19 persons	16.1	8.2	505.1	6.4	2 107.5	4.8	815.0	6.2
20-49 persons	27.1	13.9	956.0	12.1	4 229.3	9.7	1 479.2	11.3
50-99 persons	23.0	11.8	1 015.8	12.8	4 668.3	10.7	1 560.6	12.0
Total less than 100 persons	92.8	47.4	3 154.9	39.8	13 978.7	32.1	4 980.7	38.1
100-199 persons	22.9	11.7	989.1	12.5	4 945.3	11.4	1 482.7	11.4
200-499 persons	28.6	14.6	1 281.8	16.2	6 707.0	15.4	2 294.3	17.6
500-999 persons	18.4	9.4	851.1	10.7	4 240.3	9.7	1 378.0	10.6
1 000 or more persons	33.0	16.8	1 644.5	20.8	13 679.9	31.4	2 922.9	22.4
Total 100 or more persons	102.8	52.6	4 766.5	60.2	29 572.6	67.9	8 077.8	61.9
Total	195.6	100.0	7 921.4	100.0	43 551.3	100.0	13 058.5	100.0
OTHER MANUFACTURING								
0-4 persons	8.9	16.7	162.8	11.5	798.8	11.7	277.2	12.6
5-9 persons	8.7	16.4	201.1	14.2	891.5	13.0	307.5	13.9
10-19 persons	9.1	17.2	248.8	17.5	1 176.7	17.2	406.5	18.4
20-49 persons	11.9	22.5	346.5	24.4	1 674.4	24.5	520.9	23.6
50-99 persons	8.4	15.8	251.2	17.7	1 202.0	17.6	391.8	17.8
Total less than 100 persons	47.0	88.7	1 210.3	85.2	5 743.3	84.0	1 904.0	86.3
100-199 persons	3.8	7.2	128.5	9.0	690.7	10.1	192.9	8.7
200-499 persons	2.2	4.1	81.3	5.7	399.6	5.8	108.9	4.9
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	6.0	11.3	209.8	14.8	1 090.3	16.0	301.8	13.7
Total	53.0	100.0	1 420.1	100.0	6 833.6	100.0	2 205.7	100.0

.. not applicable

— nil or rounded to zero (including null cells)

(a) See paragraph 6 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These 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 25 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1999-2000 but were not operating at 30 June 2000. See paragraph 24 of the Explanatory Notes.

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

<i>Employment size group</i>	<i>Employment at end of June(c) . . .</i>		<i>Wages and salaries(d)(e) .</i>		<i>Turnover(e) . .</i>		<i>Industry value added(e) . . .</i>	
	'000	%	\$m	%	\$m	%	\$m	%
TOTAL MANUFACTURING								
0-4 persons	62.1	6.8	1 300.5	3.7	11 128.1	4.9	5 766.4	8.4
5-9 persons	72.7	8.0	1 889.1	5.4	8 875.3	3.9	3 089.2	4.5
10-19 persons	87.3	9.6	2 600.8	7.5	13 354.7	5.9	4 317.2	6.3
20-49 persons	137.2	15.1	4 617.6	13.3	26 613.8	11.7	8 675.1	12.7
50-99 persons	122.5	13.4	4 847.9	13.9	29 599.8	13.0	9 112.2	13.3
<i>Total less than 100 persons</i>	<i>481.7</i>	<i>52.9</i>	<i>15 255.8</i>	<i>43.8</i>	<i>89 571.7</i>	<i>39.3</i>	<i>30 960.0</i>	<i>45.3</i>
100-199 persons	125.3	13.8	5 321.7	15.3	34 448.7	15.1	10 565.2	15.5
200-499 persons	153.3	16.8	7 000.2	20.1	54 773.4	24.0	15 515.6	22.7
500-999 persons	78.7	8.6	3 722.5	10.7	23 655.6	10.4	5 487.5	8.0
1 000 or more persons	71.7	7.9	3 527.1	10.1	25 302.8	11.1	5 793.1	8.5
<i>Total 100 or more persons</i>	<i>429.0</i>	<i>47.1</i>	<i>19 571.6</i>	<i>56.2</i>	<i>138 180.5</i>	<i>60.7</i>	<i>37 361.4</i>	<i>54.7</i>
Total	910.7	100.0	34 827.4	100.0	227 752.2	100.0	68 321.4	100.0

(a) See paragraph 6 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These 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 25 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1999-2000 but were not operating at 30 June 2000. See paragraph 24 of the Explanatory Notes.

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

INDUSTRY SUBDIVISION		Sales and transfers out of goods produced	Amount exported by this business or its agent	Goods as a proportion of sales and transfers out of goods produced
ANZSIC code	Description	\$m	\$m	%
0-49 PERSONS				
21	Food, beverage and tobacco mfg	7 715.6	1 175.5	15.2
22	Textile, clothing, footwear and leather mfg	3 036.2	194.7	6.4
23	Wood and paper product mfg	4 366.9	202.8	4.6
24	Printing, publishing and recorded media	4 410.4	256.9	5.8
25	Petroleum, coal, chemical and associated product mfg	7 288.6	681.4	9.3
26	Non-metallic mineral product mfg	2 785.8	45.0	1.6
27	Metal product mfg	13 382.7	4 220.9	31.5
28	Machinery and equipment mfg	7 970.1	700.1	8.8
29	Other manufacturing	4 271.5	130.0	3.0
21-29	<i>Total manufacturing</i>	55 227.9	7 607.3	13.8
50-99 PERSONS				
21	Food, beverage and tobacco mfg	5 511.8	845.0	15.3
22	Textile, clothing, footwear and leather mfg	1 623.9	340.7	21.0
23	Wood and paper product mfg	1 646.9	278.6	16.9
24	Printing, publishing and recorded media	2 069.7	99.7	4.8
25	Petroleum, coal, chemical and associated product mfg	5 219.2	564.3	10.8
26	Non-metallic mineral product mfg	2 149.2	36.4	1.7
27	Metal product mfg	4 003.9	270.5	6.8
28	Machinery and equipment mfg	3 977.0	701.0	17.6
29	Other manufacturing	1 146.6	71.5	6.2
21-29	<i>Total manufacturing</i>	27 348.2	3 207.7	11.7
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	36 297.6	8 938.3	24.6
22	Textile, clothing, footwear and leather mfg	3 736.4	924.1	24.7
23	Wood and paper product mfg	7 100.3	295.1	4.2
24	Printing, publishing and recorded media	5 427.7	151.6	2.8
25	Petroleum, coal, chemical and associated product mfg	21 938.1	2 810.3	12.8
26	Non-metallic mineral product mfg	4 851.9	190.5	3.9
27	Metal product mfg	20 803.3	6 277.1	30.2
28	Machinery and equipment mfg	26 902.2	6 394.8	23.8
29	Other manufacturing	1 037.4	37.4	3.6
21-29	<i>Total manufacturing</i>	128 095.0	26 019.1	20.3
TOTAL				
21	Food, beverage and tobacco mfg	49 525.1	10 958.7	22.1
22	Textile, clothing, footwear and leather mfg	8 396.6	1 459.5	17.4
23	Wood and paper product mfg	13 114.1	776.5	5.9
24	Printing, publishing and recorded media	11 907.8	508.2	4.3
25	Petroleum, coal, chemical and associated product mfg	34 445.9	4 056.1	11.8
26	Non-metallic mineral product mfg	9 786.8	271.8	2.8
27	Metal product mfg	38 189.9	10 768.6	28.2
28	Machinery and equipment mfg	38 849.3	7 795.8	20.1
29	Other manufacturing	6 455.5	238.8	3.7
21-29	Total manufacturing	210 671.0	36 834.0	17.5

(a) See paragraph 6 of the Explanatory Notes.

(b) See paragraphs 26-28 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 25 of the Explanatory Notes. Also, this table excludes those manufacturing establishments which operated during 1999-2000 but were not operating at 30 June 2000. See paragraph 24 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	43.0	37.8	36.6
22	Textile, clothing, footwear and leather mfg	56.3	47.2	41.5	46.6
23	Wood and paper product mfg	72.4	65.2	57.9	58.8
24	Printing, publishing and recorded media	80.0	78.5	74.4	76.6
25	Petroleum, coal, chemical and associated product mfg	38.8	32.7	29.4	35.3
26	Non-metallic mineral product mfg	64.6	62.4	66.9	63.6
27	Metal product mfg	59.8	51.1	39.4	45.5
28	Machinery and equipment mfg	42.1	40.0	27.4	34.2
29	Other manufacturing	77.0	73.6	69.1	73.5
21-29	Total manufacturing	55.7	50.0	41.1	46.1
EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	35.5	39.6	42.9	47.0
22	Textile, clothing, footwear and leather mfg	36.3	43.7	43.3	42.6
23	Wood and paper product mfg	26.4	33.1	38.8	38.2
24	Printing, publishing and recorded media	19.3	20.4	23.0	19.6
25	Petroleum, coal, chemical and associated product mfg	55.3	61.7	64.7	57.8
26	Non-metallic mineral product mfg	34.1	36.3	32.1	35.5
27	Metal product mfg	30.2	34.8	35.4	34.5
28	Machinery and equipment mfg	48.2	48.9	60.6	52.7
29	Other manufacturing	21.6	25.0	29.0	25.0
21-29	Total manufacturing	36.3	40.6	45.7	42.7
EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	16.5	17.4	19.3	16.3
22	Textile, clothing, footwear and leather mfg	7.4	9.2	15.3	10.8
23	Wood and paper product mfg	1.2	1.6	3.4	3.0
24	Printing, publishing and recorded media	0.7	1.1	2.5	3.8
25	Petroleum, coal, chemical and associated product mfg	5.9	5.6	5.9	6.9
26	Non-metallic mineral product mfg	1.4	1.3	1.0	0.9
27	Metal product mfg	10.0	14.1	25.2	20.0
28	Machinery and equipment mfg	9.7	11.1	12.0	13.1
29	Other manufacturing	1.4	1.4	1.9	1.6
21-29	Total manufacturing	8.0	9.4	13.1	11.2

(a) See paragraph 6 of the Explanatory Notes.

(b) See paragraphs 26-28 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

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

INDUSTRY SUBDIVISION		Turnover	Change in inventories	Purchases and transfers in	Other intermediate input expenses	Industry value added
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	51 237.1	374.6	29 102.3	8 265.2	14 244.2
22	Textile, clothing, footwear and leather mfg	9 161.0	13.8	4 656.4	1 477.1	3 041.3
23	Wood and paper product mfg	13 635.1	-25.9	6 927.0	2 059.5	4 622.7
24	Printing, publishing and recorded media	17 212.0	43.4	5 702.6	4 344.2	7 208.7
25	Petroleum, coal, chemical and associated product mfg	35 957.5	766.7	21 441.4	5 504.4	9 778.4
26	Non-metallic mineral product mfg	10 484.2	-56.2	4 318.6	2 421.1	3 688.3
27	Metal product mfg	40 595.5	-44.6	22 940.7	7 000.1	10 610.2
28	Machinery and equipment mfg	43 784.4	-61.1	24 983.0	5 687.5	13 052.8
29	Other manufacturing	6 884.4	-5.9	3 576.3	1 086.9	2 215.2
21-29	Total manufacturing	228 951.2	1 004.8	123 648.1	37 846.0	68 461.9

(a) See paragraph 6 of the Explanatory Notes.

(b) 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), Acquisition and Disposal of Assets

ACQUISITION OF

INDUSTRY SUBDIVISION		Plant, machinery and equipment	Dwellings, other buildings and structures	Other (including land and intangible assets)	Total capital expenditure	Disposal of assets - total	Net capital expenditure
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	1 451.7	266.2	215.8	1 933.7	295.8	1 637.9
22	Textile, clothing, footwear and leather mfg	183.8	28.2	37.5	249.5	48.8	200.8
23	Wood and paper product mfg	586.5	*52.5	45.3	684.3	83.4	600.9
24	Printing, publishing and recorded media	671.8	53.2	170.9	895.8	*99.0	796.8
25	Petroleum, coal, chemical and associated product mfg	1 317.6	173.5	242.0	1 733.2	166.4	1 566.7
26	Non-metallic mineral product mfg	331.1	29.8	119.3	480.2	*83.6	396.6
27	Metal product mfg	1 326.8	55.8	167.4	1 550.0	49.7	1 500.2
28	Machinery and equipment mfg	1 196.1	143.4	230.4	1 570.0	208.6	1 361.4
29	Other manufacturing	121.0	*28.6	43.4	193.0	*61.1	132.0
21-29	Total manufacturing	7 186.4	831.3	1 272.0	9 289.7	1 096.5	8 193.2

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

(a) See paragraph 6 of the Explanatory Notes.

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

AS A RATIO OF WAGES AND SALARIES(c)

INDUSTRY SUBDIVISION		Employer contributions into superannuation	Workers' compensation premiums/costs	Fringe benefits tax	Payroll tax	Total
ANZSIC code	Description	%	%	%	%	%
21	Food, beverage and tobacco mfg	6.9	4.4	1.4	5.5	18.2
22	Textile, clothing, footwear and leather mfg	7.5	3.4	1.0	4.5	16.4
23	Wood and paper product mfg	6.0	3.7	1.0	3.7	14.3
24	Printing, publishing and recorded media	8.1	1.5	1.6	4.8	15.9
25	Petroleum, coal, chemical and associated product mfg	6.9	2.7	2.0	5.1	16.8
26	Non-metallic mineral product mfg	6.6	4.5	1.5	5.0	17.7
27	Metal product mfg	6.9	3.4	1.2	4.9	16.4
28	Machinery and equipment mfg	6.6	3.2	1.2	4.9	15.9
29	Other manufacturing	7.2	3.8	0.6	4.0	15.6
21-29	Total manufacturing	6.9	3.3	1.3	4.9	16.5

(a) See paragraph 6 of the Explanatory Notes. (c) This table shows the value of selected labour costs per \$1.00 of wages and salaries.
 (b) See paragraph 29 of the Explanatory Notes.

EXPLANATORY NOTES

INTRODUCTION (1999–2000 COLLECTION)

- 1** The current series of these publications, *Manufacturing Industry, Australia, 1999–2000* (Cat. no. 8221.0) and *Manufacturing Industry, [State], 1999–2000* (Cat. nos 8221.1–8221.6), will be the last that present data for manufacturing establishments. Future manufacturing collections will no longer collect data from manufacturing establishments. Starting with the 2000–01 manufacturing collection, data will be sought from a sample of approximately 9,000 manufacturing businesses. For further information, see Appendix 2.
- 2** This publication presents final statistics compiled from a survey of manufacturing establishments for 1999–2000, 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.
- 3** 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.
- 4** The manufacturing collection is conducted on an annual basis. For the 1999–2000 collection, a sample of approximately 17,000 manufacturing establishments were asked to provide data on employment, wages and salaries, turnover, purchases and whether their products were exported. Data on industry value added (IVA) are also available from this collection. In addition, a variety of sub-samples was selected to produce data on a range of other variables. The next manufacturing census will be conducted in respect of 2001–02. However, fundamental changes will be made to the annual manufacturing collection, starting with the 2000–01 survey. For further information, see Appendix 2.
- 5** 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 5,500 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, 2001* (Cat. no. 8225.0).

SCOPE AND COVERAGE

- 6** 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.
- 7** 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 1999–2000 manufacturing collection, 'significant' was defined as turnover of \$7.3m or more.

EXPLANATORY NOTES *continued*

SCOPE AND COVERAGE

continued

8 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.

STANDARD UNITS

9 For the definition of management units and establishments, the standard business units now in use, see the Glossary. However, fundamental changes will be made to the annual manufacturing collection, starting with the 2000–01 survey. For further information, see Appendix 2.

RELIABILITY OF ESTIMATES

10 For information on this subject, see Technical Note 1.

DATA ADJUSTED

11 The annual manufacturing industry collection, like most ABS economic collections, takes its frame from the ABS business register which is primarily based on registrations to the Australian Taxation Office's (ATO) Group Employer (GE) Scheme. 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 1999–2000 Australian employment is an increase of 1.0% while the effect on turnover is an increase of 0.1%. Most States and Territories and most industries were affected to a similar degree.

12 For some time now, the ABS has been using ATO information on GE registrations to add new businesses to the ABS business register. GE information is now also used to delete from the business register those businesses which had ceased trading or were no longer employing staff.

13 The process of using GE information to delete businesses from the ABS business register was introduced for the 1998–99 manufacturing survey. The result was that a large number of businesses were removed from the business register and, therefore, from the population for the 1998–99 manufacturing survey. Estimates for the previous three manufacturing surveys (covering 1995–96 to 1997–98 inclusive) were slightly adjusted in such a way as to phase in the impact over this time. For periods before 1995–96, the impact is estimated to have been negligible.

14 The same process for removing businesses from the ABS business register has occurred for the 1999–2000 collection and will continue to occur for future manufacturing collections. The impact of the ongoing process is expected to be negligible.

EXPLANATORY NOTES *continued*

COMPARABILITY WITH PREVIOUS STATISTICS

15 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 current standards is as follows:

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

16 Conceptually, some further differences exist between turnover on the old and current 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.

17 Commencing with estimates for 1997–98, under current 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.

18 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

19 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.

20 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.

21 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

EXPLANATORY NOTES *continued*

COMPARABILITY WITH PREVIOUS STATISTICS *continued*

determined to be significant in some manufacturing industries and were therefore added into the manufacturing collection for 1998–99. The effect of these additional units in published aggregates have been calculated as adding 0.6% to both employment and turnover estimates for Australia for 1998–99. These businesses will be included in the 1999–2000 manufacturing collection if they remained classified as manufacturers on the ABS business register.

CHAIN VOLUME MEASURES

22 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.

23 Chain volume measures compiled by the ABS are annually reweighted chain Laspeyres volume measures. They are formed in a multi-stage process of which the major steps are described in Chapter 10 of the *Australian System of National Accounts: Concepts, Sources and Methods, 2000* (Cat. no. 5216.0). Chain volume measures used in this publication have 1999–2000 as the base year.

EMPLOYMENT SIZE DATA

24 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 2000. 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 1999–2000.

25 The treatment of unincorporated joint ventures under the ABS's standard units definitions has an effect on the data when 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

26 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 1999–2000 but were not operating at 30 June 2000.

EXPLANATORY NOTES *continued*

EXPORTS BY MANUFACTURERS *continued*

27 The statistics presented in table 6 for the value of exports by manufacturers or their agents are not intended to be directly comparable with the value of exports classified by manufacturing industry of origin as published by the ABS in international trade statistics. These latter statistics are intended to measure total exports regardless of which business or organisation does the exporting (and to identify the probable industry from which the goods originated), whereas the statistics in tables 6 and 7 only include exports directly undertaken by the manufacturer or by its agent.

28 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

29 The data shown in table 10 have been derived using information collected from individual manufacturing establishments and manufacturing businesses as a whole (management units). 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 400 manufacturing businesses that have more than one establishment (in total, these 400 businesses have approximately 1,600 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

30 Investigations carried out by the ABS have shown that it is possible to produce some regional or sub-State estimates in survey collection years. Limited Statistical Division data are currently available from the 1997–98 and 1998–99 manufacturing surveys, on request, for a charge. Similar sub-State data from the 1999–2000 manufacturing survey, will be available later this year, after the release of the *Manufacturing Industry, [State], 1999–2000* publication series. Regional or sub-State estimates will not be available from the 2000–01 manufacturing survey, for further information see Appendix 2. For further details about the availability of sub-State data, please contact John Ridley on Sydney 02 9268 4541.

ACKNOWLEDGEMENT

31 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics

EXPLANATORY NOTES *continued*

ACKNOWLEDGEMENT *continued*

published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

INFORMATION PAPER

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

RELATED PUBLICATIONS

33 A series of publications *Manufacturing Industry, [State], 1999–2000* (Cat. nos 8221.1–8221.6) will be produced for each State. The publication for New South Wales (Cat. no. 8221.1) also contains selected data for the Australian Capital Territory. These publications will all be released shortly.

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

- *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0) — Quarterly publication
- *Australian National Accounts: State Accounts, 1999–2000* (Cat. no. 5220.0), released on 23 November 2000 — Annual publication
- *Australian System of National Accounts: Concepts, Sources and Methods, 2000* (Cat. no. 5216.0)
- *Business Operations and Industry Performance, Australia, 1999–2000* (Cat. no. 8140.0), to be released on 25 October 2001 — Annual publication
- *Business Operations and Industry Performance, Australia, Preliminary, 1999–2000* (Cat. no. 8142.0), released on 10 May 2001 — 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, 1997* (Cat. no. 5248.0), released on 19 March 1998 — Irregular publication
- *Inventories and Sales, Selected Industries, Australia* (Cat. no. 5629.0) — Quarterly publication
- *Labour Force, Australia* (Cat. no. 6203.0) — Monthly publication
- *Labour Costs, Australia, 1996–97* (Cat. no. 6348.0), released on 2 July 1998 — Quinquennial publication
- *Manufacturing, Australia, 2001* (Cat. no. 8225.0), to be released in December 2001 — Annual publication
- *Manufacturing Industry, Australia, Preliminary, 2000–01* (Cat. no. 8201.0), to be released in March 2002 — Annual publication
- *Private New Capital Expenditure and Expected Expenditure, Australia* (Cat. no. 5625.0) — Quarterly publication
- *Producer Price Indexes, Australia* (Cat. no. 6427.0) — Quarterly publication
- *Wage Cost Index, Australia* (Cat. no. 6345.0) — Quarterly publication

BACK SERIES AND ADDITIONAL DATA

35 A considerable volume of data is available from the annual manufacturing collection. Firstly, a range of manufacturing industry statistics publications is available for previous years. In addition, more detailed information to satisfy individual user requirements may be available on request and for a charge. In general, this consists of finer industry dissections of data than that presented in the manufacturing series of publications. As a guide, a list of data items included

EXPLANATORY NOTES *continued*

BACK SERIES AND ADDITIONAL DATA *continued*

on the 1999–2000 manufacturing survey forms and a selection of data variables that can be derived from them are shown in Appendix 1. The information paper (Cat. no. 8205.0) referred to in paragraphs 32 and 34 also provides more details.

36 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. They were compiled by 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 1989–90 to 1999–2000 (inclusive) by ANZSIC class are available on request.

ROUNDING

37 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS business register (see paragraph 11), this 'rounding rule' also applies to employment counts.

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

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 1 DATA ITEMS 1999–2000

INTRODUCTION

1 This Appendix lists items included in the 1999–2000 manufacturing collection, and selected items derived from those directly collected.

AVAILABILITY OF DATA

2 The 1999–2000 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 5,500 manufacturing management units was asked the detailed information required to derive operating profit before tax.

3 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 on request and for a charge. 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, 2001* (Cat. no. 8225.0). These data are also generally available at industry group (3 digit ANZSIC) level for Australia on request. Management unit data are not available for States and Territories.

4 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, 1999–2000

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 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

Delivery charges separately invoiced to customers

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 1 DATA ITEMS 1999–2000 *continued*

DATA ITEMS COLLECTED AND SELECTED DERIVED DATA ITEMS, 1999–2000 *continued*

Expense items

Labour costs
 Wages and salaries including provisions for employee entitlements
 Employer contributions into superannuation including salary sacrifice
 Workers' compensation premiums/costs
 Fringe benefits tax
 Payroll tax
 Payments to employment agencies for staff
 Other labour costs

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
 Ex-house printing expenses for material published by this business

Other operating expenses
 Total expenses

Assets and liabilities

Trade debtors
 Gross trade debtors
 Beginning of reporting period
 End of reporting period
 Provision for doubtful debt of trade debtors
 Beginning of reporting period
 End of reporting period
 Net trade debtors
 Beginning of reporting period
 End of reporting period

Inventories
 Opening inventories
 Raw materials, fuels, containers, etc.
 Work-in-progress
 Finished goods (including inventories for resale)
 Total opening inventories

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

Current assets (including inventories and net trade debtors)
 Patents, licences and goodwill

Assets and liabilities *continued*

Non-current assets (including patents, licences and goodwill)
 Trade creditors
 Beginning of reporting period
 End of reporting period

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

Current liabilities (including trade creditors and 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 disposal of plant, machinery, equipment, land, dwellings, other buildings and structures, and intangible assets

Sales of goods produced

Data have been collected for 960 separately identified commodities

Selected derived data items

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

APPENDIX 2 2000–01 SURVEY CHANGES

FUNDAMENTAL CHANGES TO FUTURE MANUFACTURING COLLECTIONS

MANUFACTURING MANAGEMENT UNIT COLLECTION

1 The current series of these publications, *Manufacturing Industry, Australia, 1999–2000* (Cat. no. 8221.0) and *Manufacturing Industry, [State], 1999–2000* (Cat. nos 8221.1–8221.6), will be the last that present data for manufacturing establishments. Future manufacturing collections will no longer collect data from manufacturing establishments. Starting with the 2000–01 manufacturing collection, data will be sought from a sample of approximately 9,000 manufacturing businesses.

2 This represents a fundamental shift in the statistical unit from which data are primarily being sought and published. It is intended to publish for Australia most, if not all, current tables on a management unit basis. However, this will represent a break in series from data previously published for manufacturing establishments.

3 Although the annual manufacturing collection has primarily collected data from manufacturing establishments, it has also collected data from a relatively small sample of manufacturing management units. This annual sample of approximately 5,000 manufacturing businesses have provided data on employment, wages and salaries, turnover, purchases, inventories, capital expenditure and detailed information required to derive operating profit before tax. Information from this sample of manufacturing management units has generally been available at the Australian level for industry groups and selected industry classes on request.

4 From the 2000–01 collection, the number of businesses requested to provide this information will increase to approximately 9,000. This will provide a sample large enough to support manufacturing management unit based data at the industry class level for Australia.

5 The 2000–01 issue of this publication will draw on summary of operations data collected previously from manufacturing management units to provide a time series, at the industry subdivision level, from 1995–96.

6 The 2000–01 issue will also contain a table for 1999–2000 showing both manufacturing establishment data and manufacturing management unit data for employment, wages and salaries, turnover and IVA. This table will be designed to provide a bridge between the existing establishment based series and the new manufacturing management unit based series.

COLLECTION CYCLE

7 The ABS conducts one annual manufacturing collection in five as a manufacturing census, with the other four collections conducted as a survey. It is proposed to retain this cycle with the shift to manufacturing management unit based collections. The next manufacturing census will be conducted in respect of 2001–02.

STATE AND TERRITORY DATA

8 For the 2000–01 collection, large businesses that have operations in more than one State or Territory have been requested to provide additional details on employment, wages and salaries and sales of goods and services for each State and/or Territory in which they operate. This information will be used to synthesise on a pro-rata basis all other data reported for the whole business to each State and/or Territory in which they operate. This will enable the production of State/Territory data for employment, wages and salaries, turnover and IVA at the industry subdivision level. However, it will not be possible to produce data by employment size or data relating to exported production.

APPENDIX 2 2000–01 SURVEY CHANGES *continued*

STATE AND TERRITORY DATA *continued*

9 State publications, *Manufacturing Industry, [State]*, (Cat. nos 8221.1–8221.6), will not be produced for 2000–01. However, it is intended that they next be produced for 2001–02, that is, for the next census year. The publication *Manufacturing Industry, Australia, 2000–01* (Cat. no. 8221.0) will continue to publish in all years State and Territory data for employment, wages and salaries, turnover and IVA at the industry subdivision level.

REGIONAL DATA

10 Regional or sub-State data will not be available from the 2000–01 manufacturing survey. This is a direct result of moving to a manufacturing management unit based collection for 2000–01, see paragraphs 1 and 2. However, it is proposed to make available sub-State data from information collected from the 2001–02 manufacturing census. Further investigations will be undertaken to decide if it is possible to produce some sub-State estimates in survey collection years from 2002–03.

TECHNICAL NOTE 1 DATA RELIABILITY

SAMPLE ERROR

1 The 1999–2000 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 1999–2000 (and 1994–95, 1995–96, 1997–98 and 1998–99) 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 1999–2000 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 4.5% 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 RELATIVE STANDARD ERRORS

SELECTED DATA ITEMS

INDUSTRY SUBDIVISION		Employment at end of June (a)	Wages and salaries (b)	Turnover	Purchases and transfers in	Industry value added	Amount exported by this business unit or by its agent	Aquisition of plant, machinery and equipment
ANZSIC code	Description	%	%	%	%	%	%	%
21	Food, beverage and tobacco mfg	0.7	0.4	0.4	0.4	0.4	1.1	3.1
22	Textile, clothing, footwear and leather mfg	1.6	1.4	1.1	1.3	1.3	2.4	6.1
23	Wood and paper product mfg	1.6	1.3	1.1	1.3	1.2	1.3	13.0
24	Printing, publishing and recorded media	1.8	1.5	1.3	2.0	1.4	2.7	10.8
25	Petroleum, coal, chemical and associated product mfg	1.1	0.7	0.4	0.4	0.7	1.3	4.4
26	Non-metallic mineral product mfg	1.5	1.1	0.7	0.8	0.7	1.3	5.7
27	Metal product mfg	1.2	0.9	0.6	0.6	0.8	0.1	8.8
28	Machinery and equipment mfg	0.8	0.6	0.5	0.6	0.7	0.6	4.2
29	Other manufacturing	2.1	1.8	1.7	1.9	2.0	9.9	11.5
21-29	Total manufacturing	0.4	0.3	0.2	0.2	0.3	0.4	2.5

(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, including 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, licences and goodwill. Also included is computer software capitalised, 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 the cost of software and hardware cannot be separated, the total cost is included in Acquisition of plant, machinery and equipment.
Acquisition of plant, machinery and equipment	Capital expenditure incurred acquiring plant, machinery and other equipment. Note that this category includes the acquisition of motor vehicles.
Amount exported by this business 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
billion	One thousand million.
Capitalised work done by own employees for own use or for rental or lease	<p>Work done by the employees or proprietors of an establishment for use by the business or for rental or lease to other businesses that is capitalised. The main types of work included are the manufacturing, constructing, installing or repairing of assets and the in-house development of computer software. This work is valued at the capitalised costs of the materials and the wages and salaries involved.</p> <p>Conceptually, under the current international standards, 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>
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 at the end of the reporting period.
Commission manufacturing	<p>Significant amounts of manufacturing are undertaken on a commission basis by one manufacturer on behalf of another or on behalf of a non-manufacturer for a fee. Typically, commission manufacturing involves a client commissioning the production of goods utilising materials provided by the client. Ownership of these materials remains with the client. Similarly, the goods made using these materials are owned by the client.</p> <p>For the purposes of the estimates in this publication, the producing establishment reports the commission fee as service income and the wages and salaries and any other expenses incurred.</p> <p>If the client is a manufacturing establishment, then in addition to data for their own manufacturing operations, the client reports the sales and inventories 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 as they are excluded from the manufacturing collection.</p>

GLOSSARY *continued*

Employer contributions into superannuation including salary sacrifice	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 and working partners, plus all employees for whom pay as you earn (PAYE) tax is deducted (including permanent, part-time, temporary and casual employees, and managerial and executive employees) during the last pay period ending in June each year. Non-salaried directors, self-employed persons such as consultants and contractors for whom PAYE tax is not deducted and volunteers 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. 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 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 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 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 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. (The data in table 6 exclude those manufacturing establishments which operated during 1999–2000 but were not operating at 30 June 2000.)
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 and traineeship schemes.
Industry class	Within ANZSIC, there is a structure comprising four levels ranging from industry division (broadest level) to the industry class (finest level). At the industry class level, the activities are narrowly defined and recognised by a four-digit code, e.g. Industry Class 2331 for PULP, PAPER AND PAPERBOARD MANUFACTURING. Usually, an activity is primarily confined to one class. However, some activities may be primary to more than one class.
Industry division	Within ANZSIC, there is a structure comprising four levels ranging from industry division (broadest level) to the industry class (finest level). The main purpose of the industry division level is to provide a limited number of categories which give

GLOSSARY *continued*

Industry division *continued* a broad overall picture of the economy. There are 17 divisions within ANZSIC each identified by an alphabetical letter, that is 'A' for Agriculture, forestry and fishing, 'B' for Mining, 'C' for Manufacturing, etc.

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 the 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
<i>plus</i>	Intellectual property royalty expenses
<i>less</i>	Intellectual property royalty income
<i>less</i>	Computer software expenses not capitalised by the business
<i>less</i>	Selected indirect taxes (for manufacturing industries, the main types are fringe benefits tax, payroll tax, land rates and land taxes)
<i>equals</i>	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)
<i>plus</i>	Closing inventories
<i>less</i>	Opening inventories
<i>less</i>	Intermediate input expenses (See the entry for operating expenses for further detail)
<i>equals</i>	IVA

GLOSSARY *continued*

Industry value added (IVA) <i>continued</i>	However, it should be noted that IVA is not a measure of operating profit before tax. Wages, salaries and most other labour costs are not taken into account in its calculation and nor are most insurance premiums, interest expenses or depreciation and a number of lesser expenses (see the entry for operating expenses for further detail).
Industry value added (IVA) per person employed	IVA of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.
Intermediate inputs	Intermediate inputs consist of materials and certain services which are used up in the production process. Definitions of relevant component items are also included in this Glossary. It is calculated as: <div style="margin-left: 40px; margin-top: 10px;"> <p style="text-align: center;">Intermediate input expenses (See the entry for operating expenses for further detail)</p> <p><i>plus</i> Opening inventories</p> <p><i>less</i> Closing inventories</p> </div>
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).
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 non-manufacturing activities).
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 at the beginning of the reporting period.
Operating expenses	For the purposes of calculating economic and accounting variables for manufacturing industries, operating expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations. These expenses are 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>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 (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

GLOSSARY *continued*

Operating expenses <i>continued</i>	<p>Also included in the calculation of intermediate inputs are advertising expenses, audit and other accounting expenses, bank fees and charges (except interest), cleaning expenses, environmental protection expenses, intellectual property royalty expenses, legal fees, management fees, paper, printing and stationery expenses, postal and telecommunication expenses, staff training expenses, and travelling, accommodation and entertainment expenses.</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 provisions for employee entitlements</p> <p>Employer contributions into superannuation including salary sacrifice</p> <p>Workers' compensation premiums/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 exploration 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 or for rental or lease to other businesses. The main types of work included are the manufacturing, constructing, installing or repairing of assets and the in-house development of computer software. This work is valued at the capitalised costs of the materials and the wages and salaries involved.</p> <p>Conceptually, under the current international standards, 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 run by businesses 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 run by businesses is excluded.
Reference period	Businesses are asked to report data for the financial year ended 30 June. However, if a business has a different financial year, it is asked to report for the 12-month period which ends between 1 October of the previous year and 30 September of the current year. This period is then used as a substitute for the

GLOSSARY *continued*

Reference period <i>continued</i>	financial year ended 30 June. For example, for the 1999–2000 collection, a business may have reported data for the year ended 31 December 1999.
Sales and transfers out of goods	Includes sales of goods whether or not produced by the establishment and sales of goods produced for the establishment on a commission basis (see the entry for commission manufacturing). Also includes transfers of goods to other establishments of the same business or to related businesses and installation and delivery charges not separately invoiced to customers. 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. (i.e. 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 of goods produced plus transfers out of goods produced by this establishment. 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 calculated in this publication and turnover as defined by the current international standards. These differences are explained as part of the definition of the component item own account capital work. Full compliance with these 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</p>

GLOSSARY *continued*

Turnover <i>continued</i>	<p>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> <p>Note (b): Transfers to other establishments of the same business referred to in the definition of turnover are valued, for statistical purposes, at commercial value (i.e. the value which would have applied had the establishments concerned been under separate ownership).</p> <p>Note (c): 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.</p>
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, salaries and fees of directors and executives, retainers and commissions of persons who received a retainer, bonuses, and, recreation and other types of leave. 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 also included. Payments for salary sacrifice and payments to self employed persons such as consultants, contractors and persons paid solely by commission without a retainer, are excluded. The drawings of working proprietors and partners 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 premiums/costs	As reported by providers.

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