



MANUFACTURING INDUSTRY *QUEENSLAND*

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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 nationally, 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.

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 nationally. For more details, see the Appendix.

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 27 of the Explanatory Notes.

DATA TO BE RELEASED IN OTHER PUBLICATIONS

Detailed manufacturing industry statistics for each State are being released progressively 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) also contains 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).

B. Doyle
Regional Director, Queensland

MAIN FEATURES

OVERVIEW

Turnover for the year 1999–2000 by manufacturing establishments operating in Queensland was \$34,109m, which resulted in an industry value added (IVA) for the year of \$9,597m. For turnover, this represents a 6.3% increase in current price terms from the \$32,093m recorded for 1998–99. These manufacturing establishments employed 142,100 persons at the end of June 2000 and paid \$4,987m in wages and salaries in 1999–2000.

The percentage of Australian manufacturing employment in Queensland at the end of June 2000 was 15.6%, a decrease of 0.1 percentage points on that reported at the end of June 1999. The Queensland industry subdivisions which made a significant contribution to national manufacturing employment at the end of June 2000 at the industry subdivision level were FOOD, BEVERAGE AND TOBACCO MANUFACTURING (21.3%), NON-METALLIC MINERAL PRODUCT MANUFACTURING (19.1%), OTHER MANUFACTURING (18.9%), WOOD AND PAPER PRODUCT MANUFACTURING (18.6%) and METAL PRODUCT MANUFACTURING (18.0%).

The percentage contribution by Queensland to total Australian manufacturing turnover and IVA in 1999–2000 was 14.9% and 14.0% respectively. This represents an increase of 0.3 percentage points on the contribution reported in 1998–99 for both turnover and IVA. The Queensland subdivisions which made a significant contribution to national manufacturing turnover and IVA in 1999–2000 at the industry subdivision level were also NON-METALLIC MINERAL PRODUCT MANUFACTURING (20.1% and 19.5% respectively), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (19.4% and 16.4% respectively), METAL PRODUCT MANUFACTURING (18.9% and 18.5% respectively), OTHER MANUFACTURING (16.5% and 18.1% respectively) and WOOD AND PAPER PRODUCT MANUFACTURING (15.6% and 16.0% respectively).

INDUSTRY VALUE ADDED

IVA for 1999–2000 was \$9,597m. The industry subdivisions with the largest contribution to total manufacturing IVA and the most notable industry classes (where publishable) or groups within those subdivisions (as a percentage of Queensland's total manufacturing IVA) were:

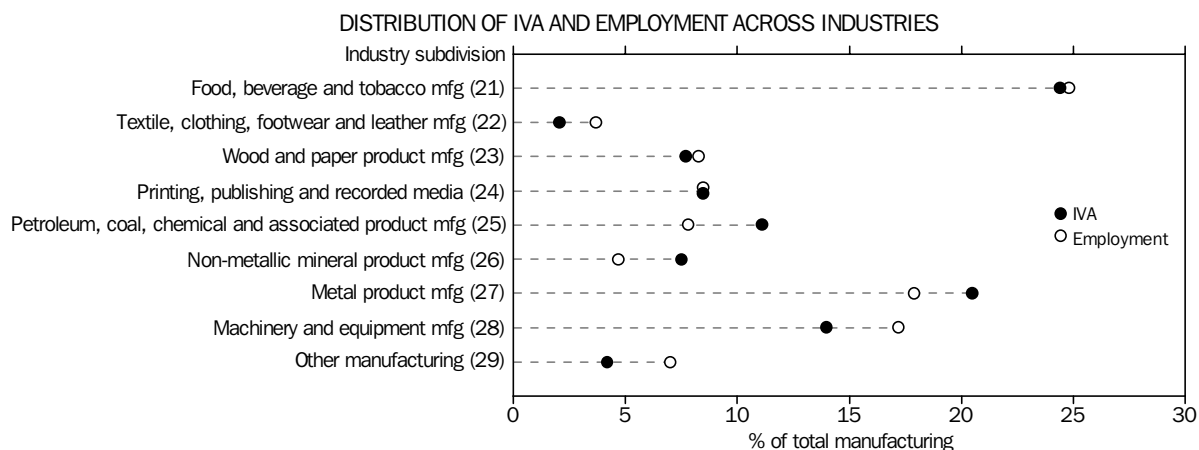
- FOOD, BEVERAGE AND TOBACCO MANUFACTURING (24.4%), where the industry classes MEAT PROCESSING (ANZSIC Class 2111 at 6.8%) and SUGAR MANUFACTURING (ANZSIC Class 2171 at 3.5%), industry group BEVERAGE AND MALT MANUFACTURING (ANZSIC Group 218 at 3.4%) and industry classes FOOD MANUFACTURING N.E.C. (ANZSIC Class 2179 at 1.5%), FRUIT AND VEGETABLE PROCESSING (ANZSIC Class 2130 at 1.4%), BISCUIT MANUFACTURING (ANZSIC Class 2163 at 1.2%) and BREAD MANUFACTURING (ANZSIC Class 2161 at 1.1%) were the most substantial.
- METAL PRODUCT MANUFACTURING (20.5%), where the industry group BASIC NON-FERROUS METAL MANUFACTURING (ANZSIC Group 272 at 7.3%) and industry classes STRUCTURAL STEEL FABRICATING (ANZSIC Class 2741 at 2.5%), ARCHITECTURAL ALUMINIUM PRODUCT MANUFACTURING (ANZSIC Class 2742 at 2.0%), FABRICATED METAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2769 at 1.7%) and BASIC IRON AND STEEL MANUFACTURING (ANZSIC Class 2711 at 1.1%) were the most substantial.
- MACHINERY AND EQUIPMENT MANUFACTURING (14.0%), where the industry classes RAILWAY EQUIPMENT MANUFACTURING (ANZSIC Class 2823 at 1.5%), AGRICULTURAL MACHINERY MANUFACTURING (ANZSIC Class 2861 at 1.2%) and MINING AND CONSTRUCTION MACHINERY MANUFACTURING (ANZSIC Class 2862 at 1.2%) were the most substantial.

MAIN FEATURES *continued*

INDUSTRY VALUE ADDED

continued

■ PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (11.1%), where the industry classes PAINT MANUFACTURING (ANZSIC Class 2542 at 1.2%) and PLASTIC INJECTION MOULDED PRODUCT MANUFACTURING (ANZSIC Class 2566 at 1.1%) were the most substantial.



Industry classes making a notable contribution to industry value added and not included in the subdivisions listed above included industry classes NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421 at 5.1%), PRINTING (ANZSIC Class 2412 at 2.5%), WOODEN FURNITURE AND UPHOLSTERED SEAT MANUFACTURING (ANZSIC Class 2921 at 1.9%), WOODEN STRUCTURAL COMPONENT MANUFACTURING (ANZSIC Class 2323 at 1.8%) and CONCRETE PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2635 at 1.6%).

The Queensland manufacturing industry subdivisions in 1999–2000 with the highest IVA per person employed were NON-METALLIC MINERAL PRODUCT MANUFACTURING at \$107,800 per person employed and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (at \$95,900).

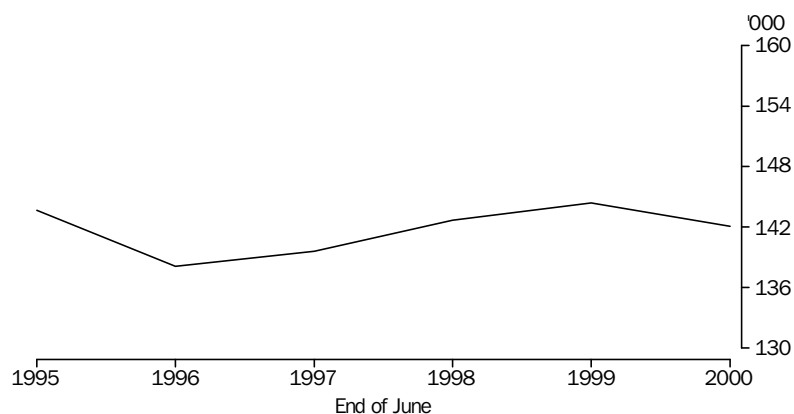
EMPLOYMENT AND WAGES

The Queensland manufacturing industry employed 142,100 persons at the end of June 2000 and paid \$4,987m in wages and salaries in 1999–2000. This represents an average of \$35,100 paid in annual wages and salaries per person employed at the end of June 2000, an increase of 4.7% on the \$33,500 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).

MAIN FEATURES *continued*

EMPLOYMENT AND WAGES *continued*

EMPLOYMENT



Queensland manufacturing employment decreased from June 1995 (143,700 persons) to June 1996 (138,100 persons), then increased each year to June 1999 (144,400 persons) before decreasing by 1.6% or 2,300 persons between June 1999 and June 2000 (142,100 persons). Over the five years from June 1995 to June 2000, employment decreased by 1.1% or 1,600 persons.

Between June 1999 and June 2000, employment decreased in five of the nine manufacturing industry subdivisions and increased in the other four. The industry subdivision to record the largest absolute decrease and second largest percentage decrease was FOOD, BEVERAGE AND TOBACCO MANUFACTURING (down 2,200 persons or 5.9%). PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (down 6.3% or 800 persons) recorded the largest percentage decrease and second highest absolute decrease. The industry subdivisions with the largest percentage increases were OTHER MANUFACTURING (up 5.5% or 500 persons) and PRINTING, PUBLISHING AND RECORDED MEDIA (up 4.0% or 500 persons). The largest absolute increase was recorded by MACHINERY AND EQUIPMENT MANUFACTURING (up 600 persons or 2.3%).

Average wages and salaries paid per person employed at the end of June rose in six of the nine industry subdivisions and fell in the other three between 1998–99 and 1999–2000.

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

- PRINTING, PUBLISHING AND RECORDED MEDIA (up 8.9% — from \$33,800 to \$36,800), where 6 (out of 7) industry classes recorded an increase. The most influential classes in producing the subdivision result were NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421) (up 16.3% — from \$37,500 to \$43,600) and PRINTING (ANZSIC Class 2412) (up 3.0% — from \$32,000 to \$33,000). In aggregate, these two classes contributed over 80% of employment and over 85% of wages and salaries in the subdivision.
- METAL PRODUCT MANUFACTURING (up 8.9% — from \$34,600 to \$37,700), where 15 (out of 21) industry classes recorded an increase with the largest (where publishable) being:
 - BASIC NON-FERROUS METAL MANUFACTURING N.E.C. (ANZSIC Class 2729) (up 54.3% — from \$38,000 to \$58,600); and
 - STEEL PIPE AND TUBE MANUFACTURING (ANZSIC Class 2713) (up 20.2% — from \$39,300 to \$47,300).

MAIN FEATURES *continued*

EMPLOYMENT AND WAGES *continued*

The industry subdivision to record the largest decrease in both percentage and absolute terms between 1998–99 and 1999–2000 in wages and salaries paid per person employed at the end of June was NON-METALLIC MINERAL PRODUCT MANUFACTURING (down 3.5% — from \$40,200 to \$38,900), where 6 (out of 11) industry classes recorded a decrease. The largest percentage decrease in this subdivision (where publishable) was recorded by NON-METALLIC MINERAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2640) (down 13.2% — from \$42,300 to \$36,700).

TURNOVER

Turnover rose, in current price terms, by \$2,016m to \$34,109m for 1999–2000. This represents a 6.3% increase on the \$32,093m recorded for 1998–99.

Seven of the nine manufacturing industry subdivisions recorded an increase in turnover between 1998–99 and 1999–2000 and the other two decreased. FOOD, BEVERAGE AND TOBACCO MANUFACTURING (at 29.1%) and METAL PRODUCT MANUFACTURING (at 22.5%) remained the largest contributors to total Queensland manufacturing turnover. However, FOOD, BEVERAGE AND TOBACCO MANUFACTURING (down 2.7% or \$281m) recorded the largest decrease in both percentage and dollar terms between 1998–99 and 1999–2000. The largest increases in dollar terms between 1998–99 and 1999–2000 were recorded by METAL PRODUCT MANUFACTURING (up \$908m) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up \$464m). The largest percentage increases between 1998–99 and 1999–2000 were recorded by WOOD AND PAPER PRODUCT MANUFACTURING (up 15.6%) and METAL PRODUCT MANUFACTURING (up 13.4%).

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

- MEAT PROCESSING (ANZSIC Class 2111) (up \$257m or 8.7%);
- BASIC NON-FERROUS METAL MANUFACTURING N.E.C. (ANZSIC Class 2729) (up \$142m or 42.2%);
- PRINTING (ANZSIC Class 2412) (up \$115m or 21.0%);
- CONCRETE PRODUCT MANUFACTURING N.E.C. (ANZSIC Class 2635) (up \$113m or 35.3%);
- LOG SAWMILLING (ANZSIC Class 2311) (up \$109m or 64.1%); and
- NEWSPAPER PRINTING OR PUBLISHING (ANZSIC Class 2421) (up \$101m or 21.0%).

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

- SUGAR MANUFACTURING (ANZSIC Class 2171) (down \$450m or 22.6%);
- AGRICULTURAL MACHINERY MANUFACTURING (ANZSIC Class 2861) (down \$79m or 19.8%); and
- FOOD MANUFACTURING N.E.C. (ANZSIC Class 2179) (down \$69m or 10.9%).

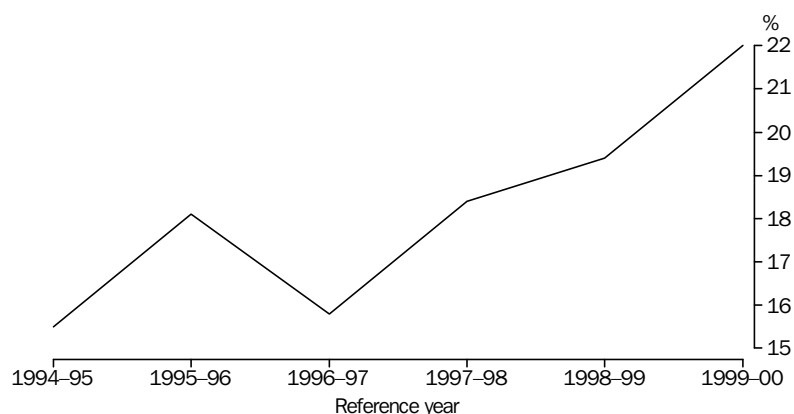
EXPORTS

For 1999–2000, Queensland manufacturers directly exported \$6,934m of the goods that they produced. This represents a 20.1% increase on the \$5,774m recorded for 1998–99. Exports as a proportion of the total sales and transfers out of goods produced has increased from 15.5% for 1994–95 and from 19.4% for 1998–99 to 22.0% for 1999–2000. There was, however, a decrease of 2.3 percentage points in this proportion between 1995–96 (18.1%) and 1996–97 (15.8%).

MAIN FEATURES *continued*

EXPORTS *continued*

EXPORTS AS A PROPORTION OF GOODS PRODUCED



Manufacturers' direct exports increased in seven out of the nine industry subdivisions and decreased in the other two between 1998-99 and 1999-2000. The most significant contributors to the overall increase were FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up \$535m or 19.3% — from \$2,767m to \$3,302m), METAL PRODUCT MANUFACTURING (up \$371m or 17.8% — from \$2,090m to \$2,461m) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up \$171m or 85.3% — from \$201m to \$372m). The decreases were recorded by OTHER MANUFACTURING (down \$11m or 38.6% — from \$27m to \$17m) and NON-METALLIC MINERAL PRODUCT MANUFACTURING (down \$2m or 1.5% — from \$113m to \$111m).

Overall, total direct exports by establishments increased by \$1,160m (or 20.1%). Direct exports by establishments employing 100 or more persons increased by \$1,264m (or 36.1%) and for establishments employing 0 to 49 persons increased by \$214m (or 13.1%), but decreased for establishments employing 50 to 99 persons by \$318m (or 49.6%).

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

Reference year	Employment at end of June(d)	Wages and salaries(e)(f)	Turnover(f)	Industry gross product(f)	Industry value added(f)	Wages and salaries to turnover(f)	Turnover per person employed(f)(g)	Industry value added per person employed(f)(h)
	'000	\$m	\$m	\$m	\$m	ratio	\$'000	\$'000
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
1999–2000	35.2	1 199.3	9 940.9	..	2 342.5	0.12	282.7	66.6
1998–99	r37.4	r1 228.3	r10 222.0	..	r2 445.2	0.12	r273.5	r65.4
1997–98	35.2	1 159.7	(i)9 635.1	(j)2 415.5	(j)2 492.3	0.12	273.4	70.7
1996–97	34.2	1 125.8	8 771.2	2 132.3	..	0.13	256.5	..
1995–96	33.5	(k)1 031.3	8 740.6	2 019.5	..	0.12	261.3	..
1994–95	34.5	1 045.4	8 645.8	..	..	0.12	250.8	..
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
1999–2000	5.2	121.3	600.8	..	200.0	0.20	115.5	38.4
1998–99	r5.5	r130.1	r629.1	..	r196.2	0.21	r114.0	r35.5
1997–98	6.7	132.1	(i)605.8	(j)201.4	(j)206.4	0.22	90.4	30.8
1996–97	5.8	122.8	580.7	184.4	..	0.21	100.5	..
1995–96	5.5	(k)112.3	596.5	178.1	..	0.19	108.3	..
1994–95	5.9	115.9	643.2	..	..	0.18	108.9	..
WOOD AND PAPER PRODUCT MANUFACTURING								
1999–2000	11.8	379.4	2 123.7	..	741.1	0.18	179.5	62.6
1998–99	12.4	372.1	1 837.4	..	r657.6	0.20	148.4	r53.1
1997–98	11.1	350.2	(i)1 779.9	(j)586.2	(j)608.5	0.20	160.9	55.0
1996–97	10.7	317.2	1 698.4	580.0	..	0.19	158.5	..
1995–96	10.6	(k)292.8	1 599.4	570.9	..	0.18	151.1	..
1994–95	12.2	328.0	1 787.7	..	..	0.18	146.7	..
PRINTING, PUBLISHING AND RECORDED MEDIA								
1999–2000	12.1	446.8	1 736.6	..	817.4	0.26	143.0	67.3
1998–99	11.7	394.3	r1 547.8	..	r731.5	r0.25	r132.6	r62.6
1997–98	12.3	373.5	(i)1 482.3	(j)700.9	(j)712.1	0.25	120.5	57.9
1996–97	11.8	356.5	1 423.7	642.2	..	0.25	120.4	..
1995–96	11.3	(k)310.0	1 325.7	634.2	..	0.23	117.8	..
1994–95	12.8	383.0	1 488.3	..	..	0.26	116.3	..
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
1999–2000	11.1	471.4	4 915.9	..	1 069.2	0.10	441.1	95.9
1998–99	r11.9	r476.5	r4 452.0	..	r970.9	0.11	r374.2	r81.6
1997–98	10.3	403.3	(i)4 753.8	(j)1 192.8	(j)1 212.1	0.08	460.6	117.4
1996–97	10.5	397.3	4 583.3	1 007.8	..	0.09	436.7	..
1995–96	10.9	(k)373.3	4 355.2	1 152.4	..	0.09	398.1	..
1994–95	9.9	336.0	3 787.8	0.09	384.3	..

.. not applicable

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(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)	Wages and salaries(e)(f)	Turnover(f)	Industry gross product(f)	Industry value added(f)	Wages and salaries to turnover(f)	Turnover per person employed(f)(g)	Industry value added per person employed(f)(h)
	'000	\$m	\$m	\$m	\$m	ratio	\$'000	\$'000
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
1999–2000	6.7	259.0	2 102.5	..	718.5	0.12	315.5	107.8
1998–99	6.5	r262.9	r1 908.4	..	r562.4	0.14	r292.2	r86.1
1997–98	7.7	279.3	(i)1 943.9	(j)553.5	(j)584.3	0.14	252.3	75.8
1996–97	7.5	269.1	1 825.3	518.6	..	0.15	242.2	..
1995–96	6.8	(k)232.8	1 646.2	477.3	..	0.14	241.2	..
1994–95	7.8	260.5	1 960.1	..	..	0.13	250.7	..
METAL PRODUCT MANUFACTURING								
1999–2000	25.5	960.7	7 681.0	..	1 962.8	0.13	301.6	77.1
1998–99	r25.6	r886.4	r6 773.2	..	r1 898.9	0.13	264.7	r74.2
1997–98	24.8	852.7	(i)6 576.9	(j)1 919.9	(j)1 979.7	0.13	264.8	79.7
1996–97	24.6	827.9	6 334.4	1 786.1	..	0.13	257.6	..
1995–96	25.7	(k)800.2	6 904.2	2 151.4	..	0.12	268.2	..
1994–95	25.0	758.6	5 697.5	..	..	0.13	227.6	..
MACHINERY AND EQUIPMENT MANUFACTURING								
1999–2000	24.5	891.6	3 871.8	..	1 344.9	0.23	158.3	55.0
1998–99	r23.9	r842.0	r3 623.6	..	r1 305.6	0.23	r151.5	r54.6
1997–98	24.9	812.9	(i)3 517.6	(j)1 175.7	(j)1 222.4	0.23	141.3	49.1
1996–97	24.1	773.7	3 412.4	1 121.2	..	0.23	141.4	..
1995–96	24.1	(k)711.1	3 497.3	1 213.1	..	0.20	145.2	..
1994–95	24.1	667.2	3 225.7	..	..	0.21	133.9	..
OTHER MANUFACTURING								
1999–2000	10.0	257.3	1 135.6	..	400.6	0.23	113.5	40.0
1998–99	9.5	245.0	1 099.2	..	r404.3	0.22	115.9	r42.6
1997–98	9.6	233.1	(i)1 034.1	(j)372.0	(j)383.5	0.23	107.2	39.8
1996–97	10.3	241.6	1 066.2	383.1	..	0.23	103.5	..
1995–96	9.7	(k)229.2	951.9	376.0	..	0.24	98.5	..
1994–95	11.6	247.1	1 088.8	..	..	0.23	94.2	..
TOTAL MANUFACTURING								
1999–2000	142.1	4 986.8	34 108.8	..	9 597.0	0.15	240.0	67.5
1998–99	r144.4	r4 837.5	r32 092.7	..	r9 172.6	0.15	r222.3	r63.5
1997–98	142.7	4 596.7	(i)31 329.4	(j)9 117.8	(j)9 401.2	0.15	219.5	65.9
1996–97	139.6	4 432.0	29 695.6	8 355.4	..	0.15	212.8	..
1995–96	138.1	(k)4 093.0	29 617.0	8 773.0	..	0.14	214.5	..
1994–95	143.7	4 141.6	28 324.9	..	..	0.15	197.1	..

.. 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.

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(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), 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	10 476	347.5	3 203.1	657.4	305.7	62.8
2112	Poultry processing	1 959	57.0	319.8	92.0	163.2	46.9
2113	Bacon, ham and smallgood mfg	1 698	53.5	336.3	91.0	198.1	53.6
	<i>Total</i>	<i>14 134</i>	<i>458.1</i>	<i>3 859.1</i>	<i>840.4</i>	<i>273.0</i>	<i>59.5</i>
212	Dairy product mfg						
2121	Milk and cream processing	1 635	67.8	639.4	80.7	391.0	49.3
2122	Ice cream mfg	186	np	np	np	np	np
2129	Dairy product mfg n.e.c.	407	np	np	np	np	np
	<i>Total</i>	<i>2 227</i>	<i>92.2</i>	<i>898.6</i>	<i>129.0</i>	<i>403.4</i>	<i>57.9</i>
213	Fruit and vegetable processing	1 969	59.6	389.7	132.0	198.0	67.0
214	Oil and fat mfg	269	14.9	138.2	29.2	513.9	108.6
215	Flour mill and cereal food mfg						
2151	Flour mill product mfg	255	11.9	151.0	26.4	591.6	103.4
2152	Cereal food and baking mix mfg	338	8.1	100.9	28.7	298.8	85.0
	<i>Total</i>	<i>593</i>	<i>20.0</i>	<i>251.8</i>	<i>55.1</i>	<i>424.8</i>	<i>92.9</i>
216	Bakery product mfg						
2161	Bread mfg	1 990	67.3	295.4	108.6	148.5	54.6
2162	Cake and pastry mfg	1 611	39.6	138.7	46.5	86.1	28.9
2163	Biscuit mfg	1 343	27.4	215.6	114.5	160.5	85.2
	<i>Total</i>	<i>4 944</i>	<i>134.3</i>	<i>649.7</i>	<i>269.5</i>	<i>131.4</i>	<i>54.5</i>
217	Other food mfg						
2171	Sugar mfg	4 911	202.7	1 544.1	332.7	314.4	67.7
2172	Confectionery mfg	106	1.6	7.1	2.7	67.0	25.3
2173	Seafood processing	485	9.2	171.6	26.0	353.6	53.6
2174	Prepared animal and bird feed mfg	746	21.7	334.9	47.0	448.8	63.0
2179	Food mfg n.e.c.	2 686	87.4	566.1	146.8	210.8	54.7
	<i>Total</i>	<i>8 935</i>	<i>322.8</i>	<i>2 623.9</i>	<i>555.2</i>	<i>293.7</i>	<i>62.1</i>
218	Beverage and malt mfg						
2181	Soft drink, cordial and syrup mfg	np	np	np	np	np	np
2182	Beer and malt mfg	614	np	np	np	np	np
2183	Wine mfg	50	np	np	np	np	np
2184	Spirit mfg	np	np	np	np	np	np
	<i>Total</i>	<i>2 029</i>	<i>93.6</i>	<i>1 122.3</i>	<i>329.1</i>	<i>553.2</i>	<i>162.2</i>
219	Tobacco product mfg	70	3.8	7.6	3.1	108.0	44.2
21	Total food, beverage and tobacco mfg	35 168	1 199.3	9 940.9	2 342.5	282.7	66.6
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG							
221	Textile fibre, yarn and woven fabric mfg						
2211	Wool scouring	np	np	np	np	np	np
2212	Synthetic fibre textile mfg	np	np	np	np	np	np
2213	Cotton textile mfg	np	np	np	np	np	np
2214	Wool textile mfg	—	—	—	—	—	—
2215	Textile finishing	34	0.5	3.6	1.5	105.8	43.8
	<i>Total</i>	<i>250</i>	<i>7.9</i>	<i>86.2</i>	<i>23.9</i>	<i>345.1</i>	<i>95.5</i>

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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	708	17.5	85.9	27.2	121.4	38.4
2222	Textile floor covering mfg	172	4.9	45.3	15.4	263.4	89.3
2223	Rope, cordage and twine mfg	81	1.2	8.2	4.6	101.4	56.5
2229	Textile product mfg n.e.c.	284	*4.6	18.9	6.9	66.5	24.2
	<i>Total</i>	1 246	28.2	158.4	54.0	127.2	43.4
223	Knitting mills						
2231	Hosiery mfg	np	np	np	np	np	np
2232	Cardigan and pullover mfg	—	—	—	—	—	—
2239	Knitting mill product mfg n.e.c.	np	np	np	np	np	np
	<i>Total</i>	269	6.8	28.0	10.2	104.2	38.0
224	Clothing mfg						
2241	Men's and boys' wear mfg	897	24.6	73.1	28.1	81.5	31.4
2242	Women's and girls' wear mfg	736	16.0	65.2	25.7	88.5	35.0
2243	Sleepwear, underwear and infant clothing mfg	159	1.0	7.0	2.9	43.8	17.9
2249	Clothing mfg n.e.c.	1 033	18.3	63.9	22.6	61.9	21.8
	<i>Total</i>	2 826	59.9	209.2	79.3	74.0	28.1
225	Footwear mfg	**24	**0.5	**1.5	**0.9	**62.8	**39.0
226	Leather and leather product mfg						
2261	Leather tanning and fur dressing	510	16.7	111.2	29.5	218.2	57.9
2262	Leather and leather substitute product mfg	79	1.2	6.3	2.2	79.3	27.5
	<i>Total</i>	589	17.9	117.5	31.7	199.5	53.8
22	Total textile, clothing, footwear and leather mfg	5 203	121.3	600.8	200.0	115.5	38.4
WOOD AND PAPER PRODUCT MFG							
231	Log sawmilling and timber dressing						
2311	Log sawmilling	2 127	52.8	280.4	111.0	131.8	52.2
2312	Wood chipping	101	np	np	np	np	np
2313	Timber resawing and dressing	893	np	np	np	np	np
	<i>Total</i>	3 120	87.5	517.9	188.5	166.0	60.4
232	Other wood product mfg						
2321	Plywood and veneer mfg	380	15.0	61.1	36.4	160.8	95.7
2322	Fabricated wood mfg	945	38.4	229.6	86.6	243.0	91.7
2323	Wooden structural component mfg	4 106	116.9	551.3	169.4	134.3	41.3
2329	Wood product mfg n.e.c.	1 163	26.8	110.1	39.0	94.7	33.5
	<i>Total</i>	6 594	197.1	952.1	331.4	144.4	50.3

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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
WOOD AND PAPER PRODUCT MFG <i>cont.</i>							
233	Paper and paper product mfg						
2331	Pulp, paper and paperboard mfg	322	np	np	np	np	np
2332	Solid paperboard container mfg	187	8.3	33.1	12.4	176.6	66.0
2333	Corrugated paperboard container mfg	942	np	np	np	np	np
2334	Paper bag and sack mfg	87	3.2	20.1	7.3	230.7	84.1
2339	Paper product mfg n.e.c.	578	np	np	np	np	np
	<i>Total</i>	<i>2 117</i>	<i>94.9</i>	<i>653.6</i>	<i>221.2</i>	<i>308.8</i>	<i>104.5</i>
23	Total wood and paper product mfg	11 831	379.4	2 123.7	741.1	179.5	62.6
PRINTING, PUBLISHING AND RECORDED MEDIA							
241	Printing and services to printing						
2411	Paper stationery mfg	587	19.8	77.0	23.2	131.2	39.6
2412	Printing	5 242	172.8	661.6	240.7	126.2	45.9
2413	Services to printing	737	22.3	72.7	33.9	98.7	46.0
	<i>Total</i>	<i>6 566</i>	<i>214.9</i>	<i>811.3</i>	<i>297.8</i>	<i>123.6</i>	<i>45.4</i>
242	Publishing						
2421	Newspaper printing or publishing	4 793	208.7	837.3	489.7	174.7	102.2
2422	Other periodical publishing	452	11.7	46.8	13.1	103.6	28.9
2423	Book and other publishing	254	8.0	31.9	12.8	125.7	50.3
	<i>Total</i>	<i>5 498</i>	<i>228.4</i>	<i>916.0</i>	<i>515.6</i>	<i>166.6</i>	<i>93.8</i>
243	Recorded media manufacturing and publishing	*81	3.5	*9.2	*4.0	**114.1	**49.4
24	Total printing, publishing and recorded media	12 145	446.8	1 736.6	817.4	143.0	67.3
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG							
251	Petroleum refining	np	np	np	np	np	np
252	Petroleum and coal product mfg n.e.c.	np	np	np	np	np	np
253	Basic chemical mfg						
2531	Fertiliser mfg	542	32.3	222.4	44.1	410.7	81.5
2532	Industrial gas mfg	np	np	np	np	np	np
2533	Synthetic resin mfg	326	14.1	93.2	23.2	285.6	71.0
2534	Organic industrial chemical mfg n.e.c.	np	np	np	np	np	np
2535	Inorganic industrial chemical mfg n.e.c.	270	15.5	119.4	20.5	442.9	76.2
	<i>Total</i>	<i>1 474</i>	<i>76.2</i>	<i>532.5</i>	<i>130.7</i>	<i>361.3</i>	<i>88.7</i>
254	Other chemical product mfg						
2541	Explosive mfg	330	np	np	np	np	np
2542	Paint mfg	833	38.9	332.8	117.3	399.6	140.8
2543	Medicinal and pharmaceutical product mfg	1 173	44.1	266.6	71.3	227.3	60.8
2544	Pesticide mfg	285	17.1	257.1	78.4	902.2	275.3
2545	Soap and other detergent mfg	575	22.6	239.7	70.9	417.1	123.4
2546	Cosmetic and toiletry preparation mfg	97	3.0	13.3	3.1	137.2	31.6
2547	Ink mfg	np	np	np	np	np	np
2549	Chemical product mfg n.e.c.	np	np	np	np	np	np
	<i>Total</i>	<i>3 577</i>	<i>163.4</i>	<i>1 399.4</i>	<i>422.5</i>	<i>391.2</i>	<i>118.1</i>
255	Rubber product mfg						
2551	Rubber tyre mfg	212	8.3	55.3	22.8	260.4	107.4
2559	Rubber product mfg n.e.c.	480	15.9	62.7	19.5	130.6	40.6
	<i>Total</i>	<i>692</i>	<i>24.2</i>	<i>118.0</i>	<i>42.3</i>	<i>170.4</i>	<i>61.1</i>

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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
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG <i>cont.</i>							
256	Plastic product mfg						
2561	Plastic blow moulded product mfg	*303	10.4	82.3	21.6	**271.7	*71.2
2562	Plastic extruded product mfg	867	37.6	238.9	71.9	275.5	82.9
2563	Plastic bag and film mfg	464	16.6	84.0	28.3	181.0	60.9
2564	Plastic product rigid fibre reinforced mfg	274	5.7	27.1	8.7	99.1	32.0
2565	Plastic foam product mfg	456	14.2	80.8	25.9	177.2	56.7
2566	Plastic injection moulded product mfg	2 106	67.3	255.9	106.9	121.5	50.8
	<i>Total</i>	4 470	151.9	769.1	263.3	172.1	58.9
25	Total petroleum, coal, chemical and associated product mfg	11 144	471.4	4 915.9	1 069.2	441.1	95.9
NON-METALLIC MINERAL PRODUCT MFG							
261	Glass and glass product mfg	791	29.6	156.8	64.5	198.3	81.6
262	Ceramic mfg						
2621	Clay brick mfg	683	29.8	129.6	66.2	189.7	96.9
2622	Ceramic product mfg	np	np	np	np	np	np
2623	Ceramic tile and pipe mfg	np	np	np	np	np	np
2629	Ceramic product mfg n.e.c.	222	4.6	11.9	5.2	53.7	23.5
	<i>Total</i>	1 012	38.6	166.7	78.0	164.7	77.1
263	Cement, lime, plaster and concrete product mfg						
2631	Cement and lime mfg	293	np	np	np	np	np
2632	Plaster product mfg	278	11.6	126.2	56.1	453.9	201.7
2633	Concrete slurry mfg	1 134	42.1	580.6	124.1	511.8	109.4
2634	Concrete pipe and box culvert mfg	416	np	np	np	np	np
2635	Concrete product mfg n.e.c.	1 611	59.4	433.2	150.7	268.9	93.5
	<i>Total</i>	3 732	149.2	1 551.6	484.2	415.7	129.7
264	Non-metallic mineral product mfg n.e.c.	1 130	41.5	227.4	91.8	201.2	81.2
26	Total non-metallic mineral product mfg	6 665	259.0	2 102.5	718.5	315.5	107.8
METAL PRODUCT MFG							
271	Iron and steel mfg						
2711	Basic iron and steel mfg	957	42.3	510.8	104.7	533.8	109.4
2712	Iron and steel casting and forging	1 035	40.1	186.4	86.6	180.0	83.7
2713	Steel pipe and tube mfg	544	25.7	275.1	70.3	505.4	129.2
	<i>Total</i>	2 536	108.2	972.2	261.6	383.3	103.2
272	Basic non-ferrous metal mfg						
2721	Alumina production	np	np	np	np	np	np
2722	Aluminium smelting	np	np	np	np	np	np
2723	Copper, silver, lead and zinc smelting, refining	np	np	np	np	np	np
2729	Basic non-ferrous metal mfg n.e.c.	459	26.9	477.2	88.3	1 039.4	192.3
	<i>Total</i>	3 987	230.4	3 574.7	698.9	896.6	175.3
273	Non-ferrous basic metal product mfg						
2731	Aluminium rolling, drawing, extruding	658	np	np	np	np	np
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	79	np	np	np	np	np
2733	Non-ferrous metal casting	*135	**3.3	**15.8	*4.0	**116.9	**29.2
	<i>Total</i>	872	37.2	397.6	81.6	455.8	93.5

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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 <i>cont.</i>							
274	Structural metal product mfg						
2741	Structural steel fabricating	4 477	154.9	799.5	244.0	178.6	54.5
2742	Architectural aluminium product mfg	4 202	134.1	649.6	191.2	154.6	45.5
2749	Structural metal product mfg n.e.c.	1 184	26.8	153.9	49.0	130.0	41.4
	<i>Total</i>	9 862	315.8	1 603.0	484.2	162.5	49.1
275	Sheet metal product mfg						
2751	Metal container mfg	697	30.7	181.4	52.3	260.2	75.1
2759	Sheet metal product mfg n.e.c.	1 475	49.1	205.9	76.7	139.6	52.0
	<i>Total</i>	2 172	79.9	387.3	129.0	178.3	59.4
276	Fabricated metal product mfg						
2761	Hand tool and general hardware mfg	115	2.3	9.8	4.1	85.3	35.6
2762	Spring and wire product mfg	586	18.0	77.0	26.0	131.4	44.3
2763	Nut, bolt, screw and rivet mfg	*106	*4.4	*11.0	*4.6	**103.9	**43.1
2764	Metal coating and finishing	1 106	35.0	148.3	69.4	134.1	62.7
2765	Non-ferrous pipe fitting mfg	525	18.0	89.8	35.9	170.9	68.3
2769	Fabricated metal product mfg n.e.c.	3 600	111.5	410.2	167.5	113.9	46.5
	<i>Total</i>	6 039	189.2	746.1	307.4	123.6	50.9
27	Total metal product mfg	25 469	960.7	7 681.0	1 962.8	301.6	77.1
MACHINERY AND EQUIPMENT MFG							
281	Motor vehicle and part mfg						
2811	Motor vehicle mfg	np	np	np	np	np	np
2812	Motor vehicle body mfg	2 137	68.3	317.5	98.9	148.6	46.3
2813	Automotive electrical and instrument mfg	np	np	np	np	np	np
2819	Automotive component mfg n.e.c.	1 166	35.7	137.9	54.9	118.2	47.1
	<i>Total</i>	4 320	140.8	719.3	202.5	166.5	46.9
282	Other transport equipment mfg						
2821	Shipbuilding	561	21.0	105.1	38.5	187.5	68.7
2822	Boatbuilding	1 760	46.7	228.1	75.2	129.6	42.7
2823	Railway equipment mfg	2 500	106.4	333.0	145.0	133.2	58.0
2824	Aircraft mfg	852	39.1	161.8	54.3	189.9	63.7
2829	Transport equipment mfg n.e.c.	40	0.8	3.8	1.5	96.7	39.1
	<i>Total</i>	5 712	214.1	831.8	314.5	145.6	55.1
283	Photographic and scientific equipment mfg						
2831	Photographic and optical good mfg	130	3.8	15.6	5.4	120.7	41.6
2832	Medical and surgical equipment mfg	982	29.0	95.8	40.3	97.6	41.0
2839	Professional and scientific equipment mfg n.e.c.	202	7.4	25.4	10.7	125.6	52.8
	<i>Total</i>	1 313	40.2	136.8	56.3	104.2	42.9
284	Electronic equipment mfg						
2841	Computer and business machine mfg	285	11.4	37.2	10.6	130.5	37.2
2842	Telecommunication, broadcasting and transceiving equipment mfg	479	17.1	81.1	26.7	169.4	55.9
2849	Electronic equipment mfg n.e.c.	789	26.5	117.9	42.6	149.3	54.0
	<i>Total</i>	1 553	55.1	236.1	80.0	152.1	51.5

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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>							
285	Electrical equipment and appliance mfg						
2851	Household appliance mfg	np	np	np	np	np	np
2852	Electric cable and wire mfg	np	np	np	np	np	np
2853	Battery mfg	—	—	—	—	—	—
2854	Electric light and sign mfg	647	19.7	78.1	29.5	120.8	45.7
2859	Electrical equipment mfg n.e.c.	1 510	59.9	263.8	91.8	174.7	60.8
	<i>Total</i>	3 237	111.8	557.5	181.4	172.2	56.0
286	Industrial machinery and equipment mfg						
2861	Agricultural machinery mfg	2 291	80.9	320.7	115.3	140.0	50.3
2862	Mining and construction machinery mfg	1 792	79.5	323.4	119.9	180.5	66.9
2863	Food processing machinery mfg	504	20.2	83.5	27.2	165.9	54.0
2864	Machine tool and part mfg	*719	*23.2	*70.2	*39.6	97.7	55.1
2865	Lifting and material handling equipment mfg	1 143	55.0	271.6	93.5	237.6	81.8
2866	Pump and compressor mfg	np	np	np	np	np	np
2867	Commercial space heating and cooling equipment mfg	np	np	np	np	np	np
2869	Industrial machinery and equipment mfg n.e.c.	1 482	54.2	250.7	89.0	169.1	60.0
	<i>Total</i>	8 331	329.7	1 390.4	510.1	166.9	61.2
28	Total machinery and equipment mfg	24 466	891.6	3 871.8	1 344.9	158.3	55.0
OTHER MANUFACTURING							
291	Prefabricated building mfg						
2911	Prefabricated metal building mfg	612	21.7	124.9	40.9	204.1	66.8
2919	Prefabricated building mfg n.e.c.	*80	*1.7	*8.7	*2.5	*108.6	*31.3
	<i>Total</i>	692	23.3	133.6	43.4	193.0	62.7
292	Furniture mfg						
2921	Wooden furniture and upholstered seat mfg	5 707	134.2	517.1	185.8	90.6	32.6
2922	Sheet metal furniture mfg	176	5.2	25.4	7.8	144.0	44.2
2923	Mattress mfg (except rubber)	543	15.7	93.9	30.4	173.1	56.1
2929	Furniture mfg n.e.c.	1 355	40.8	215.3	81.6	158.9	60.2
	<i>Total</i>	7 781	195.9	851.7	305.6	109.5	39.3
294	Miscellaneous mfg						
2941	Jewellery and silverware mfg	487	12.5	46.5	14.5	95.5	29.8
2942	Toy and sporting good mfg	486	12.3	58.1	20.3	119.5	41.8
2949	Manufacturing n.e.c.	558	13.3	45.8	16.7	82.1	30.0
	<i>Total</i>	1 530	38.1	150.3	51.6	98.3	33.7
29	Total other manufacturing	10 003	257.3	1 135.6	400.6	113.5	40.0
21–29	TOTAL MANUFACTURING	142 095	4 986.8	34 108.8	9 597.0	240.0	67.5

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

— 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.

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) .	
	no.	%	\$m	%	\$m	%	\$m	%
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
0–4 persons	465	1.3	8.7	0.7	102.1	1.0	22.7	1.0
5–9 persons	980	2.8	19.4	1.6	114.8	1.2	30.4	1.3
10–19 persons	1 376	3.9	35.3	2.9	365.1	3.7	66.1	2.8
20–49 persons	2 867	8.2	81.5	6.8	758.6	7.6	184.5	7.9
50–99 persons	2 505	7.1	81.0	6.8	627.9	6.3	135.4	5.8
Total less than 100 persons	8 193	23.3	225.9	18.9	1 968.5	19.8	439.2	18.8
100–199 persons	4 412	12.5	142.4	11.9	1 377.8	13.9	282.0	12.0
200–499 persons	8 707	24.8	324.0	27.1	2 565.4	25.8	690.8	29.5
500–999 persons	7 090	20.2	249.5	20.8	1 794.4	18.1	511.8	21.9
1 000 or more persons	6 767	19.2	255.8	21.4	2 219.8	22.4	416.8	17.8
Total 100 or more persons	26 976	76.7	971.8	81.1	7 957.4	80.2	1 901.3	81.2
Total	35 168	100.0	1 197.7	100.0	9 925.9	100.0	2 340.5	100.0
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
0–4 persons	873	16.8	11.9	9.9	59.5	9.9	20.7	10.4
5–9 persons	586	11.3	9.9	8.2	42.5	7.1	17.4	8.7
10–19 persons	642	12.3	15.0	12.4	56.4	9.4	19.9	10.0
20–49 persons	1 074	20.6	26.6	21.9	127.8	21.3	40.1	20.1
50–99 persons	1 048	20.1	31.7	26.1	184.0	30.7	58.1	29.1
Total less than 100 persons	4 223	81.2	95.1	78.5	470.3	78.4	156.3	78.3
100–199 persons	980	18.8	26.0	21.5	129.8	21.6	43.3	21.7
200–499 persons	—	—	—	—	—	—	—	—
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	980	18.8	26.0	21.5	129.8	21.6	43.3	21.7
Total	5 203	100.0	121.1	100.0	600.1	100.0	199.6	100.0
WOOD AND PAPER PRODUCT MANUFACTURING								
0–4 persons	1 001	8.5	16.3	4.3	102.2	4.8	39.6	5.3
5–9 persons	1 146	9.7	28.6	7.5	123.7	5.8	41.3	5.6
10–19 persons	2 044	17.3	58.5	15.4	289.0	13.6	101.6	13.7
20–49 persons	2 433	20.6	76.8	20.3	401.0	18.9	125.4	16.9
50–99 persons	1 762	14.9	56.3	14.9	246.2	11.6	81.7	11.0
Total less than 100 persons	8 386	70.9	236.6	62.4	1 162.1	54.7	389.5	52.6
100–199 persons	1 392	11.8	48.8	12.9	348.8	16.4	123.4	16.7
200–499 persons	2 054	17.4	94.0	24.8	612.7	28.9	228.1	30.8
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	3 446	29.1	142.8	37.6	961.5	45.3	351.5	47.4
Total	11 831	100.0	379.4	100.0	2 123.5	100.0	741.0	100.0

— 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 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 23 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 22 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) .	
	no.	%	\$m	%	\$m	%	\$m	%
PRINTING, PUBLISHING AND RECORDED MEDIA								
0–4 persons	1 005	8.3	22.0	4.9	90.3	5.2	28.7	3.5
5–9 persons	1 527	12.6	42.9	9.6	138.6	8.0	59.6	7.3
10–19 persons	1 421	11.7	42.1	9.5	139.3	8.1	56.6	7.0
20–49 persons	1 772	14.6	58.6	13.2	229.2	13.3	87.5	10.8
50–99 persons	1 128	9.3	39.4	8.9	149.7	8.7	59.0	7.3
<i>Total less than 100 persons</i>	<i>6 852</i>	<i>56.4</i>	<i>205.1</i>	<i>46.1</i>	<i>747.1</i>	<i>43.2</i>	<i>291.4</i>	<i>35.8</i>
100–199 persons	np	np	np	np	np	np	np	np
200–499 persons	2 167	17.8	92.5	20.8	358.6	20.7	177.3	21.8
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	np	np	np	np	np	np	np	np
<i>Total 100 or more persons</i>	<i>5 293</i>	<i>43.6</i>	<i>240.0</i>	<i>53.9</i>	<i>981.9</i>	<i>56.8</i>	<i>522.1</i>	<i>64.2</i>
<i>Total</i>	<i>12 145</i>	<i>100.0</i>	<i>445.1</i>	<i>100.0</i>	<i>1 729.0</i>	<i>100.0</i>	<i>813.5</i>	<i>100.0</i>

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
0–4 persons	625	5.6	13.3	2.8	74.8	1.5	22.9	2.1
5–9 persons	750	6.7	24.4	5.2	152.2	3.1	44.5	4.2
10–19 persons	1 249	11.2	41.3	8.8	222.3	4.5	67.1	6.3
20–49 persons	2 259	20.3	76.0	16.1	568.1	11.6	172.0	16.1
50–99 persons	1 742	15.6	81.3	17.3	649.8	13.2	178.5	16.7
<i>Total less than 100 persons</i>	<i>6 626</i>	<i>59.5</i>	<i>236.3</i>	<i>50.1</i>	<i>1 667.3</i>	<i>33.9</i>	<i>484.9</i>	<i>45.4</i>
100–199 persons	1 728	15.5	89.7	19.0	691.5	14.1	192.6	18.0
200–499 persons	np	np	np	np	np	np	np	np
500–999 persons	np	np	np	np	np	np	np	np
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>4 518</i>	<i>40.5</i>	<i>234.9</i>	<i>49.9</i>	<i>3 247.2</i>	<i>66.1</i>	<i>583.8</i>	<i>54.6</i>
<i>Total</i>	<i>11 144</i>	<i>100.0</i>	<i>471.2</i>	<i>100.0</i>	<i>4 914.4</i>	<i>100.0</i>	<i>1 068.6</i>	<i>100.0</i>

NON-METALLIC MINERAL PRODUCT MANUFACTURING								
0–4 persons	363	5.4	7.6	3.0	49.2	2.3	15.4	2.1
5–9 persons	765	11.5	16.5	6.4	76.3	3.6	27.0	3.8
10–19 persons	738	11.1	22.6	8.7	121.2	5.8	40.2	5.6
20–49 persons	1 089	16.3	42.9	16.6	322.3	15.3	113.4	15.8
50–99 persons	888	13.3	40.6	15.7	585.2	27.8	150.4	20.9
<i>Total less than 100 persons</i>	<i>3 843</i>	<i>57.7</i>	<i>130.2</i>	<i>50.3</i>	<i>1 154.1</i>	<i>54.9</i>	<i>346.5</i>	<i>48.2</i>
100–199 persons	1 273	19.1	56.7	21.9	332.2	15.8	128.7	17.9
200–499 persons	1 549	23.2	71.9	27.8	615.7	29.3	243.1	33.8
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>2 822</i>	<i>42.3</i>	<i>128.7</i>	<i>49.7</i>	<i>947.9</i>	<i>45.1</i>	<i>371.9</i>	<i>51.8</i>
<i>Total</i>	<i>6 665</i>	<i>100.0</i>	<i>258.9</i>	<i>100.0</i>	<i>2 102.0</i>	<i>100.0</i>	<i>718.3</i>	<i>100.0</i>

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 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 23 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 22 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) .	
	no.	%	\$m	%	\$m	%	\$m	%
METAL PRODUCT MANUFACTURING								
0–4 persons	2 351	9.2	50.4	5.3	1 879.9	24.5	1 316.7	..
5–9 persons	2 631	10.3	71.4	7.5	337.6	4.4	125.4	..
10–19 persons	2 111	8.3	67.0	7.0	372.7	4.9	100.8	..
20–49 persons	5 192	20.4	176.7	18.5	1 035.1	13.5	315.0	..
50–99 persons	3 036	11.9	116.3	12.2	679.0	8.9	191.0	..
<i>Total less than 100 persons</i>	<i>15 322</i>	<i>60.2</i>	<i>481.8</i>	<i>50.3</i>	<i>4 304.3</i>	<i>56.2</i>	<i>2 048.9</i>	<i>..</i>
100–199 persons	2 567	10.1	110.5	11.5	1 345.0	17.6	273.7	..
200–499 persons	3 252	12.8	157.7	16.5	1 200.0	15.7	277.5	..
500–999 persons	np	np	np	np	np	np	np	..
1 000 or more persons	np	np	np	np	np	np	np	..
<i>Total 100 or more persons</i>	<i>10 147</i>	<i>39.8</i>	<i>475.3</i>	<i>49.7</i>	<i>3 359.2</i>	<i>43.8</i>	<i>–94.6</i>	<i>..</i>
<i>Total</i>	<i>25 469</i>	<i>100.0</i>	<i>957.1</i>	<i>100.0</i>	<i>7 663.5</i>	<i>100.0</i>	<i>1 954.4</i>	<i>100.0</i>
MACHINERY AND EQUIPMENT MANUFACTURING								
0–4 persons	2 147	8.8	51.2	5.8	243.4	6.3	81.6	6.1
5–9 persons	2 698	11.0	64.9	7.3	258.5	6.7	98.1	7.3
10–19 persons	3 196	13.1	104.1	11.7	447.2	11.6	174.3	12.9
20–49 persons	4 295	17.6	167.2	18.9	740.2	19.2	246.6	18.3
50–99 persons	3 242	13.3	135.6	15.3	612.7	15.9	192.3	14.3
<i>Total less than 100 persons</i>	<i>15 579</i>	<i>63.7</i>	<i>522.9</i>	<i>59.0</i>	<i>2 302.0</i>	<i>59.7</i>	<i>792.9</i>	<i>58.8</i>
100–199 persons	2 575	10.5	108.1	12.2	516.0	13.4	169.2	12.6
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	np	np	np	np	np	np	np	np
<i>Total 100 or more persons</i>	<i>8 887</i>	<i>36.3</i>	<i>363.3</i>	<i>41.0</i>	<i>1 554.3</i>	<i>40.3</i>	<i>554.5</i>	<i>41.2</i>
<i>Total</i>	<i>24 466</i>	<i>100.0</i>	<i>886.2</i>	<i>100.0</i>	<i>3 856.3</i>	<i>100.0</i>	<i>1 347.4</i>	<i>100.0</i>
OTHER MANUFACTURING								
0–4 persons	2 038	20.4	38.6	15.2	184.0	16.5	60.8	15.4
5–9 persons	1 277	12.8	30.8	12.2	128.4	11.5	49.4	12.5
10–19 persons	1 919	19.2	50.6	20.0	246.8	22.1	92.4	23.4
20–49 persons	2 094	20.9	56.7	22.4	243.8	21.9	79.0	20.0
50–99 persons	2 110	21.1	61.1	24.1	250.3	22.4	93.0	23.5
<i>Total less than 100 persons</i>	<i>9 439</i>	<i>94.4</i>	<i>237.8</i>	<i>93.8</i>	<i>1 053.3</i>	<i>94.4</i>	<i>374.6</i>	<i>94.7</i>
100–199 persons	np	np	np	np	np	np	np	np
200–499 persons	np	np	np	np	np	np	np	np
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>565</i>	<i>5.6</i>	<i>15.8</i>	<i>6.2</i>	<i>62.1</i>	<i>5.6</i>	<i>21.1</i>	<i>5.3</i>
<i>Total</i>	<i>10 003</i>	<i>100.0</i>	<i>253.5</i>	<i>100.0</i>	<i>1 115.3</i>	<i>100.0</i>	<i>395.7</i>	<i>100.0</i>

.. not applicable

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 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 23 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 22 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) .	
	no.	%	\$m	%	\$m	%	\$m	%
TOTAL MANUFACTURING								
0–4 persons	10 870	7.6	220.0	4.4	2 785.5	8.2	1 609.1	16.8
5–9 persons	12 360	8.7	308.8	6.2	1 372.6	4.0	493.1	5.1
10–19 persons	14 696	10.3	436.5	8.8	2 260.2	6.6	719.1	7.5
20–49 persons	23 075	16.2	763.0	15.4	4 425.9	13.0	1 363.6	14.2
50–99 persons	17 461	12.3	643.3	12.9	3 984.7	11.7	1 139.3	11.9
<i>Total less than 100 persons</i>	<i>78 462</i>	<i>55.2</i>	<i>2 371.7</i>	<i>47.7</i>	<i>14 829.0</i>	<i>43.6</i>	<i>5 324.2</i>	<i>55.6</i>
100–199 persons	15 734	11.1	612.0	12.3	4 859.2	14.3	1 251.9	13.1
200–499 persons	24 072	16.9	1 032.4	20.8	8 552.9	25.1	2 238.8	23.4
500–999 persons	11 476	8.1	421.2	8.5	2 814.2	8.3	348.4	3.6
1 000 or more persons	12 351	8.7	533.0	10.7	2 974.9	8.7	415.7	4.3
<i>Total 100 or more persons</i>	<i>63 633</i>	<i>44.8</i>	<i>2 598.5</i>	<i>52.3</i>	<i>19 201.1</i>	<i>56.4</i>	<i>4 254.9</i>	<i>44.4</i>
Total	142 095	100.0	4 970.2	100.0	34 030.1	100.0	9 579.0	100.0

(a) See paragraph 6 of the Explanatory Notes.

(b) Data in this table reflect the size of individual manufacturing establishments. These data do not necessarily reflect the size of the business which owns and operates the establishment. For a further example (relating to unincorporated joint ventures) of why caution should be used in interpreting these data, see paragraph 23 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 22 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	Exports 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	1 262.0	180.5	14.3
22	Textile, clothing, footwear and leather mfg	267.4	43.9	16.4
23	Wood and paper product mfg	881.9	10.5	1.2
24	Printing, publishing and recorded media	537.1	3.7	0.7
25	Petroleum, coal, chemical and associated product mfg	968.5	63.4	6.5
26	Non-metallic mineral product mfg	511.0	15.7	3.1
27	Metal product mfg	3 402.0	1 349.3	39.7
28	Machinery and equipment mfg	1 409.3	167.3	11.9
29	Other manufacturing	756.3	10.2	1.3
21–29	<i>Total manufacturing</i>	9 995.7	1 844.5	18.5
50–99 PERSONS				
21	Food, beverage and tobacco mfg	595.3	113.9	19.1
22	Textile, clothing, footwear and leather mfg	151.0	np	np
23	Wood and paper product mfg	237.6	8.3	3.5
24	Printing, publishing and recorded media	104.8	np	np
25	Petroleum, coal, chemical and associated product mfg	634.2	np	np
26	Non-metallic mineral product mfg	545.9	np	np
27	Metal product mfg	628.3	61.5	9.8
28	Machinery and equipment mfg	456.3	39.2	8.6
29	Other manufacturing	237.9	np	np
21–29	<i>Total manufacturing</i>	3 591.3	322.6	9.0
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	7 753.2	3 007.5	38.8
22	Textile, clothing, footwear and leather mfg	120.0	np	np
23	Wood and paper product mfg	944.0	52.3	5.5
24	Printing, publishing and recorded media	423.2	np	np
25	Petroleum, coal, chemical and associated product mfg	3 220.3	np	np
26	Non-metallic mineral product mfg	910.9	np	np
27	Metal product mfg	3 276.4	1 050.2	32.1
28	Machinery and equipment mfg	1 203.6	249.6	20.7
29	Other manufacturing	61.2	np	np
21–29	<i>Total manufacturing</i>	17 912.8	4 766.5	26.6
TOTAL				
21	Food, beverage and tobacco mfg	9 610.5	3 301.9	34.4
22	Textile, clothing, footwear and leather mfg	538.4	136.8	25.4
23	Wood and paper product mfg	2 063.5	71.1	3.4
24	Printing, publishing and recorded media	1 065.1	6.8	0.6
25	Petroleum, coal, chemical and associated product mfg	4 823.0	371.9	7.7
26	Non-metallic mineral product mfg	1 967.8	111.2	5.7
27	Metal product mfg	7 306.7	2 461.0	33.7
28	Machinery and equipment mfg	3 069.3	456.1	14.9
29	Other manufacturing	1 055.4	16.8	1.6
21–29	Total manufacturing	31 499.7	6 933.7	22.0

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

(a) See paragraph 6 of the Explanatory Notes.

(b) See paragraphs 24–26 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 23 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 22 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	43.8	43.6	39.7	42.8
22	Textile, clothing, footwear and leather mfg	59.7	49.6	37.0	41.6
23	Wood and paper product mfg	73.6	69.1	66.8	65.3
24	Printing, publishing and recorded media	88.4	88.5	88.5	91.1
25	Petroleum, coal, chemical and associated product mfg	45.8	37.7	25.8	32.8
26	Non-metallic mineral product mfg	62.8	61.7	66.1	59.5
27	Metal product mfg	68.0	60.3	45.2	..
28	Machinery and equipment mfg	51.6	51.2	43.8	48.3
29	Other manufacturing	78.1	75.4	73.0	75.8
21–29	Total manufacturing	59.8	56.3	46.3	52.9
EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	24.1	22.7	24.9	27.1
22	Textile, clothing, footwear and leather mfg	29.0	34.6	37.7	38.7
23	Wood and paper product mfg	25.6	29.8	32.6	33.9
24	Printing, publishing and recorded media	11.6	11.4	11.4	8.8
25	Petroleum, coal, chemical and associated product mfg	47.6	55.9	69.9	62.0
26	Non-metallic mineral product mfg	33.9	34.0	30.2	38.0
27	Metal product mfg	22.4	26.2	16.4	..
28	Machinery and equipment mfg	39.6	40.2	46.7	42.3
29	Other manufacturing	21.9	24.6	27.0	24.2
21–29	Total manufacturing	27.9	30.2	32.4	27.1
EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	32.1	33.7	35.4	30.1
22	Textile, clothing, footwear and leather mfg	11.3	15.7	25.3	19.7
23	Wood and paper product mfg	0.8	1.1	0.6	0.8
24	Printing, publishing and recorded media	0.1	0.1	0.1	0.1
25	Petroleum, coal, chemical and associated product mfg	6.6	6.5	4.3	5.2
26	Non-metallic mineral product mfg	3.3	4.2	3.7	2.5
27	Metal product mfg	9.6	13.5	38.4	..
28	Machinery and equipment mfg	8.8	8.5	9.5	9.4
29	Other manufacturing	—	—	—	—
21–29	Total manufacturing	12.3	13.5	21.4	19.9

.. not applicable

— nil or rounded to zero (including null cells)

(a) See paragraph 6 of the Explanatory Notes.

(b) See paragraphs 24–26 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

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 nationally. For further information, see the Appendix.

2 This publication presents final statistics for Queensland 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 nationally 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 the Appendix.

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 inscope 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

EXPLANATORY NOTES *continued*

SCOPE AND COVERAGE

continued

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.

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 the Appendix.

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 Queensland employment is an increase of 1.2% while the effect on turnover is an increase of 0.1%. All industry subdivisions 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)
<i>plus</i>	Income from intellectual property royalties
<i>equals</i>	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)
<i>plus</i>	Closing inventories
<i>less</i>	Opening inventories
<i>less</i>	Intermediate input expenses (see the operating expenses entry in the Glossary)
<i>equals</i>	IVA
	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

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 for 1998–99 have been calculated as adding 0.3% to employment and 0.2% to turnover for Queensland. These businesses were included in the 1999–2000 manufacturing collection if they remained classified as manufacturers on the ABS business register.

EMPLOYMENT SIZE DATA

22 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 3. 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 4. 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.

23 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 would reflect a similar dominance pattern to the other manufacturing industries. In other words, in the statistics in tables 3 and 4, 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 this industry.

EXPORTS BY MANUFACTURERS

24 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 4 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. The data in table 4 exclude those manufacturing establishments which operated during 1999–2000 but were not operating at 30 June 2000.

25 The statistics presented in table 4 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 4 and 5 only include exports directly undertaken by the manufacturer or by its agent.

26 The data in table 4 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

EXPLANATORY NOTES *continued*

EXPORTS BY MANUFACTURERS *continued*

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 4 and 5. 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 4 and 5 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.

REGIONAL DATA

27 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 the Appendix. For further details about the availability of sub-State data, please contact John Ridley on Sydney 02 9268 4541.

ACKNOWLEDGEMENT

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

INFORMATION PAPER

29 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

30 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 are being released progressively.

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

- *Australian National Accounts: State Accounts, 1999–2000* (Cat. no. 5220.0), released on 23 November 2000 — Annual publication
- *Business Operations and Industry Performance, Australia, 1999–2000* (Cat. no. 8140.0), 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

EXPLANATORY NOTES *continued*

RELATED PUBLICATIONS

continued

- *Information Paper: Improvements to ABS Economic Statistics, 1997* (Cat. no. 1357.0), released on 22 August 1997 — Irregular publication
- *Inventories and Sales, Selected Industries, Australia* (Cat. no. 5629.0) — Quarterly publication
- *Labour Force, Australia* (Cat. no. 6203.0) — Monthly 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

BACK SERIES AND ADDITIONAL DATA

32 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. The information paper (Cat. no. 8205.0) referred to in paragraphs 29 and 31 provides more details.

ROUNDING

33 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.

34 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
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
PAYE	pay as you earn

APPENDIX 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 nationally.

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 nationally 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 nationally 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 *Manufacturing Industry, Australia* (Cat. no. 8221.0) 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. This publication 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

6 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

7 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

APPENDIX 2000–01 SURVEY CHANGES *continued*

STATE AND TERRITORY DATA *continued*

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.

8 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

9 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 data for Queensland presented in this publication are nearly all 3% or less for industry subdivisions (see Technical Note 2) and most are 4.5% or less for industry classes.

4 Relative standard errors at the industry subdivision level for Queensland 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	Industry value added	Amount exported by this business or its agent
ANZSIC code	Description	%	%	%	%	%
21	Food, beverage and tobacco mfg	0.9	0.5	0.4	0.6	0.7
22	Textile, clothing, footwear and leather mfg	3.6	2.6	2.0	2.4	2.3
23	Wood and paper product mfg	3.0	2.5	2.0	1.9	7.0
24	Printing, publishing and recorded media	1.8	1.3	1.2	1.2	12.2
25	Petroleum, coal, chemical and associated product mfg	1.7	1.3	0.5	0.9	3.7
26	Non-metallic mineral product mfg	2.5	1.3	0.7	0.8	1.6
27	Metal product mfg	2.3	1.6	1.2	1.7	—
28	Machinery and equipment mfg	2.1	1.9	2.0	2.4	4.8
29	Other manufacturing	3.6	3.2	3.4	3.6	15.6
21–29	Total manufacturing	0.7	0.5	0.4	0.5	0.5

— nil or rounded to zero (including null cells)

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

GLOSSARY

ABS	Australian Bureau of Statistics
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
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>
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>
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,

GLOSSARY *continued*

Establishment <i>continued</i>	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 4)	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 4, the ratio is calculated by dividing the total value of goods exported by the total value of sales and transfers out of goods produced by all establishments, not just the aggregated value for those units which exported. (The data in table 4 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 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

GLOSSARY *continued*

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

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:

	Intermediate input expenses (See the entry for operating expenses for further detail)
<i>plus</i>	Opening inventories
<i>less</i>	Closing inventories

Management unit The management unit is the highest-level unit within a business, having regard to industry homogeneity, for which accounts are maintained; in nearly all cases, it coincides with the legal entity owning the business (that is, company,

GLOSSARY *continued*

Management unit <i>continued</i>	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).
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.

Remaining expenses are categorised as follows:

Intermediate input expenses

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

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

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

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

Selected labour costs

Wages and salaries including provisions for employee entitlements

Employer contributions into superannuation including salary sacrifice

Workers' compensation premiums/costs

Payroll tax and Fringe benefits tax

Other operating expenses

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

GLOSSARY *continued*

Operating expenses <i>continued</i>	land rates and taxes, mineral/petroleum exploration expenses not capitalised by businesses, and natural resource royalties expenses.
Other intermediate input expenses	Intermediate input expenses less purchases and transfers in.
Own account capital work	Capitalised work done by the employees or proprietors of an establishment for use by the business 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. 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.
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 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 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 4)	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	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

GLOSSARY *continued*

Service income <i>continued</i>	<p>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>
Statistical division	<p>A general purpose spatial unit and is the largest and most stable spatial unit within each State and Territory in the Main Structure of the Australian Standard Geographical Classification.</p>
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 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	<p>Turnover of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.</p>
Wages and salaries	<p>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.</p>

GLOSSARY *continued*

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.
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