

MANUFACTURING INDUSTRY

AUSTRALIA

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

NOTES

ABOUT THIS PUBLICATION

This publication presents the first release of manufacturing industry estimates from the Economic Activity Survey compiled using new statistical infrastructure. Estimates have been compiled on this new basis for each of 2001–02 and 2002–03. Effectively, a new statistical series has commenced with the 2001–02 collection.

The new infrastructure was described in *Information Paper: Improvements in ABS Economic Statistics [Arising from The New Tax System]* (cat. no. 1372.0), released by the Australian Bureau of Statistics (ABS) on 6 May 2002. The paper described a number of changes to the infrastructure supporting the compilation of ABS economic series. The changes make better use of data available from the taxation system to improve the efficiency, coverage and sample design of the surveys from which these series are sourced.

To facilitate comparisons over time, the effects of the infrastructure changes on the statistics have been measured, by showing data on both bases for 2000–01. For total manufacturing, the estimates of Industry Value Added (IVA) on the new basis are 10.4% higher than those collected on the old basis, and the estimates of sales and service income are 9.3% higher. More details on the size of these effects can be found in Appendix 3.

Employment estimates (and related ratios) have not been included in this issue, due to methodological problems with deriving them from the taxation system data used. See Explanatory Notes paragraph 32 for details.

CANCELLATION OF 2001–02 ISSUE

This publication contains previously unpublished information for the manufacturing industry for both 2001–02 and 2002–03. This is because the scheduled 2001–02 issue of this publication was not produced, due to delays caused by the introduction of the new statistical infrastructure mentioned above.

INFORMATION AVAILABLE ONLINE

Information is available online via the *Manufacturing Statistics* theme page. To access the theme page, go to the ABS web site home page <<http://abs.gov.au>>. Open the *Industry* link shown under THEMES (located in the left-side navigator 'Quick links'), then open the *Manufacturing Statistics* link shown under *Industry*.

Dennis Trewin
Australian Statistician

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ABBREVIATIONS

\$b	billion (thousand million) dollars
\$m	million dollars
ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ACT	Australian Capital Territory
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
ATO	Australian Taxation Office
Aust.	Australia
BAS	Business Activity Statement
BIT	business income tax
EAS	Economic Activity Survey
f.o.b.	free on board
GST	Goods and Services Tax
IVA	industry value added
mfg	manufacturing
MU	management unit
n.e.c.	not elsewhere classified
NSW	New South Wales
NT	Northern Territory
OPBT	operating profit before tax
PAYGW	pay-as-you-go withholding
Qld	Queensland
RSE	relative standard error
SA	South Australia
SISCA	Standard Institutional Sector Classification of Australia
Tas.	Tasmania
TAU	type of activity unit
TNTS	The New Tax System
Vic.	Victoria
WA	Western Australia

INTRODUCTION

The introduction of the New Tax System (TNTS) has had a number of significant implications for ABS statistics. Most of these changes affected the ABS Business Register (ABSBR) and, therefore, all ABS business collections which draw their populations from it. These changes have resulted in the adoption of a new statistical infrastructure. Because of this, data are presented for 2000-01 on an old and a new basis in Table 1.1.

Data shown on the 'old basis' reflect the 2000-01 collection where data were collected from what the ABS refers to as management units. The 'new basis' data reflect the new ABN unit / TAU based collections for 2001-02 and 2002-03. The 'new basis' data also provide revised estimates for 2000-01, calculated as though the 2000-01 collection had been conducted on the same basis as the 2001-02 and 2002-03 collections.

Given the significant changes to the statistical infrastructure which have occurred, care should be taken in using these bridged estimates. For more information, see Explanatory Notes paragraphs 6-11 and Appendices 2 and 3. The Glossary provides definitions for terms used.

OVERVIEW

Sales and service income for the year 2002-03 for the Australian manufacturing industry was \$309.3b, which resulted in an industry value added (IVA) for the year of \$88.7b. In current price terms, this represents a 5.0% increase in sales and service income from the \$294.5b recorded for 2001-02 and an increase of 9.3% in IVA. The manufacturing industry paid \$45.9b in wages and salaries in 2002-03, an 8.4% increase on the year before.

COMPARISON ACROSS
INDUSTRY

In 2002-03, the largest share of production (as measured by total factor income) was contributed equally by MANUFACTURING and PROPERTY AND BUSINESS SERVICES, both at 11.7%. MANUFACTURING was the largest industry in Victoria, Queensland, South Australia and Tasmania, and in NSW was exceeded only by PROPERTY AND BUSINESS SERVICES and OWNERSHIP OF DWELLINGS. South Australia (at 14.7%) had the highest proportion of state or territory production attributed to MANUFACTURING, closely followed by Victoria (at 14.5%).

AUSTRALIAN PRODUCTION

Of the industries shown in the second of the following tables, MANUFACTURING was ranked fourth last in terms of the average annual growth rate over the past 10 years and second last over the past 25 years, with increases of 2.5% and 1.9% respectively. By comparison, the highest growth rates were recorded by COMMUNICATION SERVICES with annualised rates of 6.7% and 7.0% for the 10 year and 25 year periods.

States and territories by
industry

INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME, 2002-03

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Industry	%	%	%	%	%	%	%	%	%
Agriculture, forestry and fishing	1.7	3.1	4.2	5.4	2.9	6.1	2.7	0.1	2.9
Mining	2.0	1.7	7.7	2.5	20.2	1.4	23.0	—	5.2
Manufacturing	11.7	14.5	9.9	14.7	9.0	13.7	3.6	1.6	11.7
Electricity, gas and water supply	2.2	2.6	2.3	2.4	2.7	5.4	1.6	3.6	2.5
Construction	6.2	6.0	7.7	7.0	8.1	6.2	7.4	7.7	6.7
Wholesale trade	5.9	6.2	5.6	4.7	4.6	4.1	2.6	2.0	5.5
Retail trade	5.3	5.6	7.0	5.6	5.2	6.4	4.8	4.5	5.7
Accommodation, cafes and restaurants	2.4	1.7	3.0	2.2	1.6	2.7	2.7	2.3	2.2
Transport and storage	4.7	4.4	5.5	4.7	4.7	5.0	4.5	2.3	4.7
Communication services	2.9	3.5	2.8	2.5	2.3	2.5	2.9	2.3	2.9
Finance and insurance	9.7	8.8	5.2	6.4	4.7	6.6	2.9	3.9	7.7
Property and business services	13.6	12.7	9.2	9.1	10.0	5.3	9.0	12.9	11.7
Government administration and defence	3.5	2.6	4.4	3.5	2.3	5.5	7.4	26.1	3.9
Education	4.2	5.1	4.7	5.2	3.7	5.1	4.8	5.7	4.6
Health and community services	5.9	6.5	6.1	8.1	5.8	8.9	6.6	6.1	6.3
Cultural and recreational services	2.1	2.0	1.5	1.8	1.4	1.5	2.4	2.7	1.9
Personal and other services	2.1	2.5	2.9	3.0	2.6	2.5	2.6	3.1	2.5
Ownership of dwellings	11.8	8.6	7.7	9.2	6.4	8.1	5.4	8.3	9.3
General government(a)	2.0	1.8	2.7	2.2	1.7	3.0	3.1	4.7	2.2

— nil or rounded to zero (including null cells)

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

Source: Australian National Accounts: State Accounts 2002-03 (cat. no. 5220.0).

Production volumes

PRODUCTION VOLUMES (a)

Industry	CHAIN VOLUME MEASURES		Change from 2001-02 to 2002-03	AVERAGE ANNUAL CHANGE FROM	
	2001-02	2002-03		1992-93 to 2002-03	1977-78 to 2002-03
	\$m	\$m	%	%	%
Agriculture, forestry and fishing	27 148	20 855	-23.2	0.7	1.4
Mining	34 128	34 325	0.6	3.2	3.9
Manufacturing	79 142	81 833	3.4	2.5	1.9
Electricity, gas and water supply	16 759	16 935	1.1	1.5	2.7
Construction	39 110	45 587	16.6	5.1	3.3
Wholesale trade	37 600	39 311	4.6	4.6	2.9
Retail trade	37 671	39 411	4.6	4.0	3.2
Accommodation, cafes and restaurants	14 658	15 164	3.5	3.8	3.0
Transport and storage	35 191	37 021	5.2	4.4	3.6
Communication services	18 781	19 970	6.3	6.7	7.0
Finance and insurance	53 274	55 671	4.5	4.3	4.5
Property and business services	77 673	79 615	2.5	5.1	5.1
Government administration and defence	29 109	29 709	2.1	2.7	2.6
Education	32 978	33 435	1.4	1.7	2.7
Health and community services	42 608	44 142	3.6	3.9	3.9
Cultural and recreational services	13 017	13 134	0.9	2.8	3.0
Personal and other services	17 157	17 466	1.8	3.5	3.0
Total all industries	606 004	623 584	2.9	3.7	3.3

(a) Reference year for chain volume measures is 2002-03.

Note: The volume estimates contained in this table are derived from quarterly Business Surveys.

Source: Australian National Accounts: National Income, Expenditure and Product, June Quarter 2004 (cat. no. 5206.0).

1.1

KEY DATA(a), Manufacturing industry subdivision

<i>Statistical infrastructure / Reference year</i>	<i>Sales and service income(b)</i>	<i>Wages and salaries(c)</i>	<i>Industry value added</i>	<i>Wages and salaries to sales and service income</i>
	\$m	\$m	\$m	ratio
FOOD, BEVERAGE AND TOBACCO MFG				
Old basis				
2000-01	56 989.9	7 436.1	14 867.3	0.13
New basis				
2000-01(d)	62 342.5	7 886.2	16 059.4	0.13
2001-02	66 048.4	7 952.5	16 764.5	0.12
2002-03	67 899.5	8 480.6	17 535.5	0.12
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG				
Old basis				
2000-01	9 085.1	1 748.0	2 580.6	0.19
New basis				
2000-01(d)	11 483.9	1 958.6	3 079.7	0.17
2001-02	11 046.8	1 864.5	2 999.6	0.17
2002-03	11 057.8	1 937.3	3 207.4	0.18
WOOD AND PAPER PRODUCT MFG				
Old basis				
2000-01	14 660.4	2 420.9	4 842.1	0.17
New basis				
2000-01(d)	16 602.2	2 596.5	5 701.2	0.16
2001-02	16 564.7	2 527.1	5 571.9	0.15
2002-03	18 104.8	2 792.9	6 346.3	0.15
PRINTING, PUBLISHING AND RECORDED MEDIA				
Old basis				
2000-01	16 940.3	3 963.4	6 895.9	0.23
New basis				
2000-01(d)	18 863.1	4 339.7	7 471.5	0.23
2001-02	20 234.8	4 637.1	8 430.4	0.23
2002-03	21 218.5	4 720.8	9 111.8	0.22
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG				
Old basis				
2000-01	46 005.4	4 940.1	9 620.0	0.11
New basis				
2000-01(d)	47 516.5	5 087.6	9 905.2	0.11
2001-02	47 735.7	5 019.2	9 802.8	0.11
2002-03	50 510.1	5 239.7	11 290.2	0.10

(a) These data are from collections based on two successive statistical infrastructures. To assist users, data for 2000-01 are shown on the old basis (which used a management unit based infrastructure), and on the new basis (as bridged ABN unit / TAU estimates). Data for 2001-02 and 2002-03 are ABN unit / TAU estimates. See Explanatory Notes paragraphs 6-11 and Appendices 2 and 3. Value data are shown at current prices and, therefore, do not discount the impact of price changes.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

(d) See Appendix 3 for more information.

1.1KEY DATA(a), Manufacturing industry subdivision *continued*

<i>Statistical infrastructure / Reference year</i>	<i>Sales and service income(b)</i>	<i>Wages and salaries(c)</i>	<i>Industry value added</i>	<i>Wages and salaries to sales and service income</i>
	\$m	\$m	\$m	ratio
NON-METALLIC MINERAL PRODUCT MFG				
Old basis				
2000-01	9 776.6	1 719.6	3 593.7	0.18
New basis				
2000-01(d)	10 531.7	1 796.1	3 863.0	0.17
2001-02	11 269.7	1 809.1	3 840.1	0.16
2002-03	12 662.2	2 033.0	4 528.4	0.16
METAL PRODUCT MFG				
Old basis				
2000-01	42 513.2	6 177.7	13 573.1	0.15
New basis				
2000-01(d)	46 031.5	6 401.9	14 800.1	0.14
2001-02	52 541.1	6 912.1	15 219.1	0.13
2002-03	55 302.0	7 733.8	16 132.8	0.14
MACHINERY AND EQUIPMENT MFG				
Old basis				
2000-01	50 200.7	8 639.6	13 428.3	0.17
New basis				
2000-01(d)	52 557.4	9 186.4	14 756.2	0.17
2001-02	57 534.9	9 382.9	14 895.5	0.16
2002-03	60 113.1	10 612.4	16 695.0	0.18
OTHER MANUFACTURING				
Old basis				
2000-01	6 941.9	1 580.1	2 423.4	0.23
New basis				
2000-01(d)	10 849.1	2 090.9	3 676.5	0.19
2001-02	11 566.5	2 226.4	3 613.2	0.19
2002-03	12 415.0	2 336.5	3 841.0	0.19
TOTAL MANUFACTURING				
Old basis				
2000-01	253 113.4	38 625.5	71 824.3	0.15
New basis				
2000-01(d)	276 777.9	41 343.8	79 312.7	0.15
2001-02	294 542.7	42 330.9	81 137.1	0.14
2002-03	309 283.1	45 886.9	88 688.3	0.15

(a) These data are from collections based on two successive statistical infrastructures. To assist users, data for 2000-01 are shown on the old basis (which used a management unit based infrastructure), and on the new basis (as bridged ABN unit / TAU estimates). Data for 2001-02 and 2002-03 are ABN unit / TAU estimates. See Explanatory Notes paragraphs 6-11 and Appendices 2 and 3. Value data are shown at current prices and, therefore, do not discount the impact of price changes.

(b) Includes rent, leasing and hiring income.

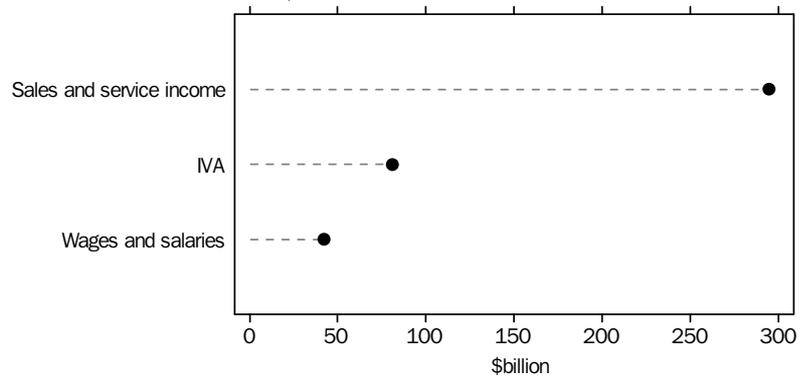
(c) Excludes the drawings of working proprietors.

(d) See Appendix 3 for more information.

OVERVIEW

In 2001-02, the Australian manufacturing industry generated sales and service income of \$294.5b, and industry value added (IVA) of \$81.1b. Wages and salaries paid totalled \$42.3b.

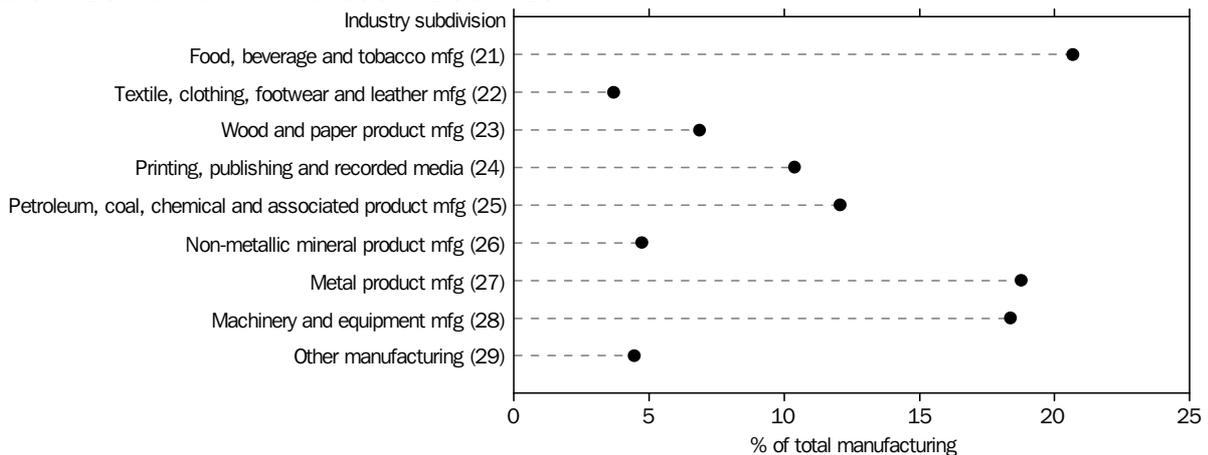
SELECTED VARIABLES, 2001-02



INDUSTRY VALUE ADDED

For 2001-02, FOOD, BEVERAGE AND TOBACCO MANUFACTURING, METAL PRODUCT MANUFACTURING and MACHINERY AND EQUIPMENT MANUFACTURING were the industry subdivisions with the largest contribution to IVA in the manufacturing industry. In aggregate, these three industry subdivisions accounted for 58% of total IVA in the manufacturing industry.

DISTRIBUTION OF IVA ACROSS INDUSTRIES



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

- FOOD, BEVERAGE AND TOBACCO MANUFACTURING (20.7%), of which the most substantial industry groups of those available for publication were:
 - OTHER FOOD MANUFACTURING (ANZSIC Group 217 at 4.5%)

INDUSTRY VALUE ADDED

continued

- MEAT AND MEAT PRODUCT MANUFACTURING (ANZSIC Group 211 at 3.7%).
- METAL PRODUCT MANUFACTURING (18.8%), of which the most substantial industry groups were:
 - BASIC NON-FERROUS METAL MANUFACTURING (ANZSIC Group 272 at 6.9%)
 - IRON AND STEEL MANUFACTURING (ANZSIC Group 271 at 3.8%)
 - FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC Group 276 at 3.5%).
- MACHINERY AND EQUIPMENT MANUFACTURING (18.4%), of which the most substantial industry groups were:
 - MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC Group 281 at 5.9%)
 - INDUSTRIAL MACHINERY AND EQUIPMENT MANUFACTURING (ANZSIC Group 286 at 4.5%).

Industry groups making a notable contribution to IVA and not included in the subdivisions listed above included:

- PUBLISHING (ANZSIC Group 242 at 5.6%)
- PRINTING AND SERVICES TO PRINTING (ANZSIC Group 241 at 4.4%)
- OTHER CHEMICAL PRODUCT MANUFACTURING (ANZSIC Group 254 at 4.3%)
- PAPER AND PAPER PRODUCT MANUFACTURING (ANZSIC Group 233 at 3.1%)
- BASIC CHEMICAL MANUFACTURING (ANZSIC Group 253 at 3.1%)
- PLASTIC PRODUCT MANUFACTURING (ANZSIC Group 256 at 3.0%).

WAGES AND SALARIES

The Australian manufacturing industry paid \$42,331m in wages and salaries in 2001–02. This represented 14.4% of sales and service income and 52.2% of industry value added for the year. (Readers should note that wages and salaries data exclude the drawings of working proprietors.)

The largest manufacturing industries in terms of wages and salaries paid in 2001–02 were:

- MACHINERY AND EQUIPMENT MANUFACTURING (22.2% of total wages and salaries paid)
- FOOD, BEVERAGE AND TOBACCO MANUFACTURING (18.8%)
- METAL PRODUCT MANUFACTURING (16.3%).

These were also the same top-ranked industries for industry value added and sales and service income, but the rank orders differ in each case.

STATE/TERRITORY

COMPARISON

A comparison of state and territory performance for sales and service income and industry value added follows.

Sales and service income

The highest contribution to Australian sales and service income for 2001–02 was made by New South Wales manufacturers. New South Wales contributed \$92,752m (31.5%) to Australian sales and service income, followed by Victoria with \$88,663m (30.1%) and Queensland with \$49,107m (16.7%).

Industry value added

New South Wales (at 31.5%) has marginally exceeded Victoria (at 31.4%) as the major contributor to TOTAL MANUFACTURING IVA for Australia in 2001–02. The contribution of the other states and territories in 2001–02 was: Queensland (16.2%), Western Australia (9.0%), South Australia (8.4%), Tasmania (2.3%), Northern Territory (0.8%) and Australian Capital Territory (0.4%).

*Industry value added
continued*

The industry subdivision for which IVA was most heavily concentrated in a state or territory was TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING in Victoria (at 47.3% of total IVA for that industry). This was followed by PRINTING, PUBLISHING AND RECORDED MEDIA in New South Wales (at 40.9%) and, for Victoria, both PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (at 36.9%) and MACHINERY AND EQUIPMENT MANUFACTURING (at 36.3%).

In some cases, the extent to which an industry subdivision is concentrated in a state or territory significantly outweighs that state or territory's share of total Australian manufacturing industry value added. The most notable example is WOOD AND PAPER PRODUCT MANUFACTURING in Tasmania. These manufacturers contributed 9.1% of IVA for this industry in Australia, compared to the total Tasmanian contribution to Australian manufacturing IVA of 2.3%. This was followed by METAL PRODUCT MANUFACTURING in Western Australia (15.0% compared to 9.0%), MACHINERY AND EQUIPMENT MANUFACTURING in South Australia (13.5% compared to 8.4%) and METAL PRODUCT MANUFACTURING in Queensland (26.1% compared to 16.2%).

EXPORTS

In 2001-02, Australian manufacturers directly exported \$46,615m of the goods that they produced. This represented 20.1% of their value of sales of goods produced for 2001-02.

The industry subdivisions with the highest proportion of exports compared to sales of goods produced were METAL PRODUCT MANUFACTURING (at 35.3%), MACHINERY AND EQUIPMENT MANUFACTURING (at 22.8%), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (at 22.6%), and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (at 21.3%).

2.1 INDUSTRY CLASS

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
FOOD, BEVERAGE AND TOBACCO MFG				
211	Meat and meat product mfg			
2111	Meat processing	10 250.9	1 035.7	1 584.2
2112	Poultry processing	3 314.7	555.6	940.9
2113	Bacon, ham and smallgood mfg	1 964.2	294.2	450.5
	<i>Total</i>	<i>15 529.8</i>	<i>1 885.5</i>	<i>2 975.5</i>
212	Dairy product mfg			
2121	Milk and cream processing	2 724.2	310.0	695.9
2122	Ice cream mfg	477.8	59.2	109.8
2129	Dairy product mfg n.e.c.	5 900.5	479.6	1 055.8
	<i>Total</i>	<i>9 102.5</i>	<i>848.8</i>	<i>1 861.5</i>
213	Fruit and vegetable processing	4 001.3	567.7	1 062.7
214	Oil and fat mfg	1 543.6	145.2	326.4
215	Flour mill and cereal food mfg			
2151	Flour mill product mfg	1 607.6	124.6	333.8
2152	Cereal food and baking mix mfg	2 077.8	239.2	542.6
	<i>Total</i>	<i>3 685.4</i>	<i>363.8</i>	<i>876.4</i>
216	Bakery product mfg			
2161	Bread mfg	1 712.4	452.2	718.1
2162	Cake and pastry mfg	956.4	233.4	346.1
2163	Biscuit mfg	1 049.9	222.4	408.9
	<i>Total</i>	<i>3 718.7</i>	<i>908.0</i>	<i>1 473.0</i>
217	Other food mfg			
2171	Sugar mfg	2 356.7	240.5	467.9
2172	Confectionery mfg	1 648.5	278.0	637.6
2173	Seafood processing	1 594.8	121.1	218.0
2174	Prepared animal and bird feed mfg	2 664.4	228.1	492.7
2179	Food mfg n.e.c.	6 743.1	859.7	1 832.1
	<i>Total</i>	<i>15 007.4</i>	<i>1 727.4</i>	<i>3 648.2</i>
218	Beverage and malt mfg			
2181	Soft drink, cordial and syrup mfg	3 329.6	377.8	967.5
2182	Beer and malt mfg	3 165.0	284.1	1 286.6
2183	Wine mfg	5 079.1	661.3	1 716.8
2184	Spirit mfg	np	np	np
	<i>Total</i>	<i>np</i>	<i>np</i>	<i>np</i>
219	Tobacco product mfg	np	np	np
21	Total food, beverage and tobacco mfg	66 048.4	7 952.5	16 764.5
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG				
221	Textile fibre, yarn and woven fabric mfg			
2211	Wool scouring	633.8	72.0	101.7
2212	Synthetic fibre textile mfg	336.1	52.3	101.4
2213	Cotton textile mfg	475.9	95.5	135.7
2214	Wool textile mfg	240.3	43.0	66.4
2215	Textile finishing	184.6	41.0	70.9
	<i>Total</i>	<i>1 870.6</i>	<i>303.8</i>	<i>476.2</i>
222	Textile product mfg			
2221	Made-up textile product mfg	1 128.1	239.4	379.5
2222	Textile floor covering mfg	1 050.3	166.8	264.2
2223	Rope, cordage and twine mfg	151.6	26.4	22.4
2229	Textile product mfg n.e.c.	573.4	102.3	168.1
	<i>Total</i>	<i>2 903.3</i>	<i>534.9</i>	<i>834.2</i>

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

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG <i>cont.</i>				
223	Knitting mills			
2231	Hosiery mfg	154.6	45.0	70.5
2232	Cardigan and pullover mfg	138.8	25.8	46.7
2239	Knitting mill product mfg n.e.c.	278.2	54.0	66.7
	<i>Total</i>	<i>571.6</i>	<i>124.8</i>	<i>183.9</i>
224	Clothing mfg			
2241	Men's and boys' wear mfg	628.2	128.2	191.2
2242	Women's and girls' wear mfg	866.0	117.4	190.0
2243	Sleepwear, underwear and infant clothing mfg	315.0	42.1	65.1
2249	Clothing mfg n.e.c.	2 342.9	368.5	663.7
	<i>Total</i>	<i>4 152.1</i>	<i>656.1</i>	<i>1 110.1</i>
225	Footwear mfg	514.7	110.2	169.3
226	Leather and leather product mfg			
2261	Leather tanning and fur dressing	849.6	106.3	173.0
2262	Leather and leather substitute product mfg	184.9	28.6	53.0
	<i>Total</i>	<i>1 034.5</i>	<i>134.8</i>	<i>226.0</i>
22	Total textile, clothing, footwear and leather mfg	11 046.8	1 864.5	2 999.6
WOOD AND PAPER PRODUCT MFG				
231	Log sawmilling and timber dressing			
2311	Log sawmilling	1 631.5	276.7	674.2
2312	Wood chipping	536.2	43.8	217.7
2313	Timber resawing and dressing	1 373.8	238.8	503.8
	<i>Total</i>	<i>3 541.6</i>	<i>559.4</i>	<i>1 395.6</i>
232	Other wood product mfg			
2321	Plywood and veneer mfg	290.8	45.3	85.4
2322	Fabricated wood mfg	1 231.6	191.7	399.4
2323	Wooden structural component mfg	2 670.2	494.9	811.3
2329	Wood product mfg n.e.c.	1 022.6	182.8	347.5
	<i>Total</i>	<i>5 215.1</i>	<i>914.7</i>	<i>1 643.6</i>
233	Paper and paper product mfg			
2331	Pulp, paper and paperboard mfg	2 628.5	250.2	932.8
2332	Solid paperboard container mfg	659.3	158.7	253.5
2333	Corrugated paperboard container mfg	2 420.0	339.5	648.0
2334	Paper bag and sack mfg	346.0	58.0	129.8
2339	Paper product mfg n.e.c.	1 754.2	246.6	568.5
	<i>Total</i>	<i>7 808.1</i>	<i>1 053.0</i>	<i>2 532.7</i>
23	Total wood and paper product mfg	16 564.7	2 527.1	5 571.9
PRINTING, PUBLISHING AND RECORDED MEDIA				
241	Printing and services to printing			
2411	Paper stationery mfg	1 220.7	251.0	323.4
2412	Printing	7 291.9	1 712.6	2 832.4
2413	Services to printing	867.5	241.6	377.0
	<i>Total</i>	<i>9 380.2</i>	<i>2 205.1</i>	<i>3 532.8</i>

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
PRINTING, PUBLISHING AND RECORDED MEDIA <i>cont.</i>				
242	Publishing			
2421	Newspaper printing or publishing	5 430.7	1 345.5	2 710.7
2422	Other periodical publishing	1 687.2	379.3	482.2
2423	Book and other publishing	2 724.2	429.7	1 351.3
	<i>Total</i>	9 842.0	2 154.5	4 544.2
243	Recorded media manufacturing and publishing	1 012.6	277.5	^ 353.4
24	Total printing, publishing and recorded media	20 234.8	4 637.1	8 430.4
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG				
251	Petroleum refining	15 897.9	455.4	605.7
252	Petroleum and coal product mfg n.e.c.	478.2	46.9	123.6
253	Basic chemical mfg			
2531	Fertiliser mfg	np	np	np
2532	Industrial gas mfg	np	np	np
2533	Synthetic resin mfg	2 752.2	308.3	587.5
2534	Organic industrial chemical mfg n.e.c.	1 156.1	141.8	237.0
2535	Inorganic industrial chemical mfg n.e.c.	2 112.5	224.0	734.0
	<i>Total</i>	9 189.3	1 038.5	2 543.0
254	Other chemical product mfg			
2541	Explosive mfg	834.2	104.1	233.5
2542	Paint mfg	1 784.2	323.2	570.0
2543	Medicinal and pharmaceutical product mfg	5 058.3	680.6	1 346.3
2544	Pesticide mfg	1 122.1	78.0	208.4
2545	Soap and other detergent mfg	1 741.2	199.6	440.5
2546	Cosmetic and toiletry preparation mfg	520.6	86.6	157.6
2547	Ink mfg	248.3	38.0	58.7
2549	Chemical product mfg n.e.c.	1 951.8	245.5	479.6
	<i>Total</i>	13 260.7	1 755.7	3 494.6
255	Rubber product mfg			
2551	Rubber tyre mfg	997.5	186.7	298.1
2559	Rubber product mfg n.e.c.	936.0	184.9	316.2
	<i>Total</i>	1 933.5	371.6	614.3
256	Plastic product mfg			
2561	Plastic blow moulded product mfg	791.9	156.3	306.4
2562	Plastic extruded product mfg	1 142.4	189.1	331.7
2563	Plastic bag and film mfg	1 842.3	341.4	629.8
2564	Plastic product rigid fibre reinforced mfg	595.3	127.4	209.4
2565	Plastic foam product mfg	447.2	75.3	147.1
2566	Plastic injection moulded product mfg	2 156.9	461.5	797.2
	<i>Total</i>	6 976.1	1 351.0	2 421.6
25	Total petroleum, coal, chemical and associated product mfg	47 735.7	5 019.2	9 802.8

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

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

2.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
NON-METALLIC MINERAL PRODUCT MFG				
261	Glass and glass product mfg	1 683.5	314.0	725.4
262	Ceramic mfg			
2621	Clay brick mfg	783.1	160.2	365.8
2622	Ceramic product mfg	238.8	49.7	74.1
2623	Ceramic tile and pipe mfg	126.9	32.0	44.9
2629	Ceramic product mfg n.e.c.	342.5	71.0	172.6
	<i>Total</i>	1 491.4	312.8	657.4
263	Cement, lime, plaster and concrete product mfg			
2631	Cement and lime mfg	1 649.3	176.6	597.4
2632	Plaster product mfg	1 243.7	185.2	417.0
2633	Concrete slurry mfg	2 507.1	283.0	494.9
2634	Concrete pipe and box culvert mfg	175.2	41.8	74.6
2635	Concrete product mfg n.e.c.	1 325.5	260.7	481.1
	<i>Total</i>	6 901.0	947.2	2 065.0
264	Non-metallic mineral product mfg n.e.c.	1 193.9	235.0	392.4
26	Total non-metallic mineral product mfg	11 269.7	1 809.1	3 840.1
METAL PRODUCT MFG				
271	Iron and steel mfg			
2711	Basic iron and steel mfg	9 409.1	1 381.2	2 136.0
2712	Iron and steel casting and forging	2 126.1	326.4	673.9
2713	Steel pipe and tube mfg	993.0	116.3	247.4
	<i>Total</i>	12 528.2	1 823.9	3 057.4
272	Basic non-ferrous metal mfg			
2721	Alumina production	6 821.7	564.1	3 188.3
2722	Aluminium smelting	5 975.2	276.8	1 631.3
2723	Copper, silver, lead and zinc smelting, refining	3 425.5	248.7	229.8
2729	Basic non-ferrous metal mfg n.e.c.	3 523.4	112.2	553.8
	<i>Total</i>	19 745.8	1 201.9	5 603.1
273	Non-ferrous basic metal product mfg			
2731	Aluminium rolling, drawing, extruding	1 583.4	167.9	287.0
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	679.2	59.8	106.2
2733	Non-ferrous metal casting	193.3	50.8	79.7
	<i>Total</i>	2 455.8	278.4	472.9
274	Structural metal product mfg			
2741	Structural steel fabricating	2 995.5	568.0	874.6
2742	Architectural aluminium product mfg	2 659.3	481.9	773.6
2749	Structural metal product mfg n.e.c.	1 057.5	196.0	317.6
	<i>Total</i>	6 712.4	1 246.0	1 965.8
275	Sheet metal product mfg			
2751	Metal container mfg	1 401.6	214.5	442.4
2759	Sheet metal product mfg n.e.c.	2 204.9	481.3	816.7
	<i>Total</i>	3 606.6	695.7	1 259.1

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
METAL PRODUCT MFG <i>cont.</i>				
276	Fabricated metal product mfg			
2761	Hand tool and general hardware mfg	287.8	69.8	123.4
2762	Spring and wire product mfg	1 060.7	200.4	317.1
2763	Nut, bolt, screw and rivet mfg	464.6	91.8	151.7
2764	Metal coating and finishing	1 030.4	299.9	462.8
2765	Non-ferrous pipe fitting mfg	294.5	47.9	94.5
2769	Fabricated metal product mfg n.e.c.	4 354.2	956.4	1 711.4
	<i>Total</i>	7 492.3	1 666.2	2 860.8
27	Total metal product mfg	52 541.1	6 912.1	15 219.1
MACHINERY AND EQUIPMENT MFG				
281	Motor vehicle and part mfg			
2811	Motor vehicle mfg	15 933.7	1 390.3	2 300.0
2812	Motor vehicle body mfg	1 786.5	345.0	537.3
2813	Automotive electrical and instrument mfg	1 185.2	179.5	310.1
2819	Automotive component mfg n.e.c.	4 898.7	913.8	1 617.4
	<i>Total</i>	23 804.1	2 828.7	4 764.8
282	Other transport equipment mfg			
2821	Shipbuilding	1 796.4	387.4	584.2
2822	Boatbuilding	818.9	131.0	233.6
2823	Railway equipment mfg	1 271.7	250.0	343.0
2824	Aircraft mfg	2 566.9	508.9	787.4
2829	Transport equipment mfg n.e.c.	166.8	20.8	37.6
	<i>Total</i>	6 620.7	1 298.1	1 985.7
283	Photographic and scientific equipment mfg			
2831	Photographic and optical good mfg	1 371.4	194.2	372.1
2832	Medical and surgical equipment mfg	1 315.7	282.4	512.5
2839	Professional and scientific equipment mfg n.e.c.	1 200.6	266.5	364.1
	<i>Total</i>	3 887.7	743.0	1 248.7
284	Electronic equipment mfg			
2841	Computer and business machine mfg	1 172.0	140.9	142.9
2842	Telecommunication, broadcasting and transceiving equipment mfg	1 693.2	402.0	501.9
2849	Electronic equipment mfg n.e.c.	1 742.2	380.9	520.5
	<i>Total</i>	4 607.4	923.8	1 165.3
285	Electrical equipment and appliance mfg			
2851	Household appliance mfg	2 323.6	448.2	692.8
2852	Electric cable and wire mfg	874.8	149.9	221.5
2853	Battery mfg	331.3	52.9	81.2
2854	Electric light and sign mfg	740.6	160.5	226.7
2859	Electrical equipment mfg n.e.c.	3 316.6	552.2	872.8
	<i>Total</i>	7 587.0	1 363.9	2 095.0

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
MACHINERY AND EQUIPMENT MFG <i>cont.</i>				
286	Industrial machinery and equipment mfg			
2861	Agricultural machinery mfg	1 147.4	183.0	316.8
2862	Mining and construction machinery mfg	2 105.8	402.5	735.4
2863	Food processing machinery mfg	478.5	82.2	147.5
2864	Machine tool and part mfg	845.1	221.7	366.9
2865	Lifting and material handling equipment mfg	1 544.8	363.8	525.0
2866	Pump and compressor mfg	783.4	164.3	269.8
2867	Commercial space heating and cooling equipment mfg	627.5	115.8	169.9
2869	Industrial machinery and equipment mfg n.e.c.	3 495.5	692.2	1 104.7
	<i>Total</i>	<i>11 028.0</i>	<i>2 225.5</i>	<i>3 636.0</i>
28	Total machinery and equipment mfg	57 534.9	9 382.9	14 895.5
OTHER MANUFACTURING				
291	Prefabricated building mfg			
2911	Prefabricated metal building mfg	669.0	103.9	165.2
2919	Prefabricated building mfg n.e.c.	356.0	47.5	94.4
	<i>Total</i>	<i>1 025.0</i>	<i>151.4</i>	<i>259.5</i>
292	Furniture mfg			
2921	Wooden furniture and upholstered seat mfg	3 918.0	885.2	1 379.4
2922	Sheet metal furniture mfg	487.0	110.6	162.2
2923	Mattress mfg (except rubber)	531.4	97.4	179.2
2929	Furniture mfg n.e.c.	1 898.2	361.5	572.5
	<i>Total</i>	<i>6 834.6</i>	<i>1 454.7</i>	<i>2 293.4</i>
294	Miscellaneous mfg			
2941	Jewellery and silverware mfg	708.4	99.5	191.9
2942	Toy and sporting good mfg	600.5	75.3	144.3
2949	Manufacturing n.e.c.	2 398.1	445.5	724.1
	<i>Total</i>	<i>3 706.9</i>	<i>620.2</i>	<i>1 060.3</i>
29	Total other manufacturing	11 566.5	2 226.4	3 613.2
21-29	TOTAL MANUFACTURING	294 542.7	42 330.9	81 137.1

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.2 STATES, TERRITORIES AND AUSTRALIA(a)

INDUSTRY SUBDIVISION		Sales and service income(b)	Wages and salaries(c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
NEW SOUTH WALES				
21	Food, beverage and tobacco mfg	20 968.1	2 612.5	5 545.6
22	Textile, clothing, footwear and leather mfg	3 466.5	570.2	911.1
23	Wood and paper product mfg	5 371.3	775.3	1 653.7
24	Printing, publishing and recorded media	9 169.5	1 978.9	3 445.8
25	Petroleum, coal, chemical and associated product mfg	16 512.2	1 611.7	3 119.4
26	Non-metallic mineral product mfg	3 656.5	600.9	1 229.6
27	Metal product mfg	15 194.8	2 246.1	4 069.7
28	Machinery and equipment mfg	14 459.2	2 799.6	4 375.2
29	Other manufacturing	3 954.2	750.8	1 213.9
21-29	<i>Total manufacturing</i>	92 752.3	13 945.9	25 564.1
VICTORIA				
21	Food, beverage and tobacco mfg	19 901.5	2 413.0	5 211.1
22	Textile, clothing, footwear and leather mfg	4 932.4	875.4	1 418.4
23	Wood and paper product mfg	4 985.4	720.3	1 539.4
24	Printing, publishing and recorded media	5 937.5	1 461.7	2 729.6
25	Petroleum, coal, chemical and associated product mfg	14 996.3	1 941.9	3 615.8
26	Non-metallic mineral product mfg	2 848.5	498.2	1 070.4
27	Metal product mfg	10 539.7	1 731.0	3 378.0
28	Machinery and equipment mfg	20 951.2	3 311.7	5 400.8
29	Other manufacturing	3 569.9	695.4	1 110.1
21-29	<i>Total manufacturing</i>	88 662.5	13 648.8	25 473.6
QUEENSLAND				
21	Food, beverage and tobacco mfg	12 578.4	1 440.2	2 796.0
22	Textile, clothing, footwear and leather mfg	995.4	165.5	274.7
23	Wood and paper product mfg	2 638.9	436.9	916.4
24	Printing, publishing and recorded media	2 228.8	521.4	967.9
25	Petroleum, coal, chemical and associated product mfg	7 296.5	593.9	1 077.1
26	Non-metallic mineral product mfg	2 135.8	273.5	586.5
27	Metal product mfg	12 521.0	1 281.6	3 964.8
28	Machinery and equipment mfg	6 524.4	1 184.1	1 890.6
29	Other manufacturing	2 188.2	427.2	670.6
21-29	<i>Total manufacturing</i>	49 107.5	6 324.3	13 144.6
SOUTH AUSTRALIA				
21	Food, beverage and tobacco mfg	5 964.0	724.6	1 644.1
22	Textile, clothing, footwear and leather mfg	856.2	104.6	138.8
23	Wood and paper product mfg	1 552.0	260.3	576.8
24	Printing, publishing and recorded media	1 085.9	237.4	477.8
25	Petroleum, coal, chemical and associated product mfg	2 223.3	383.1	689.7
26	Non-metallic mineral product mfg	898.6	129.0	302.3
27	Metal product mfg	3 069.8	489.2	721.5
28	Machinery and equipment mfg	11 126.0	1 227.8	2 008.1
29	Other manufacturing	718.5	146.1	248.9
21-29	<i>Total manufacturing</i>	27 494.5	3 702.0	6 808.1

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

2.2STATES, TERRITORIES AND AUSTRALIA(a) *continued*

INDUSTRY SUBDIVISION		Sales and service income(b)	Wages and salaries(c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
WESTERN AUSTRALIA				
21	Food, beverage and tobacco mfg	4 956.8	524.5	1 060.6
22	Textile, clothing, footwear and leather mfg	575.9	96.8	178.0
23	Wood and paper product mfg	862.6	169.4	336.8
24	Printing, publishing and recorded media	1 254.5	298.7	552.7
25	Petroleum, coal, chemical and associated product mfg	6 175.5	414.9	1 119.4
26	Non-metallic mineral product mfg	1 332.5	239.8	475.9
27	Metal product mfg	9 241.6	901.3	2 279.5
28	Machinery and equipment mfg	3 695.7	695.0	1 020.0
29	Other manufacturing	943.3	169.9	296.8
21-29	<i>Total manufacturing</i>	29 038.3	3 510.2	7 319.7
TASMANIA				
21	Food, beverage and tobacco mfg	1 484.3	207.7	453.9
22	Textile, clothing, footwear and leather mfg	184.9	45.4	66.8
23	Wood and paper product mfg	1 044.7	145.0	506.1
24	Printing, publishing and recorded media	197.5	48.4	90.9
25	Petroleum, coal, chemical and associated product mfg	429.7	52.7	145.3
26	Non-metallic mineral product mfg	184.7	36.0	120.1
27	Metal product mfg	939.4	154.9	345.9
28	Machinery and equipment mfg	490.8	106.6	102.0
29	Other manufacturing	97.3	^ 17.5	38.0
21-29	<i>Total manufacturing</i>	5 053.3	814.2	1 868.9
NORTHERN TERRITORY				
21	Food, beverage and tobacco mfg	133.0	14.9	24.4
22	Textile, clothing, footwear and leather mfg	np	np	np
23	Wood and paper product mfg	10.9	1.7	3.3
24	Printing, publishing and recorded media	68.7	17.0	34.3
25	Petroleum, coal, chemical and associated product mfg	80.0	14.6	25.0
26	Non-metallic mineral product mfg	125.0	20.3	32.8
27	Metal product mfg	np	np	np
28	Machinery and equipment mfg	118.3	24.6	38.1
29	Other manufacturing	np	np	np
21-29	<i>Total manufacturing</i>	1 543.4	198.5	613.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

2.2STATES, TERRITORIES AND AUSTRALIA (a) *continued*

INDUSTRY SUBDIVISION		Sales and service income (b)	Wages and salaries (c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
AUSTRALIAN CAPITAL TERRITORY				
21	Food, beverage and tobacco mfg	62.3	15.2	28.8
22	Textile, clothing, footwear and leather mfg	np	np	np
23	Wood and paper product mfg	99.0	18.2	39.3
24	Printing, publishing and recorded media	292.4	73.7	131.3
25	Petroleum, coal, chemical and associated product mfg	22.3	6.4	11.1
26	Non-metallic mineral product mfg	88.2	11.3	22.5
27	Metal product mfg	np	np	np
28	Machinery and equipment mfg	169.2	33.5	^ 60.6
29	Other manufacturing	np	np	np
21-29	Total manufacturing	890.9	187.0	344.8
AUSTRALIA				
21	Food, beverage and tobacco mfg	66 048.4	7 952.5	16 764.5
22	Textile, clothing, footwear and leather mfg	11 046.8	1 864.5	2 999.6
23	Wood and paper product mfg	16 564.7	2 527.1	5 571.9
24	Printing, publishing and recorded media	20 234.8	4 637.1	8 430.4
25	Petroleum, coal, chemical and associated product mfg	47 735.7	5 019.2	9 802.8
26	Non-metallic mineral product mfg	11 269.7	1 809.1	3 840.1
27	Metal product mfg	52 541.1	6 912.1	15 219.1
28	Machinery and equipment mfg	57 534.9	9 382.9	14 895.5
29	Other manufacturing	11 566.5	2 226.4	3 613.2
21-29	Total manufacturing	294 542.7	42 330.9	81 137.1

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

2.3 INDUSTRY VALUE ADDED(a)

INDUSTRY SUBDIVISION		PLUS			LESS		Industry value added
		Sales and service income(b)	Other components of income(c)	Change in inventories	Purchases(d)	Other intermediate input expenses	
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	66 048.4	545.9	561.3	37 995.3	12 395.8	16 764.5
22	Textile, clothing, footwear and leather mfg	11 046.8	56.3	**0.4	5 867.7	2 236.2	2 999.6
23	Wood and paper product mfg	16 564.7	60.0	-26.4	8 266.1	2 760.3	5 571.9
24	Printing, publishing and recorded media	20 234.8	^ 42.9	-46.2	6 223.0	5 578.0	8 430.4
25	Petroleum, coal, chemical and associated product mfg	47 735.7	346.8	-334.4	30 205.1	7 740.2	9 802.8
26	Non-metallic mineral product mfg	11 269.7	^ 55.8	^ 25.9	4 657.5	2 853.9	3 840.1
27	Metal product mfg	52 541.1	339.3	^ 192.3	27 753.2	10 100.3	15 219.1
28	Machinery and equipment mfg	57 534.9	354.8	452.6	34 200.1	9 246.8	14 895.5
29	Other manufacturing	11 566.5	56.5	*44.3	6 004.5	2 049.7	3 613.2
21-29	Total manufacturing	294 542.7	1 858.2	869.9	161 172.5	54 961.2	81 137.1

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) For the definition of industry value added, see the Glossary term.

(b) Includes rent, leasing and hiring income.

(c) Comprises funding from federal, state and/or local government for operational costs, and capital work done for own use.

(d) Includes capitalised purchases, which is not an intermediate input expense, but is a deduction in the calculation of IVA. For further details, see the Glossary terms.

2.4 ACQUISITION(a) AND DISPOSAL OF ASSETS

CAPITAL EXPENDITURE ON

INDUSTRY SUBDIVISION		Plant, machinery and equipment	Dwellings, other buildings and structures	Other (including land and intangible assets)	Total acquisitions	Disposal of assets	Net capital expenditure
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	2 005.5	300.6	^ 267.7	2 573.8	503.0	2 070.8
22	Textile, clothing, footwear and leather mfg	230.9	14.9	32.5	278.3	77.3	201.0
23	Wood and paper product mfg	451.5	47.5	150.9	650.0	228.6	421.4
24	Printing, publishing and recorded media	515.6	39.5	*335.9	^ 891.1	119.3	^ 771.7
25	Petroleum, coal, chemical and associated product mfg	1 155.7	125.4	169.9	1 451.0	144.7	1 306.3
26	Non-metallic mineral product mfg	527.6	54.9	68.3	650.8	98.1	552.7
27	Metal product mfg	2 216.1	164.2	190.5	2 570.8	284.5	2 286.3
28	Machinery and equipment mfg	1 452.4	279.4	442.2	2 174.1	307.2	1 866.8
29	Other manufacturing	222.0	52.2	^ 100.2	374.3	^ 109.2	^ 265.1
21-29	Total manufacturing	8 777.3	1 078.7	1 758.2	11 614.2	1 871.9	9 742.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) Items listed include value of capital work done for own use.

2.5 SELECTED NON-WAGE LABOUR COSTS(a)

AS A PROPORTION OF WAGES AND SALARIES(b)

INDUSTRY SUBDIVISION		Employer contributions into superannuation	Workers' compensation premiums/costs	Fringe benefits tax	Payroll tax	Total
ANZSIC code	Description	%	%	%	%	%
21	Food, beverage and tobacco mfg	7.9	4.5	1.6	5.3	19.3
22	Textile, clothing, footwear and leather mfg	8.9	4.1	0.9	3.5	17.5
23	Wood and paper product mfg	8.2	4.3	0.9	4.3	17.7
24	Printing, publishing and recorded media	7.9	1.6	1.6	4.5	15.6
25	Petroleum, coal, chemical and associated product mfg	7.8	3.0	1.9	4.3	17.0
26	Non-metallic mineral product mfg	7.7	4.6	1.4	4.6	18.3
27	Metal product mfg	8.5	3.7	1.1	4.1	17.4
28	Machinery and equipment mfg	8.0	3.2	1.2	4.3	16.8
29	Other manufacturing	8.6	3.9	0.6	2.5	15.7
21-29	Total manufacturing	8.1	3.5	1.3	4.4	17.3

(a) This table shows the proportion of each selected non-wage labour cost to wages and salaries.

(b) Excludes the drawings of working proprietors.

2.6**EXPORTED AND TOTAL PRODUCTION (a)**

INDUSTRY SUBDIVISION		SALES OF GOODS PRODUCED (b)		Exports as a proportion of total sales of goods produced
		Exported by this business or its agent	Total	
ANZSIC code	Description	\$m	\$m	%
21	Food, beverage and tobacco mfg	13 652.4	60 308.1	22.6
22	Textile, clothing, footwear and leather mfg	1 494.2	7 015.5	21.3
23	Wood and paper product mfg	1 170.8	13 802.2	8.5
24	Printing, publishing and recorded media	551.9	11 221.8	4.9
25	Petroleum, coal, chemical and associated product mfg	4 800.0	39 737.3	12.1
26	Non-metallic mineral product mfg	439.0	9 613.6	4.6
27	Metal product mfg	15 507.5	43 958.3	35.3
28	Machinery and equipment mfg	8 715.8	38 185.8	22.8
29	Other manufacturing	283.0	8 008.9	3.5
21-29	Total manufacturing	46 614.5	231 851.5	20.1

(a) See Explanatory Notes paragraphs 24-28.

(b) Sales of goods produced by the business, including goods produced for it on a commission basis.

2.7 CONTRIBUTION OF EXPORTING AND NON-EXPORTING BUSINESSES (a)

BUSINESSES THAT		Sales and service income(b)	Wages and salaries(c)	Industry value added
ANZSIC code	Description	%	%	%
DO NOT EXPORT				
21	Food, beverage and tobacco mfg	33.4	39.1	37.4
22	Textile, clothing, footwear and leather mfg	46.2	48.3	48.1
23	Wood and paper product mfg	48.8	55.5	47.0
24	Printing, publishing and recorded media	76.1	79.2	82.6
25	Petroleum, coal, chemical and associated product mfg	25.1	38.1	38.2
26	Non-metallic mineral product mfg	62.9	58.7	57.5
27	Metal product mfg	36.7	51.1	34.9
28	Machinery and equipment mfg	42.7	47.8	44.6
29	Other manufacturing	71.4	72.2	71.7
21-29	<i>Total manufacturing</i>	41.0	51.0	46.3
EXPORT UP TO AND INCLUDING 50% OF SALES (d)				
21	Food, beverage and tobacco mfg	45.5	45.8	47.3
22	Textile, clothing, footwear and leather mfg	37.9	42.3	42.0
23	Wood and paper product mfg	47.7	42.5	48.8
24	Printing, publishing and recorded media	21.4	18.8	15.4
25	Petroleum, coal, chemical and associated product mfg	70.7	57.0	55.7
26	Non-metallic mineral product mfg	35.2	39.4	41.3
27	Metal product mfg	33.0	35.8	32.8
28	Machinery and equipment mfg	44.2	39.6	43.2
29	Other manufacturing	27.7	27.0	27.3
21-29	<i>Total manufacturing</i>	44.5	39.7	40.5
EXPORT MORE THAN 50% OF SALES (d)				
21	Food, beverage and tobacco mfg	21.1	15.1	15.3
22	Textile, clothing, footwear and leather mfg	15.9	9.5	9.9
23	Wood and paper product mfg	3.5	2.0	4.3
24	Printing, publishing and recorded media	2.5	2.0	2.0
25	Petroleum, coal, chemical and associated product mfg	4.2	4.9	6.1
26	Non-metallic mineral product mfg	1.9	1.9	1.2
27	Metal product mfg	30.2	13.1	32.3
28	Machinery and equipment mfg	13.1	12.6	12.1
29	Other manufacturing	1.0	0.8	1.1
21-29	<i>Total manufacturing</i>	14.6	9.3	13.2

(a) See Explanatory Notes paragraphs 24-28.

(b) Includes rent, leasing and hiring income.

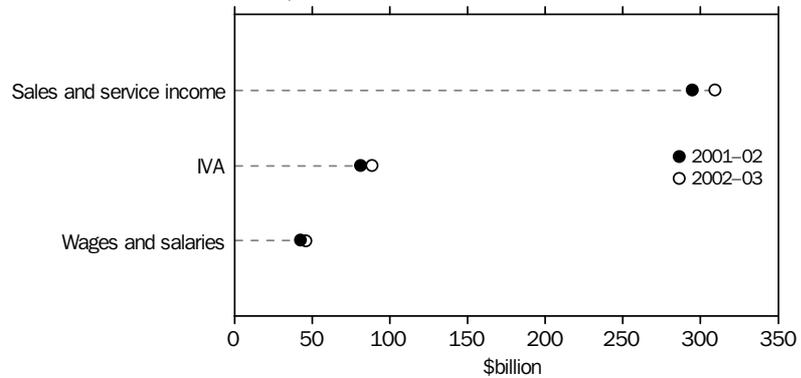
(c) Excludes the drawings of working proprietors.

(d) Sales of goods produced by the business, including goods produced for it on a commission basis.

OVERVIEW

Sales and service income for the year 2002-03 by Australian manufacturers was \$309.3b, which resulted in an industry value added (IVA) for the year of \$88.7b. In current price terms, this represents a 5.0% increase in sales and service income from the \$294.5b recorded for 2001-02 and an increase of 9.3% in IVA. Manufacturers paid \$45.9b in wages and salaries in 2002-03, an 8.4% increase on the year before.

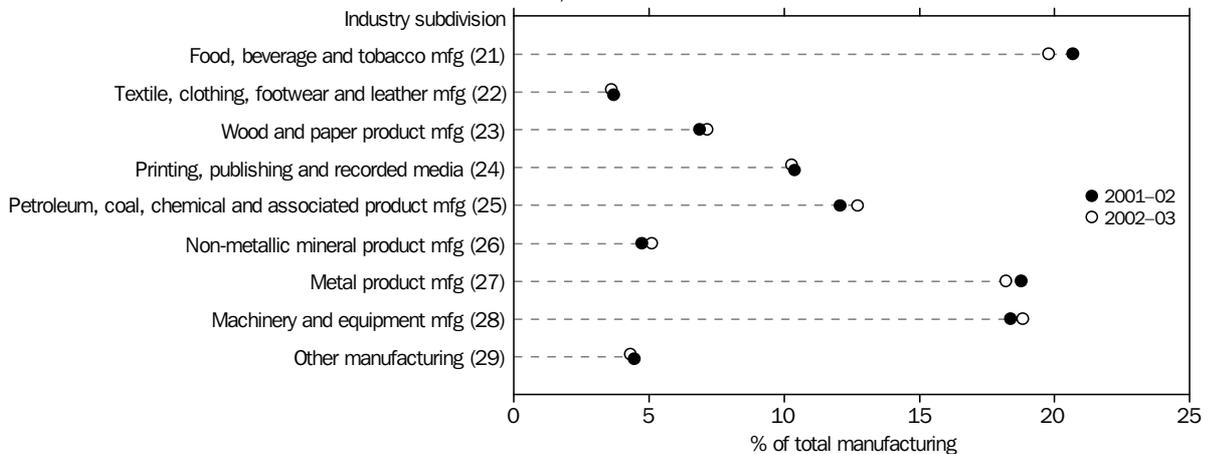
SELECTED VARIABLES, 2001-02 AND 2002-03



INDUSTRY VALUE ADDED

IVA increased in current price terms for all nine industry subdivisions between 2001-02 and 2002-03. The largest percentage increase was recorded by NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 17.9%), followed by PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up 15.2%) and WOOD AND PAPER PRODUCT MANUFACTURING (up 13.9%). Other significant percentage increases were recorded by MACHINERY AND EQUIPMENT MANUFACTURING (up 12.1%) and PRINTING, PUBLISHING AND RECORDED MEDIA (up 8.1%).

DISTRIBUTION OF IVA ACROSS INDUSTRIES, 2001-02 AND 2002-03



INDUSTRY VALUE ADDED

continued

The smallest percentage increase was recorded by FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 4.6%). The largest absolute increases were recorded by MACHINERY AND EQUIPMENT MANUFACTURING (up \$1,800m) and PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (up \$1,487m).

CURRENT YEAR ANALYSIS

For 2002–03, FOOD, BEVERAGE AND TOBACCO MANUFACTURING, MACHINERY AND EQUIPMENT MANUFACTURING and METAL PRODUCT MANUFACTURING were again the industry subdivisions with the largest contribution to IVA in the manufacturing industry. Over recent years, the contributions of MACHINERY AND EQUIPMENT MANUFACTURING and METAL PRODUCT MANUFACTURING have been very similar in both absolute and relative terms, although in 2002–03, the former industry subdivision has again slightly exceeded the latter. In aggregate, these three industry subdivisions accounted for 57% of total IVA in the manufacturing industry, a slight decrease on the year before.

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

- FOOD, BEVERAGE AND TOBACCO MANUFACTURING (19.8%), of which (of those available for publication) the industry groups OTHER FOOD MANUFACTURING (ANZSIC Group 217 at 4.4%) and MEAT AND MEAT PRODUCT MANUFACTURING (ANZSIC Group 211 at 3.9%) were the most substantial.
- MACHINERY AND EQUIPMENT MANUFACTURING (18.8%), of which the industry groups MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC Group 281 at 5.7%) and INDUSTRIAL MACHINERY AND EQUIPMENT MANUFACTURING (ANZSIC Group 286 at 4.5%) were the most substantial.
- METAL PRODUCT MANUFACTURING (18.2%), of which the industry groups BASIC NON-FERROUS METAL MANUFACTURING (ANZSIC Group 272 at 5.5%), IRON AND STEEL MANUFACTURING (ANZSIC Group 271 at 4.1%) and FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC Group 276 at 4.0%) were the most substantial.

Industry groups making a notable contribution to IVA and not included in the subdivisions listed above included PUBLISHING (ANZSIC Group 242 at 5.3%), PRINTING AND SERVICES TO PRINTING (ANZSIC Group 241 at 4.5%), OTHER CHEMICAL PRODUCT MANUFACTURING (ANZSIC Group 254 at 4.2%), PAPER AND PAPER PRODUCT MANUFACTURING (ANZSIC Group 233 at 3.2%) and PLASTIC PRODUCT MANUFACTURING (ANZSIC Group 256 at 3.1%).

WAGES AND SALARIES

The Australian manufacturing industry paid \$45,887m in wages and salaries in 2002–03. (Readers should note that the wages and salaries figure excludes the drawings of working proprietors.)

Total wages and salaries paid rose, in current price terms, in all nine manufacturing industry subdivisions between 2001–02 and 2002–03.

The industry subdivisions to record the largest percentage increases in wages and salaries were:

- MACHINERY AND EQUIPMENT MANUFACTURING (up 13.1% to \$10,612m), of which all six industry groups recorded an increase, with the largest being:
 - ELECTRONIC EQUIPMENT MANUFACTURING (ANZSIC Group 284) (up 20.7% to \$1,115m)
 - OTHER TRANSPORT EQUIPMENT MANUFACTURING (ANZSIC Group 282) (up 18.4% to \$1,536m)

WAGES AND SALARIES

continued

- MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC Group 281) (up 15.0% to \$3,252m).
- NON-METALLIC MINERAL PRODUCT MANUFACTURING (up 12.4% to \$2,033m), of which all four industry groups recorded an increase with the largest being:
 - NON-METALLIC MINERAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Group 264) (up 38.9% to \$326m)
 - CEMENT, LIME, PLASTER AND CONCRETE PRODUCT MANUFACTURING (ANZSIC Group 263) (up 9.4% to \$1,036m).
- METAL PRODUCT MANUFACTURING (up 11.9% to \$7,734m), of which all six industry groups recorded an increase, with the largest being:
 - FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC Group 276) (up 23.8% to \$2,063m)
 - NON-FERROUS BASIC METAL PRODUCT MANUFACTURING (ANZSIC Group 273) (up 21.1% to \$337m).

The industry groups available for publication which had the highest wages and salaries to sales and service income ratios in 2002–03 were RECORDED MEDIA MANUFACTURING AND PUBLISHING (ANZSIC Group 243) where sales and service income 'covered' wages and salaries 3.9 times, followed by BAKERY PRODUCT MANUFACTURING (ANZSIC Group 216) (4.2 times). The industry groups with the lowest ratios were PETROLEUM REFINING (ANZSIC Group 251) (38.1 times), BASIC NON-FERROUS METAL MANUFACTURING (ANZSIC Group 272) (14.2 times) and OIL AND FAT MANUFACTURING (ANZSIC Group 214) (11.1 times).

SALES AND SERVICE INCOME

Sales and service income rose by \$14,740m to \$309,283m for 2002–03. This represents a 5.0% increase in current price terms on the \$294,543m recorded for 2001–02.

All nine manufacturing industry subdivisions recorded an increase in sales and service income in current price terms between 2001–02 and 2002–03. FOOD, BEVERAGE AND TOBACCO MANUFACTURING remained the largest contributor to total manufacturing sales and service income, while NON-METALLIC MINERAL PRODUCT MANUFACTURING recorded the largest percentage increase (up 12.4%) with PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING increasing the most in dollar terms (up \$2,774m) closely followed by METAL PRODUCT MANUFACTURING (up \$2,761m).

The industry group to record the largest percentage increase in sales and service income between 2001–02 and 2002–03 was NON-METALLIC MINERAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Group 264) (up 23.8% or \$284m), while PREFABRICATED BUILDING MANUFACTURING (ANZSIC Group 291) (up 21.2% or \$218m) recorded the second largest percentage increase.

Other industry groups with large percentage increases between 2001–02 and 2002–03 were:

- FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC Group 276) (up 21.1% or \$1,584m)
- OIL AND FAT MANUFACTURING (ANZSIC Group 214) (up 18.7% or \$289m)
- PETROLEUM AND COAL PRODUCT MANUFACTURING N.E.C. (ANZSIC Group 252) (up 18.6% or \$89m).

Other industry groups with large dollar increases between 2001–02 and 2002–03 were:

- FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC Group 276) (up \$1,584m or 21.1%)
- PETROLEUM REFINING (ANZSIC Group 251) (up \$1,579m or 9.9%)

SALES AND SERVICE
INCOME *continued*

- IRON AND STEEL MANUFACTURING (ANZSIC Group 271) (up \$1,234m or 9.9%).

The industry groups with the largest percentage decreases between 2001–02 and 2002–03 were:

- KNITTING MILLS (ANZSIC Group 223) (down 22.9% or \$131m)
- TEXTILE FIBRE, YARN AND WOVEN FABRIC MANUFACTURING (ANZSIC Group 221) (down 7.4% or \$138m).

The industry groups with the largest dollar decreases between 2001–02 and 2002–03 were:

- BASIC NON-FERROUS METAL PRODUCT MANUFACTURING (ANZSIC Group 272) (down \$553m or 2.8%)
- MEAT AND MEAT PRODUCT MANUFACTURING (ANZSIC Group 211) (down \$362m or 2.3%)
- DAIRY PRODUCT MANUFACTURING (ANZSIC Group 212) (down \$193m or 2.1%).

STATE/TERRITORY
COMPARISON

A comparison of state and territory performance for sales and service income and industry value added follows.

Sales and service income

The highest contribution to Australian sales and service income for 2002–03 was by New South Wales manufacturers. New South Wales contributed \$99,108m (32.0%) to Australian sales and service income, followed by Victoria with \$92,701m (30.0%) and Queensland with \$50,310m (16.3%).

Industry value added

New South Wales (at 32.5%) continued to exceed Victoria (at 30.7%) as the major contributor to total manufacturing IVA for Australia in 2002–03. The contribution of the other states and territories in 2002–03 was: Queensland (15.9%), South Australia (8.8%), Western Australia (8.6%), Tasmania (2.3%), Northern Territory (0.8%) and Australian Capital Territory (0.4%). Compared to 2001–02, South Australia and Western Australia have swapped their rank order.

The industry subdivision for which IVA was most heavily concentrated in a state or territory was TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING in Victoria (at 48.8%). This was followed by PRINTING, PUBLISHING AND RECORDED MEDIA in New South Wales (at 42.7%), and, for Victoria, both PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (at 37.2%) and MACHINERY AND EQUIPMENT MANUFACTURING (at 35.3%).

Of the six states, METAL PRODUCT MANUFACTURING was the major manufacturing industry, as measured by share of industry value added, in two (Queensland and Western Australia) and MACHINERY AND EQUIPMENT MANUFACTURING in two others (Victoria and South Australia). FOOD, BEVERAGE AND TOBACCO MANUFACTURING dominated in New South Wales, as did WOOD AND PAPER PRODUCT MANUFACTURING in Tasmania. PRINTING, PUBLISHING AND RECORDED MEDIA dominated in the Australian Capital Territory.

EXPORTS

For 2002–03, Australian manufacturers directly exported \$45,224m of the goods that they produced. This represented 18.5% of their value of sales of goods produced for 2002–03.

The industry subdivisions with the highest proportion of exports compared to sales of goods produced were METAL PRODUCT MANUFACTURING (at 34.4%), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (at 20.4%), MACHINERY AND EQUIPMENT MANUFACTURING (at 19.9%) and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (at 17.5%).

3.1 INDUSTRY CLASS

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
FOOD, BEVERAGE AND TOBACCO MFG				
211	Meat and meat product mfg			
2111	Meat processing	9 504.7	1 211.0	2 005.4
2112	Poultry processing	3 603.7	613.9	957.0
2113	Bacon, ham and smallgood mfg	2 059.7	312.7	510.4
	<i>Total</i>	<i>15 168.1</i>	<i>2 137.6</i>	<i>3 472.7</i>
212	Dairy product mfg			
2121	Milk and cream processing	2 803.4	260.1	506.2
2122	Ice cream mfg	520.3	69.3	133.3
2129	Dairy product mfg n.e.c.	5 585.6	501.3	958.2
	<i>Total</i>	<i>8 909.3</i>	<i>830.7</i>	<i>1 597.8</i>
213	Fruit and vegetable processing	4 438.9	581.3	1 071.6
214	Oil and fat mfg	1 832.6	165.1	393.2
215	Flour mill and cereal food mfg			
2151	Flour mill product mfg	1 775.0	131.4	338.7
2152	Cereal food and baking mix mfg	2 318.8	273.9	600.1
	<i>Total</i>	<i>4 093.8</i>	<i>405.3</i>	<i>938.7</i>
216	Bakery product mfg			
2161	Bread mfg	1 814.4	448.9	693.1
2162	Cake and pastry mfg	1 028.0	238.7	366.1
2163	Biscuit mfg	1 044.7	236.7	431.4
	<i>Total</i>	<i>3 887.1</i>	<i>924.2</i>	<i>1 490.6</i>
217	Other food mfg			
2171	Sugar mfg	2 399.1	246.3	475.7
2172	Confectionery mfg	1 862.0	315.4	740.7
2173	Seafood processing	1 515.3	132.9	225.2
2174	Prepared animal and bird feed mfg	3 083.1	240.4	495.4
2179	Food mfg n.e.c.	7 192.2	1 022.5	1 941.5
	<i>Total</i>	<i>16 051.8</i>	<i>1 957.4</i>	<i>3 878.4</i>
218	Beverage and malt mfg			
2181	Soft drink, cordial and syrup mfg	3 193.6	351.0	1 017.9
2182	Beer and malt mfg	3 419.9	291.5	1 309.9
2183	Wine mfg	4 865.9	636.8	1 397.1
2184	Spirit mfg	np	np	np
	<i>Total</i>	<i>np</i>	<i>np</i>	<i>np</i>
219	Tobacco product mfg	np	np	np
21	Total food, beverage and tobacco mfg	67 899.5	8 480.6	17 535.5
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG				
221	Textile fibre, yarn and woven fabric mfg			
2211	Wool scouring	450.6	83.4	98.9
2212	Synthetic fibre textile mfg	374.6	63.3	121.1
2213	Cotton textile mfg	415.9	92.6	149.7
2214	Wool textile mfg	223.7	39.2	56.6
2215	Textile finishing	267.3	54.2	91.5
	<i>Total</i>	<i>1 732.1</i>	<i>332.7</i>	<i>517.7</i>
222	Textile product mfg			
2221	Made-up textile product mfg	1 195.5	229.9	369.9
2222	Textile floor covering mfg	1 113.2	167.8	285.1
2223	Rope, cordage and twine mfg	92.6	15.0	23.2
2229	Textile product mfg n.e.c.	541.6	106.8	192.1
	<i>Total</i>	<i>2 942.9</i>	<i>519.4</i>	<i>870.4</i>

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

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

3.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG <i>cont.</i>				
223	Knitting mills			
2231	Hosiery mfg	154.0	42.7	68.0
2232	Cardigan and pullover mfg	85.2	18.8	28.2
2239	Knitting mill product mfg n.e.c.	201.5	38.1	58.5
	<i>Total</i>	440.7	99.7	154.7
224	Clothing mfg			
2241	Men's and boys' wear mfg	651.2	161.7	233.4
2242	Women's and girls' wear mfg	989.8	113.8	214.5
2243	Sleepwear, underwear and infant clothing mfg	332.3	40.7	77.8
2249	Clothing mfg n.e.c.	2 342.3	423.5	705.9
	<i>Total</i>	4 315.7	739.7	1 231.6
225	Footwear mfg	586.2	114.3	200.6
226	Leather and leather product mfg			
2261	Leather tanning and fur dressing	843.6	99.2	174.3
2262	Leather and leather substitute product mfg	196.7	32.2	58.1
	<i>Total</i>	1 040.2	131.4	232.5
22	Total textile, clothing, footwear and leather mfg	11 057.8	1 937.3	3 207.4
WOOD AND PAPER PRODUCT MFG				
231	Log sawmilling and timber dressing			
2311	Log sawmilling	1 703.7	274.4	778.7
2312	Wood chipping	664.3	47.1	241.8
2313	Timber resawing and dressing	1 767.7	277.1	621.8
	<i>Total</i>	4 135.7	598.5	1 642.3
232	Other wood product mfg			
2321	Plywood and veneer mfg	324.6	53.5	97.9
2322	Fabricated wood mfg	1 352.4	204.0	456.5
2323	Wooden structural component mfg	3 052.9	590.6	984.2
2329	Wood product mfg n.e.c.	1 106.3	194.8	372.1
	<i>Total</i>	5 836.2	1 042.8	1 910.8
233	Paper and paper product mfg			
2331	Pulp, paper and paperboard mfg	1 942.9	248.2	709.9
2332	Solid paperboard container mfg	649.3	170.7	272.7
2333	Corrugated paperboard container mfg	3 202.2	375.6	1 004.2
2334	Paper bag and sack mfg	358.9	60.8	142.1
2339	Paper product mfg n.e.c.	1 979.6	296.2	664.3
	<i>Total</i>	8 132.9	1 151.5	2 793.2
23	Total wood and paper product mfg	18 104.8	2 792.9	6 346.3
PRINTING, PUBLISHING AND RECORDED MEDIA				
241	Printing and services to printing			
2411	Paper stationery mfg	1 309.0	261.2	455.4
2412	Printing	7 797.2	1 801.0	3 103.9
2413	Services to printing	972.4	267.4	451.1
	<i>Total</i>	10 078.6	2 329.6	4 010.3

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

3.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
PRINTING, PUBLISHING AND RECORDED MEDIA <i>cont.</i>				
242	Publishing			
2421	Newspaper printing or publishing	5 319.8	1 293.3	2 751.2
2422	Other periodical publishing	1 894.2	385.8	670.8
2423	Book and other publishing	2 727.8	407.2	1 237.3
	<i>Total</i>	9 941.8	2 086.3	4 659.3
243	Recorded media manufacturing and publishing	1 198.1	304.8	442.2
24	Total printing, publishing and recorded media	21 218.5	4 720.8	9 111.8
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG				
251	Petroleum refining	17 477.2	458.8	1 524.2
252	Petroleum and coal product mfg n.e.c.	567.1	52.5	134.5
253	Basic chemical mfg			
2531	Fertiliser mfg	np	np	np
2532	Industrial gas mfg	np	np	np
2533	Synthetic resin mfg	2 926.9	344.1	679.0
2534	Organic industrial chemical mfg n.e.c.	1 107.7	127.1	245.7
2535	Inorganic industrial chemical mfg n.e.c.	2 087.2	221.3	680.7
	<i>Total</i>	9 193.5	1 031.9	2 560.2
254	Other chemical product mfg			
2541	Explosive mfg	np	np	np
2542	Paint mfg	1 851.6	326.5	590.9
2543	Medicinal and pharmaceutical product mfg	5 153.7	768.6	1 497.7
2544	Pesticide mfg	680.3	66.4	155.2
2545	Soap and other detergent mfg	1 725.0	215.9	498.1
2546	Cosmetic and toiletry preparation mfg	555.8	97.8	175.2
2547	Ink mfg	np	np	np
2549	Chemical product mfg n.e.c.	2 168.7	232.9	549.2
	<i>Total</i>	13 348.7	1 852.4	3 759.0
255	Rubber product mfg			
2551	Rubber tyre mfg	920.9	161.5	241.8
2559	Rubber product mfg n.e.c.	983.8	186.9	320.8
	<i>Total</i>	1 904.8	348.4	562.6
256	Plastic product mfg			
2561	Plastic blow moulded product mfg	937.0	192.3	350.4
2562	Plastic extruded product mfg	1 217.1	172.2	330.8
2563	Plastic bag and film mfg	1 906.7	352.9	636.6
2564	Plastic product rigid fibre reinforced mfg	1 010.0	187.3	341.8
2565	Plastic foam product mfg	446.9	80.1	157.8
2566	Plastic injection moulded product mfg	2 501.1	511.0	932.3
	<i>Total</i>	8 018.8	1 495.7	2 749.7
25	Total petroleum, coal, chemical and associated product mfg	50 510.1	5 239.7	11 290.2

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

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

3.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
NON-METALLIC MINERAL PRODUCT MFG				
261	Glass and glass product mfg	1 928.6	334.8	822.0
262	Ceramic mfg			
2621	Clay brick mfg	891.4	192.3	431.8
2622	Ceramic product mfg	229.8	44.5	70.1
2623	Ceramic tile and pipe mfg	112.2	24.1	41.2
2629	Ceramic product mfg n.e.c.	365.6	74.6	181.8
	<i>Total</i>	1 599.0	335.6	724.9
263	Cement, lime, plaster and concrete product mfg			
2631	Cement and lime mfg	1 794.5	192.9	688.2
2632	Plaster product mfg	1 465.6	206.8	482.9
2633	Concrete slurry mfg	2 869.7	333.1	658.0
2634	Concrete pipe and box culvert mfg	186.0	45.4	84.6
2635	Concrete product mfg n.e.c.	1 341.4	258.0	507.4
	<i>Total</i>	7 657.2	1 036.3	2 421.2
264	Non-metallic mineral product mfg n.e.c.	1 477.5	326.3	560.3
26	Total non-metallic mineral product mfg	12 662.2	2 033.0	4 528.4
METAL PRODUCT MFG				
271	Iron and steel mfg			
2711	Basic iron and steel mfg	10 541.4	1 363.1	2 560.3
2712	Iron and steel casting and forging	2 189.9	386.9	783.2
2713	Steel pipe and tube mfg	1 031.4	129.1	276.5
	<i>Total</i>	13 762.6	1 879.0	3 620.0
272	Basic non-ferrous metal mfg			
2721	Alumina production	6 236.9	598.9	2 644.9
2722	Aluminium smelting	5 384.1	329.5	1 460.7
2723	Copper, silver, lead and zinc smelting, refining	3 174.2	276.2	313.1
2729	Basic non-ferrous metal mfg n.e.c.	4 397.5	144.9	484.8
	<i>Total</i>	19 192.7	1 349.5	4 903.5
273	Non-ferrous basic metal product mfg			
2731	Aluminium rolling, drawing, extruding	1 534.1	203.0	363.3
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	736.1	67.4	126.9
2733	Non-ferrous metal casting	257.5	66.8	103.2
	<i>Total</i>	2 527.6	337.2	593.5
274	Structural metal product mfg			
2741	Structural steel fabricating	3 138.8	607.9	993.2
2742	Architectural aluminium product mfg	2 440.0	497.5	740.1
2749	Structural metal product mfg n.e.c.	1 370.0	233.7	407.0
	<i>Total</i>	6 948.8	1 339.1	2 140.3
275	Sheet metal product mfg			
2751	Metal container mfg	1 405.4	207.4	424.0
2759	Sheet metal product mfg n.e.c.	2 388.5	558.9	939.3
	<i>Total</i>	3 793.9	766.3	1 363.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Includes rent, leasing and hiring income.
(b) Excludes the drawings of working proprietors.

3.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
METAL PRODUCT MFG <i>cont.</i>				
276	Fabricated metal product mfg			
2761	Hand tool and general hardware mfg	311.4	74.7	128.8
2762	Spring and wire product mfg	1 128.7	189.5	301.3
2763	Nut, bolt, screw and rivet mfg	411.0	85.8	144.0
2764	Metal coating and finishing	1 167.7	329.4	506.1
2765	Non-ferrous pipe fitting mfg	207.3	38.4	74.2
2769	Fabricated metal product mfg n.e.c.	5 850.4	1 344.9	2 357.7
	<i>Total</i>	9 076.4	2 062.7	3 512.2
27	Total metal product mfg	55 302.0	7 733.8	16 132.8
MACHINERY AND EQUIPMENT MFG				
281	Motor vehicle and part mfg			
2811	Motor vehicle mfg	14 703.5	1 576.5	2 230.3
2812	Motor vehicle body mfg	2 081.5	347.0	554.6
2813	Automotive electrical and instrument mfg	1 416.3	236.3	336.2
2819	Automotive component mfg n.e.c.	5 700.7	1 092.7	1 946.2
	<i>Total</i>	23 901.9	3 252.5	5 067.3
282	Other transport equipment mfg			
2821	Shipbuilding	1 934.0	474.5	735.7
2822	Boatbuilding	1 125.4	171.7	305.3
2823	Railway equipment mfg	1 202.3	261.9	335.4
2824	Aircraft mfg	2 729.1	606.7	947.2
2829	Transport equipment mfg n.e.c.	179.7	21.4	36.9
	<i>Total</i>	7 170.5	1 536.3	2 360.5
283	Photographic and scientific equipment mfg			
2831	Photographic and optical good mfg	1 250.7	153.0	249.6
2832	Medical and surgical equipment mfg	1 463.7	329.0	587.8
2839	Professional and scientific equipment mfg n.e.c.	1 271.9	277.4	425.6
	<i>Total</i>	3 986.3	759.5	1 263.0
284	Electronic equipment mfg			
2841	Computer and business machine mfg	1 247.9	214.5	311.7
2842	Telecommunication, broadcasting and transceiving equipment mfg	1 711.9	418.5	603.6
2849	Electronic equipment mfg n.e.c.	1 969.7	481.8	743.1
	<i>Total</i>	4 929.5	1 114.9	1 658.4
285	Electrical equipment and appliance mfg			
2851	Household appliance mfg	2 695.9	511.4	816.1
2852	Electric cable and wire mfg	927.6	159.2	227.6
2853	Battery mfg	298.0	54.2	99.1
2854	Electric light and sign mfg	732.4	159.9	234.4
2859	Electrical equipment mfg n.e.c.	3 371.1	628.2	977.4
	<i>Total</i>	8 024.9	1 513.0	2 354.6

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

3.1 INDUSTRY CLASS *continued*

INDUSTRY CLASS		Sales and service income(a)	Wages and salaries(b)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
MACHINERY AND EQUIPMENT MFG <i>cont.</i>				
286	Industrial machinery and equipment mfg			
2861	Agricultural machinery mfg	1 193.7	222.2	353.1
2862	Mining and construction machinery mfg	2 347.9	423.0	762.7
2863	Food processing machinery mfg	533.2	99.3	174.9
2864	Machine tool and part mfg	904.3	245.8	398.2
2865	Lifting and material handling equipment mfg	1 796.4	445.9	637.3
2866	Pump and compressor mfg	814.0	164.1	310.9
2867	Commercial space heating and cooling equipment mfg	485.8	78.8	124.1
2869	Industrial machinery and equipment mfg n.e.c.	4 024.6	757.2	1 230.0
	<i>Total</i>	<i>12 100.0</i>	<i>2 436.3</i>	<i>3 991.1</i>
28	Total machinery and equipment mfg	60 113.1	10 612.4	16 695.0
OTHER MANUFACTURING				
291	Prefabricated building mfg			
2911	Prefabricated metal building mfg	837.6	123.7	211.4
2919	Prefabricated building mfg n.e.c.	^ 404.9	54.1	98.1
	<i>Total</i>	<i>1 242.6</i>	<i>177.8</i>	<i>309.6</i>
292	Furniture mfg			
2921	Wooden furniture and upholstered seat mfg	4 123.7	912.9	1 407.1
2922	Sheet metal furniture mfg	568.3	122.6	192.5
2923	Mattress mfg (except rubber)	568.8	97.2	161.1
2929	Furniture mfg n.e.c.	2 057.1	373.9	630.9
	<i>Total</i>	<i>7 317.8</i>	<i>1 506.7</i>	<i>2 391.5</i>
294	Miscellaneous mfg			
2941	Jewellery and silverware mfg	636.9	102.3	193.6
2942	Toy and sporting good mfg	546.1	83.9	159.8
2949	Manufacturing n.e.c.	2 671.7	465.8	786.4
	<i>Total</i>	<i>3 854.6</i>	<i>652.0</i>	<i>1 139.9</i>
29	Total other manufacturing	12 415.0	2 336.5	3 841.0
21-29	TOTAL MANUFACTURING	309 283.1	45 886.9	88 688.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

3.2

STATES, TERRITORIES AND AUSTRALIA (a)

INDUSTRY SUBDIVISION		Sales and service income (b)	Wages and salaries (c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
NEW SOUTH WALES				
21	Food, beverage and tobacco mfg	21 772.1	2 813.7	6 042.7
22	Textile, clothing, footwear and leather mfg	3 511.1	588.6	946.9
23	Wood and paper product mfg	5 861.6	859.8	1 963.5
24	Printing, publishing and recorded media	9 826.4	2 070.0	3 886.6
25	Petroleum, coal, chemical and associated product mfg	17 248.7	1 626.3	3 426.0
26	Non-metallic mineral product mfg	4 287.6	680.7	1 482.8
27	Metal product mfg	16 931.9	2 696.4	4 883.0
28	Machinery and equipment mfg	15 531.9	3 029.4	4 942.5
29	Other manufacturing	4 136.9	744.9	1 252.3
21-29	<i>Total manufacturing</i>	99 108.2	15 109.8	28 826.5
VICTORIA				
21	Food, beverage and tobacco mfg	20 264.2	2 518.3	5 155.4
22	Textile, clothing, footwear and leather mfg	4 985.5	929.1	1 566.2
23	Wood and paper product mfg	5 331.7	800.0	1 661.7
24	Printing, publishing and recorded media	5 828.0	1 458.0	2 657.4
25	Petroleum, coal, chemical and associated product mfg	16 293.0	2 036.4	4 195.8
26	Non-metallic mineral product mfg	3 131.0	562.8	1 212.6
27	Metal product mfg	11 121.5	1 839.0	3 694.9
28	Machinery and equipment mfg	21 822.7	3 862.6	5 900.6
29	Other manufacturing	3 923.7	742.9	1 211.7
21-29	<i>Total manufacturing</i>	92 701.3	14 749.2	27 256.3
QUEENSLAND				
21	Food, beverage and tobacco mfg	12 885.7	1 549.6	2 926.4
22	Textile, clothing, footwear and leather mfg	1 010.6	175.0	295.6
23	Wood and paper product mfg	2 917.7	494.6	1 066.5
24	Printing, publishing and recorded media	2 384.7	514.1	1 107.5
25	Petroleum, coal, chemical and associated product mfg	7 848.0	643.4	1 380.3
26	Non-metallic mineral product mfg	2 308.2	311.9	717.9
27	Metal product mfg	11 616.1	1 354.5	3 773.9
28	Machinery and equipment mfg	7 006.0	1 373.2	2 095.6
29	Other manufacturing	2 333.2	446.2	709.4
21-29	<i>Total manufacturing</i>	50 310.3	6 862.5	14 073.0
SOUTH AUSTRALIA				
21	Food, beverage and tobacco mfg	6 027.5	761.6	1 747.3
22	Textile, clothing, footwear and leather mfg	723.0	107.9	147.1
23	Wood and paper product mfg	1 719.1	280.2	678.0
24	Printing, publishing and recorded media	1 283.7	256.8	589.3
25	Petroleum, coal, chemical and associated product mfg	2 425.4	404.8	766.7
26	Non-metallic mineral product mfg	1 045.0	140.6	359.6
27	Metal product mfg	3 460.1	570.8	982.9
28	Machinery and equipment mfg	10 969.6	1 405.4	2 269.4
29	Other manufacturing	781.6	166.3	259.9
21-29	<i>Total manufacturing</i>	28 434.9	4 094.4	7 800.3

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

3.2 STATES, TERRITORIES AND AUSTRALIA(a) *continued*

INDUSTRY SUBDIVISION		Sales and service income(b)	Wages and salaries(c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
WESTERN AUSTRALIA				
21	Food, beverage and tobacco mfg	4 973.7	572.2	1 100.8
22	Textile, clothing, footwear and leather mfg	594.6	87.3	169.1
23	Wood and paper product mfg	909.0	175.3	386.1
24	Printing, publishing and recorded media	1 319.5	278.1	599.1
25	Petroleum, coal, chemical and associated product mfg	6 098.1	444.7	1 298.2
26	Non-metallic mineral product mfg	1 511.8	269.2	560.7
27	Metal product mfg	10 263.7	1 010.4	1 978.9
28	Machinery and equipment mfg	3 883.1	781.4	1 190.7
29	Other manufacturing	1 028.3	189.5	334.2
21-29	<i>Total manufacturing</i>	30 581.6	3 808.0	7 617.9
TASMANIA				
21	Food, beverage and tobacco mfg	1 769.6	229.7	501.4
22	Textile, clothing, footwear and leather mfg	192.1	43.4	68.9
23	Wood and paper product mfg	1 252.0	163.7	546.4
24	Printing, publishing and recorded media	197.5	52.9	102.0
25	Petroleum, coal, chemical and associated product mfg	499.5	62.9	167.7
26	Non-metallic mineral product mfg	155.6	34.4	126.9
27	Metal product mfg	934.6	164.3	315.8
28	Machinery and equipment mfg	574.3	98.1	194.4
29	Other manufacturing	103.5	19.5	36.0
21-29	<i>Total manufacturing</i>	5 678.7	868.8	2 059.6
NORTHERN TERRITORY				
21	Food, beverage and tobacco mfg	137.0	17.9	30.2
22	Textile, clothing, footwear and leather mfg	np	np	np
23	Wood and paper product mfg	15.8	2.5	4.5
24	Printing, publishing and recorded media	70.3	17.5	33.6
25	Petroleum, coal, chemical and associated product mfg	68.9	14.2	39.5
26	Non-metallic mineral product mfg	129.5	20.8	39.6
27	Metal product mfg	np	np	np
28	Machinery and equipment mfg	128.8	27.8	42.3
29	Other manufacturing	np	np	np
21-29	<i>Total manufacturing</i>	1 495.1	196.0	687.8

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

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

3.2STATES, TERRITORIES AND AUSTRALIA(a) *continued*

INDUSTRY SUBDIVISION		Sales and service income(b)	Wages and salaries(c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
.....				
AUSTRALIAN CAPITAL TERRITORY				
21	Food, beverage and tobacco mfg	69.6	17.5	31.2
22	Textile, clothing, footwear and leather mfg	np	np	np
23	Wood and paper product mfg	98.0	16.8	39.6
24	Printing, publishing and recorded media	308.5	73.5	136.1
25	Petroleum, coal, chemical and associated product mfg	^ 28.5	7.0	^ 16.1
26	Non-metallic mineral product mfg	93.5	12.7	28.2
27	Metal product mfg	np	np	np
28	Machinery and equipment mfg	196.6	34.5	59.4
29	Other manufacturing	np	np	np
21-29	<i>Total manufacturing</i>	973.0	198.1	366.8
.....				
AUSTRALIA				
21	Food, beverage and tobacco mfg	67 899.5	8 480.6	17 535.5
22	Textile, clothing, footwear and leather mfg	11 057.8	1 937.3	3 207.4
23	Wood and paper product mfg	18 104.8	2 792.9	6 346.3
24	Printing, publishing and recorded media	21 218.5	4 720.8	9 111.8
25	Petroleum, coal, chemical and associated product mfg	50 510.1	5 239.7	11 290.2
26	Non-metallic mineral product mfg	12 662.2	2 033.0	4 528.4
27	Metal product mfg	55 302.0	7 733.8	16 132.8
28	Machinery and equipment mfg	60 113.1	10 612.4	16 695.0
29	Other manufacturing	12 415.0	2 336.5	3 841.0
21-29	Total manufacturing	309 283.1	45 886.9	88 688.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) See Explanatory Notes paragraphs 20 and 21.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

3.3 INDUSTRY VALUE ADDED(a)

INDUSTRY SUBDIVISION		PLUS			LESS		Industry value added
		Sales and service income(b)	Other components of income(c)	Change in inventories	Purchases(d)	Other intermediate input expenses	
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	67 899.5	539.3	474.1	38 725.5	12 651.9	17 535.5
22	Textile, clothing, footwear and leather mfg	11 057.8	65.7	*31.0	5 651.6	2 295.6	3 207.4
23	Wood and paper product mfg	18 104.8	175.3	^ 102.5	8 809.2	3 227.1	6 346.3
24	Printing, publishing and recorded media	21 218.5	62.9	-10.9	6 301.2	5 857.6	9 111.8
25	Petroleum, coal, chemical and associated product mfg	50 510.1	260.1	633.7	31 944.6	8 169.0	11 290.2
26	Non-metallic mineral product mfg	12 662.2	97.1	73.8	5 269.2	3 035.4	4 528.4
27	Metal product mfg	55 302.0	458.9	^ 185.7	29 786.7	10 027.1	16 132.8
28	Machinery and equipment mfg	60 113.1	634.7	^ 253.1	35 146.2	9 159.6	16 695.0
29	Other manufacturing	12 415.0	^ 56.7	*43.4	6 334.7	2 339.4	3 841.0
21-29	Total manufacturing	309 283.1	2 350.6	1 786.4	167 969.0	56 762.8	88 688.3

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) For the definition of industry value added, see the Glossary term.

(b) Includes rent, leasing and hiring income.

(c) Comprises funding from federal, state and/or local government for operational costs, and capital work done for own use.

(d) Includes capitalised purchases, which is not an intermediate input expense, but is a deduction in the calculation of IVA. For further details, see the Glossary terms.

3.4 ACQUISITION (a) AND DISPOSAL OF ASSETS

CAPITAL EXPENDITURE ON

INDUSTRY SUBDIVISION		Plant, machinery and equipment	Dwellings, other buildings and structures	Other (including land and intangible assets)	Total acquisitions	Disposal of assets	Net capital expenditure
ANZSIC code	Description	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	2 568.2	471.4	347.5	3 387.1	1 498.4	1 888.8
22	Textile, clothing, footwear and leather mfg	233.0	15.8	*60.6	^ 309.4	62.5	^ 246.9
23	Wood and paper product mfg	654.9	53.4	52.3	760.7	142.6	618.1
24	Printing, publishing and recorded media	654.5	32.6	433.3	1 120.4	123.5	996.9
25	Petroleum, coal, chemical and associated product mfg	1 429.8	128.9	178.3	1 737.0	202.3	1 534.7
26	Non-metallic mineral product mfg	675.9	66.8	81.1	823.9	190.5	633.4
27	Metal product mfg	1 793.1	178.0	^ 220.5	2 191.6	243.7	1 947.9
28	Machinery and equipment mfg	1 865.2	182.9	296.0	2 344.1	428.8	1 915.3
29	Other manufacturing	212.9	55.0	32.9	300.8	90.9	^ 209.9
21-29	Total manufacturing	10 087.5	1 185.0	1 702.4	12 974.9	2 983.1	9 991.8

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) Items listed include value of capital work done for own use.

3.5 SELECTED NON-WAGE LABOUR COSTS (a)

AS A PROPORTION OF WAGES AND SALARIES (b)

INDUSTRY SUBDIVISION		Employer contributions into superannuation	Workers' compensation premiums/costs	Fringe benefits tax	Payroll tax	Total
ANZSIC code	Description	%	%	%	%	%
21	Food, beverage and tobacco mfg	8.6	4.2	1.5	5.0	19.3
22	Textile, clothing, footwear and leather mfg	10.0	4.2	0.8	3.2	18.2
23	Wood and paper product mfg	8.6	4.4	0.8	4.2	18.0
24	Printing, publishing and recorded media	7.9	1.5	1.4	4.3	15.2
25	Petroleum, coal, chemical and associated product mfg	8.6	3.0	1.8	4.7	18.2
26	Non-metallic mineral product mfg	8.1	4.7	1.3	4.4	18.4
27	Metal product mfg	8.9	3.8	0.9	3.9	17.6
28	Machinery and equipment mfg	8.4	3.0	1.0	4.1	16.6
29	Other manufacturing	9.6	4.1	0.6	2.8	17.0
21-29	Total manufacturing	8.6	3.5	1.2	4.2	17.5

(a) This table shows the proportion of each selected non-wage labour cost to wages and salaries.

(b) Excludes the drawings of working proprietors.

3.6 EXPORTED AND TOTAL PRODUCTION (a)

INDUSTRY SUBDIVISION		SALES OF GOODS PRODUCED (b)		Exports as a proportion of total sales of goods produced
		Exported by this business or its agent	Total	
ANZSIC code	Description	\$m	\$m	%
21	Food, beverage and tobacco mfg	12 650.0	61 913.2	20.4
22	Textile, clothing, footwear and leather mfg	1 219.9	6 977.8	17.5
23	Wood and paper product mfg	1 165.4	15 376.4	7.6
24	Printing, publishing and recorded media	369.2	11 997.9	3.1
25	Petroleum, coal, chemical and associated product mfg	4 690.4	40 938.1	11.5
26	Non-metallic mineral product mfg	352.1	11 072.2	3.2
27	Metal product mfg	16 064.8	46 721.4	34.4
28	Machinery and equipment mfg	8 289.9	41 620.3	19.9
29	Other manufacturing	422.1	8 470.7	5.0
21-29	Total manufacturing	45 223.6	245 087.9	18.5

(a) See Explanatory Notes paragraphs 24-28.

(b) Sales of goods produced by the business, including goods produced for it on a commission basis.

3.7**CONTRIBUTION OF EXPORTING AND NON-EXPORTING BUSINESSES (a)**

BUSINESSES THAT		<i>Sales and service income(b)</i>	<i>Wages and salaries(c)</i>	<i>Industry value added</i>
<i>ANZSIC code</i>	<i>Description</i>	%	%	%
DO NOT EXPORT				
21	Food, beverage and tobacco mfg	35.2	41.1	39.5
22	Textile, clothing, footwear and leather mfg	49.6	52.0	50.8
23	Wood and paper product mfg	50.1	55.9	49.4
24	Printing, publishing and recorded media	73.3	77.6	77.7
25	Petroleum, coal, chemical and associated product mfg	28.6	40.8	37.6
26	Non-metallic mineral product mfg	67.1	64.8	65.9
27	Metal product mfg	35.8	50.9	33.3
28	Machinery and equipment mfg	42.3	46.4	45.4
29	Other manufacturing	73.5	74.6	73.0
21-29	<i>Total manufacturing</i>	42.1	51.6	46.8
EXPORT UP TO AND INCLUDING 50% OF SALES (d)				
21	Food, beverage and tobacco mfg	46.1	44.2	46.9
22	Textile, clothing, footwear and leather mfg	37.8	38.4	40.8
23	Wood and paper product mfg	46.0	42.2	47.0
24	Printing, publishing and recorded media	25.9	21.8	21.3
25	Petroleum, coal, chemical and associated product mfg	67.5	54.7	56.2
26	Non-metallic mineral product mfg	31.5	33.6	33.0
27	Metal product mfg	35.0	36.7	34.3
28	Machinery and equipment mfg	40.9	40.2	42.8
29	Other manufacturing	23.5	23.4	24.3
21-29	<i>Total manufacturing</i>	43.6	39.2	40.7
EXPORT MORE THAN 50% OF SALES (d)				
21	Food, beverage and tobacco mfg	18.7	14.7	13.7
22	Textile, clothing, footwear and leather mfg	12.7	9.6	8.4
23	Wood and paper product mfg	3.9	1.9	3.6
24	Printing, publishing and recorded media	0.7	0.6	1.0
25	Petroleum, coal, chemical and associated product mfg	4.0	4.5	6.2
26	Non-metallic mineral product mfg	1.4	1.6	1.1
27	Metal product mfg	29.3	12.5	32.3
28	Machinery and equipment mfg	16.9	13.4	11.9
29	Other manufacturing	3.1	1.9	2.7
21-29	<i>Total manufacturing</i>	14.3	9.2	12.5

(a) See Explanatory Notes paragraphs 24-28.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

(d) Sales of goods produced by the business, including goods produced for it on a commission basis.

EXPLANATORY NOTES

INTRODUCTION

- 1** This publication, *Manufacturing Industry, Australia, 2001–02 and 2002–03* (cat. no. 8221.0), is the first to present manufacturing industry data compiled from the 2001–02 and 2002–03 collections, together with some revised and comparative statistics for 2000–01. This is also the first issue where the Australian Business Number (ABN) is the primary basis for the statistical units used to collect the data. (As a consequence, the scope of the collection has been expanded to include non-employers, although this has not had a significant effect upon the statistics presented.) For the last published survey (2000–01), the employing ABS 'management unit' was the sole statistical unit used to collect data. For more information about these changes to the annual manufacturing collection and how they affect data outputs, see Appendices 2 and 3.
- 2** Manufacturing, as specified in Division C of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)* (cat. no. 1292.0), broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand.
- 3** The manufacturing collection is conducted on an annual basis as a component of the Economic Activity Survey (EAS). The sample design uses a mixture of direct collection above defined size cut-offs and the use of business income tax returns (BIT data) below these cut-offs. Full details of the sample design are contained in Appendix 2.
- 4** For the census collection year 2001–02:

 - Just over 15,000 manufacturing businesses, which were above defined size cut-offs, were asked to provide employment details and data obtained from statements of financial performance and position, mainly by mail out questionnaires. A subsample of approximately 9,100 manufacturing businesses were asked to provide additional structural and performance data. Selected businesses were also asked to supply key details of their operations by state and territory, enabling the production of the state/territory estimates contained in table 2.2.
 - Key financial data, representing approximately 118,000 manufacturing businesses below the \$500,000 cut-off, which had been supplied by them to the Australian Taxation Office (ATO) on business income tax returns (BIT data), were then drawn upon to supplement the ABS's directly collected information for the Australian, state and territory data in this publication.
 - To enable the production of state/territory industry class and sub-state/territory regional estimates (to be released in 2005):
 - All manufacturing businesses which received ABS mail out questionnaires were also asked to provide location and employment details.
 - ATO BIT data were also drawn upon for approximately 16,300 manufacturing businesses, which were between the \$500,000 and \$2,000,000 cut-offs and not selected for direct collection.
- 5** For 2002–03:

 - A sample of approximately 8,900 manufacturing businesses were asked to provide employment details and data obtained from statements of financial performance and position, mainly by mail out questionnaires. Selected businesses were also asked to supply key details of their operations by state and territory, enabling the production of the state/territory estimates contained in table 3.2.

INTRODUCTION *continued*

- Key financial data, representing approximately 120,000 manufacturing businesses below the \$500,000 cut-off, which had been supplied by them to the Australian Taxation Office (ATO) on business income tax returns (BIT data), were then drawn upon to supplement the ABS's directly collected information.

STATISTICAL UNITS DEFINED
ON THE ABS BUSINESS
REGISTER

6 The ABS uses an economic statistics units model on the ABS Business Register (ABSBR) to describe the characteristics of businesses, and the structural relationships between related businesses. Within large and diverse business groups, the units model is used also to define reporting units that can provide data to the ABS at suitable levels of detail.

7 In mid 2002, to better use the information available as a result of *The New Tax System* (TNTS), the ABS changed its economic statistics units model. The new units model allocates businesses to one of two sub-populations. The vast majority of businesses are in what is called the ATO maintained population, while the remaining businesses are in the ABS maintained population. Together, these two sub-populations make up the ABSBR population.

ATO maintained population

8 Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN), and are then included on the whole-of-government register of businesses, the Australian Business Register (ABR), which is maintained by the ATO. Most of these businesses have simple structures; therefore, the unit registered for an ABN will satisfy ABS statistical requirements. For these businesses, the ABS has aligned its statistical units structure with the ABN unit. The businesses with simple structures constitute the ATO maintained population, and the ABN unit is used as the statistical unit for all ABS economic collections.

ABS maintained population

9 For the population of businesses where the ABN unit is not suitable for ABS statistical requirements, the ABS maintains its own units structure through direct contact with the business. These businesses constitute the ABS maintained population. This population consists typically of large, complex and diverse businesses. The new statistical units model described below has been introduced to cover such businesses.

Enterprise group: This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the *Corporations Legislation Amendment Act 1991*), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.

Enterprise: The enterprise is an institutional unit comprising:

- (i) a single legal entity or business entity, or
- (ii) more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).

Type of activity unit (TAU): The TAU is comprised of one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.

10 For more information about the effects of the introduction of the new economic statistics units model, refer to *Information Paper: Improvements in ABS Economic Statistics [Arising from the New Tax System]* (cat. no. 1372.0).

Comparison over time

11 For the 2000–01 year, the manufacturing collection used the management unit as the statistical unit. For 2001–02 and later years, the statistical unit is the ABN unit for businesses with simple structures, and the TAU for businesses with complex structures. In most cases, ABN units / TAUs will concord with the management units used prior to the 2001–02 year.

SCOPE AND COVERAGE

12 The scope of the 2001–02 and 2002–03 manufacturing collections comprises all businesses (including non-employing businesses) on the ABSBR at time of selection, whose industry is classified to ANZSIC Division C MANUFACTURING. For details of the structure of this division, users should consult the *Australian and New Zealand Standard Industrial Classification (ANZSIC)* (cat. no. 1292.0), which is also available through the ABS web site <<http://www.abs.gov.au>> (using the Home page Search facility to find Division C).

13 The ANZSIC-based industry statistics presented in this publication are compiled differently from activity statistics. Each ABN unit or TAU on the ABSBR has been classified (by the ATO and the ABS respectively) to a single industry irrespective of any diversity of activities undertaken. The industry class allocated is the one which provides the main source of income. A manufacturing business is one predominantly engaged in manufacturing activities, but the data collected for it cover all activities of the business (including non-manufacturing activities). Conversely, there are some businesses predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities; these are excluded from the collection.

14 Some manufacturing businesses engage, in a significant way, in activities which are normally carried out by different industries. For example, a predominantly manufacturing business may also undertake significant amounts of wholesaling. Similarly, a manufacturing business may produce significant volumes of goods which are normally produced in different manufacturing industries. Where a business makes a significant economic contribution to industries classified to different ANZSIC subdivisions, the ABS includes the business in the ABS maintained population, and 'splits' the TAU's reported data between the industries involved. Significance is determined using total income.

15 A TAU's reported data will be split if the inclusion of data relating to the secondary activity in the statistics for the industry of the primary activity distorts (by overstating or understating) either the primary or secondary industry statistics at the ANZSIC subdivision level by:

- 3% or more, where the industries of the primary and secondary activities are in the same ANZSIC division
- 2% or more, where the industries of the primary and secondary activities are in different ANZSIC divisions.

16 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.

REFERENCE PERIOD

17 The period covered by the collection is, in general, the 12 months ended 30 June. Where businesses are unable to supply information on this basis, an accounting period for which data can be provided is used for data other than that relating to employment.

18 Financial data presented incorporate all units in scope of the manufacturing collection that were in production stage at any time during the year. They also include any temporarily inactive units, i.e. those units which were in the development stage or which were not in production, but which still existed and held assets and liabilities and/or incurred some non-operating expenses (e.g. depreciation, administration costs).

RELIABILITY OF ESTIMATES

19 For information on this subject, see Technical Notes 1 and 2.

STATE AND TERRITORY
ESTIMATES

20 State and territory summary estimates for MANUFACTURING subdivisions are presented in tables 2.2 and 3.2, for 2001–02 and 2002–03 respectively. To enable the production of these estimates for each year, selected businesses which received the mail out questionnaire (and which were considered to operate in more than one state and/or territory) were also asked to report data for employment, wages and salaries, and sales of goods and services for each state and/or territory in which they operated, if more than one.

21 The relevant data for all other businesses, including those whose contribution was sourced from BIT data, were allocated to their state/territory of operations as recorded on the ABSBR. Further statistical modelling enabled the production of the state and territory estimates shown.

OTHER STATE AND REGIONAL
DATA

22 State industry class estimates and regional or sub-state/territory estimates will be produced for 2001–02 as data cubes or Microsoft Excel files; for further information, see Appendix 1. Future issues of the publication *Manufacturing Industry, Australia* (cat. no. 8221.0) will continue to publish state and territory estimates of sales and service income, wages and salaries, IVA and employment, at the industry subdivision level.

23 For further information about the availability of these data, please contact John Ridley on Sydney 02 9268 4541 or via the web to john.ridley@abs.gov.au.

EXPORTS BY
MANUFACTURERS

24 All businesses which received an ABS mail out questionnaire were asked whether they exported and, if so, what percentage of their sales of goods produced was exported by the business or by an agent on its behalf. Because the ATO data do not contain this information, businesses whose contribution to MANUFACTURING estimates was sourced from BIT data do not contribute to the export tables included in this publication. The effect of the exclusion of these businesses is likely to be minimal, in view of their small contribution to overall estimates.

25 The data presented in tables 2.6 and 3.6 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. These data also exclude data for those businesses which operated during the particular reference period, but were not operating at 30 June (e.g. operated during 2002–03, but were not operating at 30 June 2003).

26 For the purposes of tables 2.7 and 3.7, manufacturing businesses have been categorised by the extent (if any) of their involvement in exporting. For each such category, the tables present its share (relative to total Australian manufacturing) of the three key data items: Sales and service income, Wages and salaries, and Industry Value Added.

27 The statistics presented in tables 2.6 and 3.6 relating to 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 this publication's tables only relate to exports directly undertaken by the manufacturer or by its agent. The data in tables 2.6 and 3.6 showing these exports can, therefore, be expected to show a much lower value than the exports data from the international trade series. The main reason is that for many exports of goods manufactured in Australia, the actual exporting activity is undertaken by a business other than the manufacturer.

28 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 any of these data. 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'

EXPORTS BY
MANUFACTURERS *continued*

charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from these tables 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.

DATA ADJUSTED

29 Data in this publication have been adjusted to allow for lags in processing new businesses to the ABSBR. The effect of these adjustments on Australian estimates of sales and service income are:

- for 2001–02, an increase of 0.8%
- for 2002–03, an increase of 1.0% .

30 Most states and territories and most industries were affected to a similar degree.

CHAIN VOLUME MEASURES

31 The chain volume measures based on annual data, which were last published in the 2000–01 issue of this publication, will not be available until a longer span of data based on the new statistical infrastructure is available for those series. For further information on chain volume measures, refer to *Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts* (cat. no. 5248.0).

EMPLOYMENT DATA

32 Employment estimates (and related ratios and data relating to employment size groups) have been excluded from this issue, due to reliability problems with the modelling of ATO BIT data intended to provide employment estimates for non-sampled ABN units. When these problems are resolved, estimates will be made available.

ACKNOWLEDGEMENT

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

RELATED PUBLICATIONS

34 The ABS produces industry estimates for a range of selected industries (including Manufacturing) and these results are to be available in *Australian Industry, 2001–02 and 2002–03* (cat. no. 8155.0) to be released in early 2005. National estimates of income, expenditure, assets and liabilities and associated ratios will be available at the ANZSIC division level. Data presenting greater detail are considered experimental at this stage, while the methodology used to produce them is reviewed and improved. These consist of national estimates of income, expenses, operating profit before tax (OPBT), and wages and salaries, at the ANZSIC group level, and state/territory estimates of these items at the ANZSIC division level.

RELATED PUBLICATIONS

continued

- 35** Users may also wish to refer to the following publications:
- Australian Industry, 2000–01*, cat. no. 8155.0, released on 27 August 2003 – Annual publication
- Australian Labour Market Statistics*, cat. no. 6105.0 – Quarterly publication
- Australian National Accounts: National Income, Expenditure and Product*, cat. no. 5206.0 – Quarterly publication
- Australian National Accounts: State Accounts, 2002–03*, cat. no. 5220.0, released on 12 November 2003 – Annual publication
- Australian System of National Accounts: Concepts, Sources and Methods, 2000*, cat. no. 5216.0, released on 21 December 2000 – Irregular publication
- Business Indicators, Australia*, cat. no. 5676.0 – Quarterly publication
- Business Operations and Industry Performance, Australia, 2000–01*, cat. no. 8140.0, released on 6 December 2002 – Final issue
- Environment Protection, Mining and Manufacturing Industries, Australia, 2000–2001*, cat. no. 4603.0, released on 4 September 2002 – Irregular publication
- Information Paper: ABS Statistics and The New Tax System, 2000*, cat. no. 1358.0, released on 26 April 2000 – Irregular publication
- Information Paper: Improvements in ABS Economic Statistics [Arising from The New Tax System]*, cat. no. 1372.0, released on 6 May 2002 – Irregular publication
- Information Paper: Introduction of Chain Volume Measures in the Australian National Accounts, 1997*, cat. no. 5248.0, released on 19 March 1998 – Irregular publication
- International Trade in Goods and Services, Australia*, cat. no. 5368.0 – Monthly publication
- International Trade Price Indexes, Australia*, cat. no. 6457.0 – Quarterly publication
- Job Vacancies, Australia*, cat. no. 6354.0 – Quarterly publication
- Labour Costs, Australia, 2002–03*, cat. no. 6348.0.55.001, released on 11 June 2004 – Irregular electronic publication
- Labour Price Index, Australia*, cat. no. 6345.0 – Quarterly publication (renamed from *Wage Cost Index, Australia*)
- Manufacturing, Australia, 2002*, cat. no. 8225.0, released on 2 April 2003 – Final issue
- Private New Capital Expenditure and Expected Expenditure, Australia*, cat. no. 5625.0 – Quarterly publication
- Producer Price Indexes, Australia*, cat. no. 6427.0 – Quarterly publication
- Research and Experimental Development, Businesses, Australia, 2002–03*, cat. no. 8104.0, released on 6 September 2004 – Annual publication
- Wage Cost Index, Australia*, cat. no. 6345.0 – renamed, from September Quarter 2004 issue. See *Labour Price Index, Australia*
- Year Book Australia, 2004*, cat. no. 1301.0, released on 27 February 2004 – Annual publication
- 36** Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.
- 37** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

ABS DATA AVAILABLE ON
REQUEST

BACK SERIES AND
ADDITIONAL DATA

38 For the last published (2000–01) manufacturing collection, information was collected from manufacturing management units. (See Appendix 3 for information about bridged ABN unit / TAU estimates also available for that year.)

39 The 1999–2000 manufacturing collection was the last to collect information primarily from manufacturing establishments as well as collecting limited data from a relatively small sample of manufacturing management units.

40 A considerable volume of data (primarily manufacturing establishment based data but some manufacturing management unit based data) is available from past annual manufacturing collections. 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 manufacturing establishment data than that previously presented in the manufacturing series of publications. Additional data may also be available from the 2001–02 and 2002–03 collections. As a guide, a list of data items included on each of the 2001–02 and 2002–03 manufacturing survey forms and a selection of data variables that can be derived from them are shown in Appendix 1.

41 For management units, chain volume measures of IVA are available from 1995–96 to 2000–01. For establishments, chain volume measures on a true ANZSIC basis are only available from 1989–90; however, chain volume measures of IVA on an ANZSIC basis are available back to 1984–85. They were compiled by converting estimates for earlier years onto an ANZSIC basis using the relationships that applied between the previous Australian Standard Industrial Classification (ASIC) and ANZSIC in the years 1990–91 and 1991–92. These estimates are available for Australia back to 1984–85. It should be noted that the relationships that applied in 1990–91 and 1991–92 are less likely to apply the earlier the reference year.

42 However, it is important that users are aware that the data as contained in this publication are not comparable with earlier years' data. This is due to the introduction of the new statistical infrastructure with the 2001–02 collection, as explained in Appendix 2.

ROUNDING

43 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items.

44 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.

INTRODUCTION

1 This Appendix lists items included in the 2001-02 and 2002-03 manufacturing collections, and selected items derived from those directly collected.

AVAILABILITY OF DATA

2 Due to the nature of these two collections, the vast majority of information available from each of them will be at the Australian level, with limited information available for states and territories. The following restrictions apply to the availability of data for dissemination:

- Australian level industry class data estimates are available for the data items listed below. However, the industry level at which these items are disseminated will be decided on a case by case basis conditional upon confidentiality and data quality constraints.
- Businesses do not normally apportion activity by state/territory. However, approximately 400 ABN units / TAUs (i.e. those with significant operations in more than one state or territory) were 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 operated. This has enabled the production of state/territory data for sales and service income, wages and salaries, and IVA at the industry subdivision level. However, it is not possible to produce state/territory data by employment size or data relating to exported production.
- All employment estimates (and related ratios) are not yet available, due to reliability problems with the modelling of ATO BIT data intended to provide employment estimates for non-sampled ABN units. Estimates will be available when these problems are resolved.
- For the 2001-02 collection (which was a census), all businesses which received the mail out questionnaire were also asked to report details (including main activity and employment) for each of their operating locations, if more than one. This will enable the release of sub-state/territory regional data (in 2005).

COLLECTED, AND SELECTED DERIVED, DATA ITEMS (a), 2001–02 AND 2002–03

Employment

Total employment at the end of June

Income items

Sales of goods

Produced by this business (or for it on commission)
Not produced by this business

Income from services

Income from work done on a commission basis
(excluding sales and agency commissions) (2001–02)
Provided on a commission basis
(excluding sales and agency commissions) (2002–03)
Repair, maintenance and service income and fees (2001–02)
Repair and maintenance services (2002–03)
Delivery charges separately invoiced to customers
Advertising income
Other income (including sales and agency commissions)

Income from rent, leasing and hiring

Land, buildings and other structures
Other income from rent, leasing and hiring

Interest income

Funding from federal, state and/or local government

Funding for operational costs
Funding provided for specific capital items

Dividend income

Royalties income

Natural resource royalties income
Other royalties income

Other income

Total income

Expense items

Labour costs

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

Land tax and land rates

Insurance premiums

Interest expenses

Bank charges other than interest

Depreciation and amortisation

Bad and doubtful debts

Purchases

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

Royalties expenses

Natural resource royalties expenses
Other royalties expenses

Expense items cont.

Motor vehicle running expenses

Freight and cartage expenses

Amounts directly invoiced to customers
Other freight and cartage expenses

Repair and maintenance expenses

Rent, leasing and hiring expenses

Commission expenses

Sales commission expenses
Commission expenses for work done on materials
provided by this business

Ex-house printing expenses for material published by
this business

Computer software expensed

Other operating expenses

Total expenses

Assets and liabilities

Trade debtors

Gross trade debtors

Beginning of reporting period
End of reporting period

Provision for doubtful debt of trade debtors

Beginning of reporting period
End of reporting period

Net trade debtors

Beginning of reporting period
End of reporting period

Inventories

Opening inventories

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

Closing inventories

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

Current assets (including inventories and net
trade debtors)

Patents, licences and goodwill

Non-current assets (including patents, licences
and goodwill)

Trade creditors

Beginning of reporting period
End of reporting period

Total provisions for employee entitlements

Beginning of reporting period
End of reporting period

Current liabilities (including trade creditors and
provisions for employee entitlements)

Non-current liabilities (including provisions for
employee entitlements)

Owners' equity

(a) Data items shown are generally available for both years; a specific year is appended where the item is available only for that year of the two.

COLLECTED, AND SELECTED DERIVED, DATA ITEMS (a), 2001–02 AND 2002–03 *continued*

Capital expenditure and disposal of assets

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

Capital expenditure (including capitalised work done by own employees as listed above)
 Plant, machinery and equipment (2001–02)
 Road vehicles (2002–03)
 Other transport equipment (2002–03)
 Industrial machinery and equipment (2002–03)
 Computer software capitalised
 Computers and computer peripherals (2002–03)
 Electronic equipment and electrical machinery (2002–03)
 Communication equipment (2002–03)
 Other plant and equipment (2002–03)
 Land
 Dwellings, other buildings and structures
 Intangible assets

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

Sales of goods produced

Data have been collected for 960 separately identified commodities

Selected derived data items

Sales and service income (including rent, leasing and hiring income and income from intellectual property royalties)
 Sales and service income (including rent, leasing and hiring income and income from intellectual property royalties) per person employed at the end of June
 Amount exported by the business or by its agent
 Exports as a proportion of sales of goods produced
 Purchases (including capitalised purchases)
 Other intermediate input expenses –
 i.e. balance from (current) purchases
 Change in inventories
 Cost of sales
 Net capital expenditure
 Total capital expenditure
 Operating profit before tax
 Industry value added
 Industry value added per person employed at the end of June
 Ratio of wages and salaries to industry value added
 Ratio of wages and salaries to sales and service income (including rent, leasing and hiring income and income from intellectual property royalties)

(a) Data items shown are generally available for both years; a specific year is appended where the item is available only for that year of the two.

APPENDIX 2

SURVEY CHANGES

CHANGES TO ABS BUSINESS REGISTER

1 The introduction of The New Tax System (TNTS) has had a number of significant implications for ABS business statistics. These were initially discussed in *Information Paper: ABS Statistics And The New Tax System* (cat. no. 1358.0) which was released on 26 April 2000. The paper foreshadowed changes in the statistical infrastructure used by the ABS to support compilation of ABS economic series.

2 *Information Paper: Improvements in ABS Economic Statistics [Arising from The New Tax System]* (cat. no. 1372.0) released on 6 May 2002 provided further information about these changes and their treatment in statistical series.

3 Most of these changes directly affected the ABS Business Register (ABSBR), which contains a list of businesses from which samples are selected to collect data for ABS economic series (including the annual manufacturing collection). The series have been affected by the changes in the following ways:

- the population of businesses that are considered to be employing based on taxation information has changed as a result of TNTS
- the statistical units model, that is, the way in which business structures are represented on the ABSBR, is being more closely aligned with taxation reporting requirements
- the Australian Taxation Office (ATO), which maintains the Australian Business Register used as a source for ABSBR ABN units, has classified some businesses differently from the ABS, for example to different industries
- different measures of business size are available.

4 For more information about the ABSBR, see Explanatory Notes paragraphs 6–9.

2001–02 SURVEY CHANGES

5 For each of the 2001–02 and 2002–03 manufacturing collections, the ABSBR allocated businesses to one of two sub-populations, comprising respectively ABN units and TAU's (Type of activity units). For unit definitions, see Explanatory Notes paragraphs 8–11. These units replaced the management unit, which was the basis for the 2000–01 collection. In addition, the ABS made further changes, notably, expanding its register to encompass all units on the ATO maintained Australian Business Register, including non-employers. (These non-employers have now been included in the scope of the manufacturing collection.) In most other cases, ABN units / TAU's concurred with the management units used for 2000–01.

6 As well as these changes, the 2001–02 manufacturing collection differed from those of 2000–01 and 2002–03 in having been conducted as a census of all businesses recorded on the ABSBR as being predominantly engaged in manufacturing. The current strategy for this collection entails a census methodology every five years. A census enables production of data at greater geographical and/or industry detail than is available from a survey. Specifically, data are expected to be available (subject to confidentiality restrictions) at industry class level for states and territories, and at industry subdivision level for regions within them. A description of how this census methodology applies to the different sub-populations of the ABSBR is given in Explanatory Notes paragraph 4.

CHANGES TO DATA ESTIMATES

7 For a number of years, the ABS has been expanding the range of data sources it uses, in order to decrease the statistical reporting load placed on providers while maintaining or increasing the range of information available. A major alternate source of data is the ATO, which collects key financial data for business income tax and other taxation related

CHANGES TO DATA

ESTIMATES *continued*

purposes. Section 68 of the *Taxation Administration Act 1953* provides for the ATO to pass information to the Australian Statistician for the purposes of the *Census and Statistics Act 1905*. For the first time, the estimates in this publication have been sourced from a combination of data from the Economic Activity Survey (EAS) conducted by the ABS and key financial data from business income tax files (BIT data) provided by the ATO.

ABS maintained population

8 All units in the ABS maintained population (i.e. TAUs) classified to MANUFACTURING were eligible to be selected for direct collection. Since the ABS maintained population mainly accounts for large and complex businesses, direct collection of data by the ABS for these units is necessary because:

- many large and complex employing businesses have more than one legal entity, making it difficult to identify all legal entities for that business in the BIT data
- BIT data do not include all of the detailed information that the ABS requires from large and complex businesses
- 'tax exempt' businesses that are not required to complete business income tax returns would otherwise not contribute to the statistics.

ATO maintained population

9 The balance of units on the ABSBR classified to Manufacturing were ABN units, from the ATO maintained population.

Cut-offs for ABN units

10 For each of the 2001–02 and 2002–03 collections, estimates for six key data items from the 2000–01 EAS collection were used to determine a cut-off at or above which an ABN unit was available for direct collection, and below which its contribution was sourced from BIT data. The key data items used were employment, wages and salaries, sales and service income, industry value added, total income and total expenses. This cut-off was initially set such that the aggregated contribution of those ABN units sourced from BIT data to the six key estimates was expected to be less than 5%. Once determined, the non-employment cut-offs were adjusted so that none was greater than \$500,000.

11 This cut-off, designed to enable the production of the Australian, state and territory estimates in this publication, determined the way in which each ABN unit contributed to the statistics:

- ABN units with annualised Business Activity Statement (BAS) total sales (used in lieu of EAS total income) of \$500,000 or greater were eligible to be selected for direct collection of data by the ABS. If selected, they were sent the same mail out questionnaire for completion that was sent to selections from the ABS maintained population.
- ABN units with annualised BAS total sales below the \$500,000 cut-off were excluded from direct collection. For these units, BIT data were obtained and added to the directly collected estimates to produce the statistics in this publication.

12 For the 2001–02 census year, an additional cut-off of \$2,000,000 applied, to enable the production of state/territory industry class and sub-state/territory regional estimates (to be released in 2005). For this purpose, BIT data were obtained for all ABN units which were below this second cut-off and eligible, but not selected, for direct collection. Also, for this purpose, ABN units at or above the \$2,000,000 cut-off that were not selected in the main sample were asked to complete an ABS form, as were units in the ABS maintained population that were not selected in the main sample.

Manufacturing industry estimates

13 Therefore, 2001–02 and 2002–03 Australian, state and territory manufacturing industry estimates, as presented in this publication, were each derived as follows:

- for all businesses in the ABS maintained population and those businesses at or above the \$500,000 cut-off in the ATO maintained population, a sample survey was used to estimate their contribution

Manufacturing industry estimates continued

- for the balance of businesses (i.e. in the ATO maintained population below the \$500,000 cut-off), their contribution was sourced from BIT data, with some more detailed breakdowns produced using proportional relationships derived from the sample survey.

14 2001–02 state/territory industry class and sub-state/territory regional estimates are to be similarly derived. That is:

- BIT data were obtained for all ABN units below the \$500,000 cut-off
- BIT data were obtained for all ABN units between the cut-offs of \$500,000 and \$2,000,000 and for which no directly collected data are available
- ABS maintained units and ATO maintained units at or above the \$2,000,000 cut-off not originally selected were sent an ABS form.

Income contribution by unit type

15 The following table shows proportional contributions to sales and service income for MANUFACTURING as presented in this publication, by the business groupings described in the previous paragraphs of this Appendix.

CONTRIBUTION TO SALES AND SERVICE INCOME (a)

<i>ABSBR unit</i>	<i>ATO BIT data (b)</i>	<i>Directly collected data</i>	<i>Total</i>
	%	%	%
.....			
2001–02			
ABN units	4.0	28.6	32.6
TAUs	—	67.4	67.4
Total	4.0	96.0	100.0
.....			
2002–03			
ABN units	3.6	30.8	34.4
TAUs	—	65.6	65.6
Total	3.6	96.4	100.0
.....			

- nil or rounded to zero (including null cells)
- (a) Includes rent, leasing and hiring income.
- (b) Contributed by ABN units below the \$500,000 cut-off.

INTRODUCTION

1 For the 2000–01 year, the manufacturing collection used the management unit (MU) as the statistical unit. The management unit was defined as the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts were maintained. In nearly all cases, it coincided with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.).

2 For 2001–02 and later years, the statistical unit has been changed to the ABN unit for businesses with simple structures and the TAU for businesses with complex structures. (For details of the new economic statistics units model, see Explanatory Notes paragraphs 6–11.) In most cases, ABN units / TAUs concurred with the management units used for the 2000–01 year.

BRIDGING ABN UNITS / TAUs AND MANAGEMENT UNITS

3 Management unit data for 2000–01 have been updated to take account of revisions to the data since they were published in the previous issue of this publication. These revised data have then been adjusted to incorporate differences imputed from analysis of the 2001–02 and 2002–03 ABN unit / TAU data. These include the addition of non-employers to the collection, the impact of splitting (see Explanatory Notes paragraphs 14–15), differences between industry codes allocated (to some businesses) by the ATO and those assigned by the ABS, and the addition and use of BIT data sourced from the ATO (see Appendix 2).

4 The following two tables show 2000–01 manufacturing industry estimates for, respectively, management units and ABN units / TAUs (which reflect all of the changes described in the previous paragraph) for the data items: sales and service income, wages and salaries, and industry value added. The third table shows the percentage difference between these estimates.

MANAGEMENT UNIT ESTIMATES (a), 2000–01

INDUSTRY SUBDIVISION		<i>Sales and service income</i> (b)	<i>Wages and salaries</i> (c)	<i>Industry value added</i>
<i>ANZSIC code</i>	<i>Description</i>	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	56 989.9	7 436.1	14 867.3
22	Textile, clothing, footwear and leather mfg	9 085.1	1 748.0	2 580.6
23	Wood and paper product mfg	14 660.4	2 420.9	4 842.1
24	Printing, publishing and recorded media	16 940.3	3 963.4	6 895.9
25	Petroleum, coal, chemical and associated product mfg	46 005.4	4 940.1	9 620.0
26	Non-metallic mineral product mfg	9 776.6	1 719.6	3 593.7
27	Metal product mfg	42 513.2	6 177.7	13 573.1
28	Machinery and equipment mfg	50 200.7	8 639.6	13 428.3
29	Other manufacturing	6 941.9	1 580.1	2 423.4
21–29	Total manufacturing	253 113.4	38 625.5	71 824.3

(a) See Appendix 3 paragraph 3.
 (b) Includes rent, leasing and hiring income.
 (c) Excludes the drawings of working proprietors.

BRIDGING ABN UNITS / TAUs AND MANAGEMENT UNITS

continued

ABN UNIT / TAU ESTIMATES (a), 2000–01

INDUSTRY SUBDIVISION		Sales and service income (b)	Wages and salaries (c)	Industry value added
ANZSIC code	Description	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	62 342.5	7 886.2	16 059.4
22	Textile, clothing, footwear and leather mfg	11 483.9	1 958.6	3 079.7
23	Wood and paper product mfg	16 602.2	2 596.5	5 701.2
24	Printing, publishing and recorded media	18 863.1	4 339.7	7 471.5
25	Petroleum, coal, chemical and associated product mfg	47 516.5	5 087.6	9 905.2
26	Non-metallic mineral product mfg	10 531.7	1 796.1	3 863.0
27	Metal product mfg	46 031.5	6 401.9	14 800.1
28	Machinery and equipment mfg	52 557.4	9 186.4	14 756.2
29	Other manufacturing	10 849.1	2 090.9	3 676.5
21–29	Total manufacturing	276 777.9	41 343.8	79 312.7

- (a) See Appendix 3 paragraph 3. Also, relative standard errors are not available for these data.
- (b) Includes rent, leasing and hiring income.
- (c) Excludes the drawings of working proprietors.

PERCENTAGE DIFFERENCE (a)

DIFFERENCE BETWEEN ABN UNIT / TAU AND MANAGEMENT UNIT ESTIMATES OF

INDUSTRY SUBDIVISION		Sales and service income (b)	Wages and salaries (c)	Industry value added
ANZSIC code	Description	%	%	%
21	Food, beverage and tobacco mfg	9.4	6.1	8.0
22	Textile, clothing, footwear and leather mfg	26.4	12.0	19.3
23	Wood and paper product mfg	13.2	7.3	17.7
24	Printing, publishing and recorded media	11.4	9.5	8.3
25	Petroleum, coal, chemical and associated product mfg	3.3	3.0	3.0
26	Non-metallic mineral product mfg	7.7	4.4	7.5
27	Metal product mfg	8.3	3.6	9.0
28	Machinery and equipment mfg	4.7	6.3	9.9
29	Other manufacturing	56.3	32.3	51.7
21–29	Total manufacturing	9.3	7.0	10.4

- (a) See Appendix 3 paragraph 3. Also, relative standard errors are not available for these data.
- (b) Includes rent, leasing and hiring.
- (c) Excludes the drawings of working proprietors.

TECHNICAL NOTE 1 **DATA RELIABILITY**

SAMPLE ERROR

- 1** For each of 2001–02 and 2002–03, the manufacturing survey was, in part, a sample survey designed primarily to deliver industry class estimates for Australia. Industry subdivision estimates for states and territories are also produced.
- 2** The majority of data contained in this publication have been obtained from a sample of manufacturing businesses. 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 manufacturing businesses in the population. The measure of the likely difference as used by the ABS is given by the standard error, which indicates the extent to which an estimate might have varied by chance because the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.
- 3** The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error (RSE). The relative standard errors for the 2001–02 and 2002–03 sales and service income, wages and salaries, and IVA Australian data presented in this publication are mainly 2% or less for both years for industry subdivisions (see Technical Note 2) and most are 4% or less for both 2001–02 and 2002–03 for industry classes. The relative standard errors for the selected estimates for the states and territories are mainly 2% or less for both years.
- 4** Relative standard errors at the industry subdivision level for Australia for selected data items representing the full range of data contained in this publication are shown in Technical Note 2. Detailed relative standard errors can be made available on request.
- 5** The size of the RSE may be a misleading indicator of the reliability of some of the estimates for IVA. This situation may occur where an estimate may legitimately include positive and negative values, reflecting the financial performance of individual businesses. In these cases, the aggregated estimate can be small relative to the contribution of individual businesses resulting in a standard error which is large relative to the estimate.

NON-SAMPLE ERROR

- 6** 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.
- 7** 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. The ABS compares data from different ABS (and non-ABS) sources relating to the one industry, to ensure consistency and coherence.

NON-SAMPLE ERROR *continued*

8 There are also non-sampling errors associated with the BIT data sourced from the ATO. For example, the ATO treats any non-response by either bringing forward the previous year's data for a non-responding business, or imputing the data as zero if there are no previous data to use.

TECHNICAL NOTE 2 **RELATIVE STANDARD ERRORS**

SELECTED DATA ITEMS

INDUSTRY SUBDIVISION		Sales and service income	Purchases	Wages and salaries	Industry value added	Capital expenditure on plant, machinery and equipment(d)
ANZSIC code	Description	(a)	(b)	(c)		
		%	%	%	%	%
2001-02						
21	Food, beverage and tobacco mfg	0.4	0.7	0.6	0.5	2.1
22	Textile, clothing, footwear and leather mfg	0.6	1.1	1.3	1.1	7.8
23	Wood and paper product mfg	0.4	0.6	0.6	0.5	2.5
24	Printing, publishing and recorded media	0.9	2.9	1.5	1.3	5.0
25	Petroleum, coal, chemical and associated product mfg	0.2	0.3	0.7	0.6	1.2
26	Non-metallic mineral product mfg	1.7	2.2	1.2	1.0	3.6
27	Metal product mfg	0.6	0.6	0.9	0.6	1.5
28	Machinery and equipment mfg	0.4	0.6	0.8	0.7	2.0
29	Other manufacturing	1.3	1.9	1.6	1.4	7.8
21-29	Total manufacturing	0.2	0.3	0.3	0.3	0.9
2002-03						
21	Food, beverage and tobacco mfg	0.9	1.0	1.5	1.3	2.2
22	Textile, clothing, footwear and leather mfg	1.1	1.8	2.4	2.0	5.0
23	Wood and paper product mfg	0.8	1.3	1.0	0.7	2.5
24	Printing, publishing and recorded media	1.3	1.7	1.6	2.5	6.5
25	Petroleum, coal, chemical and associated product mfg	0.3	0.4	0.9	0.6	1.9
26	Non-metallic mineral product mfg	1.0	1.2	1.7	1.1	1.9
27	Metal product mfg	0.9	0.8	1.3	2.0	1.9
28	Machinery and equipment mfg	0.5	0.6	0.9	0.9	1.9
29	Other manufacturing	2.2	2.5	3.2	2.7	6.0
21-29	Total manufacturing	0.3	0.3	0.5	0.6	0.9

(a) Includes rent, leasing and hiring income.

(b) Includes capitalised purchases.

(c) Excludes the drawings of working proprietors.

(d) Includes value of capital work done for own use.

GLOSSARY

Data presented in this publication have been compiled from the standard financial accounts of businesses; therefore, the definition of each reported item aligns closely with that adopted in standard business accounting practice. Definitions of particular terms, as used in this publication, are also included. Terms for employment at end of June and derivative items are not included, but will be included with the later release of these data.

ABN unit	The statistical unit used to represent businesses, and for which statistics are reported, in most cases. The ABN unit is the business unit which has registered for an ABN, and thus appears on the ATO administered Australian Business Register. In most cases, the ABN unit represents the legal entity. This unit is suitable for ABS statistical needs when the business is simple in structure. For more significant and diverse businesses where the ABN unit is not suitable for ABS statistical needs, the statistical unit used is the type of activity unit (TAU).
Acquisitions	See the entries for capital expenditure.
Amount exported by this business or its agent	This represents the sales value of goods produced by the business (or for it on commission) that are exported (or are intended for export) outside Australia by the business or by its agent.
billion	One thousand million.
Bridging data	Data produced taking into account the quantification of differences in the scope of (usually) consecutive survey population characteristics, thus enabling serial analysis of selected data items. See Appendix 3 for details.
Business	Represents the ABN unit or type of activity unit (TAU), which are the two standard units for each of the 2001–02 and 2002–03 manufacturing collections. For details, see Explanatory Notes paragraphs 6–11.
Business Activity Statement (BAS) total sales	Represented by the form item G1 <i>Total sales</i> on businesses' Business Activity Statements, supplied by them to the ATO. This item comprises all payments and other consideration (including GST) received during the nominated tax period for supplies made in the course of business.
Businesses that do not export	Businesses that reported no exports (either by their business or for them by an agent) of goods that they produced.
Businesses that export more than 50% of sales	Businesses that reported exports (either by their business or for them by an agent) of more than 50% of sales of goods that they produced.
Businesses that export up to and including 50% of sales	Businesses that reported exports (either by their business or for them by an agent) of up to and including 50% of sales of goods that they produced.
Capital expenditure on dwellings, other buildings and structures	Capital expenditure incurred acquiring dwellings, other buildings and structures, including roads, factories, warehouses, offices, bridges, etc.
Capital expenditure on other assets (including land and intangible assets)	Capital expenditure incurred acquiring other assets (including land and intangible assets). Intangible asset purchases may include items such as patents, licences and goodwill. Also included is computer software capitalised, including capitalised computer software licence fees, installation costs, the purchase or development of large databases, software developed in-house (but excluded is software maintenance expenditure), and capitalised payments to contractors and consultants for software development. Note that

Capital expenditure on other assets (including land and intangible assets) <i>continued</i>	if the cost of software and hardware cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.
Capital expenditure on plant, machinery and equipment	Capital expenditure incurred acquiring plant, machinery and other equipment. Note that this category includes the acquisition of motor vehicles.
Capitalised purchases	Goods drawn from inventories for use as fixed tangible assets in capital work done by own employees for own use or for rental or lease.
Capital work done for own use	<p>Capitalised work done by the employees or proprietors of a business in manufacturing, constructing, installing or repairing assets, and the in-house development of computer software, for use by the business or for rental or lease. This work is valued at the capitalised costs of the materials and the wages and salaries involved.</p> <p>Conceptually, under the current international standards, this item should also include own account mineral exploration and own account production of literary, entertainment or artistic originals. However, these activities are relatively unimportant for manufacturers and have not been measured for manufacturing industries.</p>
Change in inventories	The value of total closing inventories less total opening inventories.
Closing inventories	The value of all inventories of finished goods (including inventories for resale), work-in-progress less progress payments billed, raw materials, fuels, containers, etc. 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 business reports the commission fee as service income and the wages and salaries and any other expenses incurred.</p> <p>If the client is also a manufacturing business then, in addition to data for its own manufacturing operations, the client reports the sales and inventories of the commissioned goods, the cost of the materials provided to the producing business, the commission fee paid and the value of any other intermediate inputs related to the commission transaction. If the client is not a manufacturing business, no data are reported by the client as it is excluded from the manufacturing collection.</p>
Commission expenses	Payments to other businesses and self-employed persons for work done or sales made on a contract or commission basis using materials supplied by this business. Payments to persons paid by commission without a retainer are also included. Excludes commissions paid to persons who receive a retainer, commission paid to the business' own employees, and in-house printing expenses.
Current prices	Prices expressed at the prices prevailing during the particular reference period.
Disposal of assets	Proceeds from the sale of tangible assets (plant, machinery, equipment, land, dwellings, other buildings and structures), and intangible assets (such as patents, licences and goodwill).
Employer contributions into superannuation	Includes salary sacrifice. Also includes all employer contributions to superannuation funds (including the employer productivity contribution) and provisions for employer contributions to superannuation funds. Employee contributions are excluded.
Enterprise	<p>The enterprise is an institutional unit comprising:</p> <ul style="list-style-type: none"> ■ a single legal entity or business entity; or ■ more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).

Enterprise group	A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the <i>Corporations Legislation Amendment Act 1991</i>), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.
Exports as a proportion of sales of goods produced	<p>For an individual business, this represents the percentage of sales of goods produced by the business (or for it on commission) which are exported (or are intended for export) outside Australia by the business or by its agent. (In tables 2.7 and 3.7, the proportion is calculated by dividing the value of goods exported by the value of sales of goods produced by all manufacturing businesses, not just the aggregated value for those units which exported.)</p> <p>Because the ATO data do not contain this export information, businesses whose contribution to MANUFACTURING estimates was sourced from BIT data do not contribute to these export data. The effect of the exclusion of these businesses is likely to be minimal, in view of their small contribution to overall estimates.</p> <p>These data also exclude those businesses which operated during the given reference year but were not operating at 30 June of that reference year.</p>
Freight and cartage expenses	Excludes the cost of delivery by own vehicles and employees, as well as overseas freight and cartage on goods exported.
Fringe benefits tax	As reported by providers.
Funding from government for operational costs	Funding from federal, state and/or local government for operational costs (e.g. wages and salaries, rent, food). Includes bounties, subsidies, export grants, apprenticeship and traineeship schemes, and amounts reimbursed under the Australian Government's Diesel Fuel Rebate Scheme.
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 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	<p>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:</p> <ul style="list-style-type: none"> 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)	<p>IVA represents the value added by an industry to the intermediate inputs used by the industry. IVA is the measure of the contribution by manufacturing businesses to gross domestic product.</p> <p>The derivation of IVA is as follows:</p> <table border="0" style="margin-left: 20px;"> <tr> <td></td> <td>Sales and service income</td> </tr> <tr> <td><i>plus</i></td> <td>Funding from federal, state and/or local government for operational costs</td> </tr> <tr> <td><i>plus</i></td> <td>Capital work done for own use</td> </tr> <tr> <td><i>plus</i></td> <td>Closing inventories</td> </tr> <tr> <td><i>less</i></td> <td>Opening inventories</td> </tr> <tr> <td><i>less</i></td> <td>Intermediate input expenses (for details, see the entry for operating expenses)</td> </tr> <tr> <td><i>less</i></td> <td>Capitalised purchases</td> </tr> <tr> <td><i>equals</i></td> <td>IVA</td> </tr> </table> <p>However, it should be noted that IVA is not a measure of operating profit before tax (OPBT). Wage and salary expenses 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 details).</p>		Sales and service income	<i>plus</i>	Funding from federal, state and/or local government for operational costs	<i>plus</i>	Capital work done for own use	<i>plus</i>	Closing inventories	<i>less</i>	Opening inventories	<i>less</i>	Intermediate input expenses (for details, see the entry for operating expenses)	<i>less</i>	Capitalised purchases	<i>equals</i>	IVA
	Sales and service income																
<i>plus</i>	Funding from federal, state and/or local government for operational costs																
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<i>plus</i>	Closing inventories																
<i>less</i>	Opening inventories																
<i>less</i>	Intermediate input expenses (for details, see the entry for operating expenses)																
<i>less</i>	Capitalised purchases																
<i>equals</i>	IVA																
Insurance premiums	<p>Premiums for fire, general, accident, public liability, optional third-party and comprehensive motor vehicle insurance, and professional indemnity insurance. Excludes workers' compensation insurance premiums/costs (included in selected labour costs) and compulsory third party motor vehicle insurance premiums (included in motor vehicle running expenses).</p>																
Interest expenses	<p>Includes interest paid on loans from banks, related or unrelated businesses, partners, insurance companies and in respect of finance leases. Also includes interest equivalents such as hedging costs and expenses associated with discounted bills. Excludes bank charges other than interest, and capital repayments.</p>																
Interest income	<p>Includes interest from loans and advances made to related and unrelated businesses, on finance leases, from deposits in banks and non-bank financial institutions, and earnings from discounted bills. Excludes capital repayments received.</p>																
Intermediate input expenses	<p>For details, see the entry for operating expenses.</p>																
Intermediate inputs	<p>Intermediate inputs consist of materials and certain services which are used up in the production process.</p> <p>The calculation is:</p> <table border="0" style="margin-left: 20px;"> <tr> <td></td> <td>Intermediate input expenses (for details, see the entry for operating expenses)</td> </tr> <tr> <td><i>plus</i></td> <td>Opening inventories</td> </tr> <tr> <td><i>less</i></td> <td>Closing inventories</td> </tr> <tr> <td><i>equals</i></td> <td>Intermediate inputs</td> </tr> </table>		Intermediate input expenses (for details, see the entry for operating expenses)	<i>plus</i>	Opening inventories	<i>less</i>	Closing inventories	<i>equals</i>	Intermediate inputs								
	Intermediate input expenses (for details, see the entry for operating expenses)																
<i>plus</i>	Opening inventories																
<i>less</i>	Closing inventories																
<i>equals</i>	Intermediate inputs																

Inventories – opening/closing	The value of all inventories of finished goods (including inventories for resale), work-in-progress less progress payments billed, raw materials, fuels, containers, etc. at the beginning and end of the reporting period, respectively.
Management unit	For collections prior to 2001–02, the management unit was the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts were maintained. In nearly all cases, it coincided with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.).
Manufacturing business	An ABN unit / TAU predominantly engaged in manufacturing activities. The data collected for such units cover all activities of the business (including non-manufacturing activities).
Motor vehicle running expenses	Includes expenditure on registration fees, compulsory third-party insurance premiums, fuel and repair and maintenance expenses. Excludes expenses for off-road motor vehicles (e.g. forklifts, mobile plant), and lease payments, optional third party and comprehensive motor vehicle insurance premiums, and depreciation.
Net capital expenditure	The value of total capital expenditure less proceeds received from the disposal of assets.
Opening inventories	The value of all inventories of finished goods (including inventories for resale), work-in-progress less progress payments billed, raw materials, fuels, containers, etc. at the beginning of the reporting period.
Operating expenses	<p>For the purposes of calculating economic and accounting variables for manufacturing industries, operating expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations: excluded are extraordinary expenses, capitalised expenses, income tax and other direct taxes, goods and services tax (GST) and excise payable to governments, capital repayments or losses on asset sales, dividends, donations or foreign exchange losses.</p> <p>Those expenses used for calculations are categorised as follows:</p> <p><i>Intermediate input expenses</i></p> <p>This category covers the major expenses incurred by businesses in producing and distributing goods and services (except labour costs), and comprises two sub-categories of operating expenses:</p> <p>Purchases of goods, materials and services used in production, which include:</p> <ul style="list-style-type: none"> ■ purchases of materials, components, containers and packaging materials, electricity, fuels and water ■ purchases of goods for resale (without any further processing or assembly) ■ motor vehicle running expenses ■ freight and cartage expenses ■ repair and maintenance expenses ■ rent, leasing and hiring expenses (excluding finance lease payments) ■ contract, subcontract and commission expenses. <p>Expenses related to the sale of goods and administrative expenses, which include:</p> <ul style="list-style-type: none"> ■ management fees/charges paid to related and unrelated businesses ■ bank charges other than interest ■ audit and other accounting expenses ■ legal fees ■ advertising expenses ■ postal and telecommunication expenses ■ office supplies and printing expenses ■ travelling, accommodation and entertainment expenses ■ staff training ■ payments for royalties from intellectual property (e.g. patents, copyrights, etc.). <p>Excluded from intermediate input expenses are selected labour costs and other operating expenses as detailed below.</p>

Operating expenses <i>continued</i>	<p><i>Selected labour costs</i></p> <ul style="list-style-type: none"> ■ wages and salaries (including provisions for employee entitlements) ■ employer contributions into superannuation including salary sacrifice ■ workers' compensation premiums/costs. <p><i>Other operating expenses</i></p> <p>Some expenses are excluded from the calculation of intermediate input expenses and selected labour costs, but are included in the calculation of the accounting variable operating profit before tax (OPBT). These expenses include:</p> <ul style="list-style-type: none"> ■ bad and doubtful debts ■ computer software expenses not capitalised by businesses ■ depreciation and amortisation ■ insurance premiums (except workers' compensation and compulsory third party motor vehicle insurance premiums) ■ interest expenses ■ land tax and land rates ■ other expenses not capitalised by businesses ■ natural resource royalties expenses ■ payroll tax and fringe benefits tax.
Operating profit before tax (OPBT)	Profit before extraordinary items are brought to account and prior to the deduction of income tax and appropriations to owners (e.g. dividends paid).
Other components of income	Comprises funding from federal, state and/or local government for operational costs, and capital work done for own use.
Other intermediate input expenses	Comprises intermediate input expenses less current purchases of goods, materials and services used in production (i.e. excludes any capitalised purchases). (Further detail is included in the entry for operating expenses.)
Payroll tax	Excludes Pay as You Go withholding tax.
Purchases	Purchases of materials, components, containers, packaging materials, fuels, electricity and water, and purchases of finished goods for resale. Also includes capitalised purchases. Excludes purchases of parts and fuels for motor vehicles, apart from fuels for off-road vehicles which are included.
Reference period	For each collection year, 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 (apart from employment) 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 2002–03 collection, a business may have reported data for the year ended 31 December 2002.
Rent, leasing and hiring expenses	Operating lease payments for land, dwellings, other buildings and structures, motor vehicles, plant, machinery and other equipment. Finance lease payments are excluded.
Rent, leasing and hiring income	Details for this are included in the entry for sales and service income.
Repair and maintenance expenses	Includes computer software and hardware maintenance, and repair and maintenance of off-road motor vehicles. Excludes wages and salaries of own employees and the repair and maintenance costs of on-road motor vehicles.

Sales and service income	<p>Includes:</p> <p><i>Sales of goods</i></p> <ul style="list-style-type: none"> ■ whether or not manufactured by the business (including goods produced for the business on a commission basis). Includes export sales, sales or transfers to related businesses or to overseas branches of the business, progress payments relating to long term contracts if they are billed in the period, and delivery charges not separately invoiced to customers. Excludes excise and duties received on behalf of the Government, sales of fixed tangible assets, interest income, and delivery charges separately invoiced to customers. Exports are valued free on board (f.o.b.) (i.e. export freight charges are excluded). <p><i>Income from services</i></p> <ul style="list-style-type: none"> ■ includes income from consulting services, repair, maintenance and service income and fees, contract, subcontract and commission income, management fees/charges from related and unrelated businesses, installation charges, delivery charges separately invoiced to customers and royalties from intellectual property (e.g. patents, copyrights, etc.). Excludes natural resource royalties income, interest income, and delivery charges not separately invoiced to customers. <p><i>Rent, leasing and hiring income</i></p> <ul style="list-style-type: none"> ■ derived from the ownership of land, dwellings, buildings and other structures, motor vehicles, plant, machinery and other equipment. Royalties from intellectual property are also included. Excludes royalties from mineral leases, income from finance leases and payments received under hire purchase arrangements. This item is included in sales and service income, but is not separately published. (Under the current international standards, rent, leasing and hiring income (except from finance leases) is classified as service income.) <p>These are valued net of discounts given and exclusive of goods and services tax (GST). Extraordinary items are also excluded.</p> <p>In order to produce data by state and territory, selected businesses which received mail out questionnaires were also asked to provide sales of goods and services (as well as employment and wages and salaries) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 20 and 21.</p>
Sales of goods produced	<p>Sales of goods produced (manufactured) by the business (including goods produced for the business on a commission basis). Includes export sales, sales or transfers to related businesses or to overseas branches of the business, progress payments relating to long term contracts if they are billed in the period, and delivery charges not separately invoiced to customers. Excludes excise and duties received on behalf of the Government, sales of fixed tangible assets, interest income, and delivery charges separately invoiced to customers. Exports are valued free on board (f.o.b.) (i.e. export freight charges are excluded).</p>
Selected labour costs	<p>Details for this are included in the entry for operating expenses.</p>
Selected non-wage labour costs	<p>For the purposes of tables 2.5 and 3.5, comprises employer contributions into superannuation, workers' compensation premiums/costs, fringe benefits tax and payroll tax.</p>
Standard Institutional Sector Classification of Australia	<p>The SISCA is the central classification among ABS Standard Economic Sector Classifications. It is based on the System of National Accounts 1993 (SNA93) institutional sector classification, and includes the sectors: non-financial corporations, financial corporations, general government, households, non-profit institutions serving households, and rest of the world (which includes only non-resident units, these being excluded from all other sectors). For more information, users should refer to <i>Standard Economic Sector Classifications of Australia (SESCA)</i> (cat. no. 1218.0).</p>
Superannuation	<p>See the entry for employer contributions into superannuation.</p>

Total capital expenditure	The total capital expenditure on the acquisition of plant, machinery and equipment, dwellings, other buildings and structures, and of other assets (including land and intangible assets). Also included is capital work done for own use.
Total factor income	Total factor income is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour and capital). It represents the value added by these factors in the process of production, and is equivalent to gross domestic product less taxes plus subsidies on production and imports.
Type of activity unit (TAU)	<p>The TAU is comprised of one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.</p> <p>In most cases, TAUs concurred with the management units used prior to the 2001–02 year.</p>
Wages and salaries	<p>The gross wages and salaries (including capitalised wages and salaries) of all employees of the business. 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 annual 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 related to 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> <p>In order to produce data by state and territory, selected businesses which received mail out questionnaires were also asked to provide wages and salaries (as well as employment and sales of goods and services) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 20 and 21.</p>
Wages and salaries to sales and service income ratio	The wages and salaries paid by manufacturing businesses which operated during the year ended 30 June as a proportion of the sales and service income of manufacturing businesses which operated during the same year.
Workers' compensation premiums/costs	As reported by providers.

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