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## MANUFACTURING INDUSTRY

AUSTRALIA

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### INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Phillip Lui on Sydney (02) 9268 4269.

## NOTES

- ABOUT THIS PUBLICATION** This publication presents estimates, from the annual Economic Activity Survey, of the economic and financial performance of the Australian manufacturing industry for 2005–06 together with data on a comparable basis from 2001–02 and intervening years.
- CHANGES IN NEXT ISSUE** The data in this publication will be the last released on the basis of the 1993 edition of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*. Commencing with 2006–07 data, results will be presented on the basis of a new (2006) edition of ANZSIC.
- The 2006–07 issue of this publication will also contain data for 2004–05 and 2005–06 on the basis of the 2006 ANZSIC, as an aid to analysis.
- For further details see paragraph 3 of the Explanatory Notes.
- REVISIONS** Estimates for earlier years have been revised since the previous issue of this publication. The revisions are incorporated in this publication and in the extended data spreadsheets available free on-line.
- The effect of these revisions on the 2004–05 national estimates of key financial variables for the manufacturing industry has been a decrease of 0.3% (or \$948m) in sales and service income, an increase of 0.01% (\$6m) in wages and salaries paid, and a decrease of 0.3% (\$333m) in industry value added. The extent of revisions may be greater for individual industries and/or other variables.
- INFORMATION AVAILABLE ON-LINE** The text components of this publication are available free on-line. A PDF publication and extended data spreadsheets are also available free on-line.
- Other information is also available via the *Manufacturing Statistics* theme page. To access the theme page, go to the ABS website home page <<http://abs.gov.au>>. Access the *Themes* page by either opening the *Themes* hotlink from the top menu bar or opening the Industry hotlink shown under *Themes*, in the left-side navigator. Then open the *Manufacturing* hotlink shown under *Industry*.

Brian Pink  
Australian Statistician

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## ABBREVIATIONS .....

<b>\$'000</b>	thousand dollars
<b>\$b</b>	billion (thousand million) dollars
<b>\$m</b>	million dollars
<b>ABN</b>	Australian Business Number
<b>ABR</b>	Australian Business Register
<b>ABS</b>	Australian Bureau of Statistics
<b>ABSBR</b>	Australian Bureau of Statistics Business Register
<b>ACT</b>	Australian Capital Territory
<b>ANZSIC</b>	Australian and New Zealand Standard Industrial Classification
<b>ASIC</b>	Australian Standard Industrial Classification
<b>ATO</b>	Australian Taxation Office
<b>Aust.</b>	Australia
<b>BAS</b>	Business Activity Statement
<b>BIT</b>	business income tax
<b>cat. no.</b>	Catalogue number
<b>EAS</b>	Economic Activity Survey
<b>EBITDA</b>	earnings before interest, tax, depreciation and amortisation
<b>f.o.b.</b>	free on board
<b>FBT</b>	Fringe Benefits Tax
<b>GST</b>	goods and services tax
<b>IVA</b>	industry value added
<b>mfg</b>	manufacturing
<b>n.e.c.</b>	not elsewhere classified
<b>no.</b>	number
<b>NSW</b>	New South Wales
<b>NT</b>	Northern Territory
<b>OPBT</b>	operating profit before tax
<b>PAYGW</b>	pay-as-you-go withholding
<b>Qld</b>	Queensland
<b>RSE</b>	relative standard error
<b>SA</b>	South Australia
<b>SISCA</b>	Standard Institutional Sector Classification of Australia
<b>Tas.</b>	Tasmania
<b>TAU</b>	type of activity unit
<b>TNTS</b>	The New Tax System
<b>Vic.</b>	Victoria
<b>WA</b>	Western Australia

# CHAPTER 1

## OVERVIEW

### INTRODUCTION

This publication presents estimates, from the annual Economic Activity Survey, of the economic and financial performance of the Australian manufacturing industry.

This industry is specified in Division C of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 1993 edition. Please see paragraph 2 of the Explanatory Notes for a full definition.

### KEY DATA

Table 1.1 presents a time series for selected items, from 2001–02 to 2005–06. All value data in this table are shown at current prices.

By all four major aggregates presented, the Australian manufacturing industry showed growth in 2005–06 when compared to 2004–05. Sales and service income increased by 6%, industry value added by 4%, wages and salaries by 5% and employment increased by 1%. Commentary about these items is presented in Chapter 2.

For information about survey methodology, see Technical Note 1.

The Glossary provides definitions for terms used.

### GROSS VALUE ADDED

Table 1.2 illustrates the growth of Australian industries over time using chain volume measures of their gross value added. Chain volume measures provide estimates free of the direct effects of price change.

Of the seventeen industries shown in table 1.2, MANUFACTURING ranked sixteenth in its average annual growth rate over the past 10 years and lowest over the past 25 years, with increases of 1.5% and 1.4% respectively. By comparison, the highest growth rates were recorded by COMMUNICATION SERVICES, with annualised rates of 6.4% and 7.6% for the 10 year and 25 year periods. In 2005–06 MANUFACTURING recorded a 0.4% decline in gross value added in chain volume terms. The strongest growth in 2005–06, of 9.6%, was recorded by CONSTRUCTION.

### FURTHER COMMENTARY

Please see:

- National data: Chapter 2, page 9
- States, territories and Australia: Chapter 3, page 32
- Exports: Chapter 4, page 41

**1.1**

## SUMMARY, 2001–02 TO 2005–06

	<i>Employment at end of June(a)</i>	<i>Wages and salaries(b)</i>	<i>Sales and service income(c)</i>	<i>Industry value added</i>	<i>Wages and salaries per person employed</i>	<i>Wages and salaries to sales and service income</i>	<i>Sales and service income per person employed</i>	<i>Industry value added per person employed</i>
	'000	\$m	\$m	\$m	\$'000	no.	\$'000	\$'000
<b>FOOD, BEVERAGE AND TOBACCO MFG</b>								
2001–02	194.3	7 950	66 048	16 729	40.9	0.12	339.9	86.1
2002–03	192.3	8 336	67 020	17 391	43.3	0.12	348.5	90.4
2003–04	190.7	8 558	69 210	17 741	44.9	0.12	362.9	93.0
2004–05	192.4	8 764	71 996	18 369	45.5	0.12	374.1	95.5
2005–06	195.6	9 236	73 666	18 597	47.2	0.13	376.5	95.1
<b>TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG</b>								
2001–02	65.0	1 869	11 039	2 995	28.7	0.17	169.8	46.1
2002–03	60.4	1 866	10 720	3 071	30.9	0.17	177.5	50.8
2003–04	56.5	1 777	10 134	3 178	31.5	0.18	179.5	56.3
2004–05	51.6	1 656	9 501	2 890	32.1	0.17	184.0	56.0
2005–06	48.2	1 577	9 225	2 680	32.7	0.17	191.3	55.6
<b>WOOD AND PAPER PRODUCT MFG</b>								
2001–02	68.3	2 528	16 563	5 559	37.0	0.15	242.3	81.3
2002–03	68.3	2 764	17 926	6 279	40.5	0.15	262.6	92.0
2003–04	69.8	2 902	18 712	6 564	41.6	0.16	267.9	94.0
2004–05	70.8	3 020	18 499	6 529	42.7	0.16	261.4	92.3
2005–06	71.3	3 145	18 960	6 462	44.1	0.17	265.7	90.6
<b>PRINTING, PUBLISHING AND RECORDED MEDIA</b>								
2001–02	107.6	4 642	20 237	8 430	43.2	0.23	188.2	78.4
2002–03	105.0	4 504	20 355	8 923	42.9	0.22	193.8	85.0
2003–04	102.2	4 727	20 651	9 370	46.3	0.23	202.1	91.7
2004–05	107.5	5 101	22 300	10 034	47.5	0.23	207.5	93.4
2005–06	106.8	5 290	23 052	10 506	49.5	0.23	215.9	98.4
<b>PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG</b>								
2001–02	100.2	5 079	49 023	10 066	50.7	0.10	489.3	100.5
2002–03	101.3	5 171	50 622	11 092	51.0	0.10	499.5	109.5
2003–04	106.2	5 485	52 985	11 339	51.7	0.10	499.0	106.8
2004–05	103.4	5 646	59 504	12 787	54.6	0.09	575.2	123.6
2005–06	102.4	5 959	68 401	13 951	58.2	0.09	668.3	136.3
<b>NON-METALLIC MINERAL PRODUCT MFG</b>								
2001–02	42.0	1 813	11 309	3 864	43.2	0.16	269.5	92.1
2002–03	45.6	2 018	12 463	4 526	44.2	0.16	273.3	99.2
2003–04	44.2	2 081	13 647	4 723	47.1	0.15	308.7	106.9
2004–05	45.8	2 250	14 304	4 764	49.1	0.16	312.1	104.0
2005–06	46.2	2 354	14 413	4 843	50.9	0.16	311.8	104.8
<b>METAL PRODUCT MFG</b>								
2001–02	164.0	7 017	52 146	15 072	42.8	0.13	317.9	91.9
2002–03	169.4	7 698	57 394	16 242	45.4	0.13	338.8	95.9
2003–04	162.3	7 769	58 954	16 346	47.9	0.13	363.2	100.7
2004–05	174.1	8 347	64 897	18 692	48.0	0.13	372.9	107.4
2005–06	176.4	8 855	70 013	19 373	50.2	0.13	396.9	109.8

(a) Includes working proprietors.

(c) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

**1.1**SUMMARY, 2001–02 TO 2005–06 *continued*

	<i>Employment at end of June(a)</i>	<i>Wages and salaries(b)</i>	<i>Sales and service income(c)</i>	<i>Industry value added</i>	<i>Wages and salaries per person employed</i>	<i>Wages and salaries to sales and service income</i>	<i>Sales and service income per person employed</i>	<i>Industry value added per person employed</i>
	'000	\$m	\$m	\$m	\$'000	no.	\$'000	\$'000
<b>MACHINERY AND EQUIPMENT MFG</b>								
2001–02	220.3	9 387	54 239	14 781	42.6	0.17	246.2	67.1
2002–03	228.7	10 282	56 797	16 485	45.0	0.18	248.4	72.1
2003–04	233.1	10 593	59 565	17 788	45.4	0.18	255.5	76.3
2004–05	237.5	11 254	63 467	19 215	47.4	0.18	267.3	80.9
2005–06	242.2	12 123	66 222	20 155	50.0	0.18	273.4	83.2
<b>OTHER MANUFACTURING</b>								
2001–02	81.3	2 231	11 603	3 620	27.4	0.19	142.6	44.5
2002–03	76.7	2 180	11 604	3 591	28.4	0.19	151.4	46.8
2003–04	73.2	2 290	12 295	4 053	31.3	0.19	167.9	55.3
2004–05	73.6	2 325	13 025	4 157	31.6	0.18	177.0	56.5
2005–06	74.7	2 470	13 509	4 414	33.1	0.18	180.8	59.1
<b>TOTAL MANUFACTURING</b>								
2001–02	1 043.1	42 516	292 208	81 117	40.8	0.15	280.1	77.8
2002–03	1 047.6	44 819	304 900	87 599	42.8	0.15	291.0	83.6
2003–04	1 038.2	46 182	316 153	91 102	44.5	0.15	304.5	87.7
2004–05	1 056.7	48 363	337 492	97 436	45.8	0.14	319.4	92.2
2005–06	1 063.9	51 007	357 462	100 980	47.9	0.14	336.0	94.9

(a) Includes working proprietors.

(c) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

**1.2****PRODUCTION VOLUMES(a), Gross value added, 2004–05 and 2005–06 .....**

	CHAIN VOLUME MEASURES		Change from 2004–05 to 2005–06	AVERAGE ANNUAL CHANGE OVER LAST	
	2004–05	2005–06		10 years	25 years
	\$m	\$m	%	%	%
Agriculture, forestry and fishing	27 153	28 428	4.7	3.3	3.1
Mining	46 152	45 235	–2.0	1.7	4.1
<i>Manufacturing</i>	96 366	96 007	–0.4	1.5	1.4
Electricity, gas and water	20 147	20 321	0.9	1.1	2.4
Construction	56 940	62 405	9.6	6.0	3.4
Wholesale trade	43 625	45 049	3.3	3.8	3.0
Retail trade	52 720	53 245	1.0	4.0	3.2
Accommodation, cafes and restaurants	19 608	20 204	3.0	4.4	3.6
Transport and storage	40 966	41 888	2.3	3.9	3.6
Communication services	23 588	25 534	8.2	6.4	7.6
Finance and insurance	62 299	65 323	4.9	4.0	4.5
Property and business services	104 773	108 434	3.5	5.1	5.1
Government administration and defence	34 394	35 125	2.1	2.3	2.6
Education	37 891	38 556	1.8	2.0	2.4
Health and community services	53 197	55 455	4.2	4.1	4.1
Cultural and recreational services	13 132	13 619	3.7	4.0	3.6
Personal and other services	16 743	17 594	5.1	3.5	3.2
<b>Total all industries</b>	<b>749 694</b>	<b>772 422</b>	<b>3.0</b>	<b>3.5</b>	<b>3.3</b>

(a) Reference year for chain volume measures is 2004–05.

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 2007 (cat. no. 5206.0), table 45.



INTRODUCTION

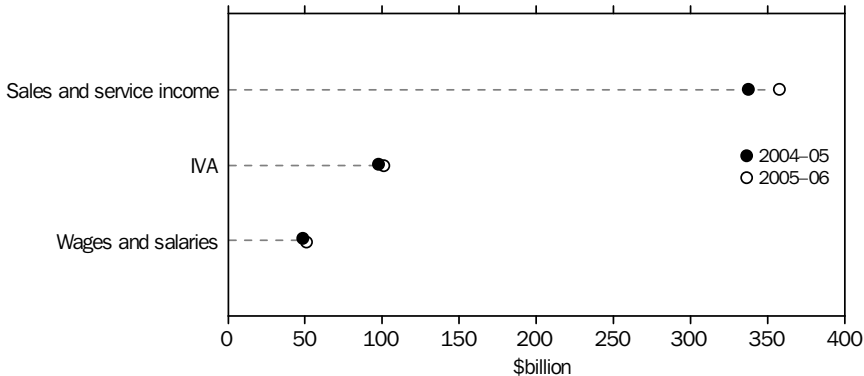
Statistics in this publication relate to the manufacturing industry as defined by the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 1993 edition. The commentary focuses mainly on the major data variables for the nine ANZSIC industry subdivisions that comprise the manufacturing industry.

The data presented include all activities of manufacturing businesses, some of which may be activities other than manufacturing. Explanatory Notes paragraphs 5–17 provide further details.

OVERVIEW

In current price terms, most major indicators of activity for the Australian manufacturing industry increased, during 2005–06: sales and service income (up 6%), industry value added (IVA) (up 4%), earnings before interest, tax, depreciation and amortisation (EBITDA) (up 2%) and export sales of goods produced (up 1%) all increased in current price terms. There were significant price impacts evident in two industry subdivisions, PETROLEUM, COAL CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING and METAL PRODUCT MANUFACTURING, which drove this current price increase. These are discussed in more detail in the industry subdivision analysis. Illustrating the impact of the price increases, Table 1.2 in this publication shows that the chain volume measure of gross value added for the manufacturing industry actually decreased slightly, by 0.4%, over the same period. Indicators not directly influenced by price impacts, such as wages and salaries, employment and net capital expenditure, also recorded increases. Manufacturers paid \$51.0b in wages and salaries in 2005–06, 5% more than in 2004–05, and employment increased by 1%. The increase in net capital expenditure was 21% (from \$14.4b to \$17.4b).

SELECTED VARIABLES, 2004–05 AND 2005–06



SALES AND SERVICE  
INCOME

Sales and service income of manufacturing industry in Australia in 2005–06, at \$357.5b, was \$20.0b (or 6%) higher than in 2004–05. TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING was the only subdivision in which sales and service income declined (by 3%).

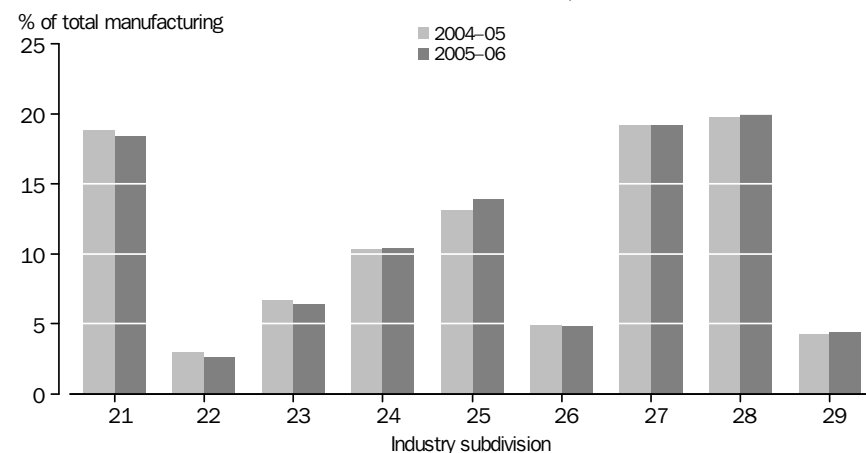
Over the period from 2001–02 to 2005–06, manufacturing's total sales and service income increased by 22%.

At the industry group level, of those groups available for publication, PETROLEUM REFINING (ANZSIC group 251) recorded the largest increase in sales and service income between 2004–05 and 2005–06 in percentage (32%) and absolute (\$7.2b) terms. This industry group also made the largest contribution to sales and service income in 2005–06, of 8%.

Sales and service income per person employed in Australian manufacturing in 2005–06 was \$336,000, 5% (or \$16,600) higher than for 2004–05, and 20% (or \$55,900) higher than in 2001–02.

## INDUSTRY VALUE ADDED

## DISTRIBUTION OF IVA ACROSS INDUSTRIES, 2004–05 AND 2005–06



Note: Industry subdivisions

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

IVA for the manufacturing industry increased by \$3.5b (4%) to \$101.0b in 2005–06. This increase is the product of the \$20.0b (6%) increase in sales and service income, offset by the increases of \$11.8b (6%) in purchases of goods and materials and \$3.7b (6%) in other intermediate input expenses, and a \$1.1b (34%) movement in the change in inventories.

## INDUSTRY VALUE ADDED

*continued*

Seven of the nine manufacturing industry subdivisions recorded increases in IVA in current price terms between 2004–05 and 2005–06, although the increases were less than 2% in two of them. IVA declined by 7% in TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING and by 1% in WOOD AND WOOD PRODUCT MANUFACTURING.

At the industry group level, of those groups available for publication, PETROLEUM REFINING (ANZSIC group 251) recorded the largest increase in IVA in both absolute and percentage terms (\$0.7b, or 34%) in 2005–06. STRUCTURAL METAL PRODUCT MANUFACTURING (ANZSIC group 274) experienced the second largest absolute growth in IVA, \$0.6b (20%), and the second highest percentage increase in IVA (29%, or \$106m) belonged to PREFABRICATED BUILDING MANUFACTURING (ANZSIC group 291).

As measured by contribution to IVA, the largest manufacturing industry groups in 2005–06 (of those available for publication) each accounted for 6% of the estimate for total manufacturing: PUBLISHING (ANZSIC group 242), with \$6.1b, BASIC NON-FERROUS METAL MANUFACTURING (ANZSIC group 272), with \$6.0b, and MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC group 281), with \$5.6b.

IVA per person employed in manufacturing has increased by 3%, from \$92,200 in 2004–05 to \$94,900 in 2005–06 and by 22% since 2001–02.

## EMPLOYMENT

Australian manufacturing industry employed 1,063,900 persons at the end of June 2006, an increase of 7,200 (or 1.0%) compared to the end of June 2005.

Employment rose in six of the nine manufacturing industry subdivisions between June 2005 and June 2006. The industry subdivisions which experienced the greatest percentage increases in employment were MACHINERY AND EQUIPMENT MANUFACTURING (up 2.0%, from 237,500 to 242,200), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (up 1.7%, from 192,400 to 195,600) and OTHER MANUFACTURING (up 1.5%, from 73,600 to 74,700).

Employment was reduced in TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (down 6.6%, from 51,600 to 48,200), PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (down 1.1%, from 103,400 to 102,400) and PRINTING, PUBLISHING AND RECORDED MEDIA (down 0.7%, from 107,500 to 106,800).

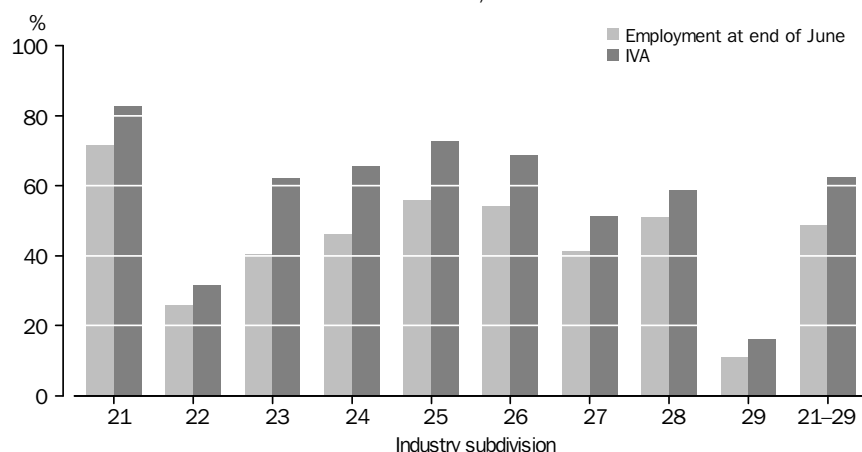
At the industry group level, the five largest manufacturing industries as measured by employment at the end of June 2006 were MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC Group 281) (67,100 persons), INDUSTRIAL MACHINERY AND EQUIPMENT MANUFACTURING (ANZSIC 286) (62,700 persons), PRINTING AND SERVICES TO PRINTING (ANZSIC 241) (57,500 persons), MEAT AND MEAT PRODUCT MANUFACTURING (ANZSIC 211) (56,600 persons) and FABRICATED METAL PRODUCT MANUFACTURING (ANZSIC 276) (51,600 persons). These were also the major employing industry groups in manufacturing in 2004–05.

At the end of June 2006, employment in Australian manufacturing was 2.0% (or 20,800 persons) greater than at the end of June 2002.

## EMPLOYMENT SIZE

In 2005–06, businesses employing 100 or more persons accounted for 49% of total manufacturing employment in Australia and 61% of wages and salaries. Their contribution to sales and service income was 68%, and to IVA 62%. These proportions are very similar to those of 2004–05 and have changed little over the period from 2001–02.

## CONTRIBUTION TO MANUFACTURING INDUSTRIES BY BUSINESSES EMPLOYING 100 OR MORE PERSONS, 2005–06



Note: Industry subdivisions

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

## LABOUR COSTS

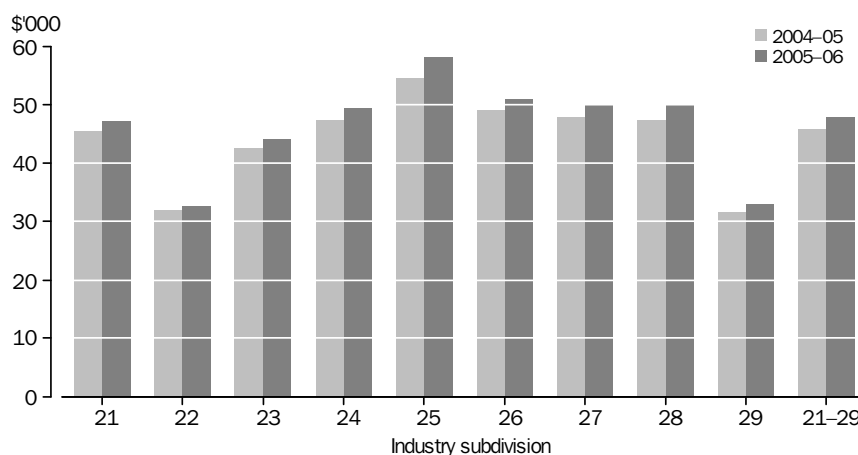
The Australian manufacturing industry paid \$51.0b in wages and salaries in 2005–06, 5% higher than in 2004–05.

Total wages and salaries paid rose, in current price terms, in eight of the nine manufacturing industry subdivisions between 2004–05 and 2005–06. Recording a decline of 5%, TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING was the exception.

The manufacturing industry subdivision showing the largest percentage and absolute increase in wages and salaries in 2005–06 was MACHINERY AND EQUIPMENT MANUFACTURING (up 8%, or \$0.9b, to \$12.1b).

The industry group, of those available for publication, which paid the most in wages and salaries was MOTOR VEHICLE AND PART MANUFACTURING (ANZSIC group 281), with \$3.7b or 7% of total manufacturing. INDUSTRIAL MACHINERY AND EQUIPMENT MANUFACTURING (ANZSIC group 286), which paid \$3.0b (or 6%), ranked second.

## LABOUR COSTS

*continued*WAGES AND SALARIES PER PERSON EMPLOYED AT END OF JUNE,  
2004-05 AND 2005-06

Note: Industry subdivisions

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

Wages and salaries represented 85% of the \$60.2b in total labour costs paid by Australian manufacturing in 2005-06. The proportion was slightly higher in PRINTING, PUBLISHING AND RECORDED MEDIA (87%). FOOD, BEVERAGE AND TOBACCO MANUFACTURING incurred the highest workers' compensation premiums/costs during the year, of \$373m, followed by MACHINERY AND EQUIPMENT MANUFACTURING, at \$351m.

PROFITABILITY AND  
EARNINGS

Total trading profit for the manufacturing industry in 2005-06 was \$96.2b, an increase of \$3.4b (4%) over the previous year. Of the seven industry subdivisions in which trading profit increased, the largest increase in absolute terms (\$1.1b, or 9%) occurred in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING.

Earnings before interest, tax, depreciation and amortisation (EBITDA) rose less strongly, by 2%, or \$0.7b, which reflects a more mixed performance within the industry. EBITDA increased in five of the nine manufacturing subdivisions. Movements in EBITDA during 2005-06 ranged from an increase of 15% (\$0.8b) in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING to a decrease of 17% (\$0.2b) in TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING. The other industries in which EBITDA declined in 2005-06 were WOOD AND PAPER PRODUCT MANUFACTURING (down 10%, or \$0.2b), FOOD, BEVERAGE AND TOBACCO MANUFACTURING (down 3%, or \$0.2b) and NON-METALLIC MINERAL PRODUCT MANUFACTURING (also down 3%, or \$53m).

Three industry subdivisions recorded increases in operating profit before tax (OPBT), although total manufacturing reduced its OPBT marginally (down by \$18m). Movements in OPBT compared to the estimates for 2004-05 ranged from an increase of 32% (\$1.1b) in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING to a decrease of 16% (\$106m) in TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING. METAL PRODUCT MANUFACTURING recorded the largest absolute decrease in OPBT, of \$678m.

## CAPITAL EXPENDITURE

Net capital expenditure by manufacturing businesses rose by 21%, or \$3.0b, to \$17.4b between 2004–05 and 2005–06. Total acquisitions grew by 19% (\$3.1b), including increases of 14% (\$1.5b) in outlays on plant, machinery and equipment and 40% (\$1.3b) in expenditure on dwellings, other buildings and structures. Asset disposals in 2005–06 were 5% (\$109m) higher than in the previous year.

## INDUSTRY PERFORMANCE MEASURES

A range of performance measures, mainly expressed as ratios, can be produced from the data available from businesses' financial statements. A selection of these are presented in table 2.7 for each manufacturing industry subdivision. Definitions are provided in the Glossary. Information about the uses and limitations of these measures can be found in Explanatory Notes paragraphs 22–28.

The following summarises the manufacturing industry's performance ratios for 2005–06, as set out in detail in table 2.7:

- The profit margin for total manufacturing in 2005–06 is estimated at 7.9%, a decrease from 8.4% in 2004–05. At the industry subdivision level, profit margins ranged from 14.6% for the PRINTING, PUBLISHING AND RECORDED MEDIA industry to 5.9% for MACHINERY AND EQUIPMENT MANUFACTURING. Estimated profit margin declined in seven subdivisions. Increases occurred in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED MANUFACTURING (from 6.0% to 6.9%) and in OTHER MANUFACTURING (from 7.9% to 8.2%).
- Interest coverage for total manufacturing declined in 2005–06 to 7.4 times, down from 8.1 times in 2004–05. Interest coverage decreased in four of the nine manufacturing subdivisions. The industries which improved their interest coverage were OTHER MANUFACTURING (from 9.5 times to 10.3 times), PRINTING, PUBLISHING AND RECORDED MEDIA (7.4 times to 7.5 times), PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING (6.8 times to 7.2 times), NON-METALLIC MINERAL PRODUCT MANUFACTURING (6.1 times to 6.2 times) and TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING (4.4 times to 5.5 times).
- In one manufacturing industry subdivision, PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING, IVA was double the estimate of its selected labour costs. For manufacturing overall, the ratio was 1.8 times, the same as in 2004–05. MACHINERY AND EQUIPMENT MANUFACTURING (at 1.48 times) shows the lowest value for this ratio.
- Selected labour costs per person employed ranged from \$65,300 in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING to \$37,100 in TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING. For total manufacturing, the estimate rose by 5% (from \$51,500 to \$53,900) in 2005–06.
- The manufacturing industry's investment rate (value added) in 2005–06 was 19.3%, compared to 16.9% in 2004–05. This reflected, in 2005–06, a range from 10.9% for OTHER MANUFACTURING to 29.5% for METAL PRODUCT MANUFACTURING.

## INDUSTRY SUBDIVISION ANALYSIS

## FOOD, BEVERAGE AND TOBACCO MANUFACTURING

By most measures presented, this industry constitutes about one-fifth of Australian manufacturing. In 2005–06, FOOD, BEVERAGE AND TOBACCO MANUFACTURING was the largest manufacturing industry as measured by its share of sales and service income (21%). It ranked second in purchases of goods and materials (21%), wages and salaries (18%), employment (18%), net capital expenditure (16%), EBITDA (19%), and OPBT (18%). It ranked third in its contribution to IVA and trading profit (both 18%).

FOOD, BEVERAGE AND TOBACCO  
MANUFACTURING *continued*

Reflecting higher input prices resulting from continuing drought conditions, total expenses increased slightly more than did total income. This led to only minimal increases in IVA and trading profit, and reduced EBITDA, OPBT and profit margin.

The industry is dominated by businesses employing 100 or more persons. These businesses contribute 83% of the subdivision's IVA, 81% of wages and salaries, 78% of sales and service income and 72% of employment. Compared to businesses employing 100 or more persons across the other eight industry subdivisions, those in FOOD, BEVERAGE AND TOBACCO MANUFACTURING provided the greatest proportion of employment (27%), and sales and service income, IVA and wages and salaries (each 24%). Businesses employing 1,000 or more persons produced 48% of the industry's IVA in 2005–06.

TEXTILE, CLOTHING, FOOTWEAR AND  
LEATHER MANUFACTURING

The smallest manufacturing subdivision by most key measures presented, TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING accounted for 3% or less of total manufacturing IVA, sales and service income, purchases of goods and materials, wages and salaries and all three profit measures. The industry made the smallest contribution to the total profits of Australian manufacturing and was its second smallest employer in 2005–06, providing 5% of the total employment in Australian manufacturing.

Over the period from 2001–02 to 2005–06, employment in this industry has decreased by 26%. Of the business size categories available for publication within TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING, businesses employing 0–4 persons accounted for 24% of the subdivision's estimated total employment, 17% of its sales and service income and 16% of IVA. However, businesses employing from 20 to 49 persons (with 17% of the industry's employment) also produced 16% of the subdivision's IVA and made the greatest contribution to wages and salaries (17%).

WOOD AND PAPER PRODUCT  
MANUFACTURING

In 2005–06, WOOD AND PAPER PRODUCT MANUFACTURING accounted for 7% of total manufacturing employment, 6% of IVA, wages and salaries, trading profit and EBITDA, and 5% of sales and service income, purchases of goods and materials, and OPBT.

Declining residential construction activity in 2005–06, and higher costs resulting from greater sourcing of timber from plantation forests, led to minimal movements in income which did not keep pace with increases in expenses. As a result EBITDA decreased by 10% and OPBT by 12%, whereas IVA and trading profit declined only marginally.

PRINTING, PUBLISHING AND  
RECORDED MEDIA

This industry recorded a 5% increase in IVA in 2005–06. Trading profit increased by 4% and EBITDA by 6%. OPBT declined marginally.

PRINTING, PUBLISHING AND RECORDED MEDIA's share of manufacturing purchases of goods and materials in 2005–06 was, at 3%, substantially less than its contribution to manufacturing's total IVA, employment, wages and salaries (all 10%), sales and service income (6%), EBITDA (11%) and OPBT (12%). Conversely, labour costs constituted 30% of the total expenses of this industry, compared to 18% at the total manufacturing level.

PETROLEUM, COAL, CHEMICAL AND  
ASSOCIATED PRODUCT  
MANUFACTURING

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING sales and service income and total income increased by 15% in 2005–06. Total expenses increased more moderately (by 13%), despite a 17% increase in purchases of goods and materials which partly reflects higher prices of key inputs, notably crude oil and its derivatives. IVA and trading

PETROLEUM, COAL, CHEMICAL AND  
ASSOCIATED PRODUCT  
MANUFACTURING *continued*

profit increased by 9%. EBITDA and OPBT rose more substantially (by 15% and 32% respectively), translating to an increase in profit margin from 6.0% to 6.9%.

In 2005–06 PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING accounted for 14% of IVA for total manufacturing, 19% of sales and service income, 24% of purchases of goods and materials, 17% of EBITDA and OPBT, and 14% of trading profit. It also accounted for 12% of wages and salaries and 10% of employment at the end of June 2006.

Of the total capital expenditure in this industry in 2005–06 capital work done by businesses for their own use represented 7%, the highest proportion of any manufacturing subdivision.

Businesses employing 100 or more people accounted for 56% of employment in PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING. Such businesses produced 82% of the industry's sales and service income and 73% of its IVA, and paid 69% of its wages and salaries.

NON-METALLIC MINERAL PRODUCT  
MANUFACTURING

Most key variables showed little change from 2004–05. Higher costs for fuel and energy were largely matched by increased prices received. On the demand side, growth in infrastructure and non-residential construction marginally offset a fall in residential construction activity. Wages and salaries rose (by 5%).

In 2005–06, the subdivision's share of both total acquisitions of assets and net capital expenditure in manufacturing was 5%.

METAL PRODUCT MANUFACTURING

This industry comprises about one-fifth of Australian manufacturing. Its share of employment is slightly less (17%). In 2005–06 METAL PRODUCT MANUFACTURING was the largest source of manufacturing OPBT (24%) and EBITDA (22%). It ranked second in total income and sales and service income (both 20%), and IVA and trading profit (both 19%). The industry ranked third in employment and labour costs (both 17%).

After a strong year of growth in 2004–05 METAL PRODUCT MANUFACTURING's performance was more subdued in 2005–06, reflecting commodity input prices for metals and energy which increased more strongly than prices received. IVA increased by 4% and trading profit by 3%, and EBITDA was relatively unchanged. OPBT decreased by 9%.

Employment rose marginally and wages and salaries increased by 6%.

METAL PRODUCT MANUFACTURING increased its net capital expenditure by \$1.9b (or 51%) in 2005–06, the strongest absolute growth of any manufacturing subdivision. The industry also contributed the highest net capital expenditure (32%, or \$5.5b), and recorded the highest investment rate (value added) of 29.5%.

Businesses employing fewer than 100 persons provided 59% of this industry's employment at the end of June 2006.

MACHINERY AND EQUIPMENT  
MANUFACTURING

In 2005–06, IVA of MACHINERY AND EQUIPMENT MANUFACTURING increased by 5%. Employment increased by 2% and wages and salaries grew by 8%. The industry's increase in trading profit (6%) exceeded its 2% increase in both OPBT and EBITDA.



MACHINERY AND EQUIPMENT  
MANUFACTURING *continued*

MACHINERY AND EQUIPMENT MANUFACTURING was the largest source of manufacturing IVA (\$20.2b, or 20%) and employment (242,200 persons, or 23%), and paid the greatest amount (\$12.1b, or 24%) in wages and salaries. The subdivision contributed 16% to total capital acquisitions and 15% to net capital expenditure. It contributed 20% to total manufacturing trading profit, but only 14% to EBITDA and OPBT.

The largest recipient of funding from government for operational costs of any manufacturing industry, MACHINERY AND EQUIPMENT MANUFACTURING received 65% of all such funding provided to manufacturing in 2005–06. Assistance to the motor vehicle industry is a major element.

Employment within MACHINERY AND EQUIPMENT MANUFACTURING was almost equally shared between businesses employing fewer than 100 persons (49%) and those employing 100 or more (51%). However, businesses employing 100 or more persons paid 60% of the wages and salaries of this industry, and made similar contributions to sales and service income (63%) and IVA (59%).

OTHER MANUFACTURING

In 2005–06, OTHER MANUFACTURING accounted for 7% of total manufacturing employment but 5% or less of wages and salaries, IVA, sales and service income, purchases of goods and materials, and the various profit measures presented.

OTHER MANUFACTURING is the subdivision most heavily dominated by businesses employing fewer than 100 persons. In this industry, these businesses account for 89% of employment, 84% of wages and salaries, 85% of sales and service income, and 84% of IVA. All employment size categories representing businesses employing fewer than 100 persons in OTHER MANUFACTURING made greater percentage contributions to the industry than the equivalent employment size categories did in the other subdivisions.

## 2.1 FINANCIAL PERFORMANCE, 2004–05 and 2005–06

<i>Industry subdivision / Reference year</i>		<i>Total income</i>	<i>Total expenses</i>	<i>Trading profit</i>	<i>Earnings before interest, tax, depreciation and amortisation</i>	<i>Operating profit before tax</i>
		\$m	\$m	\$m	\$m	\$m
<b>21</b>	<b>Food, beverage and tobacco mfg</b>					
	2004–05	73 404	68 336	17 589	7 218	5 354
	2005–06	74 955	70 201	17 701	7 018	5 062
<b>22</b>	<b>Textile, clothing, footwear and leather mfg</b>					
	2004–05	9 789	9 147	2 730	875	660
	2005–06	9 482	8 873	2 519	725	555
<b>23</b>	<b>Wood and paper product mfg</b>					
	2004–05	18 738	17 354	6 300	2 490	1 558
	2005–06	19 184	17 903	6 216	2 253	1 373
<b>24</b>	<b>Printing, publishing and recorded media</b>					
	2004–05	23 161	19 806	9 636	3 878	3 410
	2005–06	23 757	20 432	10 047	4 103	3 360
<b>25</b>	<b>Petroleum, coal, chemical and associated product mfg</b>					
	2004–05	59 985	57 750	12 207	5 613	3 544
	2005–06	69 156	65 468	13 339	6 444	4 688
<b>26</b>	<b>Non-metallic mineral product mfg</b>					
	2004–05	14 750	13 428	4 552	1 933	1 396
	2005–06	14 844	13 510	4 637	1 880	1 393
<b>27</b>	<b>Metal product mfg</b>					
	2004–05	66 678	59 991	18 065	8 259	7 467
	2005–06	71 441	65 141	18 676	8 342	6 789
<b>28</b>	<b>Machinery and equipment mfg</b>					
	2004–05	64 922	61 725	17 755	5 313	3 840
	2005–06	67 644	64 039	18 818	5 412	3 915
<b>29</b>	<b>Other manufacturing</b>					
	2004–05	13 179	12 207	4 010	1 272	1 028
	2005–06	13 639	12 549	4 274	1 363	1 105
<b>21–29</b>	<b>Total manufacturing</b>					
	2004–05	344 606	319 745	92 844	36 852	28 258
	2005–06	364 103	338 116	96 226	37 540	28 240

## 2.2

## INDUSTRY CLASS

INDUSTRY CLASS	Employment at end of June(a)	Wages and salaries(b)	Sales and service income(c)	Industry value added	Sales and service income per person employed	Industry value added per person employed at end of June
ANZSIC code    Description	no.	\$m	\$m	\$m	\$'000	\$'000
<b>FOOD, BEVERAGE AND TOBACCO MFG</b>						
<b>211    Meat and meat product mfg</b>						
2111    Meat processing	30 497	1 141	11 491	1 649	376.8	54.1
2112    Poultry processing	17 536	825	3 897	1 247	222.2	71.1
2113    Bacon, ham and smallgoods mfg	8 584	333	2 448	436	285.1	50.9
<i>Total</i>	56 617	2 298	17 836	3 332	315.0	58.9
<b>212    Dairy product mfg</b>						
2121    Milk and cream processing	7 566	373	3 710	771	490.4	101.9
2122    Ice cream mfg	652	22	174	52	267.5	79.4
2129    Dairy product mfg n.e.c.	10 306	626	6 107	1 061	592.6	102.9
<i>Total</i>	18 524	1 020	9 992	1 883	539.4	101.7
<b>213    Fruit and vegetable processing</b>	13 084	612	4 672	1 165	357.1	89.0
<b>214    Oil and fat mfg</b>	1 842	102	1 547	238	839.7	129.0
<b>215    Flour mill and cereal food mfg</b>						
2151    Flour mill product mfg	1 875	121	1 418	282	756.1	150.2
2152    Cereal food and baking mix mfg	6 082	318	2 274	660	373.9	108.5
<i>Total</i>	7 957	439	3 692	942	464.0	118.4
<b>216    Bakery product mfg</b>						
2161    Bread mfg	10 241	455	1 917	757	187.2	73.9
2162    Cake and pastry mfg	7 612	251	1 134	372	149.0	48.9
2163    Biscuit mfg	4 725	219	954	419	202.0	88.6
<i>Total</i>	22 579	925	4 005	1 548	177.4	68.6
<b>217    Other food mfg</b>						
2171    Sugar mfg	4 938	261	2 359	518	477.7	104.8
2172    Confectionery mfg	10 267	649	4 097	1 494	399.1	145.5
2173    Seafood processing	4 106	125	1 330	224	323.9	54.5
2174    Prepared animal and bird feed mfg	4 371	241	2 700	481	617.6	110.0
2179    Food mfg n.e.c.	19 920	841	5 854	1 474	293.9	74.0
<i>Total</i>	43 602	2 117	16 340	4 190	374.8	96.1
<b>218    Beverage and malt mfg</b>						
2181    Soft drink, cordial and syrup mfg	8 660	444	3 804	1 289	439.3	148.8
2182    Beer and malt mfg	4 378	314	3 845	1 544	878.2	352.7
2183    Wine mfg	15 577	751	5 640	1 362	362.1	87.4
2184    Spirit mfg	np	np	np	np	np	np
<i>Total</i>	np	np	np	np	np	np
<b>219    Tobacco product mfg</b>	np	np	np	np	np	np
<b>21    Total food, beverage and tobacco mfg</b>	<b>195 644</b>	<b>9 236</b>	<b>73 666</b>	<b>18 597</b>	<b>376.5</b>	<b>95.1</b>
<b>TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG</b>						
<b>221    Textile fibre, yarn and woven fabric mfg</b>						
2211    Wool scouring	355	26	144	31	405.6	87.4
2212    Synthetic fibre textile mfg	1 763	68	434	127	246.3	72.2
2213    Cotton textile mfg	1 397	61	289	92	207.2	65.9
2214    Wool textile mfg	779	32	155	51	198.9	65.8
2215    Textile finishing	1 002	43	193	64	193.0	64.3
<i>Total</i>	5 296	230	1 216	366	229.6	69.1

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

**2.2****INDUSTRY CLASS** *continued*

INDUSTRY CLASS	Employment at end of June(a)	Wages and salaries(b)	Sales and service income(c)	Industry value added	Sales and service income per person employed	Industry value added per person employed at end of June
ANZSIC code    Description	no.	\$m	\$m	\$m	\$'000	\$'000
<b>TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG cont.</b>						
<b>222    Textile product mfg</b>						
2221    Made-up textile product mfg	7 935	227	1 121	376	141.2	47.4
2222    Textile floor covering mfg	3 230	157	1 079	252	334.2	78.1
2223    Rope, cordage and twine mfg	540	19	137	36	253.8	66.0
2229    Textile product mfg n.e.c.	2 895	97	531	174	183.3	59.9
<i>Total</i>	14 600	500	2 868	838	196.4	57.4
<b>223    Knitting mills</b>						
2231    Hosiery mfg	^ 877	40	109	59	123.7	67.6
2232    Cardigan and pullover mfg	442	13	58	18	131.7	41.2
2239    Knitting mill product mfg n.e.c.	798	28	132	46	165.5	57.7
<i>Total</i>	2 116	81	299	124	141.2	58.4
<b>224    Clothing mfg</b>						
2241    Men's and boys' wear mfg	2 102	66	327	118	155.3	56.3
2242    Women's and girls' wear mfg	3 897	115	731	198	187.5	50.7
2243    Sleepwear, underwear and infant clothing mfg	1 527	52	379	116	248.4	75.7
2249    Clothing mfg n.e.c.	13 111	341	2 247	597	171.3	45.5
<i>Total</i>	20 638	575	3 683	1 028	178.5	49.8
<b>225    Footwear mfg</b>	2 461	89	484	154	196.7	62.5
<b>226    Leather and leather product mfg</b>						
2261    Leather tanning and fur dressing	^ 1 905	67	488	107	256.4	56.2
2262    Leather and leather substitute product mfg	1 204	35	187	64	155.6	53.3
<i>Total</i>	3 109	102	676	171	217.4	55.1
<b>22    Total textile, clothing, footwear and leather mfg</b>	<b>48 220</b>	<b>1 577</b>	<b>9 225</b>	<b>2 680</b>	<b>191.3</b>	<b>55.6</b>
<b>23    WOOD AND PAPER PRODUCT MFG</b>						
<b>231    Log sawmilling and timber dressing</b>						
2311    Log sawmilling	7 615	247	1 290	502	169.4	65.9
2312    Wood chipping	1 379	57	654	210	474.4	152.4
2313    Timber resawing and dressing	6 977	311	1 912	730	274.0	104.6
<i>Total</i>	15 972	616	3 856	1 442	241.4	90.3
<b>232    Other wood product mfg</b>						
2321    Plywood and veneer mfg	1 139	55	365	96	320.4	84.4
2322    Fabricated wood mfg	4 367	242	1 453	512	332.6	117.3
2323    Wooden structural component mfg	22 559	735	3 681	1 291	163.2	57.2
2329    Wood product mfg n.e.c.	8 012	204	1 030	385	128.6	48.0
<i>Total</i>	36 076	1 235	6 529	2 284	181.0	63.3
<b>233    Paper and paper product mfg</b>						
2331    Pulp, paper and paperboard mfg	5 045	326	2 436	671	482.9	133.0
2332    Solid paperboard container mfg	1 216	60	272	88	223.3	72.5
2333    Corrugated paperboard container mfg	5 835	452	2 870	986	491.9	169.0
2334    Paper bag and sack mfg	1 250	68	402	135	321.9	107.7
2339    Paper product mfg n.e.c.	5 951	388	2 595	857	436.0	144.0
<i>Total</i>	19 297	1 294	8 575	2 737	444.4	141.8
<b>23    Total wood and paper product mfg</b>	<b>71 345</b>	<b>3 145</b>	<b>18 960</b>	<b>6 462</b>	<b>265.7</b>	<b>90.6</b>

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

**2.2****INDUSTRY CLASS** *continued*

INDUSTRY CLASS	Employment at end of June(a)	Wages and salaries(b)	Sales and service income(c)	Industry value added	Sales and service income per person employed	Industry value added per person employed at end of June
ANZSIC code    Description	no.	\$m	\$m	\$m	\$'000	\$'000
<b>PRINTING, PUBLISHING AND RECORDED MEDIA</b>						
<b>241    Printing and services to printing</b>						
2411    Paper stationery mfg	4 986	250	1 235	391	247.6	78.4
2412    Printing	47 570	2 050	8 297	3 333	174.4	70.1
2413    Services to printing	4 989	166	757	315	151.7	63.1
<i>Total</i>	<i>57 544</i>	<i>2 467</i>	<i>10 289</i>	<i>4 038</i>	<i>178.8</i>	<i>70.2</i>
<b>242    Publishing</b>						
2421    Newspaper printing or publishing	27 216	1 597	6 195	3 512	227.6	129.1
2422    Other periodical publishing	8 080	455	2 114	719	261.6	89.0
2423    Book and other publishing	10 133	561	3 445	1 892	339.9	186.7
<i>Total</i>	<i>45 429</i>	<i>2 612</i>	<i>11 753</i>	<i>6 124</i>	<i>258.7</i>	<i>134.8</i>
<b>243    Recorded media manufacturing and publishing</b>	<b>3 790</b>	<b>211</b>	<b>1 010</b>	<b>344</b>	<b>266.5</b>	<b>90.6</b>
<b>24    Total printing, publishing and recorded media</b>	<b>106 764</b>	<b>5 290</b>	<b>23 052</b>	<b>10 506</b>	<b>215.9</b>	<b>98.4</b>
<b>PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG</b>						
<b>251    Petroleum refining</b>	<b>6 375</b>	<b>578</b>	<b>29 916</b>	<b>2 852</b>	<b>4 692.6</b>	<b>447.4</b>
<b>252    Petroleum and coal product mfg n.e.c.</b>	<b>1 232</b>	<b>70</b>	<b>658</b>	<b>177</b>	<b>533.8</b>	<b>143.6</b>
<b>253    Basic chemical mfg</b>						
2531    Fertiliser mfg	np	np	np	np	np	np
2532    Industrial gas mfg	np	np	np	np	np	np
2533    Synthetic resin mfg	5 692	361	3 614	757	634.8	133.0
2534    Organic industrial chemical mfg n.e.c.	1 740	118	1 003	165	576.2	95.1
2535    Inorganic industrial chemical mfg n.e.c.	4 592	300	3 047	930	663.6	202.4
<i>Total</i>	<i>17 626</i>	<i>1 209</i>	<i>11 905</i>	<i>2 880</i>	<i>675.4</i>	<i>163.4</i>
<b>254    Other chemical product mfg</b>						
2541    Explosive mfg	np	np	np	np	np	np
2542    Paint mfg	7 652	424	2 292	715	299.5	93.5
2543    Medicinal and pharmaceutical product mfg	14 155	926	6 929	1 881	489.5	132.9
2544    Pesticide mfg	1 419	87	836	215	589.0	151.3
2545    Soap and other detergent mfg	4 041	226	1 926	604	476.6	149.4
2546    Cosmetic and toiletry preparation mfg	3 538	139	746	218	210.9	61.6
2547    Ink mfg	np	np	np	np	np	np
2549    Chemical product mfg n.e.c.	3 700	195	1 471	408	397.5	110.2
<i>Total</i>	<i>37 489</i>	<i>2 236</i>	<i>15 859</i>	<i>4 584</i>	<i>423.0</i>	<i>122.3</i>
<b>255    Rubber product mfg</b>						
2551    Rubber tyre mfg	1 927	90	465	169	241.2	87.7
2559    Rubber product mfg n.e.c.	4 663	227	1 133	395	243.0	84.7
<i>Total</i>	<i>6 590</i>	<i>317</i>	<i>1 598</i>	<i>564</i>	<i>242.5</i>	<i>85.6</i>

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

(a)    Includes working proprietors.

(b)    Excludes the drawings of working proprietors.

(c)    Includes rent, leasing and hiring income.

**2.2****INDUSTRY CLASS** *continued*

INDUSTRY CLASS		Employment at end of June(a)	Wages and salaries(b)	Sales and service income(c)	Industry value added	Sales and service income per person employed	Industry value added per person employed at end of June
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
<b>PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG</b> <i>cont.</i>							
<b>256</b>	<b>Plastic product mfg</b>						
2561	Plastic blow moulded product mfg	3 640	202	1 030	386	283.1	106.1
2562	Plastic extruded product mfg	4 951	217	1 492	437	301.4	88.3
2563	Plastic bag and film mfg	6 028	337	1 982	676	328.9	112.1
2564	Plastic product rigid fibre reinforced mfg	5 095	230	1 118	395	219.4	77.4
2565	Plastic foam product mfg	2 041	88	503	171	246.7	83.5
2566	Plastic injection moulded product mfg	11 285	474	2 339	829	207.3	73.4
	<i>Total</i>	33 040	1 548	8 465	2 893	256.2	87.6
<b>25</b>	<b>Total petroleum, coal, chemical and associated product mfg</b>	<b>102 352</b>	<b>5 959</b>	<b>68 401</b>	<b>13 951</b>	<b>668.3</b>	<b>136.3</b>
<b>NON-METALLIC MINERAL PRODUCT MFG</b>							
<b>261</b>	<b>Glass and glass product mfg</b>	7 293	369	1 990	836	272.8	114.6
<b>262</b>	<b>Ceramic mfg</b>						
2621	Clay brick mfg	3 078	173	902	453	292.9	147.3
2622	Ceramic product mfg	984	70	220	102	223.7	104.2
2623	Ceramic tile and pipe mfg	445	18	111	37	249.4	83.4
2629	Ceramic product mfg n.e.c.	1 808	81	390	155	216.0	86.0
	<i>Total</i>	6 315	343	1 623	749	257.0	118.5
<b>263</b>	<b>Cement, lime, plaster and concrete product mfg</b>						
2631	Cement and lime mfg	2 962	219	1 757	696	593.1	234.9
2632	Plaster product mfg	4 967	265	1 520	400	306.0	80.4
2633	Concrete slurry mfg	8 182	464	3 826	877	467.6	107.2
2634	Concrete pipe and box culvert mfg	1 283	66	311	120	242.2	93.5
2635	Concrete product mfg n.e.c.	7 327	307	1 610	582	219.8	79.4
	<i>Total</i>	24 721	1 320	9 024	2 674	365.0	108.2
<b>264</b>	<b>Non-metallic mineral product mfg n.e.c.</b>	7 893	322	1 777	584	225.2	74.0
<b>26</b>	<b>Total non-metallic mineral product mfg</b>	<b>46 222</b>	<b>2 354</b>	<b>14 413</b>	<b>4 843</b>	<b>311.8</b>	<b>104.8</b>
<b>METAL PRODUCT MFG</b>							
<b>271</b>	<b>Iron and steel mfg</b>						
2711	Basic iron and steel mfg	23 623	1 462	12 749	2 957	539.7	125.2
2712	Iron and steel casting and forging	8 895	461	2 410	915	271.0	102.9
2713	Steel pipe and tube mfg	3 041	174	1 269	335	417.4	110.2
	<i>Total</i>	35 559	2 097	16 429	4 208	462.0	118.3
<b>272</b>	<b>Basic non-ferrous metal mfg</b>						
2721	Alumina production	7 838	718	6 968	2 345	889.0	299.2
2722	Aluminium smelting	5 393	432	6 952	2 001	1 289.0	371.0
2723	Copper, silver, lead and zinc smelting, refining	np	np	np	np	np	np
2729	Basic non-ferrous metal mfg n.e.c.	np	np	np	np	np	np
	<i>Total</i>	18 033	1 496	26 600	6 013	1 475.1	333.4
<b>273</b>	<b>Non-ferrous basic metal product mfg</b>						
2731	Aluminium rolling, drawing, extruding	3 206	191	1 493	266	465.6	82.9
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.	1 303	79	1 040	145	798.5	111.1
2733	Non-ferrous metal casting	1 427	67	233	90	163.2	63.3
	<i>Total</i>	5 936	337	2 766	501	466.0	84.4

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

## 2.2

INDUSTRY CLASS *continued*

INDUSTRY CLASS		Employment	Wages and	Sales and	Industry	Sales and	Industry
		at end of	salaries(b)	service	value	service	value
		June(a)		income(c)	added	income	added
ANZSIC	Description	no.	\$m	\$m	\$m	per person	per person
code						employed	employed at
							end of June
						\$'000	\$'000
<b>METAL PRODUCT MFG <i>cont.</i></b>							
<b>274</b>	<b>Structural metal product mfg</b>						
2741	Structural steel fabricating	20 225	^ 1 074	4 839	^ 1 762	239.2	87.1
2742	Architectural aluminium product mfg	16 561	662	2 988	1 059	180.4	64.0
2749	Structural metal product mfg n.e.c.	8 529	313	1 783	565	209.0	66.2
	<i>Total</i>	45 314	2 049	9 610	3 387	212.1	74.7
<b>275</b>	<b>Sheet metal product mfg</b>						
2751	Metal container mfg	3 495	211	1 500	480	429.1	137.2
2759	Sheet metal product mfg n.e.c.	16 450	639	3 678	1 151	223.6	70.0
	<i>Total</i>	19 945	850	5 178	1 631	259.6	81.8
<b>276</b>	<b>Fabricated metal product mfg</b>						
2761	Hand tool and general hardware mfg	2 208	79	335	145	151.8	65.4
2762	Spring and wire product mfg	4 789	210	1 154	365	240.9	76.1
2763	Nut, bolt, screw and rivet mfg	1 525	77	494	139	323.9	91.3
2764	Metal coating and finishing	9 306	367	1 215	614	130.5	66.0
2765	Non-ferrous pipe fitting mfg	1 174	47	301	103	256.8	87.7
2769	Fabricated metal product mfg n.e.c.	32 611	1 247	5 932	2 269	181.9	69.6
	<i>Total</i>	51 614	2 025	9 430	3 634	182.7	70.4
<b>27</b>	<b>Total metal product mfg</b>	<b>176 402</b>	<b>8 855</b>	<b>70 013</b>	<b>19 373</b>	<b>396.9</b>	<b>109.8</b>
<b>MACHINERY AND EQUIPMENT MFG</b>							
<b>281</b>	<b>Motor vehicle and part mfg</b>						
2811	Motor vehicle mfg	27 108	1 708	13 521	2 472	498.8	91.2
2812	Motor vehicle body mfg	^ 15 270	578	3 086	928	202.1	60.8
2813	Automotive electrical and instrument mfg	2 961	150	1 002	300	338.6	101.5
2819	Automotive component mfg n.e.c.	21 755	1 233	6 631	1 937	304.8	89.0
	<i>Total</i>	67 095	3 668	24 241	5 637	361.3	84.0
<b>282</b>	<b>Other transport equipment mfg</b>						
2821	Shipbuilding	7 295	376	1 797	679	246.3	93.1
2822	Boatbuilding	8 203	282	1 488	454	181.3	55.4
2823	Railway equipment mfg	8 073	369	1 957	585	242.5	72.5
2824	Aircraft mfg	14 576	777	3 216	1 224	220.7	84.0
2829	Transport equipment mfg n.e.c.	1 012	25	^ 221	53	218.3	52.6
	<i>Total</i>	39 158	1 829	8 679	2 996	221.6	76.5
<b>283</b>	<b>Photographic and scientific equipment mfg</b>						
2831	Photographic and optical good mfg	2 275	84	462	135	203.1	59.4
2832	Medical and surgical equipment mfg	9 262	432	2 104	908	227.1	98.1
2839	Professional and scientific equipment mfg n.e.c.	7 103	353	1 428	593	201.0	83.5
	<i>Total</i>	18 639	869	3 994	1 636	214.3	87.8
<b>284</b>	<b>Electronic equipment mfg</b>						
2841	Computer and business machine mfg	4 046	189	1 062	^ 224	262.5	55.3
2842	Telecommunication, broadcasting and						
	transceiving equipment mfg	7 327	450	1 866	764	254.7	104.3
2849	Electronic equipment mfg n.e.c.	9 809	554	2 236	1 000	228.0	101.9
	<i>Total</i>	21 181	1 193	5 164	1 988	243.8	93.9

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

**2.2****INDUSTRY CLASS** *continued*

INDUSTRY CLASS		Employment	Wages and	Sales and	Industry	Sales and	Industry
		at end of	salaries(b)	service	value	service	value
		June(a)		income(c)	added	income	added
ANZSIC	Description	no.	\$m	\$m	\$m	per person	per person
code						employed	employed at
							end of June
						\$'000	\$'000
<b>MACHINERY AND EQUIPMENT MFG</b> <i>cont.</i>							
<b>285</b>	<b>Electrical equipment and appliance mfg</b>						
2851	Household appliance mfg	10 509	450	2 726	774	259.4	73.7
2852	Electric cable and wire mfg	2 343	149	1 260	288	537.6	123.0
2853	Battery mfg	1 187	63	329	117	277.0	98.6
2854	Electric light and sign mfg	4 366	179	907	289	207.7	66.3
2859	Electrical equipment mfg n.e.c.	15 070	703	3 676	1 215	243.9	80.6
	<i>Total</i>	33 476	1 543	8 897	2 684	265.8	80.2
<b>286</b>	<b>Industrial machinery and equipment mfg</b>						
2861	Agricultural machinery mfg	5 402	203	1 759	431	325.6	79.8
2862	Mining and construction machinery mfg	11 475	613	3 320	1 110	289.3	96.7
2863	Food processing machinery mfg	2 890	134	724	231	250.5	80.0
2864	Machine tool and part mfg	6 927	290	1 059	480	152.8	69.3
2865	Lifting and material handling equipment mfg	10 253	594	2 376	948	231.7	92.5
2866	Pump and compressor mfg	3 585	191	942	307	262.9	85.7
2867	Commercial space heating and cooling equipment mfg	2 349	115	607	190	258.3	80.9
2869	Industrial machinery and equipment mfg n.e.c.	19 810	881	4 461	1 516	225.2	76.5
	<i>Total</i>	62 692	3 021	15 248	5 213	243.2	83.2
<b>28</b>	<b>Total machinery and equipment mfg</b>	<b>242 241</b>	<b>12 123</b>	<b>66 222</b>	<b>20 155</b>	<b>273.4</b>	<b>83.2</b>
<b>OTHER MANUFACTURING</b>							
<b>291</b>	<b>Prefabricated building mfg</b>						
2911	Prefabricated metal building mfg	3 683	152	1 200	363	325.7	98.6
2919	Prefabricated building mfg n.e.c.	1 577	50	387	109	245.4	69.4
	<i>Total</i>	5 259	202	1 587	472	301.7	89.8
<b>292</b>	<b>Furniture mfg</b>						
2921	Wooden furniture and upholstered seat mfg	31 253	925	4 294	1 499	137.4	48.0
2922	Sheet metal furniture mfg	^ 2 932	116	676	208	230.7	70.9
2923	Mattress mfg (except rubber)	2 608	116	624	211	239.1	80.8
2929	Furniture mfg n.e.c.	10 966	402	2 117	700	193.0	63.8
	<i>Total</i>	47 760	1 559	7 711	2 617	161.4	54.8
<b>294</b>	<b>Miscellaneous mfg</b>						
2941	Jewellery and silverware mfg	3 615	90	673	194	186.1	53.8
2942	Toy and sporting good mfg	2 979	78	520	150	174.7	50.3
2949	Manufacturing n.e.c.	15 103	541	3 019	979	199.9	64.9
	<i>Total</i>	21 697	708	4 212	1 324	194.1	61.0
<b>29</b>	<b>Total other manufacturing</b>	<b>74 717</b>	<b>2 470</b>	<b>13 509</b>	<b>4 414</b>	<b>180.8</b>	<b>59.1</b>
<b>21-29</b>	<b>TOTAL MANUFACTURING</b>	<b>1 063 906</b>	<b>51 007</b>	<b>357 462</b>	<b>100 980</b>	<b>336.0</b>	<b>94.9</b>

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.



**2.3****EMPLOYMENT SIZE (a)**

<i>Employment size groups</i>	<i>Employment at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Sales and service income(d)</i>		<i>Industry value added</i>	
	'000	%	\$m	%	\$m	%	\$m	%
<b>FOOD, BEVERAGE AND TOBACCO MFG</b>								
0–4 persons	7.0	3.6	123.3	1.3	3 007.5	4.1	297.5	1.6
5–9 persons	5.1	2.6	132.0	1.4	1 715.8	2.4	243.6	1.3
10–19 persons	8.8	4.5	270.2	3.0	1 813.8	2.5	429.6	2.3
20–49 persons	20.2	10.3	657.5	7.2	4 439.5	6.1	1 100.8	6.0
50–99 persons	14.7	7.5	596.4	6.5	4 855.2	6.7	1 114.4	6.0
<i>Total less than 100 persons</i>	<i>55.8</i>	<i>28.5</i>	<i>1 779.3</i>	<i>19.5</i>	<i>15 831.8</i>	<i>21.7</i>	<i>3 185.9</i>	<i>17.3</i>
100–199 persons	13.6	6.9	543.1	5.9	4 517.8	6.2	963.4	5.2
200–499 persons	26.0	13.3	1 238.0	13.5	10 328.8	14.2	2 390.3	13.0
500–999 persons	29.3	15.0	1 547.0	16.9	13 083.2	17.9	3 063.7	16.6
1 000 or more persons	71.0	36.3	4 038.1	44.2	29 137.9	40.0	8 829.7	47.9
<i>Total 100 or more persons</i>	<i>139.9</i>	<i>71.5</i>	<i>7 366.3</i>	<i>80.5</i>	<i>57 067.6</i>	<i>78.3</i>	<i>15 247.1</i>	<i>82.7</i>
<b>Total</b>	<b>195.6</b>	<b>100.0</b>	<b>9 145.6</b>	<b>100.0</b>	<b>72 899.3</b>	<b>100.0</b>	<b>18 433.0</b>	<b>100.0</b>
<b>TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG</b>								
0–4 persons	11.8	24.4	175.9	11.3	1 510.0	16.5	429.3	16.1
5–9 persons	4.4	9.2	147.8	9.5	975.1	10.7	238.7	9.0
10–19 persons	6.2	12.8	221.4	14.2	1 194.4	13.1	353.2	13.3
20–49 persons	8.3	17.2	259.6	16.6	1 368.7	15.0	430.6	16.2
50–99 persons	5.2	10.7	231.0	14.8	1 215.9	13.3	366.8	13.8
<i>Total less than 100 persons</i>	<i>35.8</i>	<i>74.2</i>	<i>1 035.6</i>	<i>66.4</i>	<i>6 264.1</i>	<i>68.5</i>	<i>1 818.7</i>	<i>68.4</i>
100–199 persons	4.5	9.4	186.5	12.0	1 018.9	11.1	289.8	10.9
200–499 persons	np	np	np	np	np	np	np	np
500–999 persons	np	np	np	np	np	np	np	np
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>12.4</i>	<i>25.8</i>	<i>524.0</i>	<i>33.6</i>	<i>2 881.0</i>	<i>31.5</i>	<i>840.3</i>	<i>31.6</i>
<b>Total</b>	<b>48.2</b>	<b>100.0</b>	<b>1 559.6</b>	<b>100.0</b>	<b>9 145.1</b>	<b>100.0</b>	<b>2 658.9</b>	<b>100.0</b>
<b>WOOD AND PAPER PRODUCT MFG</b>								
0–4 persons	10.2	14.3	168.2	5.4	1 316.5	7.0	495.5	7.7
5–9 persons	5.6	7.9	205.3	6.5	898.9	4.8	323.8	5.0
10–19 persons	10.1	14.1	348.0	11.1	1 592.6	8.4	527.7	8.2
20–49 persons	10.6	14.9	362.9	11.5	1 770.2	9.4	652.6	10.1
50–99 persons	6.0	8.4	243.6	7.8	1 275.4	6.7	434.0	6.7
<i>Total less than 100 persons</i>	<i>42.6</i>	<i>59.7</i>	<i>1 327.9</i>	<i>42.3</i>	<i>6 853.6</i>	<i>36.2</i>	<i>2 433.5</i>	<i>37.7</i>
100–199 persons	3.1	4.3	148.3	4.7	884.3	4.7	294.0	4.6
200–499 persons	6.2	8.7	331.2	10.5	2 238.9	11.8	728.5	11.3
500–999 persons	7.0	9.8	415.8	13.2	3 074.9	16.3	928.0	14.4
1 000 or more persons	12.5	17.5	918.8	29.2	5 863.4	31.0	2 074.2	32.1
<i>Total 100 or more persons</i>	<i>28.8</i>	<i>40.3</i>	<i>1 814.0</i>	<i>57.7</i>	<i>12 061.6</i>	<i>63.8</i>	<i>4 024.7</i>	<i>62.3</i>
<b>Total</b>	<b>71.3</b>	<b>100.0</b>	<b>3 141.9</b>	<b>100.0</b>	<b>18 915.2</b>	<b>100.0</b>	<b>6 458.3</b>	<b>100.0</b>

— nil or rounded to zero (including null cells)

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

(a) Totals may differ slightly from those presented in other tables, because they exclude those manufacturing businesses which operated during 2005–06 but were not operating at 30 June 2006. See paragraph 33 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

**2.3****EMPLOYMENT SIZE(a) continued**

<i>Employment size groups</i>	<i>Employment at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Sales and service income(d)</i>		<i>Industry value added</i>	
	'000	%	\$m	%	\$m	%	\$m	%
<b>PRINTING, PUBLISHING AND RECORDED MEDIA</b>								
0–4 persons	12.0	11.2	253.7	4.8	1 858.8	8.1	597.9	5.7
5–9 persons	10.5	9.8	374.1	7.1	1 469.5	6.4	567.4	5.4
10–19 persons	9.6	9.0	378.5	7.2	1 341.6	5.8	577.4	5.5
20–49 persons	15.0	14.1	627.1	11.9	2 384.2	10.4	994.2	9.5
50–99 persons	10.3	9.7	537.3	10.2	2 161.8	9.4	861.5	8.2
<i>Total less than 100 persons</i>	<i>57.5</i>	<i>53.9</i>	<i>2 170.7</i>	<i>41.1</i>	<i>9 215.8</i>	<i>40.1</i>	<i>3 598.4</i>	<i>34.3</i>
100–199 persons	6.5	6.1	324.9	6.1	1 513.4	6.6	574.5	5.5
200–499 persons	13.0	12.2	729.5	13.8	3 375.1	14.7	1 357.8	12.9
500–999 persons	6.0	5.6	316.8	6.0	1 290.5	5.6	681.9	6.5
1 000 or more persons	23.8	22.3	1 743.4	33.0	7 579.0	33.0	4 280.7	40.8
<i>Total 100 or more persons</i>	<i>49.3</i>	<i>46.1</i>	<i>3 114.5</i>	<i>58.9</i>	<i>13 758.0</i>	<i>59.9</i>	<i>6 895.0</i>	<i>65.7</i>
<b>Total</b>	<b>106.8</b>	<b>100.0</b>	<b>5 285.2</b>	<b>100.0</b>	<b>22 973.8</b>	<b>100.0</b>	<b>10 493.4</b>	<b>100.0</b>
<b>PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG</b>								
0–4 persons	6.2	6.1	200.2	3.4	1 716.7	2.5	600.6	4.3
5–9 persons	5.8	5.6	222.5	3.8	1 269.4	1.9	389.9	2.8
10–19 persons	9.2	9.0	343.1	5.8	1 956.6	2.9	594.3	4.3
20–49 persons	13.4	13.1	546.3	9.2	4 081.9	6.0	1 205.7	8.7
50–99 persons	10.6	10.4	548.9	9.3	3 376.5	5.0	1 031.7	7.4
<i>Total less than 100 persons</i>	<i>45.2</i>	<i>44.2</i>	<i>1 861.0</i>	<i>31.4</i>	<i>12 401.1</i>	<i>18.3</i>	<i>3 822.2</i>	<i>27.5</i>
100–199 persons	11.7	11.5	690.4	11.6	5 932.6	8.7	1 258.7	9.0
200–499 persons	14.9	14.5	984.4	16.6	13 611.6	20.0	2 639.8	19.0
500–999 persons	15.8	15.4	1 149.9	19.4	19 058.5	28.1	3 200.2	23.0
1 000 or more persons	14.8	14.4	1 245.9	21.0	16 897.9	24.9	2 989.1	21.5
<i>Total 100 or more persons</i>	<i>57.2</i>	<i>55.8</i>	<i>4 070.7</i>	<i>68.6</i>	<i>55 500.6</i>	<i>81.7</i>	<i>10 087.8</i>	<i>72.5</i>
<b>Total</b>	<b>102.4</b>	<b>100.0</b>	<b>5 931.7</b>	<b>100.0</b>	<b>67 901.7</b>	<b>100.0</b>	<b>13 910.0</b>	<b>100.0</b>
<b>NON-METALLIC MINERAL PRODUCT MFG</b>								
0–4 persons	5.0	10.8	75.0	3.2	770.5	5.4	243.9	5.0
5–9 persons	3.2	6.9	114.8	4.9	495.2	3.5	205.0	4.2
10–19 persons	4.5	9.8	169.8	7.2	787.8	5.5	291.2	6.0
20–49 persons	3.8	8.3	163.5	6.9	790.9	5.5	270.7	5.6
50–99 persons	4.6	10.0	234.5	10.0	1 527.3	10.6	499.5	10.3
<i>Total less than 100 persons</i>	<i>21.2</i>	<i>45.8</i>	<i>757.6</i>	<i>32.2</i>	<i>4 371.6</i>	<i>30.5</i>	<i>1 510.2</i>	<i>31.2</i>
100–199 persons	3.1	6.7	161.5	6.9	996.3	6.9	295.6	6.1
200–499 persons	np	np	np	np	np	np	np	np
500–999 persons	np	np	np	np	np	np	np	np
1 000 or more persons	10.4	22.4	652.7	27.7	4 356.3	30.4	1 367.4	28.2
<i>Total 100 or more persons</i>	<i>25.1</i>	<i>54.2</i>	<i>1 596.5</i>	<i>67.8</i>	<i>9 975.6</i>	<i>69.5</i>	<i>3 332.3</i>	<i>68.8</i>
<b>Total</b>	<b>46.2</b>	<b>100.0</b>	<b>2 354.1</b>	<b>100.0</b>	<b>14 347.2</b>	<b>100.0</b>	<b>4 842.5</b>	<b>100.0</b>

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

(a) Totals may differ slightly from those presented in other tables, because they exclude those manufacturing businesses which operated during 2005–06 but were not operating at 30 June 2006. See paragraph 33 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

**2.3****EMPLOYMENT SIZE (a) continued**

<i>Employment size groups</i>	<i>Employment at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Sales and service income(d)</i>		<i>Industry value added</i>	
	'000	%	\$m	%	\$m	%	\$m	%
<b>METAL PRODUCT MFG</b>								
0–4 persons	20.0	11.4	375.9	4.3	4 653.0	6.7	2 157.7	11.2
5–9 persons	16.3	9.2	624.1	7.1	3 812.0	5.5	1 334.0	6.9
10–19 persons	18.7	10.6	754.5	8.5	3 909.8	5.6	2 097.5	10.8
20–49 persons	29.8	16.9	1 439.5	16.3	5 900.5	8.5	2 519.4	13.0
50–99 persons	18.7	10.6	813.8	9.2	4 110.9	5.9	1 346.1	7.0
<i>Total less than 100 persons</i>	<i>103.5</i>	<i>58.7</i>	<i>4 007.8</i>	<i>45.4</i>	<i>22 386.2</i>	<i>32.2</i>	<i>9 454.7</i>	<i>48.9</i>
100–199 persons	11.8	6.7	605.2	6.9	4 339.3	6.2	1 159.0	6.0
200–499 persons	11.9	6.8	725.7	8.2	11 659.0	16.8	1 364.1	7.1
500–999 persons	18.9	10.7	1 214.8	13.8	12 419.1	17.9	3 346.8	17.3
1 000 or more persons	30.3	17.2	2 280.6	25.8	18 746.1	27.0	4 020.3	20.8
<i>Total 100 or more persons</i>	<i>72.9</i>	<i>41.3</i>	<i>4 826.2</i>	<i>54.6</i>	<i>47 163.4</i>	<i>67.8</i>	<i>9 890.2</i>	<i>51.1</i>
<b>Total</b>	<b>176.4</b>	<b>100.0</b>	<b>8 834.1</b>	<b>100.0</b>	<b>69 549.6</b>	<b>100.0</b>	<b>19 344.9</b>	<b>100.0</b>
<b>MACHINERY AND EQUIPMENT MFG</b>								
0–4 persons	24.7	10.2	598.2	4.9	4 122.0	6.3	1 449.1	7.2
5–9 persons	15.9	6.6	639.7	5.3	3 051.0	4.7	1 065.8	5.3
10–19 persons	23.5	9.7	994.3	8.2	4 142.2	6.3	1 513.9	7.5
20–49 persons	33.2	13.7	1 482.3	12.2	7 126.6	10.9	2 492.7	12.4
50–99 persons	21.6	8.9	1 117.5	9.2	6 078.1	9.3	1 810.5	9.0
<i>Total less than 100 persons</i>	<i>118.9</i>	<i>49.1</i>	<i>4 832.0</i>	<i>39.9</i>	<i>24 520.0</i>	<i>37.4</i>	<i>8 332.0</i>	<i>41.3</i>
100–199 persons	22.5	9.3	1 164.7	9.6	6 335.6	9.7	1 837.4	9.1
200–499 persons	29.4	12.1	1 611.5	13.3	8 774.3	13.4	2 646.0	13.1
500–999 persons	22.4	9.2	1 351.0	11.2	7 823.3	11.9	2 617.7	13.0
1 000 or more persons	49.0	20.2	3 153.9	26.0	18 137.8	27.7	4 727.9	23.5
<i>Total 100 or more persons</i>	<i>123.3</i>	<i>50.9</i>	<i>7 281.0</i>	<i>60.1</i>	<i>41 070.9</i>	<i>62.6</i>	<i>11 829.0</i>	<i>58.7</i>
<b>Total</b>	<b>242.2</b>	<b>100.0</b>	<b>12 113.0</b>	<b>100.0</b>	<b>65 590.9</b>	<b>100.0</b>	<b>20 161.0</b>	<b>100.0</b>
<b>OTHER MANUFACTURING</b>								
0–4 persons	19.3	25.8	290.9	11.9	2 478.8	18.9	851.3	19.4
5–9 persons	10.8	14.5	364.9	14.9	1 751.7	13.4	581.1	13.3
10–19 persons	13.2	17.6	489.4	19.9	2 121.0	16.2	757.5	17.3
20–49 persons	14.5	19.4	553.6	22.6	2 781.7	21.2	852.4	19.4
50–99 persons	8.8	11.7	362.1	14.8	2 031.9	15.5	641.0	14.6
<i>Total less than 100 persons</i>	<i>66.5</i>	<i>89.0</i>	<i>2 060.9</i>	<i>84.0</i>	<i>11 165.0</i>	<i>85.2</i>	<i>3 683.2</i>	<i>84.0</i>
100–199 persons	4.1	5.5	195.1	8.0	1 044.4	8.0	351.5	8.0
200–499 persons	4.2	5.6	197.6	8.1	892.7	6.8	350.2	8.0
500–999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>8.2</i>	<i>11.0</i>	<i>392.7</i>	<i>16.0</i>	<i>1 937.2</i>	<i>14.8</i>	<i>701.7</i>	<i>16.0</i>
<b>Total</b>	<b>74.7</b>	<b>100.0</b>	<b>2 453.6</b>	<b>100.0</b>	<b>13 102.2</b>	<b>100.0</b>	<b>4 385.0</b>	<b>100.0</b>

— nil or rounded to zero (including null cells)

(b) Includes working proprietors.

(a) Totals may differ slightly from those presented in other tables, because they exclude those manufacturing businesses which operated during 2005–06 but were not operating at 30 June 2006. See paragraph 33 of the Explanatory Notes.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

**2.3****EMPLOYMENT SIZE (a) continued**

<i>Employment size groups</i>	<i>Employment at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Sales and service income(d)</i>		<i>Industry value added</i>	
	'000	%	\$m	%	\$m	%	\$m	%
<b>TOTAL MANUFACTURING</b>								
0–4 persons	116.2	10.9	2 261.3	4.4	21 433.8	6.0	7 122.7	7.1
5–9 persons	77.7	7.3	2 825.1	5.6	15 438.5	4.4	4 949.4	4.9
10–19 persons	103.8	9.8	3 969.3	7.8	18 859.7	5.3	7 142.3	7.1
20–49 persons	148.8	14.0	6 092.1	12.0	30 644.2	8.6	10 519.1	10.4
50–99 persons	100.4	9.4	4 685.1	9.2	26 632.9	7.5	8 105.4	8.1
<i>Total less than 100 persons</i>	<i>546.9</i>	<i>51.4</i>	<i>19 832.9</i>	<i>39.0</i>	<i>113 009.2</i>	<i>31.9</i>	<i>37 838.9</i>	<i>37.6</i>
100–199 persons	80.9	7.6	4 019.7	7.9	26 582.5	7.5	7 023.9	7.0
200–499 persons	116.0	10.9	6 390.9	12.6	53 899.9	15.2	12 532.6	12.4
500–999 persons	108.4	10.2	6 542.0	12.9	60 214.9	17.0	15 002.4	14.9
1 000 or more persons	211.8	19.9	14 033.4	27.6	100 718.5	28.4	28 289.3	28.1
<i>Total 100 or more persons</i>	<i>517.0</i>	<i>48.6</i>	<i>30 986.0</i>	<i>61.0</i>	<i>241 415.9</i>	<i>68.1</i>	<i>62 848.2</i>	<i>62.4</i>
<b>Total</b>	<b>1 063.9</b>	<b>100.0</b>	<b>50 818.9</b>	<b>100.0</b>	<b>354 425.1</b>	<b>100.0</b>	<b>100 687.1</b>	<b>100.0</b>

(a) Totals may differ slightly from those presented in other tables, because they exclude those manufacturing businesses which operated during 2005–06 but were not operating at 30 June 2006. See paragraph 33 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

## 2.4 INDUSTRY VALUE ADDED

		PLUS				LESS		
INDUSTRY SUBDIVISION		Sales and service income(a)	Funding from government for operational costs	Capital work done for own use	Change in inventories	Purchases of goods and materials(b)	Other intermediate input expenses	Industry value added
ANZSIC Code	Description	\$m	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	73 666	72	116	*309	41 799	13 766	18 597
22	Textile, clothing, footwear and leather mfg	9 225	64	44	-55	4 541	2 057	2 680
23	Wood and paper product mfg	18 960	16	73	^ 93	9 016	3 663	6 462
24	Printing, publishing and recorded media	23 052	5	44	**36	6 431	6 200	10 506
25	Petroleum, coal, chemical and associated product mfg	68 401	28	232	1 000	45 978	9 731	13 951
26	Non-metallic mineral product mfg	14 413	10	16	^ 59	5 932	3 724	4 843
27	Metal product mfg	70 013	36	194	488	38 214	13 144	19 373
28	Machinery and equipment mfg	66 222	440	117	^ 310	36 964	9 970	20 155
29	Other manufacturing	13 509	10	53	**14	6 344	2 829	4 414
21-29	<b>Total manufacturing</b>	<b>357 462</b>	<b>680</b>	<b>887</b>	<b>2 253</b>	<b>195 219</b>	<b>65 084</b>	<b>100 980</b>

^ 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) Includes rent, leasing and hiring income.

(b) 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.

## 2.5 ACQUISITION AND DISPOSAL OF ASSETS

### CAPITAL EXPENDITURE(a)

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	2 146	^ 558	422	3 126	375	2 751
22	Textile, clothing, footwear and leather mfg	222	^ 36	47	305	62	243
23	Wood and paper product mfg	772	95	86	954	76	878
24	Printing, publishing and recorded media	1 102	98	422	1 621	152	1 469
25	Petroleum, coal, chemical and associated product mfg	2 468	494	192	3 155	589	2 566
26	Non-metallic mineral product mfg	819	109	74	1 002	116	886
27	Metal product mfg	2 305	2 836	570	5 710	186	5 525
28	Machinery and equipment mfg	2 504	217	445	3 166	514	2 652
29	Other manufacturing	^ 341	50	88	479	93	^ 386
<b>21–29</b>	<b>Total manufacturing</b>	<b>12 679</b>	<b>4 492</b>	<b>2 347</b>	<b>19 518</b>	<b>2 163</b>	<b>17 355</b>

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

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

## 2.6 LABOUR COSTS

INDUSTRY SUBDIVISION		Wages and salaries(a)	Employer contributions into super- annuation funds	Workers' compensation premiums/ costs	Selected labour costs	Fringe benefits tax	Payroll tax	Total labour costs
		\$m	\$m	\$m	\$m	\$m	\$m	\$m
21	Food, beverage and tobacco mfg	9 236	816	373	10 425	172	453	11 050
22	Textile, clothing, footwear and leather mfg	1 577	154	59	1 790	14	53	1 857
23	Wood and paper product mfg	3 145	293	135	3 573	27	124	3 724
24	Printing, publishing and recorded media	5 290	444	76	5 810	63	229	6 102
25	Petroleum, coal, chemical and associated product mfg	5 959	570	153	6 682	98	268	7 048
26	Non-metallic mineral product mfg	2 354	199	89	2 642	30	106	2 778
27	Metal product mfg	8 855	852	322	10 029	81	354	10 464
28	Machinery and equipment mfg	12 123	1 131	351	13 605	130	511	14 246
29	Other manufacturing	2 470	254	97	2 821	14	65	2 899
<b>21–29</b>	<b>Total manufacturing</b>	<b>51 007</b>	<b>4 715</b>	<b>1 654</b>	<b>57 377</b>	<b>630</b>	<b>2 161</b>	<b>60 168</b>

(a) Excludes the drawings of working proprietors.

## 2.7 SELECTED PERFORMANCE MEASURES, 2004–05 to 2005–06

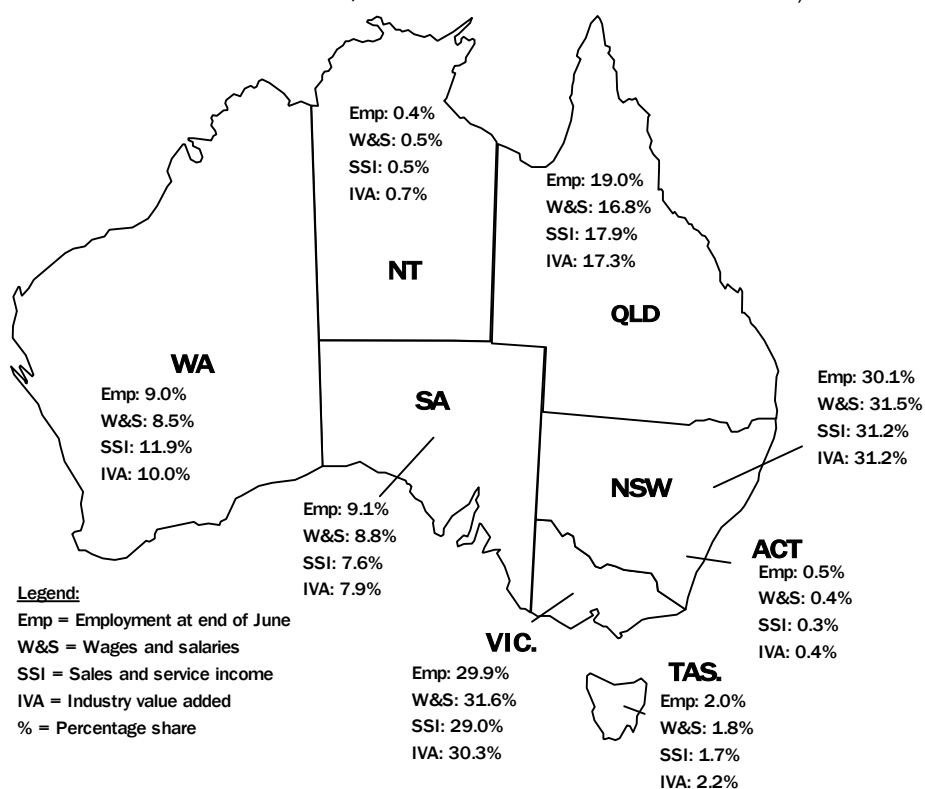
		LABOUR		PROFITABILITY	DEBT	CAPITAL EXPENDITURE
		Industry value added to selected labour costs	Selected labour costs per person employed (a)	Profit margin	Interest coverage	Investment rate (value added)
Industry subdivision / Reference year		times	\$'000	%	times	%
21	Food, beverage and tobacco mfg					
	2004-05	1.86	51.4	7.4	6.0	18.4
	2005-06	1.78	53.3	6.9	5.4	16.8
22	Textile, clothing, footwear and leather mfg					
	2004-05	1.54	36.4	6.9	4.4	10.4
	2005-06	1.50	37.1	6.0	5.5	11.4
23	Wood and paper product mfg					
	2004-05	1.91	48.3	8.4	7.9	12.4
	2005-06	1.81	50.1	7.2	7.4	14.8
24	Printing, publishing and recorded media					
	2004-05	1.79	52.1	15.3	7.4	10.4
	2005-06	1.81	54.4	14.6	7.5	15.4
25	Petroleum, coal, chemical and associated product mfg					
	2004-05	2.01	61.4	6.0	6.8	23.5
	2005-06	2.09	65.3	6.9	7.2	22.6
26	Non-metallic mineral product mfg					
	2004-05	1.88	55.3	9.8	6.1	19.2
	2005-06	1.83	57.2	9.7	6.2	20.7
27	Metal product mfg					
	2004-05	1.97	54.4	11.5	16.6	20.9
	2005-06	1.93	56.9	9.7	10.8	29.5
28	Machinery and equipment mfg					
	2004-05	1.52	53.2	6.0	9.5	13.8
	2005-06	1.48	56.2	5.9	7.8	15.7
29	Other manufacturing					
	2004-05	1.56	36.2	7.9	9.5	10.0
	2005-06	1.56	37.8	8.2	10.3	10.9
21-29	Total manufacturing					
	2004-05	1.79	51.5	8.4	8.1	16.9
	2005-06	1.76	53.9	7.9	7.4	19.3

(a) See Explanatory Notes paragraphs 19 and 26.

## OVERVIEW

This chapter presents estimates of key variables at the state and territory level. For information about how these estimates are derived, please see paragraphs 31 and 32 of the Explanatory Notes. The commentary outlines features of the distribution of these key variables across and within states and territories.

CONTRIBUTION OF STATES / TERRITORIES TO TOTAL MANUFACTURING, 2005–06

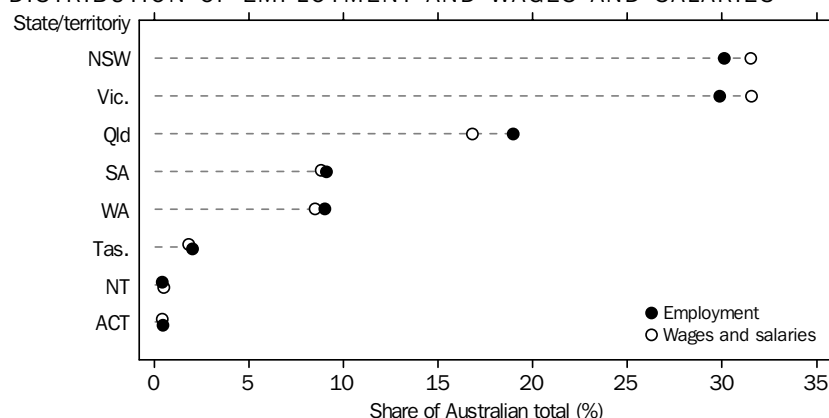


The above graphic illustrates each state or territory's share of economic aggregates relating to Australian manufacturing in 2005–06. The distribution is very similar across all four variables presented.



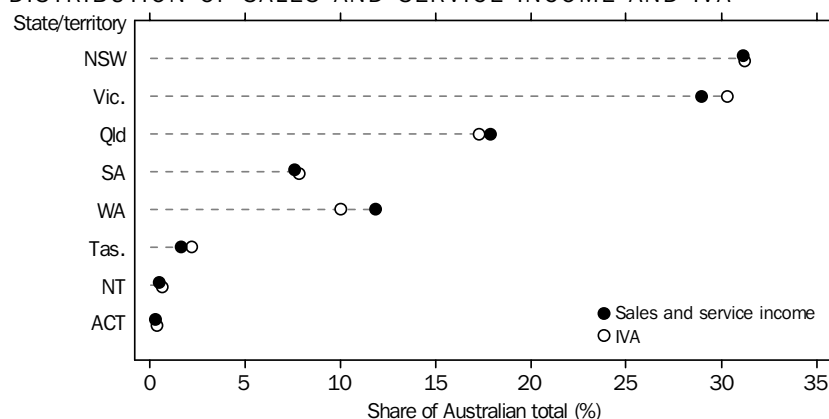
OVERVIEW *continued*

## DISTRIBUTION OF EMPLOYMENT AND WAGES AND SALARIES



Compared to the previous year, manufacturing employment increased in 2005–06 in the Northern Territory (by 9%), Queensland (by 5%) and Tasmania (by 1%), and fell in Western Australia (by 2%) and Victoria (by 1%). In New South Wales, South Australia and the Australian Capital Territory, manufacturing employment was relatively unchanged. Wages and salaries increased in all states and territories, while only Tasmania recorded a decrease in sales and service income. IVA increased in all jurisdictions except New South Wales and Tasmania, in both of which it eased marginally. Western Australia recorded the highest percentage increase (12%) in IVA, but its increase of \$1.1b was second to Queensland (\$1.4b) in absolute movement.

## DISTRIBUTION OF SALES AND SERVICE INCOME AND IVA



## INDUSTRY COMPOSITION

Of those industries available for publication, the industry which most heavily dominated manufacturing IVA in any state or territory was PRINTING, PUBLISHING AND RECORDED MEDIA in the Australian Capital Territory (which accounted for 35% of the territory's manufacturing IVA, compared to 10% nationally). This was followed by METAL PRODUCT MANUFACTURING in Western Australia and Tasmania (33% and 28% respectively; nationally 19%), and MACHINERY AND EQUIPMENT MANUFACTURING in South Australia (28%; nationally 20%). In addition, WOOD AND PAPER PRODUCT MANUFACTURING generated 18% of manufacturing IVA in Tasmania compared to 6% nationally.

## INDUSTRY COMPOSITION

*continued*

METAL PRODUCT MANUFACTURING was the major manufacturing industry, as measured by share of IVA, in three states (Queensland, Western Australia and Tasmania), and MACHINERY AND EQUIPMENT MANUFACTURING in two others (South Australia and Victoria). FOOD, BEVERAGE AND TOBACCO MANUFACTURING was the largest manufacturing industry in New South Wales, and PRINTING, PUBLISHING AND RECORDED MEDIA dominated in the Australian Capital Territory. This pattern is identical to that of 2004–05. Not all subdivisions are available for publication for the two territories.

STATE AND TERRITORY  
COMPOSITION

An outline of the composition of manufacturing industry within each state and the Australian Capital Territory follows. Because of confidentiality restrictions, insufficient data are available for publication to allow this analysis for the Northern Territory.

## NEW SOUTH WALES

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING took the position as the largest manufacturing industry in New South Wales as measured by contribution to that state's manufacturing sales and service income (21%). In the previous year it ranked second behind FOOD, BEVERAGE AND TOBACCO MANUFACTURING, but in 2005–06 their rankings have been reversed. In assessing the significance of this it should be noted that the pricing impacts were vastly different in the respective industries. FOOD, BEVERAGE AND TOBACCO MANUFACTURING has maintained its ranking as the largest source, by far, of IVA (19%). MACHINERY AND EQUIPMENT MANUFACTURING was the major manufacturing employer in the state and also ranked first in wages and salaries paid (both 21%).

Measured by sales and service income, businesses located in New South Wales dominated six of the nine manufacturing industry subdivisions. Their dominance was greatest in PRINTING, PUBLISHING AND RECORDED MEDIA, to which they contributed 44% of national sales and service income and wages and salaries, and 40% of IVA and employment.

## VICTORIA

By all four measures presented, MACHINERY AND EQUIPMENT MANUFACTURING was the largest manufacturing industry in Victoria, contributing 26% of its wages and salaries, 25% of manufacturing employment, 24% of sales and service income, and 23% of IVA. FOOD, BEVERAGE AND TOBACCO MANUFACTURING ranked second, with PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING ranking third on all measures apart from employment.

Victoria was the largest contributor to the three manufacturing industry subdivisions in which New South Wales was not dominant in terms of sales and service income. TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING is heavily concentrated in Victoria, where 42% of the industry's sales and service income (and 42% of its IVA) was produced. Businesses located in Victoria were also the major sources of sales and service income in MACHINERY AND EQUIPMENT MANUFACTURING and WOOD AND PAPER PRODUCT MANUFACTURING, generating 37% and 32% respectively of national sales and service income.

## QUEENSLAND

Although FOOD, BEVERAGE AND TOBACCO MANUFACTURING was the largest source of manufacturing employment (21%) and sales and service income (24%) in Queensland, its share of IVA (19%) was second to METAL PRODUCT MANUFACTURING (25%). METAL PRODUCT MANUFACTURING also ranked first in wages and salaries (22%).

*QUEENSLAND continued*

Queensland's contribution to METAL PRODUCT MANUFACTURING (21% to 23% of all four variables) exceeded its share of total manufacturing. This relative importance of Queensland to METAL PRODUCT MANUFACTURING nationally reflects, in part, the location of major smelting and refining operations in that state.

*SOUTH AUSTRALIA*

MACHINERY AND EQUIPMENT MANUFACTURING accounted for 33% of South Australia's manufacturing employment, 28% of IVA, 35% of sales and service income and 36% of wages and salaries in 2005–06. Its share far exceeded that of FOOD, BEVERAGE AND TOBACCO MANUFACTURING, the second most important manufacturing industry (with between 20% and 22% of the state totals for these variables), followed by METAL PRODUCT MANUFACTURING (between 14% and 15%).

Concentration of the MOTOR VEHICLE AND PART MANUFACTURING and ELECTRICAL EQUIPMENT AND APPLIANCE MANUFACTURING industries in South Australia is mainly responsible for its shares of national sales and service income (14%), wages and salaries (13%) and employment (13%) for MACHINERY AND EQUIPMENT MANUFACTURING.

*WESTERN AUSTRALIA*

METAL PRODUCT MANUFACTURING dominated manufacturing in Western Australia, accounting for 22%, 27%, 40% and 33% respectively of employment, wages and salaries, sales and service income and IVA. On the other hand, PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING was the second largest contributor to that state's manufacturing sales and service income (21%) and IVA (17%), but ranked fourth in wages and salaries (12%) and employment at the end of June (10%). This distribution reflects, in part, the presence and capital intensity of major metal and petroleum products.

*TASMANIA*

In 2005–06 METAL PRODUCT MANUFACTURING was the largest source of IVA in Tasmania (28%) and sales and service income (26%). FOOD, BEVERAGE AND TOBACCO MANUFACTURING, however, was the state's major manufacturing employer (25%) and also ranked first in wages and salaries (24%).

Tasmania was the only state or territory in which WOOD AND PAPER PRODUCT MANUFACTURING ranked in the top three major manufacturing industries. It was the third largest source of manufacturing IVA (18%), sales and service income (17%), wages and salaries (16%), and employment (15%).

Similarly, Tasmania's share of national aggregates for WOOD AND PAPER PRODUCT MANUFACTURING (6% of IVA, 5% of wages and salaries and sales and service income, and 4% of employment) considerably exceeded its contribution to Australian manufacturing overall.

*AUSTRALIAN CAPITAL TERRITORY*

PRINTING, PUBLISHING AND RECORDED MEDIA was the largest manufacturing industry in the ACT, accounting for 29% of sales and service income, 35% of IVA, 31% of wages and salaries, and 30% of employment. Of the subdivisions available for publication, MACHINERY AND EQUIPMENT MANUFACTURING ranked second based on all variables presented.

COMPARISON ACROSS  
INDUSTRY

Table 3.2 shows the contribution of industries to the production (as measured by total factor income) of each state and territory, as well as Australia, in 2005–06. For the purposes of this table, the activity of general government and the ownership of dwellings are each treated as industries.

Of the nineteen industries shown, MANUFACTURING ranked second nationally, contributing 11.0% of production on this basis. The largest share of production (12.6%) was attributable to PROPERTY AND BUSINESS SERVICES.

MANUFACTURING was the dominant industry in South Australia and Tasmania, ranked second in both New South Wales and Victoria, and third in Queensland. South Australia (at 15.3%) had the highest proportion of state or territory production attributed to MANUFACTURING, followed by Tasmania (14.5%).

**3.1**

## STATES, TERRITORIES AND AUSTRALIA(a) .....

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Sales and service income(d)	Industry value added	Sales and service income per person employed(e)	Industry value added per person employed(e)
ANZSIC Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NEW SOUTH WALES							
21	Food, beverage and tobacco mfg	56.3	2 905	23 611	6 130	419.4	108.9
22	Textile, clothing, footwear and leather mfg	14.1	474	2 894	794	205.2	56.3
23	Wood and paper product mfg	21.2	906	5 990	1 875	282.9	88.5
24	Printing, publishing and recorded media	42.6	2 324	10 062	4 221	236.4	99.2
25	Petroleum, coal, chemical and associated product mfg	29.6	1 716	23 884	3 944	808.1	133.5
26	Non-metallic mineral product mfg	14.7	806	4 335	1 562	294.8	106.3
27	Metal product mfg	53.4	2 772	19 074	5 567	357.3	104.3
28	Machinery and equipment mfg	67.0	3 428	17 371	6 097	259.2	91.0
29	Other manufacturing	21.6	746	4 266	1 338	197.2	61.8
21-29	<b>Total manufacturing</b>	<b>320.4</b>	<b>16 077</b>	<b>111 486</b>	<b>31 528</b>	<b>347.9</b>	<b>98.4</b>
VICTORIA							
21	Food, beverage and tobacco mfg	54.8	2 768	21 415	5 729	391.0	104.6
22	Textile, clothing, footwear and leather mfg	19.2	697	3 909	1 127	203.5	58.7
23	Wood and paper product mfg	21.4	1 019	6 050	1 947	282.9	91.1
24	Printing, publishing and recorded media	30.4	1 533	6 834	3 276	224.8	107.8
25	Petroleum, coal, chemical and associated product mfg	38.3	2 422	21 055	5 172	549.4	135.0
26	Non-metallic mineral product mfg	11.9	625	3 315	1 195	278.4	100.3
27	Metal product mfg	41.6	2 054	12 621	3 744	303.3	90.0
28	Machinery and equipment mfg	78.7	4 223	24 464	7 110	310.7	90.3
29	Other manufacturing	21.4	756	3 903	1 285	182.1	59.9
21-29	<b>Total manufacturing</b>	<b>317.8</b>	<b>16 098</b>	<b>103 566</b>	<b>30 585</b>	<b>325.9</b>	<b>96.2</b>
QUEENSLAND							
21	Food, beverage and tobacco mfg	43.3	1 767	15 209	3 353	351.2	77.4
22	Textile, clothing, footwear and leather mfg	7.0	181	1 181	329	169.1	47.1
23	Wood and paper product mfg	13.3	535	3 021	1 040	226.9	78.1
24	Printing, publishing and recorded media	15.7	623	2 669	1 297	170.1	82.7
25	Petroleum, coal, chemical and associated product mfg	16.0	856	11 789	2 246	735.2	140.1
26	Non-metallic mineral product mfg	7.8	365	2 874	823	370.1	106.0
27	Metal product mfg	39.9	1 883	14 923	4 431	374.1	111.1
28	Machinery and equipment mfg	42.0	1 834	9 436	2 994	224.6	71.3
29	Other manufacturing	16.7	532	2 871	950	172.1	56.9
21-29	<b>Total manufacturing</b>	<b>201.7</b>	<b>8 575</b>	<b>63 973</b>	<b>17 464</b>	<b>317.2</b>	<b>86.6</b>

(a) See Explanatory Notes paragraphs 31 and 32.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

(e) See Explanatory Notes paragraph 19.

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

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Sales and service income(d)	Industry value added	Sales and service income per person employed(e)	Industry value added per person employed(e)
ANZSIC Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
SOUTH AUSTRALIA							
21	Food, beverage and tobacco mfg	20.0	891	6 226	1 690	311.9	84.6
22	Textile, clothing, footwear and leather mfg	2.7	83	431	137	157.6	50.2
23	Wood and paper product mfg	6.5	320	1 577	728	244.3	112.8
24	Printing, publishing and recorded media	6.8	294	1 298	624	191.8	92.2
25	Petroleum, coal, chemical and associated product mfg	7.0	341	2 334	660	333.2	94.3
26	Non-metallic mineral product mfg	3.6	167	1 361	434	376.4	120.0
27	Metal product mfg	13.8	625	3 732	1 183	271.0	85.9
28	Machinery and equipment mfg	31.2	1 614	9 518	2 185	305.5	70.2
29	Other manufacturing	5.3	158	772	282	144.5	52.7
21-29	<b>Total manufacturing</b>	<b>96.8</b>	<b>4 493</b>	<b>27 250</b>	<b>7 924</b>	<b>281.5</b>	<b>81.8</b>
WESTERN AUSTRALIA							
21	Food, beverage and tobacco mfg	15.0	636	5 589	1 128	373.3	75.4
22	Textile, clothing, footwear and leather mfg	3.7	93	598	219	160.8	59.1
23	Wood and paper product mfg	5.2	190	1 174	438	223.9	83.5
24	Printing, publishing and recorded media	7.9	369	1 556	785	197.3	99.6
25	Petroleum, coal, chemical and associated product mfg	9.8	526	8 769	1 755	897.5	179.6
26	Non-metallic mineral product mfg	6.5	303	2 027	630	313.9	97.6
27	Metal product mfg	21.5	1 182	16 993	3 374	791.4	157.1
28	Machinery and equipment mfg	18.7	801	4 259	1 378	228.1	73.8
29	Other manufacturing	7.9	236	1 470	483	185.8	61.1
21-29	<b>Total manufacturing</b>	<b>96.1</b>	<b>4 337</b>	<b>42 434</b>	<b>10 190</b>	<b>441.6</b>	<b>106.0</b>
TASMANIA							
21	Food, beverage and tobacco mfg	5.4	223	1 321	481	244.0	88.8
22	Textile, clothing, footwear and leather mfg	1.2	43	179	61	149.4	50.7
23	Wood and paper product mfg	3.1	152	1 023	397	326.5	126.6
24	Printing, publishing and recorded media	1.5	62	246	127	160.5	82.9
25	Petroleum, coal, chemical and associated product mfg	1.2	58	488	131	406.7	109.1
26	Non-metallic mineral product mfg	0.9	46	204	119	215.2	125.3
27	Metal product mfg	4.0	199	1 510	631	378.3	158.1
28	Machinery and equipment mfg	3.0	134	793	246	262.1	81.5
29	Other manufacturing	1.0	24	134	45	133.8	44.6
21-29	<b>Total manufacturing</b>	<b>21.4</b>	<b>941</b>	<b>5 897</b>	<b>2 237</b>	<b>275.0</b>	<b>104.3</b>

(a) See Explanatory Notes paragraphs 31 and 32.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

(e) See Explanatory Notes paragraph 19.

### 3.1 STATES, TERRITORIES AND AUSTRALIA(a) continued

INDUSTRY SUBDIVISION		Employment at end of June(b)	Wages and salaries(c)	Sales and service income(d)	Industry value added	Sales and service income per person employed(e)	Industry value added per person employed(e)
ANZSIC Code	Description	'000	\$m	\$m	\$m	\$'000	\$'000
NORTHERN TERRITORY							
21	Food, beverage and tobacco mfg	0.4	21	152	44	384.0	111.9
22	Textile, clothing, footwear and leather mfg	np	np	np	np	np	np
23	Wood and paper product mfg	0.2	5	29	10	136.6	47.5
24	Printing, publishing and recorded media	0.4	16	60	36	142.5	87.1
25	Petroleum, coal, chemical and associated product mfg	0.2	33	46	32	213.5	146.4
26	Non-metallic mineral product mfg	0.5	28	185	49	361.0	94.9
27	Metal product mfg	np	np	np	np	np	np
28	Machinery and equipment mfg	0.7	33	160	58	228.4	82.5
29	Other manufacturing	np	np	np	np	np	np
21-29	<b>Total manufacturing</b>	<b>4.6</b>	<b>266</b>	<b>1 740</b>	<b>661</b>	<b>380.0</b>	<b>144.4</b>
AUSTRALIAN CAPITAL TERRITORY							
21	Food, beverage and tobacco mfg	0.5	24	143	41	271.7	78.5
22	Textile, clothing, footwear and leather mfg	np	np	np	np	np	np
23	Wood and paper product mfg	0.4	17	95	27	227.3	64.0
24	Printing, publishing and recorded media	1.5	69	326	138	216.6	91.8
25	Petroleum, coal, chemical and associated product mfg	^ 0.2	6	36	11	145.4	43.9
26	Non-metallic mineral product mfg	0.3	14	112	31	363.7	99.3
27	Metal product mfg	np	np	np	np	np	np
28	Machinery and equipment mfg	0.9	57	221	88	241.2	95.7
29	Other manufacturing	np	np	np	np	np	np
21-29	<b>Total manufacturing</b>	<b>5.1</b>	<b>221</b>	<b>1 115</b>	<b>392</b>	<b>219.1</b>	<b>77.0</b>
AUSTRALIA							
21	Food, beverage and tobacco mfg	195.6	9 236	73 666	18 597	376.5	95.1
22	Textile, clothing, footwear and leather mfg	48.2	1 577	9 225	2 680	191.3	55.6
23	Wood and paper product mfg	71.3	3 145	18 960	6 462	265.7	90.6
24	Printing, publishing and recorded media	106.8	5 290	23 052	10 506	215.9	98.4
25	Petroleum, coal, chemical and associated product mfg	102.4	5 959	68 401	13 951	668.3	136.3
26	Non-metallic mineral product mfg	46.2	2 354	14 413	4 843	311.8	104.8
27	Metal product mfg	176.4	8 855	70 013	19 373	396.9	109.8
28	Machinery and equipment mfg	242.2	12 123	66 222	20 155	273.4	83.2
29	Other manufacturing	74.7	2 470	13 509	4 414	180.8	59.1
21-29	<b>Total manufacturing</b>	<b>1 063.9</b>	<b>51 007</b>	<b>357 462</b>	<b>100 980</b>	<b>336.0</b>	<b>94.9</b>

^ 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 31 and 32.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Includes rent, leasing and hiring income.

(e) See Explanatory Notes paragraph 19.

**3.2**

## INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME .....

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	%	%	%	%	%	%	%	%	%
Agriculture, forestry and fishing	1.9	3.0	4.1	5.5	3.4	6.7	2.5	—	3.1
Mining	2.5	1.7	12.4	3.2	27.4	2.1	26.1	—	7.7
<b>Manufacturing</b>	<b>11.1</b>	<b>13.9</b>	<b>9.0</b>	<b>15.3</b>	<b>7.8</b>	<b>14.5</b>	<b>5.9</b>	<b>2.0</b>	<b>11.0</b>
Electricity, gas and water	2.1	2.9	2.0	3.1	2.6	4.8	1.4	2.4	2.4
Construction	6.9	6.5	8.0	6.0	8.0	5.5	6.9	7.7	7.1
Wholesale trade	5.4	6.0	4.6	4.3	3.7	3.7	2.0	1.8	4.9
Retail trade	6.0	6.1	7.2	6.2	4.8	7.5	4.4	4.8	6.1
Accommodation, cafes and restaurants	2.5	1.8	2.9	2.2	1.4	2.7	2.5	2.0	2.2
Transport and storage	4.2	4.2	4.6	4.3	4.1	4.2	3.6	2.3	4.2
Communication services	2.7	3.4	2.2	2.5	2.1	2.4	2.1	2.5	2.7
Finance and insurance	10.9	8.7	5.2	6.3	3.8	5.9	2.3	3.6	7.7
Property and business services	14.9	14.1	9.9	9.8	10.4	6.0	7.7	12.7	12.6
Government administration and defence	3.5	2.4	4.0	3.3	2.2	5.5	7.0	26.7	3.7
Education	4.5	5.2	4.3	5.3	2.9	5.5	3.9	5.7	4.5
Health and community services	6.4	7.0	6.3	8.2	5.4	9.7	5.7	6.3	6.6
Cultural and recreational services	1.6	1.7	1.1	1.4	1.0	1.4	1.6	2.6	1.4
Personal and other services	1.8	1.8	2.1	2.3	1.6	2.1	2.0	2.7	1.9
Ownership of dwellings	9.1	8.2	7.9	8.7	6.0	7.3	9.7	8.7	8.2
General government(a)	1.9	1.6	2.2	2.0	1.4	2.7	2.8	5.4	1.9

— nil or rounded to zero (including null cells)

(a) State details for GENERAL GOVERNMENT gross operating surplus by industry are not available.

Note: Australian National Accounts: State Accounts, 2005–06, Reissue (cat.no. 5220.0), Analysis of results (page 7).



## CHAPTER 4

## EXPORTS

### INTRODUCTION

This chapter illustrates the extent and importance of export activity by Australian manufacturing businesses. Table 4.1 presents estimates, for the period from 2001–02 to 2005–06, of the value of exports by Australian manufacturing businesses of goods that they produced. For 2005–06, these are dissected in Table 4.2 by employment size. Table 4.3 categorises businesses by their involvement in exporting, and presents estimates of the contribution of each category to industry aggregates. For information about how these data have been derived, please see Explanatory Notes paragraphs 36 to 40. Even though, as explained there, the exports data presented in these tables are not directly comparable with the ABS's overseas trade series, the commentary below also uses the trade series to illustrate some characteristics of Australian manufacturing's export performance.

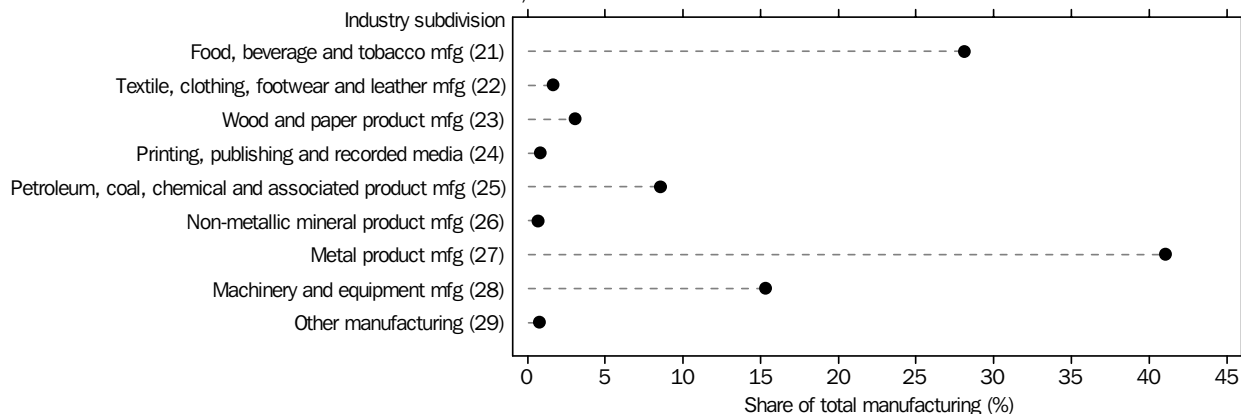
### INDUSTRY COMPARISON

Data contained in *International Trade in Goods and Services, September 2007* (ABS cat. no. 5368.0; Table 32) shows that, on an industry of origin basis, Australia exported \$75.1b of manufactured goods, which formed 49% of the value of all goods exported in 2005–06. MANUFACTURING was followed by MINING (38%) and AGRICULTURE, FORESTRY AND FISHING (7%). In industry of origin statistics, data for a commodity are allocated to an ANZSIC industry of origin category, based on the industry which predominantly produces that commodity in Australia, as defined by the ANZSIC.

### VALUE OF EXPORTS

In 2005–06, the Economic Activity Survey indicated that Australian manufacturers directly exported \$49.1b worth of the goods they produced, which represents 65% of manufactured goods exports as reported in the ABS's overseas trade series. This amounted to 17% of their value of sales of goods produced and is an increase of \$287m (or 1%) compared to the value for 2004–05, when the proportion was 18%. The following graph illustrates the percentage contribution of each manufacturing industry subdivision to total manufacturing exported sales of goods produced.

### EXPORTED SALES OF GOODS PRODUCED, PERCENTAGE CONTRIBUTION BY INDUSTRY SUBDIVISION



## VALUE OF EXPORTS

*continued*

METAL PRODUCT MANUFACTURING was Australia's most heavily export-oriented manufacturing industry. In 2005–06, 33% of its sales of goods produced were exported. It is worth noting that the estimates of sales of goods produced in this industry are at current prices and were substantially affected by strong price increases over the period. Businesses exporting 50% or more of sales contributed 28% of sales and service income and 25% of IVA of total METAL PRODUCT MANUFACTURING, much higher than such businesses in any other manufacturing subdivision. In terms of the proportion of its value of sales of goods produced which were exported (3%), NON-METALLIC MINERAL PRODUCT MANUFACTURING was the least export-oriented Australian manufacturing industry in 2005–06. This partly reflects the fact that many high-volume building materials, which comprise a substantial proportion of the output of this industry, are not internationally traded.

Of the nine manufacturing industry subdivisions, the value of exports of goods produced increased between 2004–05 and 2005–06 in five and decreased in the remaining four.

METAL PRODUCT MANUFACTURING recorded the largest absolute increase, of \$1.0b (or 5%), in the value of exports of manufacturing goods produced.

The largest absolute decrease in the value of goods exported in 2005–06 was recorded by FOOD, BEVERAGE AND TOBACCO MANUFACTURING (down \$781m, or 5%). The largest percentage fall was 7% (or \$555m) recorded by MACHINERY AND EQUIPMENT MANUFACTURING.

The proportion of goods produced and exported by Australian manufacturing businesses has been steadily falling each year since 2001–02 at the total manufacturing level. The decline has been least marked in the two largest exporting manufacturing industries: FOOD, BEVERAGE AND TOBACCO MANUFACTURING and METAL PRODUCT MANUFACTURING. Only two subdivisions, WOOD AND PAPER PRODUCT MANUFACTURING and OTHER MANUFACTURING, have increased their export proportions over this period.

EMPLOYMENT SIZE OF  
EXPORTING BUSINESSES

Excluding METAL PRODUCT MANUFACTURING (see paragraphs 36 to 40 of the Explanatory Notes), manufacturing businesses in six of the eight other industry subdivisions and which employed 100 or more persons exported a higher proportion (by value) of the goods that they produced, compared to businesses employing fewer than 100 persons. In 2005–06 the exceptions were PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING and NON-METALLIC MINERAL PRODUCT MANUFACTURING.

The industry subdivision in which export activity was most heavily concentrated in businesses employing 100 or more persons was FOOD, BEVERAGE AND TOBACCO MANUFACTURING, where 85% (or \$11.7b) of total exports were produced by businesses in this size category. This was followed by WOOD AND PAPER MANUFACTURING, where businesses in this category accounted for 83% (or \$1.5b) of the subdivision's total exports. OTHER MANUFACTURING was the subdivision with the lowest proportion (21%, or \$78m) of exports produced by businesses employing 100 or more persons.

## CONTRIBUTION OF BUSINESSES THAT EXPORT

Depending on the measure selected, businesses that do not export accounted for between 37% and 87% of activity at the total manufacturing level in 2005–06. The percentage contribution of non-exporting businesses was greatest, across all variables, in PRINTING, PUBLISHING, AND RECORDED MEDIA, OTHER MANUFACTURING and NON-METALLIC MINERAL PRODUCT MANUFACTURING.

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING was the industry in which businesses which export up to and including 50% of their sales of goods produced made the greatest contribution to IVA, employment and wages and salaries, while the highest contribution of such businesses to sales and service income was made by WOOD AND PAPER PRODUCT MANUFACTURING.

At the total manufacturing level, businesses which exported more than 50% of their sales of goods produced tend to contribute a higher proportion to sales and service income and industry value added than to employment and wages and salaries. This pattern differs among individual industries.

**4.1****EXPORTED AND TOTAL PRODUCTION(a), 2001–02 to 2005–06**

	<i>Sales of goods produced(b)</i>	<i>Amount exported by this business or its agent</i>	<i>Exports as a proportion of sales of goods produced</i>
	\$m	\$m	%
<b>FOOD, BEVERAGE AND TOBACCO MANUFACTURING</b>			
2001–02	59 965	13 892	23.2
2002–03	60 817	12 871	21.2
2003–04	62 840	13 593	21.6
2004–05	64 794	14 575	22.5
2005–06	65 435	13 794	21.1
<b>TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING</b>			
2001–02	7 012	1 527	21.8
2002–03	6 659	1 345	20.2
2003–04	6 292	1 116	17.7
2004–05	5 855	864	14.8
2005–06	5 405	804	14.9
<b>WOOD AND PAPER PRODUCT MANUFACTURING</b>			
2001–02	13 799	1 180	8.6
2002–03	15 175	1 265	8.3
2003–04	15 804	1 521	9.6
2004–05	15 507	1 132	7.3
2005–06	15 986	1 493	9.3
<b>PRINTING, PUBLISHING AND RECORDED MEDIA</b>			
2001–02	11 222	565	5.0
2002–03	11 404	349	3.1
2003–04	11 324	506	4.5
2004–05	12 227	435	3.6
2005–06	11 887	411	3.5
<b>PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING</b>			
2001–02	40 416	5 027	12.4
2002–03	40 832	4 805	11.8
2003–04	41 473	4 124	9.9
2004–05	45 909	3 915	8.5
2005–06	53 920	4 199	7.8
<b>NON-METALLIC MINERAL PRODUCT MANUFACTURING</b>			
2001–02	9 742	449	4.6
2002–03	10 986	367	3.3
2003–04	11 771	391	3.3
2004–05	12 277	297	2.4
2005–06	12 521	332	2.7
<b>METAL PRODUCT MANUFACTURING</b>			
2001–02	44 229	16 390	37.1
2002–03	48 828	18 545	38.0
2003–04	50 677	18 626	36.8
2004–05	55 808	19 138	34.3
2005–06	60 294	20 146	33.4

(a) See paragraphs 36–40 of the Explanatory Notes.

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

**4.1****EXPORTED AND TOTAL PRODUCTION(a), 2001–02 to 2005–06** *continued* .....

	<i>Sales of goods produced(b)</i>	<i>Amount exported by this business or its agent</i>	<i>Exports as a proportion of sales of goods produced</i>
	\$m	\$m	%
<b>MACHINERY AND EQUIPMENT MANUFACTURING</b>			
2001–02	38 495	8 582	22.3
2002–03	41 227	8 381	20.3
2003–04	42 851	8 244	19.2
2004–05	45 605	8 083	17.7
2005–06	47 725	7 528	15.8
<b>OTHER MANUFACTURING</b>			
2001–02	8 043	284	3.5
2002–03	7 810	415	5.3
2003–04	8 022	265	3.3
2004–05	8 618	356	4.1
2005–06	9 195	374	4.1
<b>TOTAL MANUFACTURING</b>			
2001–02	232 922	47 895	20.6
2002–03	243 739	48 344	19.8
2003–04	251 053	48 386	19.3
2004–05	266 599	48 795	18.3
2005–06	282 370	49 082	17.4

(a) See paragraphs 36–40 of the Explanatory Notes.

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

## 4.2

## EXPORTED AND TOTAL PRODUCTION(a), Employment size

INDUSTRY SUBDIVISION		Sales of goods produced(b)	Amount exported by this business or its agent	Exports as a proportion of sales of goods produced
ANZSIC code	Description	\$m	\$m	%
0 - 49 PERSONS				
21	Food, beverage and tobacco mfg	8 024	1 632	20.3
22	Textile, clothing, footwear and leather mfg	2 266	206	9.1
23	Wood and paper product mfg	3 859	204	5.3
24	Printing, publishing and recorded media	3 950	80	2.0
25	Petroleum, coal, chemical and associated product mfg	6 897	965	14.0
26	Non-metallic mineral product mfg	1 910	86	4.5
27	Metal product mfg	13 963	3 944	28.2
28	Machinery and equipment mfg	10 563	1 250	11.8
29	Other manufacturing	6 132	260	4.2
21-29	<b>Total manufacturing</b>	<b>57 565</b>	<b>8 627</b>	<b>15.0</b>
50 - 99 PERSONS				
21	Food, beverage and tobacco mfg	3 783	434	11.5
22	Textile, clothing, footwear and leather mfg	827	77	9.3
23	Wood and paper product mfg	1 011	44	4.4
24	Printing, publishing and recorded media	1 512	62	4.1
25	Petroleum, coal, chemical and associated product mfg	2 711	445	16.4
26	Non-metallic mineral product mfg	1 375	32	2.3
27	Metal product mfg	3 386	270	8.0
28	Machinery and equipment mfg	3 930	718	18.3
29	Other manufacturing	1 556	36	2.3
21-29	<b>Total manufacturing</b>	<b>20 091</b>	<b>2 119</b>	<b>10.5</b>
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	53 628	11 728	21.9
22	Textile, clothing, footwear and leather mfg	2 312	522	22.6
23	Wood and paper product mfg	11 116	1 245	11.2
24	Printing, publishing and recorded media	6 426	269	4.2
25	Petroleum, coal, chemical and associated product mfg	44 311	2 788	6.3
26	Non-metallic mineral product mfg	9 235	214	2.3
27	Metal product mfg	42 946	15 932	37.1
28	Machinery and equipment mfg	33 232	5 560	16.7
29	Other manufacturing	1 507	78	5.2
21-29	<b>Total manufacturing</b>	<b>204 713</b>	<b>38 336</b>	<b>18.7</b>
TOTAL				
21	Food, beverage and tobacco mfg	65 435	13 794	21.1
22	Textile, clothing, footwear and leather mfg	5 405	804	14.9
23	Wood and paper product mfg	15 986	1 493	9.3
24	Printing, publishing and recorded media	11 887	411	3.5
25	Petroleum, coal, chemical and associated product mfg	53 920	4 199	7.8
26	Non-metallic mineral product mfg	12 521	332	2.7
27	Metal product mfg	60 294	20 146	33.4
28	Machinery and equipment mfg	47 725	7 528	15.8
29	Other manufacturing	9 195	374	4.1
21-29	<b>Total manufacturing</b>	<b>282 370</b>	<b>49 082</b>	<b>17.4</b>

(a) See paragraphs 36-40 of the Explanatory notes.

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

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

INDUSTRY SUBDIVISION		Employment at end of June (b)	Wages and salaries (c)	Sales and service income	Industry value added
ANZSIC Code	Description	%	%	%	%
DO NOT EXPORT					
21	Food, beverage and tobacco mfg	46.1	42.0	36.5	42.6
22	Textile, clothing, footwear and leather mfg	62.4	57.4	57.5	57.9
23	Wood and paper product mfg	62.8	52.8	45.0	45.8
24	Printing, publishing and recorded media	85.5	85.0	84.3	87.2
25	Petroleum, coal, chemical and associated product mfg	46.6	44.4	48.8	43.8
26	Non-metallic mineral product mfg	70.0	68.2	72.1	69.0
27	Metal product mfg	64.6	58.5	43.0	47.0
28	Machinery and equipment mfg	56.9	55.5	56.5	53.7
29	Other manufacturing	83.0	80.5	79.6	79.4
21-29	<b>Total manufacturing</b>	<b>60.6</b>	<b>56.8</b>	<b>50.7</b>	<b>53.7</b>
EXPORTS UP TO AND INCLUDING 50% OF SALES THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	39.6	45.0	45.1	45.9
22	Textile, clothing, footwear and leather mfg	32.3	35.7	34.6	35.8
23	Wood and paper product mfg	34.3	44.2	49.6	48.9
24	Printing, publishing and recorded media	12.9	13.4	14.0	11.4
25	Petroleum, coal, chemical and associated product mfg	49.4	51.4	47.9	50.4
26	Non-metallic mineral product mfg	28.6	30.5	26.7	29.9
27	Metal product mfg	28.7	30.9	28.7	28.1
28	Machinery and equipment mfg	33.0	32.2	31.3	33.4
29	Other manufacturing	15.4	17.8	18.4	18.8
21-29	<b>Total manufacturing</b>	<b>32.1</b>	<b>34.8</b>	<b>36.3</b>	<b>35.2</b>
EXPORTS MORE THAN 50% OF SALES THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	14.3	13.1	18.3	11.5
22	Textile, clothing, footwear and leather mfg	5.4	6.8	7.9	6.3
23	Wood and paper product mfg	2.9	3.0	5.5	5.3
24	Printing, publishing and recorded media	1.6	1.6	1.7	1.4
25	Petroleum, coal, chemical and associated product mfg	4.0	4.2	3.3	5.8
26	Non-metallic mineral product mfg	1.5	1.3	1.3	1.1
27	Metal product mfg	6.7	10.5	28.3	25.0
28	Machinery and equipment mfg	10.1	12.3	12.2	12.9
29	Other manufacturing	1.6	1.7	2.0	1.7
21-29	<b>Total manufacturing</b>	<b>7.4</b>	<b>8.4</b>	<b>13.0</b>	<b>11.1</b>

(a) See paragraphs 36-40 of the Explanatory Notes.

(c) Excludes the drawings of working proprietors.

(b) Includes working proprietors.

## EXPLANATORY NOTES .....

### INTRODUCTION

- 1** This publication, *Manufacturing Industry, Australia, 2005–06* (cat. no. 8221.0), presents data of the economic and financial performance of the manufacturing industry.
- 2** Manufacturing, as specified in Division C of the 1993 edition 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** From 2006–07 reference year the Economic Activity Survey (EAS) results will be compiled using the 2006 edition of ANZSIC (an updated version of the industry classification) and new methodologies. As a result, a new series of these estimates will commence from 2006–07. When 2006–07 data are released, they will be accompanied by data for 2004–05 and 2005–06 on a comparable basis.
- 4** The manufacturing collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):
  - A sample of approximately 8,900 manufacturing businesses were asked by the ABS to provide employment details and data obtained from their financial statements, mainly via mail out questionnaires. (The sample comprised all businesses classified to the manufacturing industry and which were above a certain cut-off; see Technical Note 1.)
  - Key financial data, representing approximately 126,000 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 used to supplement the ABS's directly collected information. Section 16(4)(ga) of the *Income Tax Assessment Act 1936* provides for the ATO to pass information to the Australian Statistician for the purposes of the *Census and Statistics Act 1905*.

### STATISTICAL UNITS USED

- 5** Statistical units are those entities from which statistics are collected, or about which statistics are compiled. In ABS economic statistics, the statistical unit is generally the business. All businesses in the EAS are recorded on the ABS Business Register (ABSBR).
- 6** The ABS uses an economic statistics units model on the 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** This units model allocates businesses to one of two sub-populations:
  - Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). The vast majority of these businesses are simple in structure and are allocated to the population which is maintained by the ATO. These are termed (by the ABS) ABN units.
  - The remaining businesses are in the ABS maintained population, and are termed type of activity units, or TAUs.
- 8** Together, these two sub-populations (of ABN units and TAUs) make up the ABSBR population, from which the EAS samples are taken.
- 9** For details about the ABSBR and how ABN units and TAUs contribute to the industry statistics in this publication, see Technical Note 1.



## SCOPE AND COVERAGE

**10** The scope of the 2005–06 manufacturing collection 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, please consult the 1993 edition of 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).

**11** 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 relates to those activities that provide 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.

**12** Some manufacturing businesses engage, to a significant extent, 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. However, 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.

**13** 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.

**14** Unincorporated joint ventures (UJVs) within the manufacturing industry are arrangements which allow the sharing of expertise, resources and risk associated with specific projects. This occurs through the participation of a number of organisations (by investment) in a specific operation. Some of these organisations may not otherwise be involved in that industry.

**15** The manufacturing collection includes such businesses which are operators and/or participants in UJVs. Generally, each participant supplies data of its share of income, while the operator reports all expenses and employment.

**16** The ABS attempts to maintain a current understanding of the structure of the large, complex and diverse business groups that form the ABS maintained population on the ABSBR, through direct contact with those businesses. Resultant changes in their structures on the ABSBR can affect:

- the availability of such businesses (or units within them) for inclusion in the annual economic collections
- the delineation of the units, within those groups, for which data are to be reported.

**17** 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

**18** 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. Such businesses make a substantial contribution to some of the estimates presented in this publication. As a result, the estimates can reflect trading conditions that prevailed in periods outside the twelve months ended June in the relevant year.

**19** Although financial data estimates relate to the full twelve months, employment estimates relate to the last pay period ending in June of the given year. As such, any estimates of wages and salaries per person employed can be affected by any fluctuations in employment during the reference period.

**20** Financial data presented incorporate all units in scope of the manufacturing collection that were at the 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

**21** For information about this subject, see Technical Note 2.

## INDUSTRY PERFORMANCE MEASURES

**22** This publication presents a wide range of data that can be used to analyse business and industry performance.

**23** Differences in accounting policy and practices across businesses and industries can lead to some inconsistencies in the data input to the statistics. Although much of the accounting process is subject to standards, there is still a great deal of flexibility left to managers and accountants in the accounting policy and practices they adopt. For example, the way profit is measured is affected by management policy on such issues as depreciation rates, bad debt provisions and write off, and goodwill write off. The varying degree to which businesses consolidate their accounts may also affect any industry performance measures calculated.

**24** A range of performance measures, usually expressed as ratios, can be produced from the data available from businesses' financial statements. Others, relating to labour inputs, can be derived by expressing financial or economic variables on a per person employed basis. This issue presents a selection of such measures. They comprise:

- profitability ratios, which measure the rate of profit on sales
- debt ratios, which indicate the ability of businesses to meet the cost of debt financing
- labour measures, which relate output, labour costs and employment
- capital expenditure ratios, which indicate the extent of business investment in capital assets.

**25** A further explanation of each ratio can be found in the Glossary.

**26** Those ratios compiled from a combination of flow (whole period) and level (beginning or end of period) items need to be treated with additional caution. Ratios which include both level and flow items in their derivation may be volatile due to the timing and other differences involved. In particular, this should be taken into account when considering those measures expressed as values per person employed. For example, working proprietors and partners are included in estimates of employment but their drawings are not included in wages and salaries. This will affect estimates of wages and salaries per person employed for those industries where a substantial proportion of businesses are sole proprietorships. It may, therefore, be preferable to base any analysis on a range of data presented rather than focusing on one variable.

INDUSTRY PERFORMANCE  
MEASURES *continued*

**27** Similarly, the extent of change in inventories is a component of several of the measures of industry output and earnings. Although the closing inventories held by businesses in an industry in one period should, in concept, equate to its opening inventories in the next period, differences will be observed in many cases. These differences can arise from re-selection of the sample between years and/or changes in the structure of businesses selected, as well as revaluations of inventories in businesses' accounts.

**28** The above limitations are not meant to imply that analysis based on these data should be avoided, only that they should be borne in mind when interpreting the data presented in this publication.

INTERNATIONAL FINANCIAL  
REPORTING STANDARDS

**29** The new Australian equivalents to International Financial Reporting Standards (AIFRS) began to be progressively implemented in Australia from 1 January 2005. As a result, a number of items in the financial accounts of Australian businesses have been affected by changed definitions, which have in turn affected both Income Statements and Balance Sheets. A range of ABS economic collections source data from financial accounts of businesses, and use those data to derive economic statistics. There have been no changes in the associated economic definitions.

**30** After monitoring data items since March quarter 2005 it has been concluded that most affected published data series have been affected by data breaks, but that the magnitude of such breaks cannot be determined without imposing disproportionate load upon data providers to ABS surveys and other administratively collected data. ABS will continue to monitor developments and report any significant identified impacts or changes in methodology as a result of AIFRS.

STATE AND TERRITORY  
ESTIMATES

**31** State and territory summary estimates for manufacturing subdivisions are presented in table 3.1. 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. 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.

**32** The design of the manufacturing collection does not take into account the state/territory in which businesses are based or in which they operate. As a result, these state and territory estimates are particularly subject to variation from year to year because of rotation of businesses into and out of the sample.

EMPLOYMENT SIZE DATA

**33** Data classified by the employment size of individual manufacturing businesses are presented in table 2.3. Similarly, estimates of exports of goods produced classified by the broad employment size of individual manufacturing businesses are presented in table 4.2. The statistics in these two tables relate only to those manufacturing businesses which operated at 30 June 2006. As such, the data presented relate to a slightly different population from those presented in the other tables in this publication. These other tables include data for manufacturing businesses which operated at any time during the year ended 30 June 2006.

**34** The treatment of unincorporated joint ventures (UJVs) under the ABS economic statistics model has an effect on data classified by employment size. This is because each of the joint venture participants reports details of its share of the sales of goods and services, but generally they have few or no employees or operating expenses. The labour for such operations is usually employed and paid for by the joint venture operator. Similarly, the operating expenses are usually reported by the joint venture operator. The

## EMPLOYMENT SIZE DATA

*continued*

number of UJVs in manufacturing industry is small, and at the aggregate level all activity is covered in the statistics.

**35** However, this treatment does affect the employment size tables 2.3 and 4.2, as UJV participants with potentially significant sales of goods and services are included in the 0–4 persons category. These effects are particularly evident in the estimates for the METAL PRODUCT MANUFACTURING industry.

## EXPORTS BY

## MANUFACTURERS

**36** All businesses which received an ABS mail out survey 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.

**37** The data presented in table 4.2 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. These data also exclude any contribution by those businesses which operated during 2005–06, but were not operating at 30 June 2006.

**38** For the purposes of table 4.3, 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 four key data items: employment at end of June, sales and service income, wages and salaries, and industry value added.

**39** The statistics presented in tables 4.1 and 4.2, 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 exports data in tables 4.1 and 4.2 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.

**40** 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 arrangements are the slaughtering fee charged by an abattoir for processing livestock owned by a meat exporter, and the tolling fee charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from 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.

## NEW BUSINESSES

**41** Data in this publication have been adjusted to allow for lags in processing new businesses to the ABSBR. The effect of these adjustments on the Australian total manufacturing estimate of sales and service income is an increase of 0.8%.

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

## ACKNOWLEDGEMENT

**43** 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

**44** The ABS produces industry estimates for a range of selected industries (including manufacturing) and these results are available in *Australian Industry, 2005–06* (cat. no. 8155.0), released on 23 November 2007.

**45** National estimates of employment, income, expenditure and associated ratios are available at the ANZSIC division level (with a greater range of data available via the ABS web site in spreadsheet form). Some 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 class level, and state/territory estimates of these items at the ANZSIC division level.

**46** The following publications and electronic releases also contain information about the manufacturing industry:

*Australian Labour Market Statistics*, cat. no. 6105.0 – Quarterly publication

*Australian National Accounts: State Accounts, 2005–06, Reissue*, cat. no. 5220.0,

released on 13 November 2006 – Annual publication

*Business Indicators, Australia*, cat. no. 5676.0 – Quarterly publication

*Counts of Australian Businesses, including Entries and Exits, June 2003 to June 2006*,

cat. no. 8165.0, released on 26 February 2007 – Annual 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 Price Index*, cat. no. 6345.0 – Quarterly publication

– Irregular electronic publication

*Manufacturing Indicators, Australia*, cat. no. 8229.0 – Quarterly electronic publication

*Manufacturing Industry, New South Wales, 2001–02*, cat. no. 8221.1.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Industry, Victoria, 2001–02*, cat. no. 8221.2.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Industry, Queensland, 2001–02*, cat. no. 8221.3.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Industry, South Australia, 2001–02*, cat. no. 8221.4.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Industry, Western Australia, 2001–02*, cat. no. 8221.5.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Industry, Tasmania, 2001–02*, cat. no. 8221.6.55.001,

released on 21 November 2005 – Quinquennial electronic publication

*Manufacturing Production, Australia*, cat. no. 8301.0.55.001

– Quarterly electronic publication

*Private New Capital Expenditure and Expected Expenditure, Australia*,

cat. no. 5625.0 – Quarterly publication

*Producer Price Indexes, Australia*, cat. no. 6427.0 – Quarterly publication

*Research and Experimental Development, Businesses, Australia, 2004–05*,

cat. no. 8104.0, released on 28 August 2006 – Annual publication

*Year Book Australia, 2007*, cat. no. 1301.0, released on 20 January 2007

– Annual publication

## RELATED PUBLICATIONS

*continued*

**47** Current publications and other products released by the ABS are available from the Statistics View on 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.

## ABS DATA AVAILABLE ON REQUEST

**48** 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.

## BACK SERIES AND ADDITIONAL DATA

**49** The ABS has data stored electronically from earlier manufacturing surveys collected using different statistical infrastructures. For relevant data, see the data cubes and spreadsheets released in conjunction with the 1999–2000 and 2000–01 issues of this publication. The publication text also provides useful descriptions of these changed collection arrangements. These publications and datasets are all available on the ABS web site.

**50** By definition, these data series are not directly comparable with the current statistical series, which commences with data from the 2001–02 reference year.

**51** For more information, please contact Phillip Lui on (02) 9268 4269.

## ROUNDING

**52** Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS Business Register (see paragraph 41), this 'rounding rule' also applies to employment estimates.

**53** 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.

## APPENDIX

## DATA ITEMS, 2005–06

### INTRODUCTION

**1** This Appendix lists items included in the 2005–06 manufacturing collection, and selected items derived from those directly collected.

### AVAILABILITY OF DATA

**2** Owing to the design of this collection, the majority of information available is at the Australian level, with limited information available for states and territories. The following restrictions apply to the availability of data for dissemination:

- National estimates at the industry class level are potentially available for the data items listed below (except for estimates of commodities produced, which are available only at the total manufacturing level). 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 operating across Australia do not always apportion activity by state/territory. However, 476 ABN units / TAUs (i.e. those with significant operations in more than one state or territory) were requested to provide additional details of 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 estimates of employment, 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 in relation to exported production.

## DATA ITEMS, COLLECTED AND DERIVED, 2005–06

### Employment

Total employment at 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

Provided on a commission basis  
(excluding sales and agency commissions)  
Repair and maintenance services  
Delivery charges separately invoiced to customers  
Advertising income  
Other services

Rent, leasing and hiring income

Land, buildings and other structures  
Plant, machinery and equipment  
Other rent, leasing and hiring income

Interest income

Funding from federal, state and/or local government

Funding for operational costs  
(e.g. wages and salaries, rent, food)  
Funding provided for specific capital items

Royalties income

Natural resource royalties income  
Other royalties income

### Income items *cont.*

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 (excluding Pay As You Go withholding 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

DATA ITEMS, COLLECTED AND DERIVED, 2005–06 *continued***Expense items** *cont.*

Motor vehicle running expenses  
 Freight and cartage expenses  
 Repair and maintenance expenses  
 Rent, leasing and hiring expenses  
 Other contract, sub-contract and commission expenses  
 Sales commission expenses  
 Commission expenses for work performed using materials provided by this business  
 Ex-house printing expenses for material published by this business  
 Other contract, sub-contract and commission expenses not included elsewhere  
 Computer software expensed  
 Other operating expenses  
 Total expenses

**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

**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)  
 Road vehicles  
 Other transport equipment  
 Industrial machinery and equipment  
 Computer software capitalised  
 Computers and computer peripherals  
 Electronic equipment and electrical machinery  
 Communications equipment  
 Other plant and equipment  
 Land  
 Dwellings, other buildings and structures  
 Intangible assets  
 Disposal of selected assets  
 Plant, machinery and equipment (including motor vehicles)  
 Land  
 Dwellings, other buildings and structures  
 Intangible assets

**Sales of goods produced**

Data have been collected for 1,060 separately identified commodities

**Selected derived data items**

Income and expense items  
 Sales and service income (including rent, leasing and hiring income and royalties other than natural resources royalties)  
 Value of sales of goods exported by the business or its agent  
 Cost of sales  
 Trading profit  
 Earnings before interest, tax, depreciation and amortisation  
 Operating profit before tax  
 Economic values  
 Purchases of goods and materials (including capitalised purchases)  
 Other intermediate input expenses- i.e. other than purchases of goods and materials  
 Change in inventories  
 Industry value added  
 Labour costs  
 Selected labour costs  
 Total labour costs  
 Capital expenditure on  
 Plant, machinery and equipment  
 Dwellings, other buildings and structures  
 Other (including land and intangible assets)  
 Total acquisitions  
 Disposal of assets  
 Net capital expenditure  
 Ratios  
 Sales and service income (including rent, leasing and hiring income and royalties other than natural resources royalties) per person employed at the end of June  
 Exports as a proportion of sales of goods produced  
 Industry value added per person employed at the end of June  
 Industry value added to selected labour costs  
 Wages and salaries to sales and service income (including rent, leasing and hiring income and royalties other than natural resources royalties)  
 Wages and salaries per person employed at the end of June  
 Selected labour costs per person employed at the end of June  
 Profit margin  
 Interest coverage  
 Investment rate (value added)



## TECHNICAL NOTE 1      **METHODOLOGY** .....

### INTRODUCTION

**1** The industry estimates in this publication are produced using a combination of ABS directly collected data and Business Income Tax (BIT) data sourced from the Australian Taxation Office (ATO).

**2** The directly collected data have been reported by a sample of manufacturing businesses, as recorded on the ABS Business Register (ABSBR). The ABS uses an economic statistics units model on the 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.

### STATISTICAL UNITS DEFINED ON THE ABS BUSINESS REGISTER

**3** The current economic statistics units model was introduced in mid 2002, to better use the information available as a result of The New Tax System (TNTS). This 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

**4** Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). They 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

**5** 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 statistical units model described below caters for 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:* 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).

ABS MAINTAINED  
POPULATION *continued*

*Type of activity unit (TAU):* The TAU comprises 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.

CONTRIBUTION OF THE  
STATISTICAL UNITS TO THE  
ESTIMATES

**6** The following paragraphs outline the way in which these categories of statistical units contribute to the estimates of financial and economic variables presented in this publication. Estimates of employment are derived in a different manner; see paragraphs 13 and 14 below.

TAUs

**7** All units in the ABS maintained population (i.e. TAUs) classified to MANUFACTURING were eligible to be selected for direct collection. Direct collection of data from 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.

ABN units

**8** The balance of units on the ABSBR classified to MANUFACTURING were ABN units, from the ATO maintained population. Cut-offs were established which determined the way in which each ABN unit contributed to the statistics:

- First, ABN units with annualised Business Activity Statement (BAS) total sales (used in lieu of EAS total income) at or greater than the cut-offs set for individual ANZSIC categories 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.
- Second, ABN units with annualised BAS total sales below the cut-offs 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.

CUT-OFFS FOR ABN UNITS

**9** Cut-offs for ABN units were originally established for the 2001–02 collection year, which was the first to incorporate BIT data from the ATO. More information about how the initial cut-offs were set is shown in Appendix 1: Survey Changes in the 2001–02 and 2002–03 issue of this publication. These cut-offs have not changed from the initial year.

**10** For 2005–06, a cut-off of \$500,000 applied.

PRODUCING MANUFACTURING  
INDUSTRY ESTIMATES

**11** Therefore, the 2005–06 manufacturing industry estimates have been derived as follows:

- A sample survey was used to estimate the contribution of:
  - all businesses in the ABS maintained population
  - those businesses at or above the cut-offs in the ATO maintained population
  - 'tax exempt' businesses, that are not required to complete business income tax returns (and so would otherwise not contribute to the statistics)
- For the balance of businesses (i.e. in the ATO maintained population below the cut-offs for their ANZSIC category), their contribution was sourced from BIT data, with some more detailed breakdowns produced using proportional relationships derived from the sample survey. The derivation of employment estimates is discussed in paragraphs 13 and 14 below.

*Income contribution by unit type*

**12** An indication of the importance of these populations to the data can be gained from their contribution to the estimate of sales and service income for total manufacturing. The following table shows their proportional contributions to sales and service income.

CONTRIBUTION TO SALES AND SERVICE INCOME

	<i>ATO BIT data</i>	<i>Directly collected data</i>	<i>Total</i>
<i>ABSBR unit</i>	%	%	%
ABN units	3.1	30.4	33.5
TAUs	–	66.5	66.5
<b>Total</b>	<b>3.1</b>	<b>96.9</b>	<b>100.0</b>

EMPLOYMENT ESTIMATES

**13** One implication of the use of BIT data in these statistics is that no direct measure of employment is available for those units which contribute to the estimates through the BIT source. This is because the ATO does not collect information about employment numbers. Unlike financial variables, which have a direct relationship to the data available from the BIT files, employment data are not amenable to being modelled using the same techniques. Hence a different methodology is used in order to estimate employment for those units whose data are sourced from the BIT files. For each business, an estimate of employee numbers is derived from its value of wages and salaries (if any) using industry averages. For each unincorporated business, these employee numbers are then added to an estimate of its number of working proprietors or partners, to produce an estimate of the total employment of the business. These estimates are then aggregated to the directly collected data to produce the estimates in this publication.

## TECHNICAL NOTE 2      **DATA RELIABILITY** .....

### ABS SURVEY DATA

**1** For 2005–06, the manufacturing collection was, in part, a sample survey designed primarily to deliver national estimates at the industry class level. Industry subdivision estimates for states and territories are also produced for key data items, but the survey was not specifically designed for these purposes.

### SAMPLING ERROR

**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).

**4** RSEs for the national estimates of employment, wages and salaries, sales and service income, and IVA contained in this publication are mainly 2% or less for industry subdivisions and most are 5% or less for industry classes. The relative standard errors for the selected estimates for the states and territories are mainly 3% or less for employment and 1% or less for sales and service income at the total manufacturing level.

**5** 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 below. Detailed relative standard errors can be made available on request.

**6** To illustrate the above, the estimate of sales and service income for total manufacturing in 2005–06 was \$357,462m. The RSE of this estimate is shown as 0.2%, giving a standard error of approximately \$715m (rounded). This implies that there are two chances in three that, if all units had been included in the survey, an estimate in the range of \$356,747m to \$358,177m would have been obtained. Similarly, it implies that there are 19 chances in 20 (i.e., a confidence interval of 95%) that the estimate would have been within the range of \$356,032m to \$358,892m.

## RELATIVE STANDARD ERRORS

INDUSTRY SUBDIVISION		Employment at end of June (a)	Wages and salaries (b)	Sales and service income (c)	Purchases of goods and materials (d)	Industry value added	Capital expenditure on plant machinery and equipment
ANZSIC code	Description	%	%	%	%	%	%
21	Food, beverage and tobacco mfg	0.9	0.6	0.6	0.8	0.7	2.2
22	Textile, clothing, footwear and leather mfg	2.0	1.6	0.7	1.3	2.0	7.9
23	Wood and paper product mfg	1.6	1.2	0.5	0.7	1.0	2.5
24	Printing, publishing and recorded media	1.7	1.1	0.9	1.8	1.0	5.9
25	Petroleum, coal, chemical and associated product mfg	1.1	0.8	0.3	0.3	0.6	1.7
26	Non-metallic mineral product mfg	1.7	1.1	0.7	1.2	0.9	2.4
27	Metal product mfg	1.7	2.1	0.6	0.6	1.4	3.4
28	Machinery and equipment mfg	1.4	1.0	0.6	0.8	0.8	1.7
29	Other manufacturing	2.7	2.3	1.7	2.3	1.9	11.8
21–29	<b>Total manufacturing</b>	<b>0.6</b>	<b>0.5</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>	<b>1.1</b>

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring

(d) Includes capitalised purchases of materials.

 SAMPLING ERROR *continued*

**7** The size of the RSE may be a misleading indicator of the reliability of some of the estimates for trading profit, OPBT, EBITDA and 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-SAMPLING ERROR

**8** All data presented in this publication are subject to non-sample error.

**9** 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 a full census or a sample.

**10** For the purpose of compiling the estimates in this publication, businesses in the ATO maintained population (see Technical Note 1) are coded to ANZSIC industry classes on the basis of the activity reported to the ATO when they registered for an ABN. There are a number of reasons why a business classified to any given ANZSIC industry on the ABS Business Register may not have been mainly engaged in activities associated with that industry during the 2005–06 reference year. This may be because of inaccurate or incomplete information at the time the business was registered or it may be because the business has changed activity, either temporarily or permanently.

**11** Although 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.

## 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.

<b>ABN unit</b>	The statistical unit used by the ABS 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).
<b>Acquisitions</b>	See the various capital expenditure entries.
<b>Amount exported by this business or its agent</b>	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.
<b>Bad and doubtful debts</b>	Represents the amount of bad and doubtful debts written-off, net of bad and doubtful debts previously written-off but recovered.
<b>billion</b>	One thousand million.
<b>Business</b>	<p>A business is generally considered to be a person, partnership, or corporation engaged in business or commerce; for example, a textile manufacturing business.</p> <p>In this publication, the term represents the ABN unit or type of activity unit (TAU), which are the two standard statistical units for the 2005–06 manufacturing collection (these two units are explained under separate entries). For details, see Explanatory Notes paragraphs 5–9.</p>
<b>Business Activity Statement (BAS) total sales</b>	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.
<b>Businesses that do not export</b>	Businesses that reported no exports (either by their business or for them by an agent) of goods that they produced.
<b>Businesses that export more than 50% of sales</b>	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.
<b>Businesses that export up to and including 50% of sales</b>	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.
<b>Capital expenditure on dwellings, other buildings and structures</b>	Capital expenditure incurred acquiring dwellings, other buildings and structures, including roads, factories, warehouses, offices, and bridges. Includes expenses (except capitalised interest) incurred during the year in acquiring such assets.

<b>Capital expenditure on other assets (including land and intangible assets)</b>	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 if the cost of software and hardware cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.
<b>Capital expenditure on plant, machinery and equipment</b>	Capital expenditure incurred acquiring plant, machinery and other equipment, including motor vehicles. Includes expenses (except capitalised interest) incurred during the year in acquiring such assets.
<b>Capital work done for own use</b>	<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>
<b>Capitalised purchases</b>	Goods drawn from inventories for use as fixed tangible assets in capital work done by the employees or proprietors of a business for use by the business or for rental or lease.
<b>Chain volume measures</b>	<p>Annually-reweighted chain Laspeyres volume indexes referenced to the current price values in a chosen reference year (i.e. the year when the quarterly chain volume measures sum to the current price annual values). Chain Laspeyres volume measures are compiled by linking together (compounding) movements in volumes, calculated using the average prices of the previous financial year, and applying the compounded movements to the current price estimates of the reference year. Quarterly chain volume estimates are benchmarked to annual chain volume estimates, so that the quarterly estimates for a financial year sum to the corresponding annual estimate.</p> <p>Generally, chain volume measures are not additive. In other words, component chain volume measures do not sum to a total in the way original current price components do. In order to minimize the impact of this property, the ABS uses the latest base year as the reference year. A change in reference year changes levels but not growth rates, although some revision to recent growth rates can be expected because of the introduction of a more recent base year (and revisions to the current price estimates underlying the chain volume measures).</p> <p>For details, see <i>Australian National Accounts: National Income, Expenditure and Product</i> (cat. no. 5206.0).</p>
<b>Change in inventories</b>	The value of total closing inventories less total opening inventories.
<b>Closing inventories</b>	The value of all inventories of finished goods (including inventories for resale), work-in-progress (less progress payments billed), raw materials, fuels, and containers, at the end of the reporting period.
<b>Commission manufacturing</b>	<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>

<b>Commission manufacturing</b> <i>continued</i>	<p>If the client is also a manufacturing business then, in addition to data for its own manufacturing operations, the client reports</p> <ul style="list-style-type: none"> <li>■ the sales and inventories of the commissioned goods,</li> <li>■ the cost of the materials provided to the producing business,</li> <li>■ the commission fee paid, and</li> <li>■ the value of any other intermediate inputs related to the commission transaction.</li> </ul> <p>If the client is not a manufacturing business, no data are reported by the client as it is excluded from the manufacturing collection.</p>
<b>Commission expenses</b>	Payments to other businesses and self-employed persons for work done or sales made on a contract or commission basis using materials supplied by the 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.
<b>Cost of sales</b>	The sum of purchases, selected expenses and opening inventories less closing inventories. Any capitalised purchases are excluded.
<b>Current prices</b>	Estimates at current prices are valued at the prices of the period to which the observation relates. For example, estimates for 2005–06 are valued using 2005–06 prices. This contrasts to chain volume measures, where the prices used in valuation refer to the prices of a previous period.
<b>Depreciation and amortisation</b>	Depreciation/amortisation allowed on tangible and intangible assets. Includes, for lessees only, depreciation/amortisation in respect of finance leases.
<b>Disposal of assets</b>	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).
<b>Earnings before interest, tax, depreciation and amortisation (EBITDA)</b>	Profit prior to the deduction of net interest (interest income minus interest expenses), income tax, depreciation and amortisation. Items classifiable to other income are also excluded.
<b>Employer contributions into superannuation</b>	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.
<b>Employment at end of June</b>	<p>Number of persons working for manufacturing businesses during the last pay period ending in June of the given year. Includes working proprietors and partners, employees absent on paid or prepaid leave, employees on workers' compensation who continue to be paid through the payroll, and contract workers paid through the payroll. Excludes persons paid by commission only, non-salaried directors, volunteers and self-employed persons such as consultants and contractors.</p> <p>In order to produce data by state and territory, businesses which received mail out questionnaires were also asked to report employment (as well as wages and salaries, and sales of goods and services) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 31 and 32.</p> <p>For details of how employment estimates have been derived, see Technical Note 1 paragraphs 13 and 14.</p>
<b>Enterprise</b>	<p>An institutional unit comprising:</p> <ul style="list-style-type: none"> <li>■ a single legal entity or business entity; or</li> <li>■ 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).</li> </ul>



<b>Enterprise group</b>	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.
<b>Exports as a proportion of sales of goods produced</b>	<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 table 4.2, 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>
<b>Freight and cartage expenses</b>	Excludes the cost of delivery by own vehicles and employees, as well as overseas freight and cartage on goods exported, and payments to couriers.
<b>Fringe benefits tax</b>	Fringe benefits tax is payable by employers when certain benefits in excess of normal wages or salaries (e.g. free or discounted goods or services) are received by their employees (or associates of employees) in connection with their employment.
<b>Funding from government for operational costs</b>	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 Energy Grants (Credits) Scheme. Excludes funding from government for specific capital items.
<b>Gross value added</b>	The value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by institutional sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries. For details, please refer to <i>Australian National Accounts: National Income, Expenditure and Product</i> (cat. no. 5206.0).
<b>Industry class</b>	The structure of ANZSIC comprises four levels, ranging from industry division (broadest level) to industry class (finest level). Activities are narrowly defined within the industry class level, which is identified by a four-digit code, e.g. Industry Class 2331 PULP, PAPER AND PAPERBOARD MANUFACTURING. Usually, an activity is primarily defined to one class. However, some activities may be primary to more than one class.
<b>Industry division</b>	The structure comprises 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.
<b>Industry group</b>	This is the intermediate level within each industry division of ANZSIC and is identified 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.

<b>Industry subdivision</b>	<p>This is the broadest level category within each industry division of ANZSIC and is identified 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 manufacturing industry subdivisions are:</p> <ul style="list-style-type: none"> <li>21 Food, beverage and tobacco mfg</li> <li>22 Textile, clothing, footwear and leather mfg</li> <li>23 Wood and paper product mfg</li> <li>24 Printing, publishing and recorded media</li> <li>25 Petroleum, coal, chemical and associated product mfg</li> <li>26 Non-metallic mineral product mfg</li> <li>27 Metal product mfg</li> <li>28 Machinery and equipment mfg</li> <li>29 Other manufacturing</li> </ul>																				
<b>Industry value added (IVA)</b>	<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> <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</td></tr> <tr> <td></td><td>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>Purchases of goods and materials</td></tr> <tr> <td><i>less</i></td><td>Other intermediate input expenses</td></tr> <tr> <td></td><td>(for details, see the entry for total expenses)</td></tr> <tr> <td><i>equals</i></td><td>IVA</td></tr> </table> <p>However, it should be noted that IVA is a measure of economic activity and is not equivalent to 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 total expenses for further details). On the income side, OPBT includes total income whereas IVA only includes sales and service income.</p> <p>Industry value added is related to, but different from, the national accounting variable gross value added.</p> <p>For national accounts purposes, gross value added is calculated by adjusting industry value added to include General Government units and to also account for some other effects.</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>	Purchases of goods and materials	<i>less</i>	Other intermediate input expenses		(for details, see the entry for total expenses)	<i>equals</i>	IVA
	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>	Purchases of goods and materials																				
<i>less</i>	Other intermediate input expenses																				
	(for details, see the entry for total expenses)																				
<i>equals</i>	IVA																				
<b>Industry value added per person employed</b>	IVA of manufacturing businesses which operated during the given year ended 30 June divided by the number of persons employed by manufacturing businesses during the last pay period ending in June of that same year.																				
<b>Industry value added to selected labour costs</b>	IVA of manufacturing businesses which operated during the given year ended 30 June divided by their selected labour costs, i.e. industry value added / selected labour costs.																				
<b>Insurance premiums</b>	Premiums for fire, general, accident, public liability, optional third-party and comprehensive motor vehicle insurance, professional indemnity insurance and common law liability. 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).																				

<b>Interest coverage</b>	The number of times that businesses can meet their interest expenses from their earnings before net interest, tax, depreciation and amortisation (EBITDA), i.e. earnings before interest, tax, depreciation and amortisation / interest expenses. In previous issues of this publication, earnings before interest and tax (rather than EBITDA) was the numerator.
<b>Interest expenses</b>	Includes interest paid on loans from banks, finance companies, partners, and related or unrelated businesses, 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.
<b>Interest income</b>	Includes interest received from deposits in banks and non-bank financial institutions, loans, advances, finance leases and earnings on discounted bills. Excludes capital repayments received.
<b>Intermediate input expenses</b>	For details, see the entry for total expenses.
<b>Intermediate inputs</b>	Intermediate inputs consist of materials and certain services which are used up in the production process. The calculation is: <div style="margin-left: 40px;"> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: right; padding-right: 10px;"> <i>plus</i> <i>less</i> <i>equals</i> </div> <div> <div style="margin-bottom: 5px;">Intermediate input expenses (for details, see the entry for total expenses)</div> <div style="margin-bottom: 5px;">Opening inventories</div> <div style="margin-bottom: 5px;">Closing inventories</div> <div>Intermediate inputs</div> </div> </div> </div>
<b>Inventories – opening/closing</b>	The value of all inventories of finished goods (including inventories for resale), work-in-progress (less progress payments billed), raw materials, fuels, and containers, at the beginning and end of the reporting period respectively.
<b>Investment rate (value added)</b>	The proportion of industry value added (IVA) used to acquire capital, i.e. (capital expenditure / IVA) x 100.
<b>Labour costs</b>	For the purposes of table 2.6, comprises wages and salaries, employer contributions into superannuation, workers' compensation premiums/costs, fringe benefits tax and payroll tax.
<b>Manufacturing business</b>	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).
<b>Motor vehicle running expenses</b>	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.
<b>Net capital expenditure</b>	The value of total capital expenditure less proceeds received from the disposal of assets.
<b>Opening inventories</b>	The value of all inventories of finished goods (including inventories for resale), work-in-progress (less progress payments billed), raw materials, fuels, and containers, at the beginning of the reporting period.
<b>Operating profit before tax (OPBT)</b>	Profit before extraordinary items are brought to account and prior to the deduction of income tax and appropriations to owners (e.g. dividends paid), i.e. total income - total expenses + change in inventories.
<b>Other income</b>	Includes natural resource royalties income, dividend income and other income such as net profit (or loss) on the sale of fixed tangible assets, net profit (or loss) resulting from variations in foreign exchange rates/transactions, and funding from federal, state and/or local government for specific capital items. It excludes extraordinary profits or losses, i.e. those not associated with the normal operations of the business and of a non-recurring nature.

<b>Other intermediate input expenses</b>	Comprises intermediate input expenses less current purchases of goods and materials used in production (i.e. excludes any capitalised purchases). Further detail is included in the entry for total expenses.
<b>Other selected expenses</b>	Includes expenditure on 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 and copyrights), payments to employment agencies for staff, payroll tax, fringe benefits tax, land tax and land rates, and computer software expenses not capitalised. Some of these expense items are treated as intermediate input expenses in the calculation of industry value added. For details, see the entry for total expenses.
<b>Payroll tax</b>	A tax levied by state and territory governments on the amount of wages and salaries paid by a business. Excludes Pay as You Go withholding tax.
<b>Production volumes</b>	See the entry for chain volume measures.
<b>Profit margin</b>	The percentage of sales and service income available as operating profit before tax (OPBT), i.e. $(\text{OPBT} / \text{sales and service income}) \times 100$ .
<b>Purchases and selected expenses</b>	Purchases of goods and materials, rent, leasing and hiring expenses, freight and cartage expenses, motor vehicle running expenses, repair and maintenance expenses, contract, subcontract and commission expenses, and other selected expenses.
<b>Purchases of goods and materials</b>	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 but includes fuels for off-road vehicles, such as forklifts and mobile plant.
<b>Reference period</b>	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 2005–06 collection, a business may have reported data for the year ended 31 December 2005.
<b>Rent, leasing and hiring expenses</b>	Payments for the rent, leasing and hiring of land, dwellings, other buildings and structures, motor vehicles, plant, machinery and other equipment (including telecommunication equipment). Includes operating lease payments; excludes finance lease payments.
<b>Rent, leasing and hiring income</b>	See the entry for sales and service income.
<b>Repair and maintenance expenses</b>	Includes repair and maintenance of computer and communications software and hardware, 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.
<b>Sales and service income</b>	Includes: <p><i>Sales of goods</i></p> <ul style="list-style-type: none"> <li>■ 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 assets, interest income, delivery charges separately invoiced to customers, and rent, leasing and hiring income. Exports are valued free on board (f.o.b.), i.e. export freight charges are excluded.</li> </ul>

<b>Sales and service income</b> <i>continued</i>	<p><i>Income from services</i></p> <ul style="list-style-type: none"> <li>■ 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 and copyrights). Excludes natural resource royalties income, interest income, and delivery charges not separately invoiced to customers. Under the current international standards, rent, leasing and hiring income (except from finance leases) is also classified as service income.</li> </ul> <p><i>Rent, leasing and hiring income</i></p> <ul style="list-style-type: none"> <li>■ derived from the ownership of land, dwellings, buildings and other structures, motor vehicles, plant, machinery and other equipment. 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.</li> </ul> <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 report 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 31 and 32.</p>
<b>Sales and service income per person employed</b>	The value of sales and service income of manufacturing businesses which operated during the given year end 30 June divided by the number of persons employed by manufacturing businesses during the last pay period ending June of that same year.
<b>Sales of goods produced</b>	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 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.
<b>Selected expenses</b>	See the entry for purchases and selected expenses.
<b>Selected labour costs</b>	See the entry for total expenses.
<b>Selected labour costs per person employed</b>	The value of selected labour costs paid by manufacturing businesses which operated during the given year ended 30 June divided by the number of persons employed by manufacturing businesses during the last pay period ending in June of that same year.
<b>Standard Institutional Sector Classification of Australia (SISCA)</b>	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 comprises 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).
<b>Superannuation</b>	See the entry for employer contributions into superannuation.
<b>Total acquisitions</b>	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 expenses** For the purposes of calculating economic and accounting variables, expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations: excluded are capital repayments, costs associated with the transfer of real estate, dividends, donations, export freight charges, extraordinary losses, foreign exchange losses, goods and services tax (GST), excise and duties payable to governments, income tax and other direct taxes, losses on asset sales, and unrealised gains/losses from revaluations of assets.

Those expenses used for calculations are categorised as follows:

*Intermediate input expenses*

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:

Purchases of goods, materials and services used in production, which include:

- 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.

Expenses related to the sale of goods and administrative expenses, which include:

- 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 and copyrights)
- payments to employment agencies for staff.

Excluded from intermediate input expenses are selected labour costs and other operating expenses as detailed below.

*Selected labour costs*

- wages and salaries (including provisions for employee entitlements)
- employer contributions into superannuation (including salary sacrifice)
- workers' compensation premiums/costs.

*Other operating expenses*

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:

- 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.

<b>Total factor income</b>	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. For details, please refer to <i>Australian National Accounts: State Accounts, 2005–06, Reissue</i> (cat. no. 5220.0).
<b>Total income</b>	Comprises sales and service income, interest income, funding from government for operational costs, and other income (for details, see the entries for these items).
<b>Trading profit</b>	<p>A measure of profit directly attributable to trading in goods and services. It is derived by subtracting the cost of sales from the value of sales and service income.</p> <p>It should not be inferred that all of this profit is available as surplus, as other expenses such as selected labour costs, depreciation, insurance premiums, natural resource royalties, bad debts and interest have not been taken into account. Also, other income items such as funding from government and interest income have not been included.</p>
<b>Type of activity unit (TAU)</b>	<p>The TAU is the statistical unit used by the ABS to represent businesses, and for statistics are reported, in cases where the ABN unit is not suitable for ABS statistical needs.</p> <p>The TAU comprises 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>
<b>Wages and salaries</b>	<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 31 and 32.</p>
<b>Wages and salaries per person employed</b>	The value of wages and salaries paid by manufacturing businesses which operated during the given year ended 30 June divided by the number of persons employed by manufacturing businesses during the last pay period ending in June of the same year.
<b>Wages and salaries to sales and service income ratio</b>	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.
<b>Workers' compensation premiums/costs</b>	Workers' compensation is a compulsory insurance cover to be taken out by all employers, except for self-insured workers, according to legislative schemes to cover employees suffering injury or disease in the course of or arising out of employment.

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