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## I N Q U I R I E S

For further information about these and related statistics, contact the National Information and Referral Service on
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ABOUT THIS PUBLICATION

CHANGES TO THIS
PUBLICATION

REVISIONS

INFORMATION AVAILABLE ON-LINE

This publication presents estimates, from the annual Economic Activity Survey, of the economic and financial performance of the Australian manufacturing industry for 2004-05 together with data on a comparable basis from 2001-02 and intervening years.

This issue introduces a selection of profitability measures and industry performance ratios, comparable with those included in other ABS industry statistics publications. It also presents a table illustrating the export performance of Australian manufacturing, using Economic Activity Survey data, over the period from 2001-02 to 2004-05.

Employment data in this issue are based on a new methodology for estimating the employment of businesses that contribute to the estimates via business income taxation data. See Technical Note 1 for further information.

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 2003-04 national estimates of key financial variables for the manufacturing industry has been an increase of $0.1 \%$ (or $\$ 159 \mathrm{~m}$ ) in sales and service income, a decrease of $0.2 \%(\$ 82 \mathrm{~m})$ in wages and salaries paid, and an increase of $0.5 \%(\$ 424 \mathrm{~m})$ in industry value added. Effects may be greater at lower levels of the industry classification and/or for other variables.

The application of the new model for estimating employment noted above has resulted in revisions to the estimates of employment for earlier years.

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](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.

Dennis Trewin
Australian Statistician

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## ABBREVIATIONS

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

## chapter 1

## INTRODUCTION

KEY DATA

FURTHER COMMENTARY

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.

Table 1.1 presents a time series for selected items, from 2001-02 to 2004-05. All value data in this table are shown at current prices.

By all four major aggregates presented, the Australian manufacturing industry showed growth in 2004-05 when compared to 2003-04. Sales and service income increased by $7 \%$, industry value added by $8 \%$, wages and salaries by $5 \%$ and employment increased by $2 \%$. 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.

Please see:

- National data: Chapter 2, page 8
- States, territories and Australia: Chapter 3, page 31
- Exports: Chapter 4, page 39.

SUMMARY, 2001-02 to 2004-05

| Employment at end of June(a) | Wages and salaries(b) | Sales and service income(c) | Industry value added | Wages and salaries per person employed | Wages and salaries to sales and senvice income | Sales and service income per person employed | Industry value added per person employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| '000 | \$m | \$m | \$m | \$'000 | ratio | \$000 |  |

FOOD, BEVERAGE AND TOBACCO MANUFACTURING

| $2001-02$ | 194.3 | 7950 | 66048 | 16729 | 40.9 | 0.12 | 339.9 | 86.1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2002-03 | 192.3 | 8336 | 67020 | 17391 | 43.3 | 0.12 | 348.5 | 90.4 |
| 2003-04 | 189.4 | 8515 | 68671 | 17659 | 45.0 | 0.12 | 362.6 | 93.3 |
| 2004-05 | 190.7 | 8690 | 71572 | 18551 | 45.6 | 0.12 | 375.3 | 97.3 |

textile, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING

|  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| $2001-02$ | 65.0 | 1869 | 11039 | 2995 | 28.7 | 0.17 | 169.8 | 46.1 |
| $2002-03$ | 60.4 | 1866 | 10720 | 3071 | 30.9 | 0.17 | 177.5 | 50.8 |
| $2003-04$ | 56.5 | 1777 | 10134 | 3159 | 31.5 | 0.18 | 179.5 | 55.9 |
| $2004-05$ | 52.0 | 1657 | 9300 | 2827 | 31.9 | 0.18 | 178.9 | 54.4 |



WOOD AND PAPER PRODUCT MANUFACTURING

| 2001-02 | 68.3 | 2528 | 16563 | 5559 | 37.0 | 0.15 | 242.3 | 81.3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-03 | 68.3 | 2764 | 17926 | 6279 | 40.5 | 0.15 | 262.6 | 92.0 |
| 2003-04 | 69.6 | 2888 | 18592 | 6523 | 41.5 | 0.16 | 267.3 | 93.8 |
| 2004-05 | 70.4 | 3005 | 18269 | 6479 | 42.7 | 0.16 | 259.4 | 92.0 |
|  | PRINTING, PUBLISHING AND RECORDED MEDIA |  |  |  |  |  |  |  |
| 2001-02 | 107.6 | 4642 | 20237 | 8430 | 43.2 | 0.23 | 188.2 | 78.4 |
| 2002-03 | 105.0 | 4504 | 20355 | 8923 | 42.9 | 0.22 | 193.8 | 85.0 |
| 2003-04 | 102.2 | 4727 | 20651 | 9333 | 46.3 | 0.23 | 202.1 | 91.3 |
| 2004-05 | 108.6 | 5163 | 22478 | 10127 | 47.5 | 0.23 | 206.9 | 93.2 |

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING

|  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $2001-02$ | 100.2 | 5079 | 49023 | 10066 | 50.7 | 0.10 | 489.3 | 100.5 |
| $2002-03$ | 101.3 | 5171 | 50622 | 11092 | 51.0 | 0.10 | 499.5 | 109.5 |
| $2003-04$ | 105.1 | 5446 | 52829 | 11247 | 51.8 | 0.10 | 502.5 | 107.0 |
| $2004-05$ | 104.2 | 5701 | 60871 | 12956 | 54.7 | 0.09 | 584.1 | 124.3 |


|  | NON-METALLIC MINERAL PRODUCT MANUFACTURING |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-02 | 42.0 | 1813 | 11309 | 3864 | 43.2 | 0.16 | 269.5 | 92.1 |
| 2002-03 | 45.6 | 2018 | 12463 | 4526 | 44.2 | 0.16 | 273.3 | 99.2 |
| 2003-04 | 44.3 | 2112 | 13688 | 4863 | 47.7 | 0.15 | 309.1 | 109.8 |
| 2004-05 | 46.4 | 2297 | 14297 | 4951 | 49.5 | 0.16 | 307.9 | 106.6 |

METAL PRODUCT MANUFACTURING

| $2001-02$ | 164.0 | 7017 | 52146 | 15072 | 42.8 | 0.13 | 317.9 | 91.9 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $2002-03$ | 169.4 | 7698 | 57394 | 16242 | 45.4 | 0.13 | 338.8 | 95.9 |
| $2003-04$ | 162.3 | 7746 | 58934 | 16372 | 47.7 | 0.13 | 363.1 | 100.9 |
| $2004-05$ | 174.0 | 8312 | 65160 | 18730 | 47.8 | 0.13 | 374.4 | 107.6 |

MACHINERY AND EQUIPMENT MANUFACTURING

| 67.1 |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| $2001-02$ | 220.3 | 9387 | 54239 | 14781 | 42.6 | 0.17 | 246.2 | 72.1 |
| $2002-03$ | 228.7 | 10282 | 56797 | 16485 | 45.0 | 0.18 | 248.4 | 75.7 |
| $2003-04$ | 233.7 | 10633 | 59881 | 17681 | 45.5 | 0.18 | 256.2 | 75.7 |
| $2004-05$ | 237.2 | 11226 | 63643 | 19078 | 47.3 | 0.18 | 268.4 | 80.4 |

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

SUMMARY, 2001-02 to 2004-05 continued

| Employment at end of June(a) | Wages and salaries(b) | Sales and service income(c) | Industry value added | Wages and salaries per person employed | Wages and salaries to sales and service income | Sales and service income per person employed | Industry value added per person employed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| '000 | \$m | \$m | \$m | \$'000 | ratio | \$'000 | \$'000 |

OTHER MANUFACTURING

| 2001-02 | 81.3 | 2231 | 11603 | 3620 | 27.4 | 0.19 | 142.6 | 44.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-03 | 76.7 | 2180 | 11604 | 3591 | 28.4 | 0.19 | 151.4 | 46.8 |
| 2003-04 | 73.4 | 2297 | 12384 | 4022 | 31.3 | 0.19 | 168.7 | 54.8 |
| 2004-05 | 74.0 | 2307 | 12851 | 4070 | 31.2 | 0.18 | 173.7 | 55.0 |
| TOTAL MANUFACTURING |  |  |  |  |  |  |  |  |
| 2001-02 | 1043.1 | 42516 | 292208 | 81117 | 40.8 | 0.15 | 280.1 | 77.8 |
| 2002-03 | 1047.6 | 44819 | 304900 | 87599 | 42.8 | 0.15 | 291.0 | 83.6 |
| 2003-04 | 1036.4 | 46140 | 315764 | 90858 | 44.5 | 0.15 | 304.7 | 87.7 |
| 2004-05 | 1057.6 | 48357 | 338440 | 97769 | 45.7 | 0.14 | 320.0 | 92.4 |

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

## CHAPTER 2

## INTRODUCTION

OVERVIEW

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.

Most major indicators of activity for the Australian manufacturing industry increased, in current price terms, during 2004-05. Sales and service income increased $7 \%$ and industry value added (IVA) rose by $8 \%$. Manufacturers paid $\$ 48.4 \mathrm{~b}$ in wages and salaries in 2004-05, $5 \%$ more than in 2003-04; employment increased by $2 \%$. The increase in net capital expenditure was $23 \%$ (from $\$ 11.4 \mathrm{~b}$ to $\$ 14.0 \mathrm{~b}$ ). Export sales of goods produced increased by $2 \%$ (from $\$ 48.3$ b in 2003-04 to $\$ 49.2$ b in 2004-05).

SELECTED VARIABLES, 2003-04 AND 2004-05


SALES AND SERVICE INCOME

Sales and service income of manufacturing industry in Australia in 2004-05, at $\$ 338.4 \mathrm{~b}$, was $\$ 22.7$ b (or $7 \%$ ) higher than in 2003-04.

Over the period from 2001-02 to 2004-05, manufacturing's total sales and service income increased by $16 \%$.

At the industry group level, of those groups available for publication, Prefabricated building manufacturing (ANZSIC group 291) recorded the largest percentage increase in sales and service income (25\%) between 2003-04 and 2004-05. The largest absolute increase, of $\$ 4.2 \mathrm{~b}$, was recorded by Petroleum refining (ANZSIC group 251). The industry group which made the largest contribution to sales and service income in 2004-05 was Motor vehicle and part manufacturing (ANZSIC group 281), at 7\%.

Sales and service income per person employed in Australian manufacturing in 2004-05 was $\$ 320,000,5 \%$ (or $\$ 15,300$ ) higher than for 2003-04, and $14 \%$, (or $\$ 39,900$ ) higher than in 2001-02.

INDUSTRY VALUE ADDED


IVA for the manufacturing industry increased by $\$ 6.9$ b ( $8 \%$ ) to $\$ 97.8$ b in 2004-05. This increase is the product of the $\$ 22.7 \mathrm{~b}$ increase in sales and service income mentioned above, and increases of $\$ 13.3 \mathrm{~b}(8 \%)$ in purchases of goods and materials, $\$ 5.0 \mathrm{~b}(9 \%)$ in other intermediate input expenses, and $\$ 2.5 \mathrm{~b}$ in the value of the change in inventories (compared to a decrease last year).

Seven of the nine manufacturing industry subdivisions recorded increases in IVA in current price terms between 2003-04 and 2004-05, although the increases were less than $2 \%$ in two of them

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 ( $\$ 0.9 \mathrm{~b}$, or $75 \%$ ) in 2004-05. Basic non-ferrous metal manufacturing (ANZSIC group 272) experienced the second largest absolute growth in IVA, $\$ 0.6 \mathrm{~b}$ ( $13 \%$ ), and the second highest percentage increase in IVA $(26 \%$, or $\$ 75 \mathrm{~m}$ ) belonged to Prefabricated building manufacturing (ANZSIC group 291).

As measured by contribution to IVA, the largest manufacturing industry groups in 2004-05 (of those available for publication) each accounted for $6 \%$ of the estimate for total manufacturing: Motor vehicle and part manufacturing (ANZSIC group 281), with $\$ 6.1 \mathrm{~b}$, Publishing (ANZSIC group 242), with $\$ 5.7 \mathrm{~b}$, and Basic non-ferrous metal manufacturing (ANZSIC group 272), with $\$ 5.4 \mathrm{~b}$.

IVA per person employed in manufacturing has increased by $5 \%$, from $\$ 87,700$ in 2003-04 to \$92,400 in 2004-05.

Australian manufacturing industry employed 1,057,600 persons at the end of June 2005, an increase of 21,100 (or $2.0 \%$ ) compared to the end of June 2004.

EMPLOYMENT continued Employment rose in seven of the nine manufacturing industry subdivisions between June 2004 and June 2005. The industry subdivisions which experienced the greatest percentage increases in employment were Metal product manufacturing (up 7.2\%, from 162,300 to 174,000 ), Printing, publishing and recorded media (up 6.3\%, from 102,200 to 108,600 ) and Non-metallic mineral product manufacturing (up 4.9\%, from 44,300 to 46,400). Employment was reduced in Textile, clothing, footwear and leather manufacturing (down $7.9 \%$, from 56,500 to 52,000) and Petroleum, coal, chemical and associated product manufacturing (down 0.9\%, from 105,100 to 104,200).

At the industry class level, the five largest manufacturing industries as measured by employment at the end of June 2005 were Printing (ANZSIC Class 2412) (47,700 persons), Fabricated metal product manufacturing n.e.c. (ANZSIC 2769) (33,800 persons), Wooden furniture and upholstered seat manufacturing (ANZSIC 2921) (33,000 persons), Meat processing (ANZSIC 2111) (29,400 persons) and Motor vehicle manufacturing (ANZSIC 2811) (28,200 persons).

At the end of June 2005, employment in Australian manufacturing was 1.4\% (or 14,500 persons) greater than at the end of June 2002.

In 2004-05, 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 $66 \%$, and to industry value added $64 \%$. These proportions are very similar to those of 2003-04.

CONTRIBUTION TO MANUFACTURING INDUSTRIES BY BUSINESSES EMPLOYING 100 OR MORE PERSONS, 2004-05


```
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
```

The Australian manufacturing industry paid $\$ 48.4 \mathrm{~b}$ in wages and salaries in 2004-05, 5\% higher than in 2003-04.

LABOUR COSTS
continued

Total wages and salaries paid rose, in current price terms, in eight of the nine manufacturing industry subdivisions between 2003-04 and 2004-05. Recording a decline of 7\%, Textile, clothing, footwear and leather manufacturing was the exception.

The manufacturing industry subdivision showing the largest percentage increase in wages and salaries in 2004-05 was Printing, publishing and recorded media (up $9 \%$, or $\$ 0.4 \mathrm{~b}$, to $\$ 5.2 \mathrm{~b}$ ). In absolute terms, Metal product manufacturing and Machinery and equipment manufacturing recorded the largest increases (each up \$0.6b, or $7 \%$ and $6 \%$ respectively).

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 $\$ 3.5 \mathrm{~b}$ or $7 \%$ of total manufacturing. Industrial machinery and equipment manufacturing (ANZSIC group 286), which paid $\$ 2.7 \mathrm{~b}$ (or 6\%), ranked second.

WAGES AND SALARIES PER PERSON EMPLOYED AT END OF JUNE, 2003-04 AND 2004-05


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 $\$ 57.2 \mathrm{~b}$ in total labour costs paid by Australian manufacturing in 2004-05, and $89 \%$ of the value of selected labour costs (i.e., with fringe benefits tax and payroll tax excluded). The proportions are slightly higher in Printing, publishing and recorded media ( $86 \%$ and $91 \%$ respectively). The largest employer in the manufacturing industry, Machinery and equipment manufacturing, incurred the highest workers' compensation premiums/costs during the year, just ahead of Food, beverage and tobacco manufacturing (even though it employs 20\% fewer people than Machinery and equipment manufacturing).

## PROFITABILITY AND EARNINGS

INDUSTRY PERFORMANCE MEASURES

Total trading profit for the manufacturing industry in 2004-05 was $\$ 93.2 \mathrm{~b}$, an increase of $\$ 6.6 \mathrm{~b}(8 \%)$ over the previous year. Of the seven industry subdivisions in which trading profit increased, the largest increase in absolute terms (\$2.3b, or 7\%) occurred in Metal product manufacturing. The largest percentage increase in trading profit was recorded by Petroleum, coal, chemical and associated product manufacturing ( $16 \%$, or $\$ 1.7 \mathrm{~b}$ ).

Although Earnings Before Interest and Tax (EBIT) rose more strongly, by $16 \%$, or $\$ 4.7$ b, this result reflects a more mixed performance within the industry. EBIT increased in five of the nine manufacturing subdivisions. Movements in EBIT compared to the estimates for 2003-04 ranged from an increase of $52 \%$ ( $\$ 2.7 \mathrm{~b}$ ) in Metal product manufacturing to a decrease of $11 \%$ ( $\$ 0.2 \mathrm{~b}$ ) in Wood and paper product manufacturing. The other industries in which EBIT declined in 2004-05 were Textile, clothing, footwear and leather manufacturing (down $8 \%$, or $\$ 74 \mathrm{~m}$ ), Food, beverage and tobacco manufacturing (down $5 \%$, or $\$ 0.4 \mathrm{~b}$ ) and Non-metallic mineral product manufacturing (down marginally).

Four industry subdivisions recorded increases in operating profit before tax (OPBT), and total manufacturing improved its OPBT by $17 \%$ (or $\$ 4.2 \mathrm{~b}$ ). Movements in OPBT compared to the estimates for 2003-04 ranged from an increase of 59\% (\$2.8b) in Metai product manufacturing to a decrease of $18 \%$ ( $\$ 137 \mathrm{~m}$ ) in Textle, clothing, footwear and LEATHER MANUFACTURING.

Net capital expenditure by manufacturing businesses rose by $23 \%$, or $\$ 2.6 \mathrm{~b}$, to $\$ 14.0 \mathrm{~b}$ between 2003-04 and 2004-05. Total acquisitions grew by 17\% (\$2.3b), including increases of $12 \%$ ( $\$ 1.3 \mathrm{~b}$ ) in outlays on plant, machinery and equipment and $42 \%$ (\$0.6b) in expenditure on dwellings, other buildings and structures. Asset disposals in 2004-05 were $14 \%$ ( $\$ 0.3 \mathrm{~b}$ ) lower than in the previous year.

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 22-27.

The following summarises the manufacturing industry's performance ratios for 2004-05, as set out in detail in table 2.7:

- The profit margin for total manufacturing in 2004-05 is estimated at $8.5 \%$, an increase from $7.7 \%$ in 2003-04. At the industry subdivision level, profit margins ranged from $15.2 \%$ for the Printing, pubilishing and recorded media industry to $6.2 \%$ for Petroleum, coal, chemical and associated product manufacturing. Estimated profit margin declined in five subdivisions: Food, beverage and tobacco manufacturing, Textile, clothing, footwear and leather manufacturing, Wood and paper product manufacturing, Non-metalic mineral product manufacturing, and Other manufacturing. The largest increase (from 7.9\% in 2003-04 to $11.4 \%$ in 2004-05) occurred in Metal product manufacturing.


## INDUSTRY PERFORMANCE MEASURES continued

iNDUSTRY SUBDIVISION ANALYSIS

Food, beverage and tobacco MANUFACTURING

TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING

- Interest coverage for total manufacturing improved in 2004-05 to 7.3 times, up from 6.9 times in 2003-04. This improvement belies the fact that interest coverage decreased in six of the nine manufacturing subdivisions. The industries which improved their interest coverage were Metal product manufacturing (from 9.6 times to 16.0 times), Machinery and equipment manufacturing ( 7.3 times to 8.1 times), and Petroleum, coal, chemical and associated product 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 (up from 1.75 times in 2003-04). Textile, clothing, footwear and leather manufacturing shows the lowest value ( 1.5 times) for this ratio, just behind Machinery and equipment manufacturing (at 1.51 times).
- Selected labour costs per person employed ranged from $\$ 61,500$ in Petroleum, coal, chemical and associated product manufacturing to $\$ 35,700$ in Other manufacturing. For total manufacturing, the estimate rose by $3 \%$ (from $\$ 50,200$ to $\$ 51,500$ ) in 2004-05.
- The manufacturing industry's investment rate (value added) in 2004-05 was $16.4 \%$, compared to $15.1 \%$ in 2003-04. This reflected, in 2004-05, a range from 10.0\% for Other manufacturing to $23.4 \%$ for Petroleum, coal, chemical and associated product MANUFACTURING

By most measures presented, this industry constitutes about one-fifth of Australian manufacturing. In 2004-05, Food, beverage and tobacco manufacturing was the largest manufacturing industry as measured by its share of sales and service income (21\%) and purchases of goods and materials (22\%). It ranked second in wages and salaries (18\%), employment (18\%), asset acquisitions (21\%), net capital expenditure (22\%), trading profit (19\%), OPBT (19\%) and EBIT (20\%), and third in its contribution to IVA (19\%).

The industry is dominated by businesses employing 100 or more persons. These businesses contribute $82 \%$ of the subdivision's IVA, $80 \%$ of wages and salaries, $78 \%$ of sales and service income and $71 \%$ 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 (26\%), sales and service income ( $25 \%$ ), and IVA and wages and salaries (both $24 \%$ ). One half of this industry's IVA is produced by businesses employing 1,000 or more persons.

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 2004-05, providing 5\% of the total employment in Australian manufacturing.

Over the period from 2001-02 to 2004-05, employment in this industry has decreased by 20\%. Within Textile, clothing, footwear and leather manufacturing, businesses employing $0-4$ persons accounted for $24 \%$ of the subdivision's estimated total employment. However, of the employment size categories presented, businesses employing from 20 to 49 persons (with $17 \%$ of the industry's employment) made the greatest contribution

Textile, clothing, footwear and LEATHER MANUFACTURING continued
to the subdivision's sales and service income (17\%), and IVA (18\%) and wages and salaries (19\%).

In 2004-05, Wood and paper product manufacturing accounted for $7 \%$ of total IVA, employment and trading profit for manufacturing, $6 \%$ of wages and salaries and EBIT, and $5 \%$ of sales and service income, purchases of goods and materials, and OPBT.

Most key variables showed little change during the year. Sales and service income and total income declined marginally, and IVA and total expenses were unchanged. Both EBIT and OPBT declined by $11 \%$, whereas trading profit was stable.

During 2004-05 this industry recorded a 9\% increase in IVA, matching its increase in sales and service income. Wages and salaries increased by $9 \%$, trading profit by $9 \%$, EBIT by $26 \%$ and OPBT by $22 \%$.

Printing, publishing and recorded media's share of manufacturing purchases of goods and materials in 2004-05 was, at $4 \%$, substantially less than its contribution to manufacturing's total IVA (10\%), employment (10\%), wages and salaries (11\%), sales and service income ( $7 \%$ ), and EBIT and OPBT (both $12 \%$ ). 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 IVA and sales and service income increased by $15 \%$ in 2004-05. Although trading profit increased by $16 \%$, OPBT and EBIT increased much more substantially ( $47 \%$ and $39 \%$ respectively).

In 2004-05 the industry accounted for $13 \%$ of IVA for manufacturing, $18 \%$ of sales and service income, $22 \%$ of purchases of goods and materials, $12 \%$ of wages and salaries, $13 \%$ of trading profit and OBPT, 14\% of EBIT, and $10 \%$ of employment at the end of June 2005

Net capital expenditure in 2004-05 was $\$ 2.8$ b, an $\$ 0.8$ b (41\%) increase over the previous year.

Businesses employing 100 or more people accounted for $57 \%$ of employment in Petroleum, coal, chemical and associated product manufacturing. Such businesses produced $80 \%$ of the industry's sales and service income and $71 \%$ of its IVA, and paid $69 \%$ of its wages and salaries

This industry increased its wages and salaries paid by $9 \%$ in 2004-05. Despite increases of $5 \%$ in sales and service income and $6 \%$ in total income, total expenses rose by a greater amount ( $7 \%$, or $\$ 0.9 \mathrm{~b}$ ). Hence EBIT eased marginally, and OPBT fell by $6 \%$. IVA increased only marginally

In 2004-05, the subdivision's share of both total acquisition of assets and net capital expenditure in manufacturing was $6 \%$.

This industry comprises about one-fifth of Australian manufacturing. Its share of employment is slightly less (16\%). In 2004-05 Metal product manufacturing was the largest source of manufacturing OPBT (26\%), trading profit (19\%), EBIT (24\%), acquisitions of assets and (22\%), and net capital expenditure (23\%). It ranked second in terms of IVA, sales and service income and total income (all 19\%), and third in employment (16\%).

In 2004-05, Metal product manufacturing's IVA increased by $19 \%$, sales and service income by $11 \%$. Profitability also improved markedly, OPBT rising by $59 \%$, EBIT by $52 \%$ and trading profit by $15 \%$. Wages and salaries and employment both increased by $7 \%$.

Metal product manufacturing increased its net capital expenditure by $\$ 1.2 \mathrm{~b}$ (or $60 \%$ ) in 2004-05, the strongest absolute and percentage growth of any manufacturing subdivision.

Businesses employing fewer than 100 persons provided $59 \%$ of this industry's employment at the end of June 2005.

In 2004-05, IVA of Machinery and equipment manufacturing increased by $8 \%$. Wages and salaries grew by $6 \%$. The industry's increases in OPBT (14\%) and EBIT (13\%) exceeded its increase in trading profit (7\%) during the year.

Machinery and equipment manufacturing was the largest source of manufacturing IVA (\$19.b, or $20 \%$ ) and employment ( 237,200 persons, or $22 \%$ ), and paid the greatest amount ( $\$ 11.2 \mathrm{~b}$, or $23 \%$ ) in wages and salaries. The subdivision contributed $17 \%$ to total capital acquisitions and $15 \%$ to net capital expenditure. It contributed $19 \%$ to the trading profit, but only $14 \%$ to EBIT and OPBT, of total manufacturing.

The largest recipient of funding from government for operational costs of any manufacturing industry, Machinery and equipment manufacturing received $69 \%$ of all such funding provided to manufacturing in 2004-05. 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 (51\%) and those employing 100 or more ( $49 \%$ ). 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 ( $60 \%$ ).

In 2004-05, 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, $85 \%$ of wages and salaries, $86 \%$ of sales and service income, and $85 \%$ of IVA. In all the employment size categories representing businesses employing fewer than 50 persons, Other manufacturing made the greatest percentage contribution of any manufacturing industry.

FINANCIAL PERFORMANCE, 2003-04 and 2004-05


INDUSTRY CLASS
$\left.\begin{array}{llrlrrrrr}\text { Sales and } \\ \text { service }\end{array} \begin{array}{r}\text { Industry } \\ \text { value }\end{array}\right)$

[^0]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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANZSIC |  |  |  |  |  |  |
| code Description | no. | \$m | \$m | \$m | \$'000 | \$000 |

## TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG cont.

| 222 | Textile product mfg |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2221 | Made-up textile product mfg | 7891 | 237 | 1134 | 378 | 143.7 | 47.9 |
| 2222 | Textile floor covering mfg | 3816 | 186 | 1051 | 312 | 275.4 | 81.9 |
| 2223 | Rope, cordage and twine mfg | 571 | 18 | 117 | 32 | 204.8 | 56.8 |
| 2229 | Textile product mfg n.e.c. | 3141 | 108 | 550 | 195 | 175.1 | 62.2 |
|  | Total | 15420 | 548 | 2851 | 918 | 184.9 | 59.6 |
| 223 | Knitting mills |  |  |  |  |  |  |
| 2231 | Hosiery mfg | 910 | 38 | 120 | 62 | 131.4 | 67.8 |
| 2232 | Cardigan and pullover mfg | 650 | 18 | 72 | 28 | 110.9 | 43.4 |
| 2239 | Knitting mill product mfg n.e.c. | 1008 | 35 | 179 | 57 | 177.2 | 56.8 |
|  | Total | 2568 | 91 | 370 | 147 | 144.2 | 57.3 |
| 224 | Clothing mfg |  |  |  |  |  |  |
| 2241 | Men's and boys' wear mfg | 2688 | 79 | 368 | 113 | 137.1 | 41.9 |
| 2242 | Women's and girls' wear mfg | 4303 | 111 | 740 | 187 | 171.9 | 43.4 |
| 2243 | Sleepwear, underwear and infant clothing mfg | 1172 | 43 | 333 | 100 | 284.4 | 85.0 |
| 2249 | Clothing mfg n.e.c. | 13690 | 334 | 2195 | 658 | 160.3 | 48.1 |
|  | Total | 21854 | 567 | 3636 | 1057 | 166.4 | 48.4 |
| 225 | Footwear mfg | 2833 | 95 | 534 | 164 | 188.6 | 57.9 |
| 226 | Leather and leather product mfg |  |  |  |  |  |  |
| 2261 | Leather tanning and fur dressing | 2143 | 70 | 536 | 103 | 250.0 | 48.1 |
| 2262 | Leather and leather substitute product mfg | 1244 | 36 | 196 | 66 | 157.8 | 52.9 |
|  | Total | 3387 | 105 | 732 | 169 | 216.2 | 49.9 |
| 22 | Total textile, clothing, footwear and leather mfg | 51984 | 1657 | 9300 | 2827 | 178.9 | 54.4 |
|  | WOOD AND PAPER PRODUCT MFG |  |  |  |  |  |  |
| 231 | Log sawmilling and timber dressing |  |  |  |  |  |  |
| 2311 | Log sawmilling | 7272 | 239 | 1325 | 545 | 182.2 | 74.9 |
| 2312 | Wood chipping | 1415 | 55 | 677 | 258 | 478.2 | 182.4 |
| 2313 | Timber resawing and dressing | 6788 | 306 | 1898 | 721 | 279.6 | 106.3 |
|  | Total | 15476 | 600 | 3900 | 1524 | 252.0 | 98.5 |
| 232 | Other wood product mfg |  |  |  |  |  |  |
| 2321 | Plywood and veneer mfg | 1114 | 52 | 360 | 95 | 322.9 | 85.4 |
| 2322 | Fabricated wood mfg | 4775 | 236 | 1449 | 493 | 303.5 | 103.2 |
| 2323 | Wooden structural component mfg | 21192 | 688 | 3526 | 1285 | 166.4 | 60.6 |
| 2329 | Wood product mfg n.e.c. | 8216 | 201 | 1004 | 358 | 122.2 | 43.6 |
|  | Total | 35298 | 1177 | 6339 | 2231 | 179.6 | 63.2 |
| 233 | Paper and paper product mfg |  |  |  |  |  |  |
| 2331 | Pulp, paper and paperboard mfg | 4507 | 263 | 1843 | 514 | 408.9 | 114.1 |
| 2332 | Solid paperboard container mfg | 1084 | 49 | 188 | 87 | 173.8 | 80.7 |
| 2333 | Corrugated paperboard container mfg | 6594 | 475 | 3411 | 1147 | 517.3 | 174.0 |
| 2334 | Paper bag and sack mfg | 1093 | 61 | 343 | 133 | 313.7 | 121.7 |
| 2339 | Paper product mfg n.e.c. | 6366 | 380 | 2245 | 842 | 352.6 | 132.2 |
|  | Total | 19644 | 1228 | 8030 | 2724 | 408.8 | 138.6 |
| 23 | Total wood and paper product mfg | 70417 | 3005 | 18269 | 6479 | 259.4 | 92.0 |

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

INDUSTRY CLASS continued

|  |  |  | Sales and <br> service <br> income | Industry <br> value |
| :--- | :--- | :--- | :--- | :--- |
| added per |  |  |  |  |
| person |  |  |  |  |

## PRINTING, PUBLISHING AND RECORDED MEDIA

| 241 | Printing and services to printing |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2411 | Paper stationery mfg | 5193 | 232 | 1172 | 381 | 225.7 | 73.4 |
| 2412 | Printing | 47652 | 2037 | 8355 | 3341 | 175.3 | 70.1 |
| 2413 | Services to printing | 5907 | 220 | 772 | 346 | 130.6 | 58.5 |
|  | Total | 58752 | 2490 | 10299 | 4068 | 175.3 | 69.2 |
| 242 | Publishing |  |  |  |  |  |  |
| 2421 | Newspaper printing or publishing | 27802 | 1499 | 6076 | 3440 | 218.6 | 123.7 |
| 2422 | Other periodical publishing | 8783 | 457 | 2001 | 652 | 227.8 | 74.2 |
| 2423 | Book and other publishing | 8953 | 489 | 3124 | 1573 | 349.0 | 175.7 |
|  | Total | 45539 | 2445 | 11201 | 5664 | 246.0 | 124.4 |
| 243 | Recorded media manufacturing and publishing | 4346 | 228 | 978 | 395 | 225.0 | 90.8 |
| 24 | Total printing, publishing and recorded media | 108636 | 5163 | 22478 | 10127 | 206.9 | 93.2 |


| 251 | Petroleum refining | 6025 | 502 | 22662 | 2127 | 3761.4 | 353.0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 252 | Petroleum and coal product mfg n.e.c. | 1162 | 63 | 587 | 153 | 505.2 | 131.8 |
| 253 | Basic chemical mfg |  |  |  |  |  |  |
| 2531 | Fertiliser mfg | np | np | np | np | np | np |
| 2532 | Industrial gas mfg | np | np | np | np | np | np |
| 2533 | Synthetic resin mfg | 5977 | 362 | 3509 | 794 | 587.1 | 132.9 |
| 2534 | Organic industrial chemical mfg n.e.c. | 2037 | 132 | 1129 | 240 | 554.2 | 118.0 |
| 2535 | Inorganic industrial chemical mfg n.e.c. | 4778 | 323 | 2939 | 896 | 615.1 | 187.5 |
|  | Total | 18183 | 1197 | 11675 | 3032 | 642.1 | 166.8 |
| 254 | Other chemical product mfg |  |  |  |  |  |  |
| 2541 | Explosive mfg | np | np | np | np | np | np |
| 2542 | Paint mfg | 6206 | 342 | 2030 | 566 | 327.1 | 91.1 |
| 2543 | Medicinal and pharmaceutical product mfg | 14610 | 886 | 7062 | 1727 | 483.3 | 118.2 |
| 2544 | Pesticide mfg | 1343 | 80 | 793 | 182 | 590.4 | 135.4 |
| 2545 | Soap and other detergent mfg | 3789 | 220 | 1869 | 575 | 493.3 | 151.7 |
| 2546 | Cosmetic and toiletry preparation mfg | 3301 | 115 | 645 | 191 | 195.3 | 58.0 |
| 2547 | Ink mfg | np | np | np | np | np | np |
| 2549 | Chemical product mfg n.e.c. | 3950 | 197 | 1406 | 405 | 355.9 | 102.5 |
|  | Total | 36136 | 2030 | 15295 | 4145 | 423.3 | 114.7 |
| 255 | Rubber product mfg |  |  |  |  |  |  |
| 2551 | Rubber tyre mfg | 3211 | 175 | 989 | 287 | 308.2 | 89.3 |
| 2559 | Rubber product mfg n.e.c. | 4678 | 204 | 1063 | 357 | 227.3 | 76.4 |
|  | Total | 7889 | 379 | 2053 | 644 | 260.2 | 81. |

np not available for publication but included in totals where applicable,
(b) Excludes drawings of working proprietors. unless otherwise indicated
(c) Includes rent, leasing and hiring income.
(a) Includes working proprietors.

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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANZSIC |  |  |  |  |  |  |
| code Description | no. | \$m | \$m | \$m | \$'000 | \$000 |


|  | PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG cont. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 256 | Plastic product mfg |  |  |  |  |  |  |
| 2561 | Plastic blow moulded product mfg | 3928 | 202 | 1070 | 352 | 272.5 | 89.5 |
| 2562 | Plastic extruded product mfg | 4766 | 222 | 1355 | 400 | 284.4 | 83.8 |
| 2563 | Plastic bag and film mfg | 5445 | 310 | 2063 | 628 | 378.9 | 115.3 |
| 2564 | Plastic product rigid fibre reinforced mfg | 6480 | 225 | 1247 | 442 | 192.5 | 68.2 |
| 2565 | Plastic foam product mfg | ^1965 | 77 | 420 | 154 | 213.7 | 78.6 |
| 2566 | Plastic injection moulded product mfg | 12230 | 494 | 2443 | 880 | 199.7 | 71.9 |
|  | Total | 34814 | 1530 | 8599 | 2855 | 247.0 | 82.0 |
| 25 | Total petroleum, coal, chemical and associated product mfg | 104208 | 5701 | 60871 | 12956 | 584.1 | 124.3 |
|  | NON-METALLIC MINERAL PRODUCT MFG |  |  |  |  |  |  |
| 261 | Glass and glass product mfg | 7181 | 329 | 1968 | 826 | 274.1 | 115.1 |
| 262 | Ceramic mfg |  |  |  |  |  |  |
| 2621 | Clay brick mfg | 3265 | 178 | 930 | 440 | 284.9 | 134.7 |
| 2622 | Ceramic product mfg | 1042 | 78 | 257 | 110 | 246.3 | 105.6 |
| 2623 | Ceramic tile and pipe mfg | 484 | 17 | 97 | 32 | 200.1 | 65.7 |
| 2629 | Ceramic product mfg n.e.c. | 2234 | 87 | 472 | 181 | 211.2 | 81.0 |
|  | Total | 7025 | 359 | 1756 | 763 | 249.9 | 108.6 |
| 263 | Cement, lime, plaster and concrete product mfg |  |  |  |  |  |  |
| 2631 | Cement and lime mfg | 3506 | 242 | 1818 | 700 | 518.5 | 199.6 |
| 2632 | Plaster product mfg | 4870 | 251 | 1499 | 399 | 307.8 | 82.0 |
| 2633 | Concrete slurry mfg | 7700 | 447 | 3629 | 999 | 471.3 | 129.8 |
| 2634 | Concrete pipe and box culvert mfg | 1078 | 56 | 250 | 98 | 232.0 | 90.9 |
| 2635 | Concrete product mfg n.e.c. | 7574 | 291 | 1608 | 528 | 212.2 | 69.8 |
|  | Total | 24728 | 1288 | 8803 | 2725 | 356.0 | 110.2 |
| 264 | Non-metallic mineral product mfg n.e.c. | 7504 | 320 | 1770 | 638 | 235.8 | 85.0 |
| 26 | Total non-metallic mineral product mfg | 46438 | 2297 | 14297 | 4951 | 307.9 | 106.6 |
|  | METAL PRODUCT MFG |  |  |  |  |  |  |
| 271 | Iron and steel mfg |  |  |  |  |  |  |
| 2711 | Basic iron and steel mfg | 23345 | 1479 | 12996 | 3472 | 556.7 | 148.7 |
| 2712 | Iron and steel casting and forging | 8878 | 497 | 2252 | 905 | 253.7 | 102.0 |
| 2713 | Steel pipe and tube mfg | 3142 | 164 | 1265 | 332 | 402.5 | 105.8 |
|  | Total | 35364 | 2139 | 16513 | 4710 | 466.9 | 133.2 |
| 272 | Basic non-ferrous metal mfg |  |  |  |  |  |  |
| 2721 | Alumina production | 7524 | 613 | 5835 | 2433 | 775.5 | 323.3 |
| 2722 | Aluminium smelting | 5257 | 411 | 6341 | 1802 | 1206.2 | 342.8 |
| 2723 | Copper, silver, lead and zinc smelting, refining | 2417 | 173 | 2420 | 436 | 1001.2 | 180.3 |
| 2729 | Basic non-ferrous metal mfg n.e.c. | 2182 | 144 | 8435 | 774 | 3865.8 | 354.9 |
|  | Total | 17380 | 1341 | 23031 | 5445 | 1325.2 | 313.3 |
| 273 | Non-ferrous basic metal product mfg |  |  |  |  |  |  |
| 2731 | Aluminium rolling, drawing, extruding | 3170 | 220 | 1597 | 326 | 503.8 | 102.9 |
| 2732 | Non-ferrous metal rolling, drawing, extruding n.e.c. | 1838 | 98 | 1182 | 188 | 642.9 | 102.1 |
| 2733 | Non-ferrous metal casting | 1418 | 65 | 203 | 82 | 143.3 | 57.7 |
|  | Total | 6426 | 383 | 2982 | 596 | 464.0 | 92.7 |

[^1](a) Includes working proprietors

INDUSTRY CLASS continued
Sales and
service

income | Industry |
| ---: |
| value |
| added per |
| person |

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

INDUSTRY CLASS continued

|  |  |  | Sales and <br> service <br> income | Industry <br> value |
| :--- | :--- | :--- | :--- | :--- |
| added per |  |  |  |  |
| person |  |  |  |  |

## MACHINERY AND EQUIPMENT MFG cont.

| 285 | Electrical equipment and appliance mfg |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2851 | Household appliance mfg | 12138 | 495 | 2976 | 843 | 245.2 | 69.5 |
| 2852 | Electric cable and wire mfg | 2315 | 143 | 992 | 238 | 428.6 | 102.9 |
| 2853 | Battery mfg | 1225 | 60 | 313 | 110 | 255.6 | 89.6 |
| 2854 | Electric light and sign mfg | 4912 | 187 | 890 | 294 | 181.3 | 59.8 |
| 2859 | Electrical equipment mfg n.e.c. | 15749 | 685 | 3512 | 1128 | 223.0 | 71.6 |
|  | Total | 36339 | 1569 | 8684 | 2613 | 239.0 | 71.9 |
| 286 | Industrial machinery and equipment mfg |  |  |  |  |  |  |
| 2861 | Agricultural machinery mfg | 6537 | 225 | 1646 | 385 | 251.8 | 58.9 |
| 2862 | Mining and construction machinery mfg | 11059 | 528 | 2828 | 980 | 255.7 | 88.6 |
| 2863 | Food processing machinery mfg | 3063 | 126 | 687 | 212 | 224.4 | 69.1 |
| 2864 | Machine tool and part mfg | 6886 | 263 | 996 | 430 | 144.7 | 62.4 |
| 2865 | Lifting and material handling equipment mfg | 9185 | 515 | 2064 | 782 | 224.8 | 85.1 |
| 2866 | Pump and compressor mfg | 3474 | 170 | 870 | 320 | 250.4 | 92.0 |
| 2867 | Commercial space heating and cooling equipment mfg | 1886 | 83 | 502 | 156 | 266.1 | 82.9 |
| 2869 | Industrial machinery and equipment mfg n.e.c. | 18714 | 812 | 4320 | 1434 | 230.8 | 76.6 |
|  | Total | 60803 | 2723 | 13913 | 4698 | 228.8 | 77.3 |
| 28 | Total machinery and equipment mfg | 237160 | 11226 | 63643 | 19078 | 268.4 | 80.4 |
|  | OTHER MANUFACTURING |  |  |  |  |  |  |
| 291 | Prefabricated building mfg |  |  |  |  |  |  |
| 2911 | Prefabricated metal building mfg | 3168 | 118 | 954 | 259 | 301.2 | 81.8 |
| 2919 | Prefabricated building mfg n.e.c. | 1688 | 54 | 387 | 101 | 229.0 | 60.0 |
|  | Total | 4857 | 172 | 1341 | 360 | 276.1 | 74.2 |
| 292 | Furniture mfg |  |  |  |  |  |  |
| 2921 | Wooden furniture and upholstered seat mfg | 33007 | 898 | 4196 | 1456 | 127.1 | 44.1 |
| 2922 | Sheet metal furniture mfg | 3257 | 124 | 625 | 216 | 191.8 | 66.4 |
| 2923 | Mattress mfg (except rubber) | 2731 | 100 | 558 | 188 | 204.3 | 69.0 |
| 2929 | Furniture mfg n.e.c. | 9366 | 371 | 2271 | 634 | 242.4 | 67.7 |
|  | Total | 48360 | 1494 | 7649 | 2495 | 158.2 | 51.6 |
| 294 | Miscellaneous mfg |  |  |  |  |  |  |
| 2941 | Jewellery and silverware mfg | 3802 | 94 | 657 | 182 | 172.7 | 47.9 |
| 2942 | Toy and sporting good mfg | 3171 | 87 | 501 | 152 | 158.1 | 48.1 |
| 2949 | Manufacturing n.e.c. | 13804 | 460 | 2703 | 880 | 195.8 | 63.8 |
|  | Total | 20777 | 642 | 3861 | 1215 | 185.8 | 58.5 |
| 29 | Total other manufacturing | 73994 | 2307 | 12851 | 4070 | 173.7 | 55.0 |
| 21-29 | TOTAL MANUFACTURING | 1057557 | 48357 | 338440 | 97769 | 320.0 | 92.4 |

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

EMPLOYMENT SIZE(a)

|  | Employment at end of June(b) | Wages and salaries(c) | Sales and service income(d) | Industry <br> value added |
| :---: | :---: | :---: | :---: | :---: |
| Employment size groups | '000 \% | \$m | \$m \% | \$m |

FOOD, BEVERAGE AND TOBACCO MANUFACTURING

| 0-4 persons | 7.9 | 4.2 | 136 | 1.6 | 3263 | 4.6 | 404 | 2.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 5.1 | 2.7 | 171 | 2.0 | 1281 | 1.8 | 323 | 1.7 |
| 10-19 persons | 9.5 | 5.0 | 274 | 3.2 | 2001 | 2.8 | 459 | 2.5 |
| 20-49 persons | 16.0 | 8.4 | 512 | 5.9 | 4148 | 5.8 | 948 | 5.1 |
| 50-99 persons | 15.9 | 8.4 | 622 | 7.2 | 5143 | 7.2 | 1262 | 6.8 |
| Total less than 100 persons | 54.4 | 28.5 | 1716 | 19.8 | 15837 | 22.2 | 3397 | 18.3 |
| 100-199 persons | 11.7 | 6.1 | 461 | 5.3 | 3700 | 5.2 | 831 | 4.5 |
| 200-499 persons | 29.0 | 15.2 | 1270 | 14.7 | 11195 | 15.7 | 2674 | 14.4 |
| 500-999 persons | 20.5 | 10.8 | 1060 | 12.2 | 9576 | 13.4 | 2393 | 12.9 |
| 1 000 or more persons | 75.1 | 39.4 | 4163 | 48.0 | 31090 | 43.5 | 9230 | 49.8 |
| Total 100 or more persons | 136.3 | 71.5 | 6955 | 80.2 | 55561 | 77.8 | 15128 | 81.7 |
| Total | 190.7 | 100.0 | 8670 | 100.0 | 71398 | 100.0 | 18525 | 100.0 |


| 0-4 persons | 12.5 | 24.1 | 154 | 9.3 | 1577 | 17.0 | 377 | 13.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5-9 persons | 4.1 | 7.8 | 131 | 8.0 | 616 | 6.7 | 195 | 6.9 |
| 10-19 persons | 7.1 | 13.7 | 234 | 14.2 | 1261 | 13.6 | 426 | 15.1 |
| 20-49 persons | 8.7 | 16.7 | 305 | 18.5 | 1536 | 16.6 | 502 | 17.8 |
| 50-99 persons | 6.1 | 11.8 | 228 | 13.8 | 1344 | 14.5 | 383 | 13.6 |
| Total less than 100 persons | 38.5 | 74.1 | 1052 | 63.8 | 6334 | 68.4 | 1883 | 66.8 |
| 100-199 persons | 5.1 | 9.8 | 237 | 14.4 | 1205 | 13.0 | 358 | 12.7 |
| 200-499 persons | 4.5 | 8.6 | 188 | 11.4 | 768 | 8.3 | 293 | 10.4 |
| 500-999 persons | 3.9 | 7.6 | 171 | 10.4 | 947 | 10.2 | 285 | 10.1 |
| 1000 or more persons | - | - | - | - | - | - | - | - |
| Total 100 or more persons | 13.5 | 25.9 | 596 | 36.2 | 2921 | 31.6 | 936 | 33.2 |
| Total | 52.0 | 100.0 | 1648 | 100.0 | 9255 | 100.0 | 2819 | 100.0 |

WOOD AND PAPER PRODUCT MANUFACTURING

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| O-4 persons | 10.5 | 14.9 | 166 | 5.6 | 1401 | 7.7 | 517 | 8.0 |
| 5-9 persons | 5.6 | 7.9 | 182 | 6.1 | 787 | 4.3 | 273 | 4.2 |
| 10-19 persons | 9.9 | 14.0 | 342 | 11.4 | 1769 | 9.7 | 572 | 8.8 |
| 20-49 persons | 9.6 | 13.6 | 333 | 11.1 | 1701 | 9.3 | 631 | 9.7 |
| 50-99 persons | 5.4 | 7.7 | 209 | 7.0 | 1029 | 5.6 | 377 | 5.8 |
| Total less than 100 persons | 41.0 | 58.2 | 1233 | 41.2 | 6687 | 36.7 | 2368 | 36.6 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 4.5 | 6.4 | 203 | 6.8 | 1156 | 6.3 | 415 | 6.4 |
| 500-999 persons | 6.4 | 9.1 | 332 | 11.1 | 2101 | 11.5 | 799 | 12.4 |
| 1 O00 or more persons | 4.7 | 6.7 | 295 | 9.9 | 2004 | 11.0 | 626 | 9.7 |
| Total 100 or more persons | 13.9 | 19.7 | 928 | 31.0 | 6267 | 34.4 | 2261 | 35.0 |
| Total | 29.5 | 41.8 | 1758 | 58.8 | 11528 | 63.3 | 4100 | 63.4 |

- nil or rounded to zero (including null cells)
(a) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing ABN units/TAUs which operated during 2004-05 but were not operating at 30 June 2005. See paragraph 30 of the Explanatory Notes. s.
(b) Includes working proprietors.
(c) Excludes the drawings of working proprietors.
(d) Includes rent, leasing and hiring income.

EMPLOYMENT SIZE (a) continued

|  | Employment at end of June(b) |  | Wages and salaries(c) |  | Sales and service income(d) |  | Industry value added |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment size groups | '000 | \% | \$m | \% | \$m | \% | \$m |

PRINTING, PUBLISHING AND RECORDED MEDIA

| 0-4 persons | 14.2 | 13.1 | 327 | 6.4 | 2013 | 9.0 | 552 | 5.5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 8.4 | 7.8 | 355 | 6.9 | 1302 | 5.8 | 576 | 5.7 |
| 10-19 persons | 11.5 | 10.6 | 370 | 7.2 | 1205 | 5.4 | 514 | 5.1 |
| 20-49 persons | 15.8 | 14.5 | 690 | 13.4 | 2644 | 11.8 | 1096 | 10.9 |
| 50-99 persons | 9.6 | 8.8 | 483 | 9.4 | 2063 | 9.2 | 774 | 7.7 |
| Total less than 100 persons | 59.5 | 54.8 | 2225 | 43.3 | 9227 | 41.2 | 3512 | 34.8 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 6.4 | 5.9 | 319 | 6.2 | 1537 | 6.9 | 591 | 5.9 |
| 500-999 persons | 11.2 | 10.3 | 628 | 12.2 | 2838 | 12.7 | 1191 | 11.8 |
| 1 OO0 or more persons | 6.6 | 6.1 | 318 | 6.2 | 1336 | 6.0 | 735 | 7.3 |
| Total 100 or more persons | 24.9 | 22.9 | 1650 | 32.1 | 7434 | 33.2 | 4063 | 40.3 |
| Total | 49.1 | 45.2 | 2915 | 56.7 | 13146 | 58.8 | 6580 | 65.2 |

$\qquad$
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING

| 0-4 persons | 5.5 | 5.3 | 124 | 2.2 | 1464 | 2.4 | 529 | 4.1 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 5.6 | 5.3 | 216 | 3.8 | 1263 | 2.1 | 364 | 2.8 |
| 10-19 persons | 7.9 | 7.6 | 294 | 5.2 | 1716 | 2.8 | 527 | 4.1 |
| 20-49 persons | 14.3 | 13.7 | 596 | 10.5 | 3722 | 6.1 | 1136 | 8.8 |
| 50-99 persons | 11.3 | 10.8 | 553 | 9.8 | 3827 | 6.3 | 1139 | 8.8 |
| Total less than 100 persons | 44.6 | 42.8 | 1783 | 31.5 | 11992 | 19.8 | 3695 | 28.6 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 12.8 | 12.3 | 673 | 11.9 | 5464 | 9.0 | 1224 | 9.5 |
| 500-999 persons | 14.6 | 14.0 | 951 | 16.8 | 11457 | 18.9 | 2451 | 19.0 |
| 1 OO0 or more persons | 13.9 | 13.4 | 957 | 16.9 | 14805 | 24.4 | 2639 | 20.4 |
| Total 100 or more persons | 18.3 | 17.6 | 1305 | 23.0 | 16993 | 28.0 | 2907 | 22.5 |
| Total | 59.6 | 57.2 | 3886 | 68.5 | 48720 | 80.2 | 9222 | 71.4 |

NON-METALLIC MINERAL PRODUCT MANUFACTURING

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| O-4 persons | 5.2 | 11.2 | 85 | 3.7 | 873 | 6.1 | 269 | 5.4 |
| 5-9 persons | 3.0 | 6.4 | 107 | 4.7 | 473 | 3.3 | 160 | 3.2 |
| 10-19 persons | 4.0 | 8.6 | 138 | 6.0 | 690 | 4.8 | 232 | 4.7 |
| 20-49 persons | 5.5 | 11.8 | 230 | 10.0 | 1364 | 9.6 | 477 | 9.6 |
| 50-99 persons | 3.7 | 8.0 | 161 | 7.1 | 1053 | 7.4 | 299 | 6.0 |
| Total less than 100 persons | 21.4 | 46.0 | 722 | 31.6 | 4453 | 31.3 | 1436 | 29.0 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 3.6 | 7.8 | 191 | 8.3 | 1270 | 8.9 | 361 | 7.3 |
| 500-999 persons | 4.7 | 10.2 | 296 | 13.0 | 1658 | 11.7 | 626 | 12.7 |
| 1 O00 or more persons | 4.4 | 9.5 | 290 | 12.7 | 1763 | 12.4 | 660 | 13.3 |
| Total 100 or more persons | 12.3 | 26.4 | 786 | 34.4 | 5086 | 35.7 | 1860 | 37.6 |
| Total | 25.1 | 54.0 | 1563 | 68.4 | 9777 | 68.7 | 3507 | 71.0 |

(a) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing ABN units/TAUs which operated during 2004-05 but were not operating at 30 June 2005. See paragraph 30 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

|  | Employment at end of June(b) |  | Wages and salaries(c) |  | Sales and service income(d) |  | Industry value added |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment size groups | '000 | \% | \$m | \% | \$m | \% | \$m | \% |

## METAL PRODUCT MANUFACTURING

| 0-4 persons | 20.2 | 11.6 | 380 | 4.6 | 10225 | 15.7 | 2094 | 11.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 17.5 | 10.0 | 634 | 7.6 | 3968 | 6.1 | 1916 | 10.2 |
| 10-19 persons | 19.3 | 11.1 | 742 | 8.9 | 3207 | 4.9 | 1210 | 6.5 |
| 20-49 persons | 30.7 | 17.7 | 1211 | 14.6 | 5854 | 9.0 | 2215 | 11.8 |
| 50-99 persons | 14.7 | 8.4 | 691 | 8.3 | 3316 | 5.1 | 623 | 3.3 |
| Total less than 100 persons | 102.4 | 58.8 | 3658 | 44.1 | 26570 | 40.8 | 8057 | 43.0 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 12.8 | 7.3 | 637 | 7.7 | 4440 | 6.8 | 1211 | 6.5 |
| 500-999 persons | 11.7 | 6.7 | 638 | 7.7 | 4690 | 7.2 | 1361 | 7.3 |
| 1 O00 or more persons | 17.5 | 10.1 | 1146 | 13.8 | 11822 | 18.2 | 3071 | 16.4 |
| Total 100 or more persons | 29.7 | 17.1 | 2223 | 26.8 | 17585 | 27.0 | 5022 | 26.8 |
| Total | 71.7 | 41.2 | 4644 | 55.9 | 38537 | 59.2 | 10664 | 57.0 |


| MACHINERY AND EQUIPMENT MANUFACTURING |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0-4 persons | 22.6 | 9.5 | 472 | 4.2 | 3845 | 6.1 | 1140 | 6.0 |
| 5-9 persons | 14.3 | 6.0 | 561 | 5.0 | 2957 | 4.7 | 939 | 4.9 |
| 10-19 persons | 24.9 | 10.5 | 996 | 8.9 | 4494 | 7.1 | 1634 | 8.6 |
| 20-49 persons | 30.6 | 12.9 | 1310 | 11.7 | 6480 | 10.2 | 2211 | 11.6 |
| 50-99 persons | 23.0 | 9.7 | 1111 | 9.9 | 6061 | 9.5 | 1784 | 9.4 |
| Total less than 100 persons | 115.5 | 48.7 | 4450 | 39.7 | 23836 | 37.5 | 7707 | 40.4 |
| 100-199 persons | 19.5 | 8.2 | 938 | 8.4 | 5224 | 8.2 | 1542 | 8.1 |
| 200-499 persons | 28.5 | 12.0 | 1491 | 13.3 | 8007 | 12.6 | 2400 | 12.6 |
| 500-999 persons | 25.0 | 10.6 | 1367 | 12.2 | 7850 | 12.4 | 2483 | 13.0 |
| 1000 or more persons | 48.6 | 20.5 | 2968 | 26.5 | 18639 | 29.3 | 4930 | 25.9 |
| Total 100 or more persons | 121.7 | 51.3 | 6764 | 60.3 | 39720 | 62.5 | 11354 | 59.6 |
| Total | 237.2 | 100.0 | 11213 | 100.0 | 63556 | 100.0 | 19061 | 100.0 |

OTHER MANUFACTURING

| O-4 persons | 19.8 | 26.8 | 267 | 11.6 | 2389 | 18.6 | 745 | 18.4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 9.1 | 12.4 | 310 | 13.5 | 1701 | 13.3 | 537 | 13.2 |
| 10-19 persons | 12.4 | 16.8 | 433 | 18.8 | 2179 | 17.0 | 686 | 16.9 |
| 20-49 persons | 16.1 | 21.8 | 603 | 26.2 | 2972 | 23.2 | 962 | 23.7 |
| 50-99 persons | 8.3 | 11.2 | 331 | 14.4 | 1806 | 14.1 | 537 | 13.2 |
| Total less than 100 persons | 65.8 | 88.9 | 1944 | 84.5 | 11047 | 86.2 | 3467 | 85.4 |
| 100-199 persons | 4.6 | 6.2 | 197 | 8.6 | 992 | 7.7 | 336 | 8.3 |
| 200-499 persons | 3.6 | 4.8 | 159 | 6.9 | 780 | 6.1 | 255 | 6.3 |
| 500-999 persons | - | - | - | - | - | - | - | - |
| 1 OO0 or more persons | - | - | - | - | - | - | - | - |
| Total 100 or more persons | 8.2 | 11.1 | 356 | 15.5 | 1771 | 13.8 | 591 | 14.6 |
| Total | 74.0 | 100.0 | 2300 | 100.0 | 12819 | 100.0 | 4057 | 100.0 |

- nil or rounded to zero (including null cells)
(a) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing ABN units/TAUs which operated during 2004-05 but were not operating at 30 June 2005. See paragraph 30 of the Explanatory Notes.
(b) Includes working proprietors.
(c) Excludes the drawings of working proprietors.
(d) Includes rent, leasing and hiring income.

CHAPTER 2 • NATIONAL DATA
2.3 EMPLOYMENT SIZE (a) continued

|  | Employment at end of June(b) |  | Wages and salaries(c) |  | Sales and service income(d) |  | Industry value added |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment size groups | '000 | \% | \$m | \% | \$m | \% | \$m |

TOTAL MANUFACTURING

| 0-4 persons | 118.6 | 11.2 | 2111 | 4.4 | 27050 | 8.0 | 6626 | 6.8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 5-9 persons | 72.6 | 6.9 | 2668 | 5.5 | 14348 | 4.2 | 5282 | 5.4 |
| 10-19 persons | 106.5 | 10.1 | 3823 | 7.9 | 18522 | 5.5 | 6258 | 6.4 |
| 20-49 persons | 147.2 | 13.9 | 5790 | 12.0 | 30421 | 9.0 | 10178 | 10.4 |
| 50-99 persons | 98.0 | 9.3 | 4390 | 9.1 | 25643 | 7.6 | 7177 | 7.4 |
| Total less than 100 persons | 543.0 | 51.3 | 18783 | 39.0 | 115984 | 34.3 | 35521 | 36.4 |
| 100-199 persons |  |  |  |  |  |  |  |  |
| 200-499 persons | 80.9 | 7.6 | 3855 | 8.0 | 24989 | 7.4 | 6868 | 7.0 |
| 500-999 persons | 114.2 | 10.8 | 5954 | 12.3 | 43494 | 12.9 | 12050 | 12.3 |
| 1 000 or more persons | 96.7 | 9.1 | 5606 | 11.6 | 50103 | 14.8 | 12892 | 13.2 |
| Total 100 or more persons | 222.8 | 21.1 | 14022 | 29.1 | 103095 | 30.5 | 30273 | 31.0 |
| Total | 514.6 | 48.7 | 29436 | 61.0 | 221681 | 65.7 | 62082 | 63.6 |

(a) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing ABN units/TAUs which operated during 2004-05 but were not operating at 30 June 2005. See paragraph 30 of the Explanatory Notes.
(b) Includes working proprietors.
(c) Excludes the drawings of working proprietors.
(d) Includes rent, leasing and hiring income.

PLUS

| Sales and | Funding from |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | government | work |  |  | Other |  |
|  |  | done |  | Purchases of | intermediate | Industry |
| service | operational | for own | Change in | goods and | input | value |
| income(a) | costs | use | inventories | materials(b) | expenses | added |
| \$m | \$m | \$m | \$m | \$m | \$m | \$m |


| 71572 | 50 | 71 | ^278 | 40200 | 13221 | 18551 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9300 | 52 | 24 | *39 | 4577 | 2012 | 2827 |
| 18269 | 16 | 18 | ^156 | 8781 | 3199 | 6479 |
| 22478 | 5 | 28 | ^ 60 | 6420 | 6023 | 10127 |
| 60871 | 62 | 137 | 1081 | 39337 | 9859 | 12956 |
| 14297 | 10 | 10 | 76 | 5559 | 3881 | 4951 |
| 65160 | 27 | 125 | 734 | 35405 | 11911 | 18730 |
| 63643 | 528 | 134 | 519 | 36208 | 9538 | 19078 |
| 12851 | 17 | 13 | *47 | 6189 | 2669 | 4070 |
| 338440 | 767 | 560 | 2991 | 182676 | 62314 | 97769 |

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

* estimate has a relative standard error of $25 \%$ to $50 \%$ and should be used with caution
(a) 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.

ACQUISITION AND DISPOSAL OF ASSETS

## CAPITAL EXPENDITURE(a)

| INDUSTRY SUBDIVISION |  | Plant <br> machinery and | Dwellings, other buildings and | Other (including land and intangible | Total | Disposal | Net capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | equipment | structures | assets) | acquisitions | of assets | expenditure |
| ANZSIC |  |  |  |  |  |  |  |
| code | Description | \$m | \$m | \$m | \$m | \$m | \$m |
|  |  |  |  |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 2259 | 461 | 632 | 3352 | 335 | 3017 |
| 22 | Textile, clothing, footwear and leather mfg | 204 | 33 | 58 | 295 | 56 | 239 |
| 23 | Wood and paper product mfg | 671 | ^47 | 87 | 805 | 267 | 538 |
| 24 | Printing, publishing and recorded media | 705 | 84 | 283 | 1072 | 191 | 880 |
| 25 | Petroleum, coal, chemical and associated product mfg | 2344 | 335 | 351 | 3030 | 235 | 2794 |
| 26 | Non-metallic mineral product mfg | 829 | *38 | 61 | 927 | 106 | 821 |
| 27 | Metal product mfg | 2540 | 735 | 210 | 3485 | 210 | 3275 |
| 28 | Machinery and equipment mfg | 2099 | 193 | 380 | 2671 | 513 | 2157 |
| 29 | Other manufacturing | 294 | 44 | 68 | 407 | 125 | ^282 |
| 21-29 | Total manufacturing | 11943 | 1971 | 2129 | 16043 | 2039 | 14004 |

- estimate has a relative standard error of $10 \%$ to less than $25 \%$ and should be used with caution
* estimate has a relative standard error of $25 \%$ to $50 \%$ and should be used with caution
(a) Items listed include value of capital work done for own use.


## 2.6 labour costs

|  | $\begin{array}{r} \text { Wages } \\ \text { and } \\ \text { salaries(a) } \end{array}$ | Employer contributions into superannuation funds | Workers' compensation premiums/ costs | Selected labour costs | Fringe benefits tax | Payroll tax |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry subdivision | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
|  |  |  |  |  |  |  |  |
| 21 Food, beverage and tobacco mfg | 8690 | 779 | 347 | 9816 | 119 | 434 | 10369 |
| 22 Textile, clothing, footwear and leather mfg | 1657 | 164 | 60 | 1880 | 15 | 60 | 1955 |
| 23 Wood and paper product mfg | 3005 | 269 | 126 | 3400 | 26 | 126 | 3551 |
| 24 Printing, publishing and recorded media | 5163 | 426 | 77 | 5666 | 71 | 237 | 5974 |
| 25 Petroleum, coal, chemical and associated product mfg | 5701 | 551 | 161 | 6413 | 100 | 276 | 6789 |
| 26 Non-metallic mineral product mfg | 2297 | 201 | 92 | 2589 | 33 | 108 | 2730 |
| 27 Metal product mfg | 8312 | 819 | 310 | 9441 | 80 | 337 | 9858 |
| 28 Machinery and equipment mfg | 11226 | 1039 | 349 | 12615 | 115 | 513 | 13244 |
| 29 Other manufacturing | 2307 | 249 | 88 | 2643 | 18 | 72 | 2732 |
| 21-29 Total manufacturing | 48357 | 4497 | 1610 | 54464 | 576 | 2162 | 57202 |

[^2]SELECTED PERFORMANCE MEASURES, 2003-04 and 2004-05

| FOOD, | TEXTILE, |  | PRINTING, |
| :---: | :---: | :---: | :---: |
| BEVERAGE | CLOTHING, | WOOD AND | PUBLISHING |
| AND TOBACCO | FOOTWEAR AND | PAPER | AND RECORDED |
| MFG | LEATHER MFG | PRODUCT MFG | MEDIA |


| Labour |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry value added to selected labour costs | times | 1.84 | 1.89 | 1.57 | 1.50 | 2.00 | 1.91 | 1.80 | 1.79 |
| Selected labour costs per person employed(a) | \$'000 | 50.8 | 51.5 | 35.7 | 36.2 | 46.9 | 48.3 | 50.8 | 52.2 |
| Profitability |  |  |  |  |  |  |  |  |  |
| Profit margin | \% | 8.8 | 7.8 | 7.3 | 6.5 | 9.3 | 8.4 | 13.6 | 15.2 |
| Debt |  |  |  |  |  |  |  |  |  |
| Interest coverage | times | 6.3 | 5.7 | 6.6 | 4.1 | 6.1 | 5.8 | 9.6 | 7.4 |
| Capital expenditure |  |  |  |  |  |  |  |  |  |
| Investment rate (value added) | \% | 16.1 | 18.1 | 10.9 | 10.4 | 15.1 | 12.4 | 10.5 | 10.6 |

(a) See Explanatory Notes paragraph 19.


| Labour <br> Industry value added to <br> selected labour costs <br> Selected labour costs per <br> person employed(a) | times | 1.82 | 2.02 | 2.04 | 1.91 | 1.87 | 1.98 | 1.48 | 1.51 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Profitability <br> Profit margin | $\$ 000$ | 58.8 | 61.5 | 53.9 | 55.8 | 54.1 | 54.2 | 51.2 | 53.2 |
| Debt <br> $\quad$ Interest coverage <br> Capital expenditure <br> $\quad$ Investment rate (value added) | $\%$ | 4.8 | 6.2 | 11.2 | 10.0 | 7.9 | 11.4 | 5.7 | 6.2 |

(a) See Explanatory Notes paragraph 19.

SELECTED PERFORMANCE MEASURES, 2003-04 and 2004-05 continued

| OTHER | TOTAL |
| :---: | :---: |
| MANUFACTURING | MANUFACTURING |
| 03-04 04-05 | 03-04 04-05 |


| Labour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Industry value added to selected labour costs | times | 1.54 | 1.54 | 1.75 | 1.80 |
| Selected labour costs per person employed(a) | \$'000 | 35.7 | 35.7 | 50.2 | 51.5 |
| Profitability |  |  |  |  |  |
| Profit margin | \% | 7.9 | 7.5 | 7.7 | 8.5 |
| Debt |  |  |  |  |  |
| Interest coverage | times | 9.7 | 8.6 | 6.9 | 7.3 |
| Capital expenditure |  |  |  |  |  |
| Investment rate (value added) | \% | 8.4 | 10.0 | 15.1 | 16.4 |

(a) See Explanatory Notes paragraph 19.

This chapter presents estimates of key variables at the state and territory level. For information about how these estimates are derived, please see paragraphs 28 and 29 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, 2004-05


The above graphic illustrates each state or territory's share of economic aggregates relating to Australian manufacturing in 2004-05. The distribution is very similar across all four variables presented.

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CHAPTER 3 • STATES, TERRITORIES AND AUSTRALIA
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## INTRODUCTION

continued


Compared to the previous year, manufacturing employment increased in 2004-05 in Victoria (by 4\%), Queensland (by 5\%), Western Australia (by 7\%), the Northern Territory (by 5\%) and the Australian Capital Territory (by 1\%), and fell in New South Wales and South Australia (by $1 \%$ each). Tasmanian manufacturing employment was virtually unchanged. Wages and salaries and sales and service income increased in all states and territories, while IVA only fell in the two territories. Queensland had the largest absolute ( $\$ 7.0 \mathrm{~b}$ ) and percentage ( $13 \%$ ) increases in sales and service income. Queensland also had the largest percentage increase in IVA (15\%) but was second to New South Wales (\$2.4b), with an increase of $\$ 2.1 \mathrm{~b}$, in the absolute movement.


Of those industries available for publication, the industry which most heavily dominates manufacturing IVA in any state or territory is Printing, publishing and recorded media in the Australian Capital Territory (which accounts for 37\% of its manufacturing IVA, compared to $10 \%$ nationally). This is followed by Machinery and equipment manufacturing in South Australia (29\%; nationally 20\%), and Metal product manufacturing in Western Australia ( $29 \%$; nationally $19 \%$ ) and Tasmania ( $26 \%$ ). In addition, WOod and paper Product manufacturing generates $24 \%$ of manufacturing IVA in Tasmania compared to $7 \%$ nationally.

INDUSTRY COMPOSITION continued

STATE AND TERRITORY COMPOSITION

NEW SOUTH WALES

VICTORIA

QUEENSLAND

SOUTH AUSTRALIA

Metal product manufacturing was the major manufacturing industry, as measured by share of industry value added, 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, pubilshing and recorded media dominated in the Australian Capital Territory. Not all subdivisions are available for publication for the two territories.

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.

Food, beverage and tobacco manufacturing is the largest manufacturing industry in New South Wales as measured by contribution to that state's manufacturing sales and service income (21\%) and IVA (20\%). Machinery and equipment manufacturing, however, is the largest source of manufacturing employment and wages and salaries (both 20\%).

Measured by sales and service income, New South Wales businesses dominate seven of the nine manufacturing industry subdivisions. Their dominance is greatest in Printing, publishing and recorded media, to which they contribute $45 \%$ of national sales and service income, $40 \%$ of IVA, $38 \%$ of employment and $43 \%$ of wages and salaries.

By all four measures presented, Machinery and equipment manufacturing is 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 ranks second, with Petroleum, coal, chemical and associated product manufacturing ranking third on all measures apart from employment.

Victoria is the largest contributor to the two manufacturing industry subdivisions in which New South Wales is not dominant in terms of sales and service income. Textile, clothing, footwear and leather manufacturing is heavily concentrated in Victoria, where $44 \%$ of the industry's sales and service income and $45 \%$ of its IVA is produced. Victorian businesses are also the major sources of sales and service income in MaChinery and equipment manufacturing, generating $37 \%$ and $36 \%$ of national sales and service income and IVA respectively.

Although Food, beverage and tobacco manufacturing is the largest source of manufacturing employment (22\%), wages and salaries (21\%) and sales and service income (25\%) in Queensland, its share of IVA (20\%) is second to Metal product manufacturing (24\%).

Queensland's contribution to Metal product manufacturing (20 and 21\% of all four variables) exceeds its share of total manufacturing. This relative importance of Queensland reflects, in part, the location of major smelting and refining operations in that state.

By all four measures presented, Machinery and equipment manufacturing is the largest manufacturing industry in South Australia. Its domination of South Australian manufacturing is the most pronounced of any state or territory: $32 \%$ of South Australia's manufacturing employment, $29 \%$ of IVA, and $36 \%$ of sales and service income and $35 \%$ wages and salaries paid are attributable to Machinery and equipment manufacturing. Food,

SOUTH AUSTRALIA continued
beverage and tobacco manufacturing is the second most important manufacturing industry, followed by Metal product manufacturing.

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 (15\%), wages and salaries (14\%) and employment (13\%) for Machinery and equipment manufacturing.

Metal product manufacturing dominates manufacturing in Western Australia, accounting for $24 \%, 27 \%, 38 \%$ and $29 \%$ respectively of employment, wages and salaries, sales and service income and IVA. On the other hand, Petroleum, coal, chemical and associated product manufacturing is the second largest contributor to that state's manufacturing sales and service income (20\%) and IVA (17\%), but ranks fourth in wages and salaries (11\%) and fifth (8\%) in employment at the end of June. This distribution reflects, in part, the presence and capital intensity of major metal and petroleum refining operations.

Tasmania is the only state or territory in which Wood and paper product manufacturing ranks in the three major manufacturing industries. It is the second largest source of manufacturing IVA (24\%), wages and salaries (20\%), and employment (18\%), and ranks third in sales and service income (19\%). The other top ranked industries are Food, beverage and tobacco manufacturing (the state's major manufacturing employer, with 22\%) and Metal product manufacturing (its largest source of sales and service income).

Similarly, Tasmania's share of national aggregates for WOOD and paper product manufacturing ( $8 \%$ of IVA, $6 \%$ of wages and salaries and sales and service income, and $5 \%$ of employment) considerably exceeds its contribution to manufacturing overall.

Printing, publishing and recorded media is the largest manufacturing industry in the ACT, accounting for $30 \%$ of sales and service income, $37 \%$ of IVA, $33 \%$ of wages and salaries, and $30 \%$ of employment. Of the subdivisions available for publication, Machinery and EQUIPMENT MANUFACTURING ranks second based on all variables presented.

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 2004-05. For the purposes of this table, the activity of general government and the ownership of dwellings are each treated as industries.

In 2004-05, the largest share of production on this basis was contributed by Property and business services, which generated $12.6 \%$ of total factor income. Of the nineteen industries shown, Manufacturing ranked second nationally, contributing $11.0 \%$. Manufacturing was the largest industry in South Australia and Tasmania, and in New South Wales and Victoria was exceeded only by Property and business services. Mining and Property and business services both ranked ahead of Manufacturing in Queensland. South Australia (at $15.3 \%$ ) had the highest proportion of state or territory production attributed to Manufacturing, followed by Tasmania (14.5\%).

STATES, TERRITORIES AND AUSTRALIA(a)

| INDUSTR | Y SUBDIVISION | Employment at end of June(b) | Wages and salaries(c) | Sales and service | Industry value | Sales and service income per person | Industry value added per person |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANZSIC |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | NEW SO | H WALES |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 54.5 | 2803 | 22595 | 6351 | 414.8 | 116.6 |
| 22 | Textile, clothing, footwear and leather mfg | 16.0 | 501 | 2988 | 876 | 187.1 | 54.9 |
| 23 | Wood and paper product mfg | 20.7 | 865 | 5725 | 1839 | 276.1 | 88.7 |
| 24 | Printing, publishing and recorded media | 41.6 | 2196 | 10185 | 4080 | 244.6 | 98.0 |
| 25 | Petroleum, coal, chemical and associated product mfg | 31.9 | 1737 | 20631 | 3877 | 647.3 | 121.6 |
| 26 | Non-metallic mineral product mfg | 14.1 | 752 | 4513 | 1600 | 319.9 | 113.4 |
| 27 | Metal product mfg | 52.2 | 2695 | 18750 | 6228 | 359.1 | 119.3 |
| 28 | Machinery and equipment mfg | 63.9 | 3157 | 15783 | 5441 | 247.0 | 85.1 |
| 29 | Other manufacturing | 22.1 | 717 | 4181 | 1273 | 189.5 | 57.7 |
| 21-29 | Total manufacturing | 317.0 | 15425 | 105352 | 31564 | 332.4 | 99.6 |


| VICTORIA |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Food, beverage and tobacco mfg | 52.1 | 2477 | 20765 | 5387 | 398.9 | 103.5 |
| 22 | Textile, clothing, footwear and leather mfg | 21.5 | 757 | 4085 | 1277 | 190.4 | 59.5 |
| 23 | Wood and paper product mfg | 21.4 | 974 | 5670 | 1883 | 264.9 | 88.0 |
| 24 | Printing, publishing and recorded media | 33.0 | 1567 | 6186 | 3150 | 187.2 | 95.3 |
| 25 | Petroleum, coal, chemical and associated product mfg | 39.0 | 2280 | 19921 | 4752 | 511.4 | 122.0 |
| 26 | Non-metallic mineral product mfg | 12.1 | 605 | 3387 | 1240 | 280.2 | 102.6 |
| 27 | Metal product mfg | 42.3 | 2002 | 12597 | 4017 | 298.1 | 95.1 |
| 28 | Machinery and equipment mfg | 79.9 | 3960 | 23850 | 6878 | 298.3 | 86.0 |
| 29 | Other manufacturing | 22.1 | 736 | 3785 | 1226 | 170.9 | 55.3 |
| 21-29 | Total manufacturing | 323.4 | 15359 | 100248 | 29812 | 310.0 | 92.2 |
| QUEENSLAND |  |  |  |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 42.8 | 1681 | 14995 | 3213 | 350.6 | 75.1 |
| 22 | Textile, clothing, footwear and leather mfg | 6.4 | 169 | 1020 | 301 | 160.2 | 47.2 |
| 23 | Wood and paper product mfg | 12.5 | 480 | 2990 | 1106 | 238.6 | 88.2 |
| 24 | Printing, publishing and recorded media | 14.8 | 612 | 2728 | 1262 | 184.5 | 85.4 |
| 25 | Petroleum, coal, chemical and associated product mfg | 15.4 | 767 | 9903 | 1923 | 642.9 | 124.9 |
| 26 | Non-metallic mineral product mfg | 9.5 | 419 | 2838 | 875 | 298.4 | 92.0 |
| 27 | Metal product mfg | 37.3 | 1649 | 13050 | 3853 | 350.1 | 103.4 |
| 28 | Machinery and equipment mfg | 38.7 | 1629 | 9037 | 2685 | 233.4 | 69.3 |
| 29 | Other manufacturing | 14.0 | 449 | 2678 | 803 | 190.9 | 57.2 |
| 21-29 | Total manufacturing | 191.4 | 7855 | 59239 | 16020 | 309.5 | 83.7 |

[^3]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 | 19.2 | 845 | 5993 | 1897 | 312.3 | 98.8 |
| 22 | Textile, clothing, footwear and leather mfg | 2.7 | 78 | 475 | 118 | 173.9 | 43.3 |
| 23 | Wood and paper product mfg | 6.7 | 315 | 1623 | 736 | 241.3 | 109.4 |
| 24 | Printing, publishing and recorded media | 7.8 | 296 | 1332 | 608 | 171.6 | 78.3 |
| 25 | Petroleum, coal, chemical and associated product mfg | 8.2 | 385 | 2307 | 719 | 280.3 | 87.3 |
| 26 | Non-metallic mineral product mfg | 3.2 | 162 | 1299 | 422 | 404.4 | 131.6 |
| 27 | Metal product mfg | 12.7 | 569 | 3616 | 1024 | 283.8 | 80.3 |
| 28 | Machinery and equipment mfg | 31.4 | 1531 | 9825 | 2367 | 313.2 | 75.5 |
| 29 | Other manufacturing | 5.1 | 133 | 712 | 250 | 138.9 | 48.8 |
| 21-29 | Total manufacturing | 97.1 | 4315 | 27182 | 8140 | 280.0 | 83.8 |


| WESTERN AUSTRALIA |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Food, beverage and tobacco mfg | 16.5 | 631 | 5538 | 1166 | 335.3 | 70.6 |
| 22 | Textile, clothing, footwear and leather mfg | 3.8 | 107 | 539 | 192 | 143.0 | 50.9 |
| 23 | Wood and paper product mfg | 4.6 | 170 | 966 | 357 | 209.9 | 77.5 |
| 24 | Printing, publishing and recorded media | 8.0 | 347 | 1445 | 737 | 181.8 | 92.7 |
| 25 | Petroleum, coal, chemical and associated product mfg | 8.3 | 464 | 7484 | 1521 | 903.4 | 183.6 |
| 26 | Non-metallic mineral product mfg | 6.0 | 276 | 1799 | 630 | 299.2 | 104.7 |
| 27 | Metal product mfg | 24.0 | 1117 | 14503 | 2568 | 605.3 | 107.2 |
| 28 | Machinery and equipment mfg | 18.3 | 749 | 4171 | 1375 | 228.0 | 75.2 |
| 29 | Other manufacturing | 8.8 | 225 | 1263 | 438 | 143.8 | 49.9 |
| 21-29 | Total manufacturing | 98.2 | 4085 | 37709 | 8983 | 384.1 | 91.5 |

## TASMANIA

|  |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 21 | Food, beverage and tobacco mfg | 4.8 | 210 | 1450 | 455 | 303.1 | 95.2 |
| 22 | Textile, clothing, footwear and leather mfg | 1.4 | 41 | 162 | 53 | 115.6 | 38.1 |
| 23 | Wood and paper product mfg | 3.8 | 181 | 1173 | 527 | 308.2 | 138.5 |
| 24 | Printing, publishing and recorded media | 1.5 | 60 | 241 | 121 | 160.5 | 80.6 |
| 25 | Petroleum, coal, chemical and associated |  |  |  |  |  |  |
|  | product mfg | 1.1 | 53 | 523 | 133 | 494.4 | 126.2 |
| 26 | Non-metallic mineral product mfg | 0.8 | 44 | 189 | 101 | 230.6 | 123.1 |
| 27 | Metal product mfg | 3.5 | 163 | 1676 | 572 | 480.5 | 163.8 |
| 28 | Machinery and equipment mfg | 3.3 | 124 | 694 | 219 | 208.3 | 65.9 |
| 29 | Other manufacturing | 1.1 | 24 | 132 | 44 | 122.8 | 41.1 |
| $21-29$ | Total manufacturing | 21.3 | 901 | 6239 | 2226 | 293.4 | 104.7 |

(a) See Explanatory Notes paragraphs 28 and 29.
(b) Includes working proprietors.
(c) Excludes the drawings of working proprietors.
(d) Includes rent, leasing and hiring income.
(e) It should be noted that, 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 expressed as values per person employed can be affected by any fluctuations in employment during the reference period.

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 senvice 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 | 0.5 | 24 | 134 | 47 | 289.9 | 101.6 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 22 | Textile, clothing, footwear and leather mfg | $n p$ | $n p$ | $n p$ | $n p$ | $n p$ | 47.6 |
| 23 | Wood and paper product mfg | 0.1 | 3 | 24 | 6 | 181.6 | 76.9 |
| 24 | Printing, publishing and recorded media | 0.5 | 16 | 69 | 35 | 150.2 |  |
| 25 | Petroleum, coal, chemical and associated |  |  |  |  |  |  |
|  | product mfg | 0.1 | 7 | 64 | 18 | 450.7 | 124.2 |
| 26 | Non-metallic mineral product mfg | 0.4 | 24 | 165 | 52 | 407.8 | 127.9 |
| 27 | Metal product mfg | $n p$ | $n p$ | $n p$ | $n p$ | $n p$ | $n p$ |
| 28 | Machinery and equipment mfg | 0.7 | 28 | 135 | 47 | 197.4 | 68.8 |
| 29 | Other manufacturing | $n p$ | $n p$ | $n p$ | $n p$ | $n p$ | $n p$ |
| $21-29$ | Total manufacturing | 4.2 | 209 | 1507 | 656 | 356.4 | 155.0 |


| AUSTRALIAN CAPITAL TERRITORY |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | Food, beverage and tobacco mfg | 0.4 | 19 | 101 | 34 | 230.8 | 78.7 |
| 22 | Textile, clothing, footwear and leather mfg | np | np | np | np | np | np |
| 23 | Wood and paper product mfg | 0.5 | 16 | 98 | 25 | 204.8 | 52.9 |
| 24 | Printing, publishing and recorded media | 1.5 | 68 | 291 | 134 | 194.6 | 89.6 |
| 25 | Petroleum, coal, chemical and associated product mfg | 0.3 | 7 | 37 | 13 | 142.1 | 49.9 |
| 26 | Non-metallic mineral product mfg | 0.3 | 14 | 107 | 33 | 380.8 | 115.2 |
| 27 | Metal product mfg | np | np | np | np | np | np |
| 28 | Machinery and equipment mfg | 0.9 | 47 | 148 | 65 | 161.3 | 71.0 |
| 29 | Other manufacturing | np | np | np | np | np | np |
| 21-29 | Total manufacturing | 5.1 | 208 | 965 | 368 | 190.5 | 72.6 |

$\left.\begin{array}{llrl} & \text { AUSTRALIA } & & \ldots\end{array}\right)$
np not available for publication but included in totals where applicable, unless otherwise indicated
(a) See Explanatory Notes paragraphs 28 and 29.
(b) Includes working proprietors.
(c) Excludes the drawings of working proprietors.
(d) Includes rent, leasing and hiring income.
(e) It should be noted that, 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 expressed as values per person employed can be affected by any fluctuations in employment during the reference period.

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CHAPTER 3 - STATES, TERRITORIES AND AUSTRALIA
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3.2 INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME

|  | NSW | Vic. | Qid | SA | WA | Tas. | NT | ACT | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry | \% | \% | \% | \% | \% | \% | \% | \% | \% |
| 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 |
| Manufacturing | 11.1 | 13.9 | 9.0 | 15.3 | 7.8 | 14.5 | 5.9 | 2.0 | 11.0 |
| Electricity, gas and water supply | 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 |

[^4](a) State details for general government gross operating 2005-06, Reissue (cat.no. 5220.0), Analysis of surplus by industry are not available.

## CHAPTER

## NTRODUCTION

INDUSTRY COMPARISON

VALUE OF EXPORTS

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 2004-05, of the value of exports by Australian manufacturing businesses of goods that they produced. For 2004-05, 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 33 to 37. 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.

The 2006 issue of the Australian Year Book (ABS cat. no. 1301.0; Table 30.27) shows that, on an industry of origin basis, Australia exported $\$ 67.4 \mathrm{~b}$ of manufactured goods, which formed $53 \%$ of value of all goods exports in 2004-05. Manufacturing was followed by mining (32\%) and agriculture (8\%). 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.

In 2004-05, the Economic Activity Survey indicated that Australian manufacturers directly exported $\$ 49.2 \mathrm{~b}$ worth of the goods they produced, which represents $73 \%$ of manufactured goods exports. This amounted to $18 \%$ of their value of sales of goods produced and is an increase of $\$ 906 \mathrm{~m}$ (or $2 \%$ ) compared to the value for 2003-04, when the proportion was $19 \%$. The following graph illustrates the percentage contribution of each manufacturing industry subdivision to total manufacturing exported sales of goods produced


## VALUE OF EXPORTS

continued

EMPLOYMENT SIZE OF EXPORTING BUSINESSES

Metal product manufacturing is Australia's most heavily export-oriented manufacturing industry. In 2004-05, 34\% of its sales of goods produced were exported. Businesses exporting $50 \%$ or more of sales contributed $28 \%$ of both sales and service income and iVA of 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 (2\%), Non-metallic mineral product manufacturing was the least export-oriented Australian manufacturing industry in 2004-05. 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 decreased between 2003-04 and 2004-05 in five and increased in the remaining four. In percentage terms, the manufacturing industry with the largest decrease in value of goods exported was Non-metallic mineral product manufacturing, exports by which fell by $29 \%$ (or $\$ 113 \mathrm{~m})$ to $\$ 279 \mathrm{~m}$. The largest absolute decrease in the value of goods exported was recorded by Wood and paper product manufacturing (down \$391m, or 26\%).

The value of goods exported by the Other manufacturing industry rose by $34 \%$ (or $\$ 92 \mathrm{~m}$ ) between 2003-04 and 2004-05, the largest percentage increase in manufacturing. Over the same period, Food, beverage and tobacco manufacturing recorded the greatest increase in value of goods exported in dollar terms: $\$ 1.1 \mathrm{~b}$, or $8 \%$. The other industry which increased its value of exports (by $34 \%$, or $\$ 92 \mathrm{~m}$ ) was Other manufacturing.

Over the period from 2001-02 to 2004-05, the value of goods produced and exported by Australian manufacturing businesses has increased by $6 \%$, compared to a $19 \%$ increase in their total value of sales of goods produced. Hence the export proportion has dropped from $20.6 \%$ to $18.3 \%$. The only manufacturing industries that increased their value of export sales over this period were Food, beverage and tobacco manufacturing (up $\$ 0.8 \mathrm{~b}$, or $6 \%$ ), Metal product manufacturing (up $\$ 2.7 \mathrm{~b}$, or $17 \%$ ) and Other manufacturing (up $\$ 78 \mathrm{~m}$, or $27 \%$ ). The largest percentage decline over the period since 2001-02 was recorded by Textile, clothing, footwear and leather manufacturing (down $43 \%$, or $\$ 659 \mathrm{~m}$ ). Petroleum, coal, chemical and associated product manufacturing experienced the greatest fall in absolute terms ( $\$ 826 \mathrm{~m}$, or $16 \%$ ), followed by Textile, clothing, footwear and leather manufacturing (\$659m, or 43\%)

Excluding Metal product manufacturing (see paragraphs 33 to 37 of the Explanatory Notes), manufacturing businesses employing 100 or more persons tend to export a higher proportion (by value) of the goods that they produce, compared to businesses employing fewer than 100 persons. In 2004-05, the only exceptions to this general tendency, at the subdivision level, were Textile, clothing, footwear and leather manufacturing and Other manufacturing.

The industry subdivision in which export activity is most heavily concentrated in businesses employing 100 or more persons is Food, beverage and tobacco manufacturing, where $86 \%$ (or $\$ 12.7$ b) of total exports are produced by businesses in this size category. This is followed by Machinery and equipment manufacturing, where businesses in this category account for $82 \%$ (or $\$ 6.6 \mathrm{~b}$ ) of total exports. The $\$ 66 \mathrm{~m}$ in exports produced by businesses classified to Other manufacturing represents the lowest proportion (18\%) 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 $41 \%$ and $56 \%$ of activity at the total manufacturing level in 2004-05. The percentage contribution of non-exporting businesses was greatest, across all variables, in Printing, publishing, and recorded media, Non-metallic mineral product manufacturing and Other manufacturing.

Petroleum, coal, chemical and associated product manufacturing remains the industry in which businesses which export up to and including $50 \%$ of their sales of goods produced make the greatest contribution to the key aggregates presented.

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.

EXPORTED AND TOTAL PRODUCTION (a), 2001-02 to 2004-05

|  | Sales of goods produced (b) | Amount exported by this business or its agent | Exports as a proportion of sales of goods produced |
| :---: | :---: | :---: | :---: |
|  | \$m | \$m | \% |
| FOOD, BEVERAGE AND TOBACCO MANUFACTURING |  |  |  |
| 2001-02 | 59965 | 13892 | 23.2 |
| 2002-03 | 60817 | 12871 | 21.2 |
| 2003-04 | 62330 | 13589 | 21.8 |
| 2004-05 | 64815 | 14684 | 22.7 |
| TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING |  |  |  |
| 2001-02 | 7012 | 1527 | 21.8 |
| 2002-03 | 6659 | 1345 | 20.2 |
| 2003-04 | 6293 | 1116 | 17.7 |
| 2004-05 | 5896 | 868 | 14.7 |
| WOOD AND PAPER PRODUCT MANUFACTURING |  |  |  |
| 2001-02 | 13799 | 1180 | 8.5 |
| 2002-03 | 15175 | 1265 | 8.3 |
| 2003-04 | 15684 | 1519 | 9.7 |
| 2004-05 | 15321 | 1128 | 7.4 |
| PRINTING, PUBLISHING AND RECORDED MEDIA |  |  |  |
| 2001-02 | 11222 | 565 | 5.0 |
| 2002-03 | 11404 | 349 | 3.1 |
| 2003-04 | 11297 | 506 | 4.5 |
| 2004-05 | 12359 | 437 | 3.5 |

PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING

| 2001-02 | 40416 | 5027 | 12.4 |
| :---: | :---: | :---: | :---: |
| 2002-03 | 40832 | 4805 | 11.8 |
| 2003-04 | 41242 | 4123 | 10.0 |
| 2004-05 | 46928 | 4201 | 9.0 |
|  | NON-METALLIC | MANU |  |
| 2001-02 | 9742 | 449 | 4.6 |
| 2002-03 | 10986 | 367 | 3.3 |
| 2003-04 | 11821 | 392 | 3.3 |
| 2004-05 | 12207 | 279 | 2.3 |

METAL PRODUCT MANUFACTURING

| $2001-02$ | 44229 | 16390 | 37.1 |
| :--- | :--- | :--- | :--- |
| 2002-03 | 48828 | 18545 | 38.0 |
| $2003-04$ | 50595 | 18535 | 36.6 |
| $2004-05$ | 56481 | 19124 | 33.9 |

MACHINERY AND EQUIPMENT MANUFACTURING

| $2001-02$ | 38495 | 8582 | 22.3 |
| :--- | :--- | :--- | :--- |
| 2002-03 | 41227 | 8381 | 20.3 |
| 2003-04 | 42765 | 8221 | 19.2 |
| $2004-05$ | 45715 | 8095 | 17.7 |

(a) See paragraphs 33-37 of the Explanatory Notes.
(b) Sales of goods produced by the business, including goods produced for it on a commission basis.

EXPORTED AND TOTAL PRODUCTION(a), 2001-02 to 2004-05 continued

OTHER MANUFACTURING

| 2001-02 | 8043 | 284 | 3.5 |
| :---: | :---: | :---: | :---: |
| 2002-03 | 7810 | 415 | 5.3 |
| 2003-04 | 8112 | 271 | 3.3 |
| 2004-05 | 8757 | 362 | 4.1 |
| TOTAL MANUFACTURING |  |  |  |
| 2001-02 | 232922 | 47895 | 20.6 |
| 2002-03 | 243739 | 48344 | 19.8 |
| 2003-04 | 250140 | 48271 | 19.3 |
| 2004-05 | 268478 | 49177 | 18.3 |

(a) See paragraphs 33-37 of the Explanatory Notes.
(b) Sales of goods produced by the business, including goods produced for it on a commission basis.

EXPORTED AND TOTAL PRODUCTION(a), Employment size

| INDUSTRY SUBDIVISION |  | $\begin{array}{r} \text { Sales of } \\ \text { goods } \\ \text { produced }(\mathrm{b}) \end{array}$ | Amount exported by this business or its | Exports as a proportion of sales of goods |
| :---: | :---: | :---: | :---: | :---: |
| ANZSIC code |  |  |  |  |
|  | Description | \$m | \$m | \% |
| 0-49 PERSONS |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 7815 | 1291 | 16.5 |
| 22 | Textile, clothing, footwear and leather mfg | 2413 | 199 | 8.2 |
| 23 | Wood and paper product mfg | 3874 | 186 | 4.8 |
| 24 | Printing, publishing and recorded media | 4559 | 149 | 3.3 |
| 25 | Petroleum, coal, chemical and associated product mfg | 5755 | 795 | 13.8 |
| 26 | Non-metallic mineral product mfg | 2296 | 77 | 3.3 |
| 27 | Metal product mfg | 19187 | 8904 | 46.4 |
| 28 | Machinery and equipment mfg | 9264 | 1005 | 10.9 |
| 29 | Other manufacturing | 6035 | 199 | 3.3 |
| 21-29 | Total manufacturing | 61198 | 12805 | 20.9 |


| 50-99 PERSONS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 21 | Food, beverage and tobacco mfg | 4252 | 720 | 16.9 |
| 22 | Textile, clothing, footwear and leather mfg | 1089 | 198 | 18.1 |
| 23 | Wood and paper product mfg | 775 | 55 | 7.1 |
| 24 | Printing, publishing and recorded media | 1484 | 140 | 9.5 |
| 25 | Petroleum, coal, chemical and associated product mfg | 2910 | 523 | 18.0 |
| 26 | Non-metallic mineral product mfg | 763 | 15 | 2.0 |
| 27 | Metal product mfg | 2738 | 187 | 6.8 |
| 28 | Machinery and equipment mfg | 3677 | 456 | 12.4 |
| 29 | Other manufacturing | 1309 | 97 | 7.4 |
| 21-29 | Total manufacturing | 18997 | 2391 | 12.6 |

TOTAL 100 OR MORE PERSONS

| 21 | Food, beverage and tobacco mfg | 52747 | 12673 | 24.0 |
| :--- | :--- | ---: | ---: | ---: |
| 22 | Textile, clothing, footwear and leather mfg | 2395 | 472 | 19.7 |
| 23 | Wood and paper product mfg | 10673 | 888 | 8.3 |
| 24 | Printing, publishing and recorded media | 6315 | 148 | 2.3 |
| 25 | Petroleum, coal, chemical and associated product mfg | 38263 | 2883 | 7.5 |
| 26 | Non-metallic mineral product mfg | 9147 | 187 | 2.0 |
| 27 | Metal product mfg | 34556 | 10033 | 29.0 |
| 28 | Machinery and equipment mfg | 32773 | 6633 | 20.2 |
| 29 | Other manufacturing | 1413 | 66 | 4.7 |
| $21-29$ | Total manufacturing | 188283 | 33982 | 18.0 |


| TOTAL |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: |
| 21 | Food, beverage and tobacco mfg |  |  |  |
| 22 | Textile, clothing, footwear and leather mfg | 64815 | 14684 | 22.7 |
| 23 | Wood and paper product mfg | 5896 | 868 | 14.7 |
| 24 | Printing, publishing and recorded media | 15321 | 1128 | 7.4 |
| 25 | Petroleum, coal, chemical and associated product mfg | 12359 | 437 | 3.5 |
| 26 | Non-metallic mineral product mfg | 46928 | 4201 | 9.0 |
| 27 | Metal product mfg | 12207 | 279 | 2.3 |
| 28 | Machinery and equipment mfg | 56481 | 19124 | 33.9 |
| 29 | Other manufacturing | 45715 | 8095 | 17.7 |
|  |  | 8757 | 362 | 4.1 |
| $21-29$ | Total manufacturing | $\mathbf{2 6 8 4 7 8}$ | $\mathbf{4 9 1 7 7}$ | $\mathbf{1 8 . 3}$ |

[^5]CONTRIBUTION OF EXPORTING AND NON-EXPORTING BUSINESSES(a)

| INDUSTRY SUBDIVISION |  | Employment at end of | and | Sales and service | Industry value |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ANZSIC |  |  |  |  |  |
|  |  |  |  |  |  |
| code | Description | \% | \% | \% | \% |
| DO NOT EXPORT |  |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 42.0 | 37.7 | 31.2 | 36.3 |
| 22 | Textile, clothing, footwear and leather mfg | 56.9 | 51.5 | 53.2 | 51.6 |
| 23 | Wood and paper product mfg | 60.9 | 51.3 | 43.5 | 45.3 |
| 24 | Printing, publishing and recorded media | 80.0 | 78.1 | 75.8 | 81.3 |
| 25 | Petroleum, coal, chemical and associated product mfg | 38.4 | 34.0 | 29.2 | 32.9 |
| 26 | Non-metallic mineral product mfg | 69.4 | 67.0 | 70.2 | 68.3 |
| 27 | Metal product mfg | 63.1 | 54.2 | 36.0 | 35.0 |
| 28 | Machinery and equipment mfg | 48.4 | 45.8 | 44.2 | 45.9 |
| 29 | Other manufacturing | 77.6 | 74.0 | 74.3 | 73.9 |
| 21-29 | Total manufacturing | 55.5 | 50.5 | 41.4 | 46.2 |
| EXPORTS UP TO AND INCLUDING 50\% OF SALES THAT THEY PRODUCED |  |  |  |  |  |
| 21 | Food, beverage and tobacco mfg | 42.5 | 47.8 | 48.9 | 50.8 |
| 22 | Textile, clothing, footwear and leather mfg | 36.9 | 41.0 | 37.4 | 41.5 |
| 23 | Wood and paper product mfg | 36.7 | 46.6 | 52.4 | 50.4 |
| 24 | Printing, publishing and recorded media | 19.4 | 21.4 | 23.4 | 18.1 |
| 25 | Petroleum, coal, chemical and associated product mfg | 58.7 | 62.5 | 67.3 | 61.5 |
| 26 | Non-metallic mineral product mfg | 29.6 | 32.2 | 28.8 | 31.1 |
| 27 | Metal product mfg | 29.5 | 35.2 | 36.4 | 37.0 |
| 28 | Machinery and equipment mfg | 41.5 | 42.4 | 44.9 | 43.0 |
| 29 | Other manufacturing | 20.9 | 23.7 | 24.0 | 24.4 |
| 21-29 | Total manufacturing | 37.1 | 41.2 | 45.6 | 42.4 |

## EXPORTS MORE THAN $50 \%$ OF SALES THAT THEY PRODUCED

| 21 | Food, beverage and tobacco mfg | 15.5 | 14.5 | 20.0 | 12.9 |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 22 | Textile, clothing, footwear and leather mfg | 6.3 | 7.6 | 9.5 | 6.9 |
| 23 | Wood and paper product mfg | 2.5 | 2.1 | 4.1 | 4.3 |
| 24 | Printing, publishing and recorded media | 0.6 | 0.5 | 0.8 | 0.6 |
| 25 | Petroleum, coal, chemical and associated product mfg | 2.9 | 3.5 | 3.4 | 5.5 |
| 26 | Non-metallic mineral product mfg | 1.0 | 0.8 | 0.9 | 0.6 |
| 27 | Metal product mfg | 7.5 | 10.6 | 27.6 | 28.0 |
| 28 | Machinery and equipment mfg | 10.1 | 11.8 | 10.9 | 11.1 |
| 29 | Other manufacturing | 1.5 | 2.3 | 1.8 | 1.7 |
| $21-29$ | Total manufacturing | $\mathbf{7 . 4}$ | $\mathbf{8 . 2}$ | $\mathbf{1 2 . 9}$ | $\mathbf{1 1 . 4}$ |

(a) See paragraphs 33-37 of the Explanatory Notes.
(c) Excludes the drawings of working proprietors.
(b) Includes working proprietors.

## EXPLANATORY NOTES

1 This publication, Manufacturing Industry, Australia, 2004-05 (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 presented using the 2006 edition of ANZSIC, an updated version of the industry classification. At the time of release, data for some previous years will also be made available on a 2006 ANZSIC basis, as an aid to analysis.

4 The manufacturing collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):

- A sample of approximately 9,900 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 123,000 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.

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.

10 The scope of the 2004-05 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](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.

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 It should be noted that, 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).

21 For information about this subject, see Technical Note 2.
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 introduces a selection of such measures, comparable with those included in other ABS industry statistics publications. 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 differences involved. In particular, this should be taken into account when considering those measures expressed as values per person employed. It may, therefore, be preferable to base any analysis on a range of data presented rather than focusing on one variable.

27 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.

28 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.

29 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.

30 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 2005. 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 2005.
31 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 number of UJVs in manufacturing industry is small, and at the aggregate level all activity is covered in the statistics.

32 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.

33 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.

34 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 2004-05, but were not operating at 30 June 2005.

35 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.

EXPORTS BY

36 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.

37 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.

38 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 $0.9 \%$.

39 Most states and territories and most industries were affected to a similar degree.
40 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.

41 The ABS produces industry estimates for a range of selected industries (including manufacturing) and these results are to be available in Australian Industry, 2004-05 (cat. no. 8155.0), released on 21 December 2006.

42 National estimates of employment, income, expenditure and associated ratios will be 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.

43 The following publications and electronic releases also contain information about the manufacturing industry:
Australian Bureau of Statistics Business Register, Counts of Businesses

- Summary Tables, cat. no. 8161.0.55.001, released on 7 October 2005 - Final issue

Australian Industry, 2003-04, cat. no. 8155.0, released on 9 August 2006

- Annual publication

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

ABS DATA AVAILABLE ON REQUEST

BACK SERIES AND
ADDITIONAL DATA

Business Indicators, Australia, cat. no. 5676.0 - Quarterly publication
International Trade in Goods and Services, Australia, cat. no. 5368.0

- Monthly publication

International Trade Price Indexes, Australia, cat. no. 6457.0 - Quarterly publication
Job Vacancies, Australia, cat. no. 6354.0 - Quarterly publication
Labour Costs, Australia, 2002-03, cat. no. 6348.0.55.001, released on 11 June 2004

- Irregular electronic publication

Manufacturing Indicators, Australia, cat. no. 8229.0, released on 17 November 2006 - 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, 2006, cat. no. 1301.0, released on 20 January 2006 - Annual publication

44 Current publications and other products released by the ABS are listed in the Catalogue of Publications and Products (cat. no. 1101.0). The catalogue is available from any ABS office or the ABS web site [http://www.abs.gov.au](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.

45 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 1300135070.

46 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.

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

48 For more information, please contact John Ridley on (02) 92684541 or by email to john.ridley@abs.gov.au.

49 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 38), this 'rounding rule' also applies to employment estimates.

50 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, 2004-05

1 This Appendix lists items included in the 2004-05 manufacturing collection, and selected items derived from those directly collected.

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. 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, 460 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 data for 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, 2004-05

```
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
        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 continued
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

```
APPENDIX • DATA ITEMS, 2004-05
```

DATA ITEMS, COLLECTED AND DERIVED, 2004-05 continued

## Expense items continued

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 done on 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 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

## Capital expenditure and disposal of assets continued

Disposal of selected assets
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 and tax
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
Total acquisitions (including land and intangible assets)
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
Interest coverage
Investment rate (value added)

## TECHNICAL NOTE 1 METHODOLOGY

INTRODUCTION<br>STATISTICAL UNITS DEFINED ON THE ABS BUSINESS REGISTER

ATO MAINTAINED
POPULATION

ABS MAINTAINED
POPULATION

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.

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.

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.

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).

PRODUCING MANUFACTURING INDUSTRY ESTIMATES

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.

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.

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.

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.

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 2004-05, a cut-off of $\$ 500,000$ applied.
11 Therefore, the 2004-05 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

|  | ATO BIT |
| :--- | ---: | ---: | ---: |
| data |  | | Directly |
| ---: |
| collected |
| data |$\quad$ Total

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.

14 As a result of the ABS's continuing review of the suitability of this model to generate employment estimates for manufacturing and other industries, refinements have been made to the model that has produced the estimates presented in this issue.
Employment estimates for all years starting from 2001-02 have been revised accordingly.

## TECHNICAL NOTE 2 DATA RELIABILITY

SAMPLE ERROR

1 For 2004-05, the manufacturing collection was, in part, a sample survey designed primarily to deliver estimates at the industry class level for Australia. Industry subdivision estimates for states and territories are also produced for key data items, but the survey was not specifically designed for these purposes.

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 (see Technical Note 2 ) and most are $4 \%$ 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.

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 2004-05 was $\$ 338,440 \mathrm{~m}$. The RSE of this estimate is shown as $0.2 \%$, giving a standard error of approximately $\$ 677 \mathrm{~m}$. 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 $\$ 337,763 \mathrm{~m}$ to $\$ 339,117 \mathrm{~m}$ 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 $\$ 337,086 \mathrm{~m}$ to $\$ 339,794 \mathrm{~m}$.

## TECHNICAL NOTE 2 • DATA RELIABILITY

## RELATIVE STANDARD ERRORS

| INDUSTRY SUBDIVISION |  | Employment at end of June (a) | Wages and salaries(b) | Sales and senvice income(c) | Purchases(d) | Industry value added | Capital expenditure on plant machinery and equipment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ANZSIC |  |  |  |  |  |  |  |
| code | Description | \% | \% | \% | \% | \% | \% |
| 21 | Food, beverage and tobacco mfg | 1.0 | 0.6 | 0.4 | 0.5 | 0.5 | 1.4 |
| 22 | Textile, clothing, footwear and leather mfg | 1.8 | 1.4 | 0.8 | 1.4 | 1.5 | 3.3 |
| 23 | Wood and paper product mfg | 1.3 | 0.9 | 0.4 | 0.6 | 0.7 | 5.0 |
| 24 | Printing, publishing and recorded media | 1.8 | 1.3 | 0.8 | 1.6 | 0.9 | 4.9 |
| 25 | Petroleum, coal, chemical and associated product mfg | 1.1 | 0.7 | 0.2 | 0.3 | 0.4 | 1.2 |
| 26 | Non-metallic mineral product mfg | 1.5 | 1.0 | 0.6 | 1.1 | 0.9 | 3.4 |
| 27 | Metal product mfg | 1.2 | 0.8 | 0.3 | 0.4 | 0.6 | 0.8 |
| 28 | Machinery and equipment mfg | 0.8 | 0.7 | 0.4 | 0.5 | 0.6 | 2.7 |
| 29 | Other manufacturing | 2.6 | 2.4 | 1.2 | 2.0 | 2.0 | 9.1 |
| 21-29 | Total manufacturing | 0.5 | 0.3 | 0.2 | 0.2 | 0.2 | 0.8 |

(a) Includes working proprietors.
(c) Includes rent, leasing and hiring income.
(b) Excludes the drawings of working proprietors.
(d) Includes capitalised purchases of materials.

SAMPLE ERROR continued

NON-SAMPLE ERROR

7 The size of the RSE may be a misleading indicator of the reliability of some of the estimates for trading profit, OPBT, EBIT 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.

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 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.

ABN unit 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).

## Acquisitions

Amount exported by this business or its agent

Bad and doubtful debts
billion
Business A business is generally considered to be a person, partnership, or corporation engaged in business or commerce; for example, a textile manufacturing business.

In this publication, the term represents the ABN unit or type of activity unit (TAU), which are the two standard statistical units for the 2004-05 manufacturing collection (these two units are explained under separate entries). For details, see Explanatory Notes paragraphs 5-9.

Represented by the form item G1 Total sales 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.
See the various capital expenditure entries.
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.

Represents the amount of bad and doubtful debts written-off, net of bad and doubtful debts previously written-off but recovered.

## Businesses that do not export

Businesses that export more than $50 \%$ of sales

Businesses that export up to and including $50 \%$ of sales

Capital expenditure on dwellings, other buildings and structures

## Capital expenditure on other

 assets (including land and intangible assets)
## Business Activity Statement

 (BAS) total salesBusinesses that reported no exports (either by their business or for them by an agent) of goods that they produced.

Businesses that reported exports (either by their business or for them by an agent) of more than $50 \%$ of sales of goods that they produced.

Businesses that reported exports (either by their business or for them by an agent) of up to and including $50 \%$ of sales of goods that they produced.

Capital expenditure 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.

Capital expenditure incurred acquiring other assets (including land and intangible assets). Intangible asset purchases may include items such as patents, licences and goodwill. Also included is computer software capitalised, including capitalised computer software licence fees, installation costs, the purchase or development of large databases, software developed in-house (but excluded is software maintenance expenditure), and capitalised payments to contractors and consultants for software development. Note that

Capital expenditure on other assets (including land and intangible assets) continued

Capital expenditure on plant, machinery and equipment

## Capital work done for own use

## Capitalised purchases

Change in inventories Closing inventories

Commission manufacturing

Commission expenses

Cost of sales

Current prices

## Depreciation and amortisation

Disposal of assets
if the cost of software and hardware cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.

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.

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.

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.

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.

The value of total closing inventories less total opening inventories.
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.

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.

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.

If the client is also a manufacturing business then, in addition to data for its own manufacturing operations, the client reports the sales and inventories of the commissioned goods, the cost of the materials provided to the producing business, the commission fee paid and the value of any other intermediate inputs related to the commission transaction. If the client is not a manufacturing business, no data are reported by the client as it is excluded from the manufacturing collection.

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.

The sum of purchases, selected expenses and opening inventories less closing inventories. Any capitalised purchases or capitalised wages and salaries are excluded.

Estimates at current prices are valued at the prices of the period to which the observation relates. For example, estimates for 2004-05 are valued using 2004-05 prices. This contrasts to chain volume measures, where the prices used in valuation refer to the prices of a previous period.

Depreciation/amortisation allowed on tangible and intangible assets. Includes, for lessees only, depreciation/amortisation in respect of finance leases.

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).
$\qquad$

## Earnings before interest and

 tax (EBIT)Employer contributions into superannuation

## Employment at end of June

Enterprise

## Enterprise group

Exports as a proportion of sales of goods produced

Freight and cartage expenses

Fringe benefits tax

Funding from government for operational costs

Profit prior to the deduction of interest expenses and income tax.

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.

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.

For details of how employment estimates have been derived, see Technical Note 1 paragraphs 13 and 14 .

An institutional unit comprising:

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

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.

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.)

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.

These data also exclude those businesses which operated during the given reference year but were not operating at 30 June of that reference year.

Excludes the cost of delivery by own vehicles and employees, as well as overseas freight and cartage on goods exported, and payments to couriers.

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.

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.

Industry class 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.

Industry division 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.

Industry group 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.

Industry subdivision 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:

21 Food, beverage and tobacco mfg
22 Textile, clothing, footwear and leather mfg
23 Wood and paper product mfg
4 Printing, publishing and recorded media
5 Petroleum, coal, chemical and associated product mfg
26 Non-metallic mineral product mfg
27 Metal product mfg
28 Machinery and equipment mfg
29 Other manufacturing
Industry value added (IVA)
IVA represents the value added by an industry to the intermediate inputs used by the industry. IVA is the measure of the contribution by manufacturing businesses to gross domestic product.

The derivation of IVA is as follows:

| plus | Funding from federal, state and/or local government <br> for operational costs |
| :--- | :--- |
| plus | Capital work done for own use |
| plus | Closing inventories |
| less | Opening inventories |
| less | Purchases of goods and materials |
| less | Other intermediate input expenses <br> (for details, see the entry for total expenses) <br> equals |
| IVA |  |

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.
Industry value added is related to, but different from, the national accounting variable gross value added.

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.
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Industry value added per person employed

Industry value added to selected labour costs Insurance premiums

Interest coverage

## Interest expenses

Interest income

Intermediate input expenses Intermediate inputs

Inventories - opening/closing

Investment rate (value added)

Labour costs 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.

## Manufacturing business

## Motor vehicle running

 expensesNet capital expenditure
Opening inventories
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.

IVA of businesses which operated during the given year ended 30 June divided by their selected labour costs, i.e. industry value added / selected labour costs.

Premiums for fire, general, accident, public liability, optional third-party and comprehensive motor vehicle insurance, and 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).

The number of times that businesses can meet their interest expenses from their earnings before interest and tax, i.e. earnings before interest and tax / interest expenses.

Includes interest paid on loans from banks, finance companies, partners, related or unrelated businesses, and in respect of finance leases. Includes interest equivalents such as hedging costs and expenses associated with discounted bills. Excludes bank charges other than interest and capital repayments.

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.

For details, see the entry for total expenses.
Intermediate inputs consist of materials and certain services which are used up in the production process.

The calculation is:
Intermediate input expenses (for details, see the entry for total expenses)
plus Opening inventories
less Closing inventories
equals Intermediate inputs
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.

The proportion of industry value added (IVA) used to acquire capital, i.e. (capital expenditure / IVA) x 100 .

| Labour costs | For the purposes of table 2.6, comprises wages and salaries, employer contributions into <br> superannuation, workers' compensation premiums/costs, fringe benefits tax and payroll <br> tax. |
| ---: | :--- |
| Manufacturing business | An ABN unit / TAU predominantly engaged in manufacturing activities. The data <br> collected for such units cover all activities of the business (including non-manufacturing <br> activities). |
| Motor vehicle running |  |
| expenses | Includes expenditure on registration fees, compulsory third-party insurance premiums, <br> fuel, and repair and maintenance expenses. Excludes expenses for off-road motor <br> vehicles (e.g. forklifts, mobile plant) and lease payments, optional third party and <br> comprehensive motor vehicle insurance premiums, and depreciation. |
| Net capital expenditure | The value of total capital expenditure less proceeds received from the disposal of assets. |
| Opening inventories | The value of all inventories of finished goods (including inventories for resale), <br> work-in-progress (less progress payments billed), raw materials, fuels, and containers, at <br> the beginning of the reporting period. |

## Operating profit before tax (OPBT)

Other income

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.
Other income
Other intermediate input
expenses

Other selected expenses

Payroll tax

## Production volumes

## Profit margin

Purchases and selected
Purchases and selected
expenses

Purchases of goods and materials

Reference period

Rent, leasing and hiring
expenses
Includes natural resource royalty 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.

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.

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, 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.

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.

See the entry for chain volume measures.
The percentage of sales and service income available as operating profit before tax (OPBT), i.e. (OPBT / sales and service income) x 100 .

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.

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.

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 2004-05 collection, a business may have reported data for the year ended 31 December 2004.

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.

Rent, leasing and hiring
For details, see the entry for sales and service income.
income
Repair and maintenance
expenses
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.

Sales and service income per person employed Sales of goods produced Selected expenses Selected labour costs Selected labour costs per person employed

Standard Institutional Sector Classification of Australia

## Includes:

## Sales of goods

- 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.


## Income from services

- 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.


## Rent, leasing and hiring income

- 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.

These are valued net of discounts given and exclusive of goods and services tax (GST). Extraordinary items are also excluded.

In order to produce data by state and territory, selected businesses which received mail out questionnaires were also asked to provide sales of goods and services (as well as employment and wages and salaries) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 28 and 29.

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.

Sales of goods produced (manufactured) by the business (including goods produced for the business on a commission basis). Includes export sales, sales or transfers to related businesses or to overseas branches of the business, progress payments relating to long term contracts if they are billed in the period, and delivery charges not separately invoiced to customers. Excludes excise and duties received on behalf of the Government, sales of fixed tangible assets, interest income, and delivery charges separately invoiced to customers. Exports are valued free on board (f.o.b.), i.e. export freight charges are excluded.

See the entry for purchases and selected expenses.
See the entry for total expenses.
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.

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

Standard Institutional Sector Classification of Australia (SISCA) continued

## Superannuation

Total acquisitions

Total expenses
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 Standard Economic Sector Classifications of Australia (SESCA) (cat. no. 1218.0).

See the entry for employer contributions into superannuation.
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.

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


## Total expenses continued

## Total factor income

## Type of activity unit (TAU)

Wages and salaries

## Wages and salaries per person

 employed
## Wages and salaries to sales and service income ratio

- 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.

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 Australian National Accounts: State Accounts, 2005-06, Reissue (cat. no. 5220.0).

Total income Comprises sales and service income, interest income, funding from government for operational costs, and other income (for details, see the entries for these items).

Trading profit 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.

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.

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.

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.

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.

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 28 and 29.

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.

The wages and salaries paid by manufacturing businesses which operated during the year ended 30 June as a proportion of the sales and service income of manufacturing businesses which operated during the same year.

## Workers' compensation premiums/costs

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.

## FOR MORE INFORMATION

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All ABS statistics can be downloaded free of charge from the ABS web site．


[^0]:    np not available for publication but included in totals where applicable,
    (b) Excludes drawings of working proprietors. unless otherwise indicated
    (c) Includes rent, leasing and hiring income.
    (a) Includes working proprietors.

[^1]:    ^ estimate has a relative standard error of $10 \%$ to less than $25 \%$ and should be used with caution

[^2]:    (a) Excludes the drawings of working proprietors.

[^3]:    (a) See Explanatory Notes paragraphs 28 and 29.
    (b) Includes working proprietors.
    (c) Excludes the drawings of working proprietors.
    (d) Includes rent, leasing and hiring income.
    (e) It should be noted that, 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 expressed as values per person employed can be affected by any fluctuations in employment during the reference period.

[^4]:    - nil or rounded to zero (including null cells)

    Note: Australian National Accounts: State Accounts,

[^5]:    (a) See paragraphs 33-37 of the Explanatory Notes.
    (b) Sales of goods produced by the business, including goods produced for it on a commisssion basis.

