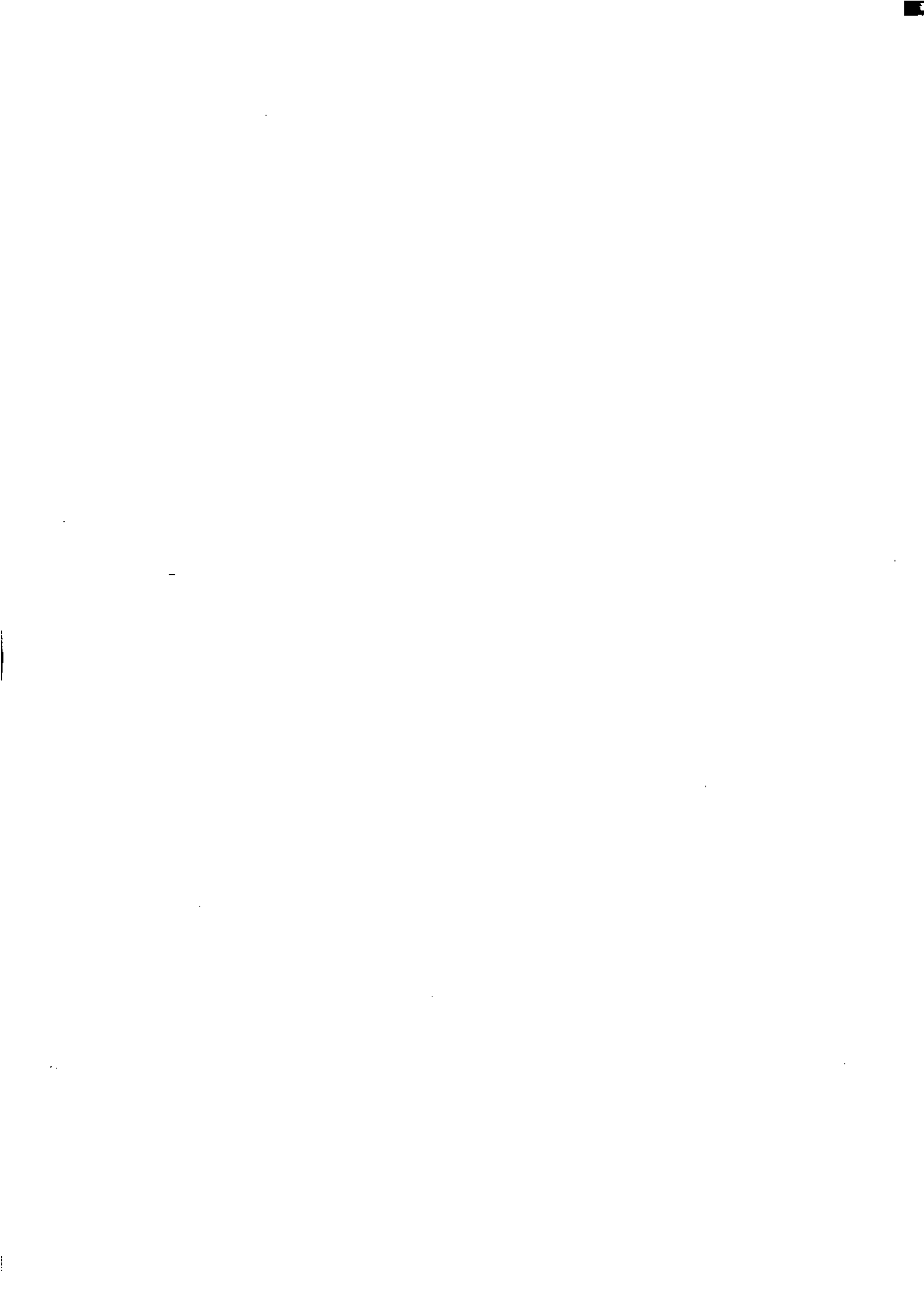




**Australian  
Bureau of  
Statistics**

**1991-92  
Manufacturing Industry  
Australia**

**Catalogue No. 8221.0**



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**MANUFACTURING INDUSTRY  
AUSTRALIA  
1991-92**

**IAN CASTLES**  
Australian Statistician

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**INQUIRIES** • *for further information about statistics in this publication and the availability of related unpublished statistics, contact Mark Wise on Sydney (02) 268 4541 or any other ABS office.*

• *for information about other ABS statistics and services please refer to the back page of this publication.*

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## INTRODUCTION

This publication contains detailed industry statistics compiled from a census of manufacturing establishments conducted in respect of 1991-92 and some comparative statistics for earlier years. It expands and updates the information which was published in *Manufacturing Industry, Australia, 1991-92, Preliminary* (8201.0), which was released on 25 May 1993.

The 1990-91 census data presented in this publication generally differ from those published in the 1990-91 issue of this publication. This is due to further processing of that year's data. All time series statistics presented in this publication show these revised data. In particular, Table 7 presents data for 1990-91 as well as for 1991-92. Further details about the extent of these revisions can be obtained by contacting the NSW Office of the ABS - see previous page for contact details.

For the 1991-92 manufacturing census, only information on employment, wages and salaries paid and turnover were collected. However, as with the 1990-91 census, the 1991-92 census also included some questions related to environmental protection by manufacturers. The environmental protection issues covered in 1991-92 were different to those covered in 1990-91. These data are presented in Table 9. Information at the ASIC class level showing both current and capital expenditure on environmental protection are presented in Table 10. This expands on the information collected in 1990-91.

This publication has also brought together data from sources other than the manufacturing census to provide a more complete picture of the manufacturing industry, as follows:

- Census of Population and Housing (1991) data are presented in Tables 2 and 3. This includes information on the characteristics of persons employed in the manufacturing industry.
- Gross product at market prices (average 1989-90 prices) data are presented in Table 8. Data in this table replace data previously presented in *Constant Price Estimates of Manufacturing Production, Australia* (8211.0), which has now been discontinued.
- Manufacturing Technology statistics are presented in Tables 11 to 13. These data were collected in the Manufacturing Technology Survey, 31 December 1991.
- A concordance between the ASIC and ANZSIC industry classifications is presented in Table 14. For a detailed explanation of this concordance, see the introduction to Table 14.

The standard units definitions employed in the system of integrated economic censuses have undergone revisions, which were first reflected in the 1988-89 manufacturing census results. In the 1988-89 census, the revisions were partially in place on the ABS central business register. By the 1989-90 census, the revised units definitions were in place for all large businesses. The 1990-91 and 1991-92 census results reflect the full implementation of the revised units definitions.

### State data

More detailed manufacturing industry statistics for each State and the Northern Territory will be released shortly in a series of publications (8221.1 to 8221.7). These publications will contain a range of data items generally at the industry class level.

### Unpublished data

A considerable amount of data from the manufacturing census exists in unpublished form. More detailed information to satisfy individual user requirements may be available on request. Further details can be obtained by contacting the NSW Office of the ABS - see previous page for contact details.

## SUMMARY OF FINDINGS

### Overview

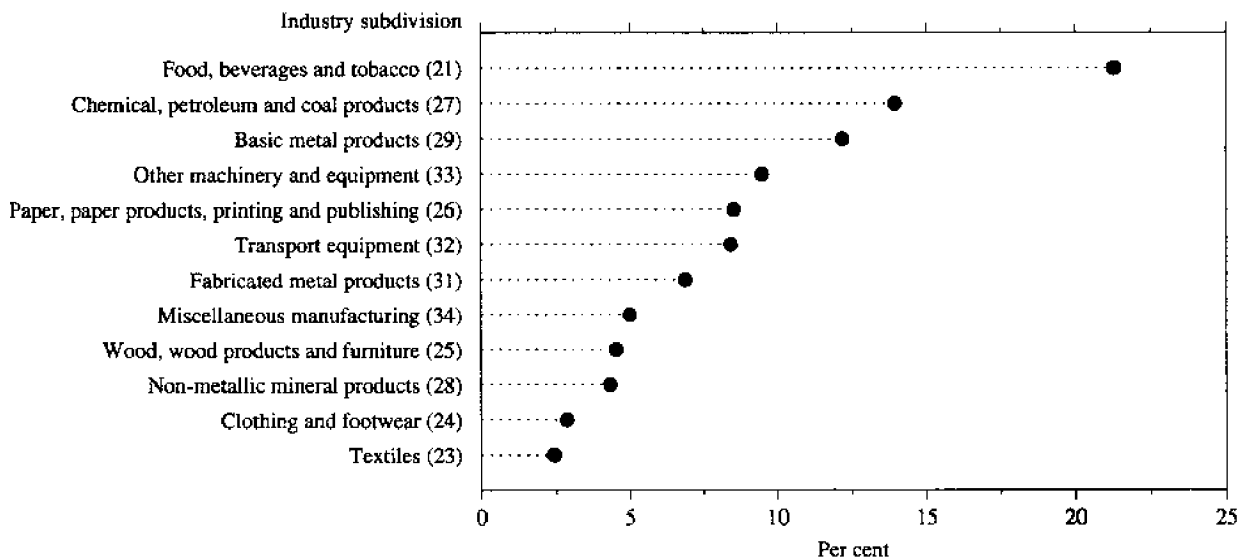
Turnover for the year 1991-92 by manufacturing establishments operating in Australia was \$168,018.7 million. This represents a 1.9 per cent decrease, in current price terms, from the \$171,245.1 million in turnover recorded for the year 1990-91. Since the ABS began collecting integrated economic statistics (in respect of 1968-69), this is the first time that turnover at current prices for the manufacturing industry has fallen compared to the previous year. In constant price terms, manufacturing gross product fell by 2.1 per cent in 1991-92 from 1990-91, following a 1.8 per cent fall between 1989-90 and 1990-91. Manufacturing employment at the end of June 1992 was 906,900, some 5.7 per cent lower than twelve months earlier.

### Turnover (Tables 1 and 7)

The chart below ranks industry subdivisions from the largest to the smallest contributor for 1991-92 manufacturing turnover. Food, beverages and tobacco continues to be the largest contributor with 21.3 per cent of total turnover. Chemical, petroleum and coal products (14.0%) continues as the second largest contributor, ahead of Basic metal products (12.2%). Textiles (2.5%) and Clothing and footwear (2.9%) continue to be the smallest contributors to total turnover.

Turnover of manufacturing establishments decreased, in current price terms, by 1.9 per cent between 1990-91 and 1991-92. Nine industry subdivisions recorded decreases and three recorded increases. Food, beverages and tobacco (up 3.1% - from \$34,677.9m to \$35,768.1m) and Textiles (up 1.7% - from \$4,053.4m to \$4,120.9m) recorded the only significant percentage increases. The largest percentage decreases were recorded by Transport equipment (down 9.5% - from \$15,645.1m to \$14,153.2m) and Fabricated metal products (down 6.0% - from \$12,296.6m to \$11,554.5m).

DISTRIBUTION OF TURNOVER, AUSTRALIA, 1991-92



As in previous years, New South Wales and Victoria were the major contributors to turnover in the manufacturing industry in Australia in 1991-92, with New South Wales accounting for 34.4 per cent and Victoria 32.1 per cent of total manufacturing turnover in Australia. Since 1990-91, the New South Wales contribution has increased by 0.5 percentage points, while the Victorian contribution has decreased by 0.5 percentage points.

### Longer term trends (1988-89 to 1991-92)

Turnover for the manufacturing industry increased by 9.7 per cent over the period 1988-89 to 1991-92 in current price terms. While analyses of turnover data over the longer term in current prices are affected by movements in prices and quantities produced, some indications of relative growth across manufacturing industries can still be produced. Seven industry subdivisions recorded increases and five recorded decreases. Chemical, petroleum and coal products (up 69.0% - from \$13,883.1m to \$23,462.4m) (see paragraph 33 of the Explanatory Notes for comparability of these data over time) and Food, beverages and tobacco (up 16.1% - from \$30,795.8m to \$35,768.1m) showed the largest percentage growth in turnover over the period. The largest percentage decreases were recorded in Clothing and footwear (down 7.4% - from \$5,234.1m to \$4,846.6m) and Wood, wood products and furniture (down 6.1% - from \$8,132.6m to \$7,638.3m).

All States and Territories recorded increases in manufacturing turnover in current price terms over the period 1988-89 to 1991-92. The largest increase in percentage terms (although not as significant in absolute terms) was recorded by the Northern Territory (up 22.5% - from \$549.6m to \$673.0m). Western Australia (up 20.8% - from \$10,685.3m to \$12,903.0m), South Australia (up 17.9% - from \$13,188.6m to \$15,547.9m), Queensland (up 12.7% - from \$20,254.6m to \$22,836.9m) and New South Wales (up 10.9% - from \$52,150.3m to \$57,809.0m) all recorded increases of greater than 10 per cent. Relatively small percentage increases in turnover over the period were recorded by: the Australian Capital Territory (up 7.3% - from \$437.4m to \$469.3m); Victoria (up 3.5% - from \$52,020.2m to \$53,855.9m); and Tasmania (up 1.6% - from \$3,860.9m to \$3,923.7m).

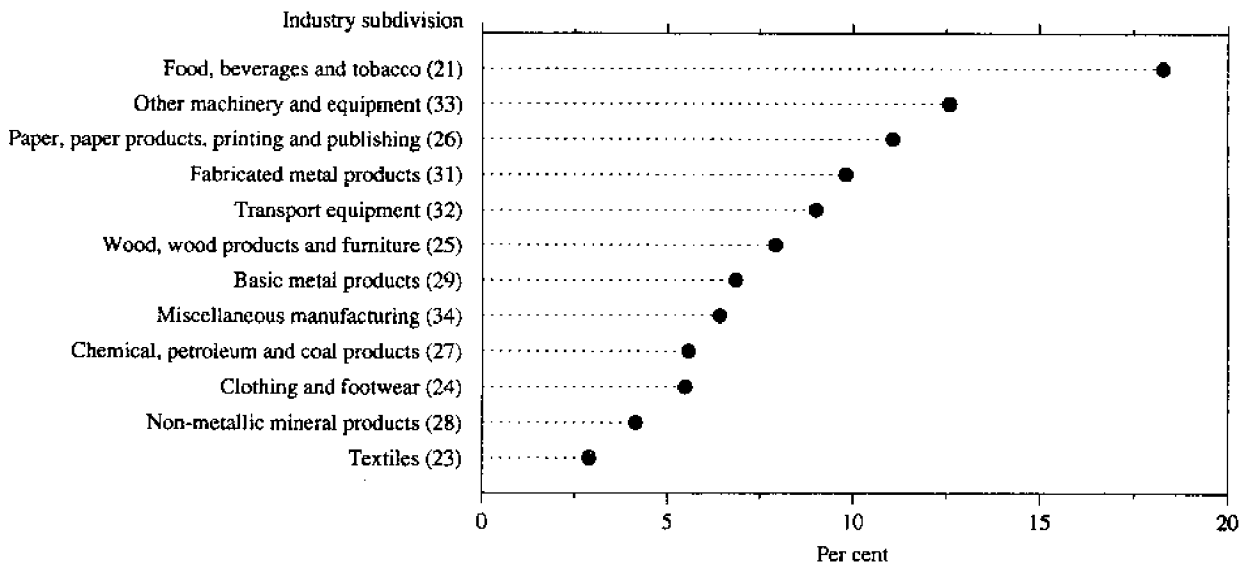
The percentage contribution by Victoria to Australian manufacturing turnover has declined since 1988-89, decreasing by 2.0 percentage points to 32.1 per cent. Tasmania (down 0.2 percentage points to 2.3%) also decreased its percentage share. The States to increase their percentage share of turnover were: South Australia (up 0.7 percentage points to 9.3%); Western Australia (up 0.7 percentage points to 7.7%); Queensland (up 0.4 percentage points to 13.6%); and New South Wales (up 0.3 percentage points to 34.4%). Both the Northern Territory (0.4%) and the Australian Capital Territory (0.3%) held their percentage share.

### Employment (Tables 1 and 7)

Employment was more evenly distributed across industry subdivisions than was turnover, with Food, beverages and tobacco (18.3%) and Other machinery and equipment (12.6%) once again being the major contributors to employment in the manufacturing industry. Textiles (2.9%) and Non-metallic mineral products (4.1%) remain the smallest contributors to employment in the manufacturing industry.

Manufacturing employment decreased by 5.7 per cent between June 1991 and June 1992. Each of the 12 industry subdivisions recorded decreases in the level of employment over this period. Clothing and footwear (down 10.8% - from 55,800 persons to 49,800 persons) and Transport equipment (down 10.6% - from 91,300 persons to 81,600 persons) recorded the largest percentage decreases.

DISTRIBUTION OF EMPLOYMENT, AUSTRALIA, 1991-92



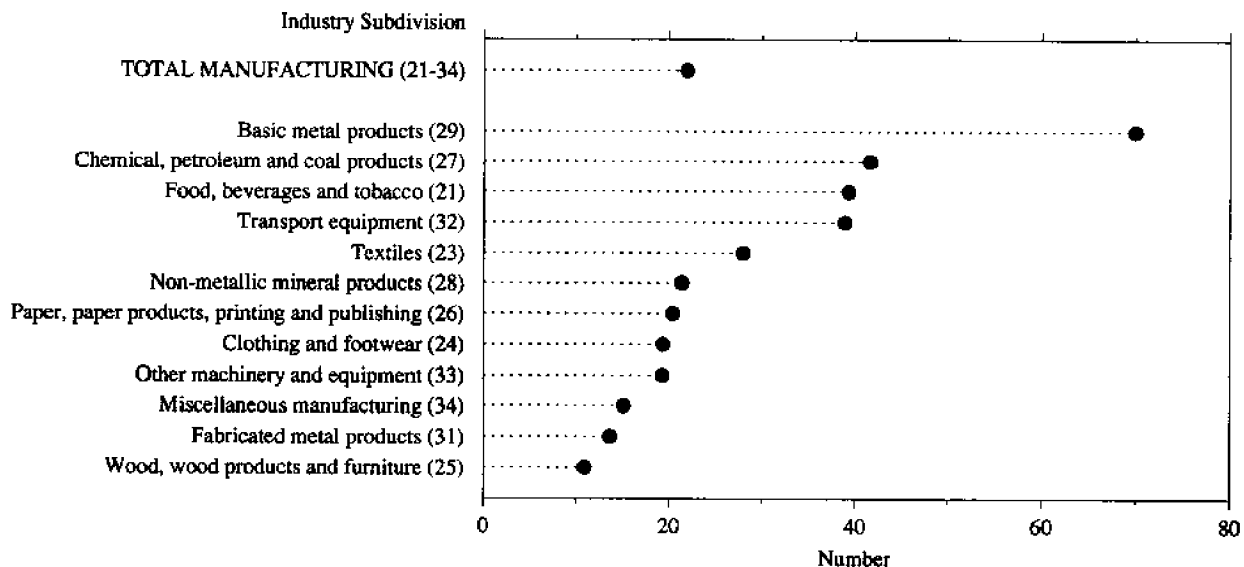
Consistent with the distribution of turnover, New South Wales and Victoria were the major contributors to employment in the manufacturing industry in 1991-92. New South Wales accounted for 34.1 per cent of Australian manufacturing employment, with the corresponding figure for Victoria being 32.6 per cent. These are both small decreases on the percentage contributions recorded twelve months earlier (decreases of 0.2 and 0.4 percentage points respectively).

On average, each manufacturing establishment in Australia employed 22 persons at the end of June 1992, which continues the steady decline evident since June 1989 (when the average was 26 persons employed per establishment). The average fell by 2 persons over the period June 1991 to June 1992. Over the same period, however, the ratio of turnover per person employed has grown considerably. In 1988-89, the average turnover per person employed for all manufacturing establishments was \$139,600. By 1991-92, this had risen to \$185,300, a growth of 32.7 per cent. This is well above the 9.7 per cent increase in turnover and suggests significant productivity growth.



As the chart below shows, the number of persons employed per establishment varied greatly across industry subdivisions, ranging from 11 persons for Wood, wood products and furniture to an average of 70 persons for Basic metal products.

PERSONS EMPLOYED PER ESTABLISHMENT, AUSTRALIA, 1991-92



Chemical, petroleum and coal products and Basic metal products comprised substantially larger shares of turnover than of employment, which resulted in these subdivisions recording substantially higher values of turnover per person employed than other subdivisions in the manufacturing industry (\$464,700 and \$330,200 respectively). Clothing and footwear recorded the lowest value for this ratio (\$97,400). Turnover per person employed for total manufacturing in 1991-92 was \$185,300. Various factors affect the magnitude of turnover per person employed. In general, industries which are labour intensive will record lower values of turnover per person employed than will those industries which are capital intensive. This ratio may also be influenced by commodity prices.

#### Longer term trends (June 1989 to June 1992)

Employment in the Australian manufacturing industry decreased by 189,900 persons (down 17.3% - from 1,096,800 persons to 906,900 persons) over the period June 1989 to June 1992. All industry subdivisions recorded decreases over this period, with Clothing and footwear (down 33.3% - from 74,600 persons to 49,800 persons), Transport equipment (down 30.5% - from 117,500 persons to 81,600 persons) (see paragraph 32 of the Explanatory Notes for comparability of these data over time) and Fabricated metal products (down 20.7% - from 112,000 persons to 88,800 persons) recording the largest percentage decreases.

All States and Territories recorded decreases in manufacturing employment between June 1989 and June 1992. The largest decrease in both absolute and percentage terms was recorded by Victoria, where employment decreased by 78,200 persons (down 20.9% - from 374,300 persons to 296,100 persons). Large decreases were also recorded by: South Australia (down 17.4% - from 105,100 persons to 86,800 persons); the Northern Territory (down 16.8% - from 3,400 persons to 2,800 persons); New South Wales (down 16.6% - from 370,400 persons to 309,100 persons); and Western Australia (down 16.1% - from 74,500 persons to 62,500 persons). The other decreases were: Tasmania (down 14.6% - from 27,500 persons to 23,500 persons); Queensland (down 11.0% - from 137,500 persons to 122,400 persons); and the Australian Capital Territory (down 10.0% - from 4,100 persons to 3,700 persons).

The percentage contribution by Victoria to Australian manufacturing employment has declined since June 1989, decreasing by 1.5 percentage points to 32.6 per cent. Queensland increased its percentage share of employment over this period (up 1.0 percentage points to 13.5%), as did New South Wales (up 0.3 percentage points to 34.1%). The percentage contribution by the other States and both Territories recorded little or no change over this period.

#### 1991 Census of Population and Housing (Tables 2 and 3)

The 1991 Census of Population and Housing provides additional information to the manufacturing census on the characteristics of persons employed in the manufacturing industry. It shows that manufacturing employment at August 1991 among manufacturing sole proprietors and partnerships not employing others was 52,165. (Note: These persons are excluded from the scope of the manufacturing census - see paragraph 9 of the Explanatory Notes.) The

population census also recorded 880,828 'other' persons employed in the manufacturing industry in Australia at August 1991. (Note: Whilst these population census figures are conceptually similar to the data collected in the manufacturing census, there are many reasons why the data do not agree - see paragraphs 36 to 39 of the Explanatory Notes.)

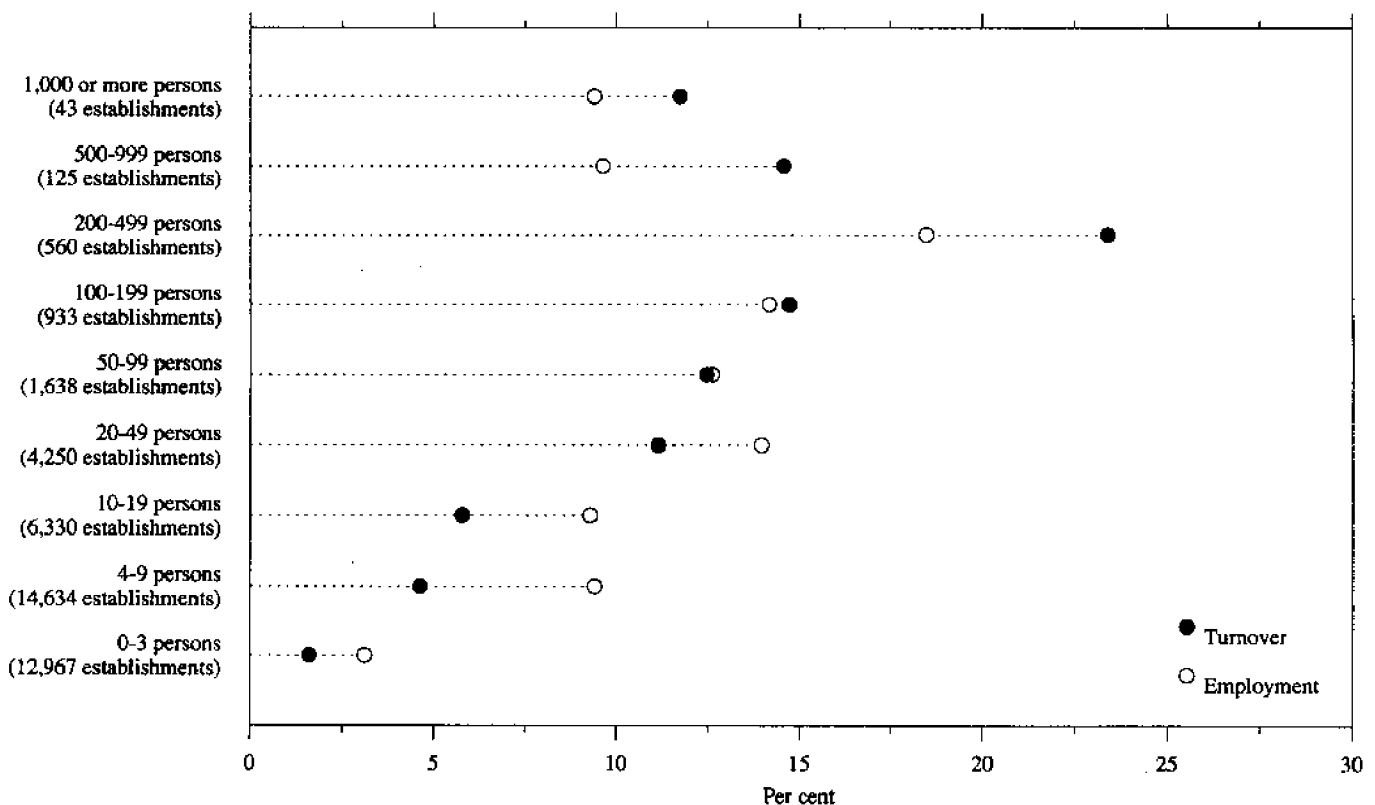
A breakdown of the age composition of persons employed in the manufacturing industry shows that it has essentially the same distribution as for all industries combined. There are relatively fewer young people working in manufacturing (17.7 per cent aged 15-24 years compared with 19.5 per cent for all industries) and a slightly higher proportion of employees aged 25-34 years (27.8% compared with 26.6%). The age distribution across the manufacturing industry subdivisions is more variable, but still broadly consistent with the average for all manufacturing industry. The major variations to this pattern were the younger employment recorded in Wood, wood products and furniture (where 24.1 per cent of persons employed were in the age group 15 to 24 years, with 38.8 per cent in the age group 35 to 54 years) and Chemical, petroleum and coal products (where the corresponding percentages were 11.4 and 49.7 per cent respectively) where the average age of persons employed was much higher.

The proportion of those employed in the manufacturing industry who were male was 72.0 per cent, whilst females made up 28.0 per cent. These are substantial differences from the average for all industries (males - 57.4%; females - 42.6%), showing the significance of the manufacturing industry to male employment. The highest concentration of male employment in the manufacturing industry was in Basic metal products, where 90.6 per cent of persons employed were male. The highest incidence of female employment in the manufacturing industry was in Clothing and footwear, where 71.3 per cent of persons employed were female.

#### Employment size (Table 5)

Of the 41,480 manufacturing establishments operating at 30 June 1992, 1,661 were large establishments (employing 100 or more persons). While making up only 4.0 per cent of all establishments, they accounted for 64.4 per cent of manufacturing turnover for 1991-92 and 51.7 per cent of employment at the end of June 1992. Although establishments employing 0-19 persons comprised 81.8 per cent of manufacturing establishments in Australia at 30 June 1992, they accounted for only 12.0 per cent of turnover and 21.8 per cent of employment. There were 43 manufacturing establishments employing 1,000 or more persons at the end of June 1992. They employed 9.4 per cent of all persons working in the manufacturing industry in Australia and contributed 11.7 per cent of all manufacturing turnover.

**DISTRIBUTION OF MANUFACTURING TURNOVER AND EMPLOYMENT BY EMPLOYMENT SIZE  
AUSTRALIA, 1991-92**

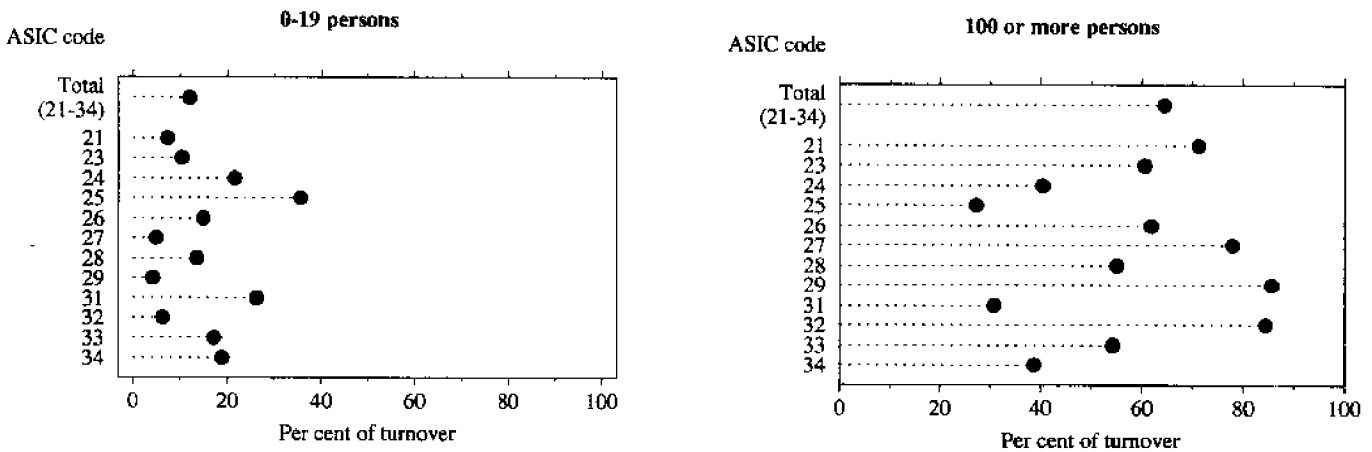


For 1991-92, the percentage distribution of turnover by employment size for the manufacturing industry was:

0 - 19 persons	12.0 per cent
20 - 49 persons	11.1 per cent
50 - 99 persons	12.4 per cent
100 or more persons	64.4 per cent

For eight of the 12 industry subdivisions, more than 50 per cent of turnover was contributed by large establishments (employing 100 or more persons). The industries where large establishments contributed most to turnover were the Basic metal products (85.7%) and Transport equipment (84.5%) industries. Small establishments (employing 0-19 persons) made relatively significant contributions to turnover for Wood, wood products and furniture (35.6%) and Fabricated metal products (26.3%).

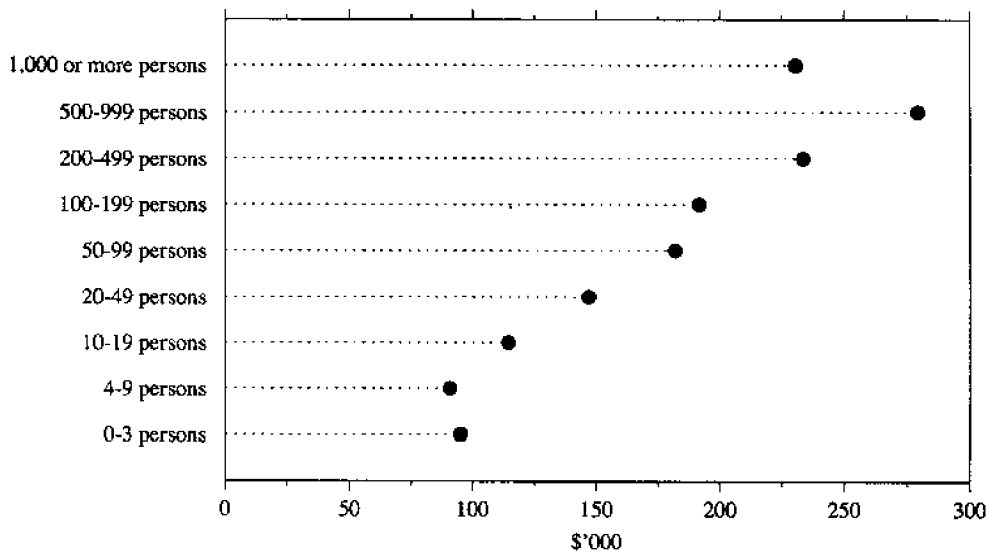
**DISTRIBUTION OF TURNOVER BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION (a), AUSTRALIA, 1991-92**



(a) Refer to graphs on pages 1 to 3 for ASIC subdivision descriptions.

Small establishments (employing 0-19 persons) displayed a much lower ratio of turnover per person employed at the end of June 1992 (\$101,500) than establishments in the larger size categories. Large establishments (employing 100 or more persons) recorded an average turnover per person employed at the end of June 1992 of \$230,000, with establishments employing between 500 and 999 persons having a ratio of \$279,400. It should be remembered that the data include all manufacturing industries and that somewhat different patterns may emerge through analysis of individual industries.

**TURNOVER PER PERSON EMPLOYED BY EMPLOYMENT SIZE, AUSTRALIA, 1991-92**

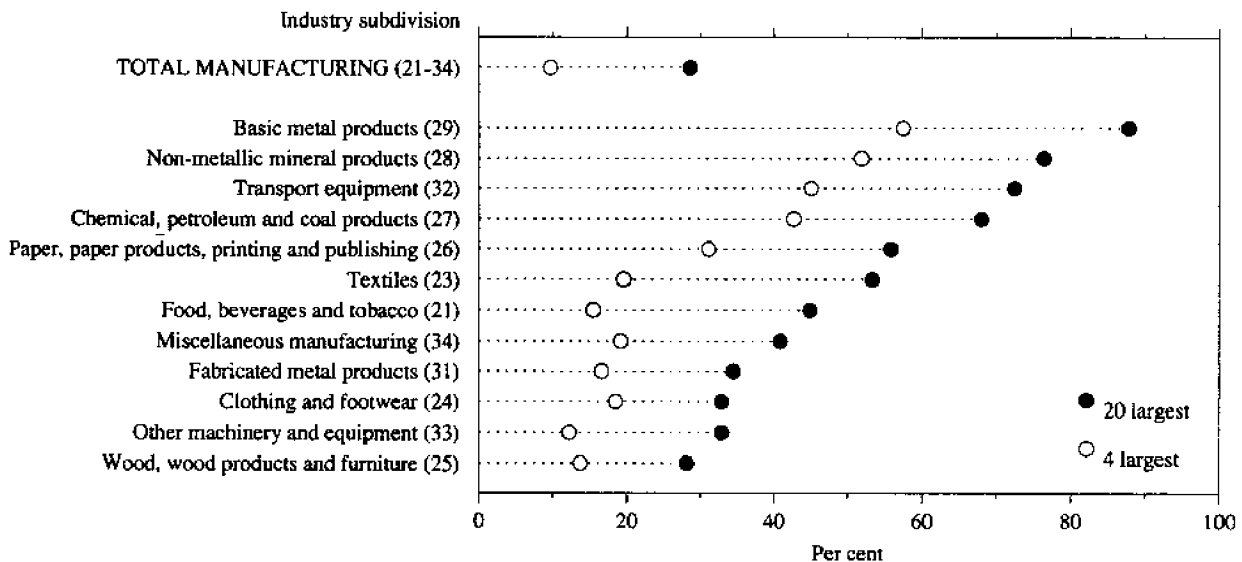


### Concentration statistics (Table 6)

The 41,480 manufacturing establishments operating in Australia at 30 June 1992 represented 37,876 individual enterprise groups. The 20 largest enterprise groups involved in manufacturing accounted for 28.6 per cent of total manufacturing turnover and 16.2 per cent of total manufacturing employment. The four largest enterprise groups contributed 9.7 per cent of total turnover and employed 5.0 per cent of all persons working in the manufacturing industry.

The distribution by industry subdivision showed little change from the pattern obtained for 1990-91. For 1991-92, in six of the 12 industry subdivisions, the 20 largest enterprise groups once again accounted for more than 50 per cent of turnover. (It should be noted that the 20 largest enterprise groups are not always constant from one year to another in all industry subdivisions). The highest concentration ratios were exhibited by Basic metal products (0.88), Non-metallic mineral products (0.76) and Transport equipment (0.73), with Wood, wood products and furniture (0.28) the lowest. In terms of the four largest enterprise groups, Basic metal products (57.5% of turnover) and Non-metallic mineral products (51.9% of turnover) showed the greatest levels of concentration.

CONTRIBUTION TO INDUSTRY SUBDIVISION TURNOVER BY THE 4 LARGEST AND THE 20 LARGEST ENTERPRISE GROUPS (WITHIN INDIVIDUAL SUBDIVISIONS), AUSTRALIA, 1991-92



### Longer term trends (1982-83 to 1991-92)

In the five year period from 1982-83 to 1987-88, industry concentration of the four and the 20 largest enterprise groups both showed little change.

However, in the period 1987-88 to 1991-92, the 20 largest enterprise groups increased their share of total manufacturing turnover by six percentage points to 29 per cent. The industry subdivisions that showed the greatest increases in concentration over the period from 1987-88 to 1991-92 were Chemical, petroleum and coal products where the 20 largest enterprise groups increased their share by 16 percentage points to 68 per cent and Food, beverages and tobacco where the share of the 20 largest enterprise groups increased by 6 percentage points to 45 per cent.

In terms of the four largest enterprise groups, the industry subdivisions that showed the greatest movement over the period from 1987-88 to 1991-92 were Non-metallic mineral products (up 19 percentage points to 52%) and Chemical, petroleum and coal products (up 16 percentage points to 43%).

### Gross product at market prices (average 1989-90 prices) (Table 8)

Constant price estimates of gross product at market prices are the most accurate measure of the relative growth or decline of the manufacturing industry, as they discount the impact of price changes. In these constant price terms, manufacturing gross product decreased by 2.1 per cent from \$53,418.3m measured for 1990-91 to \$52,283.8m measured for 1991-92.

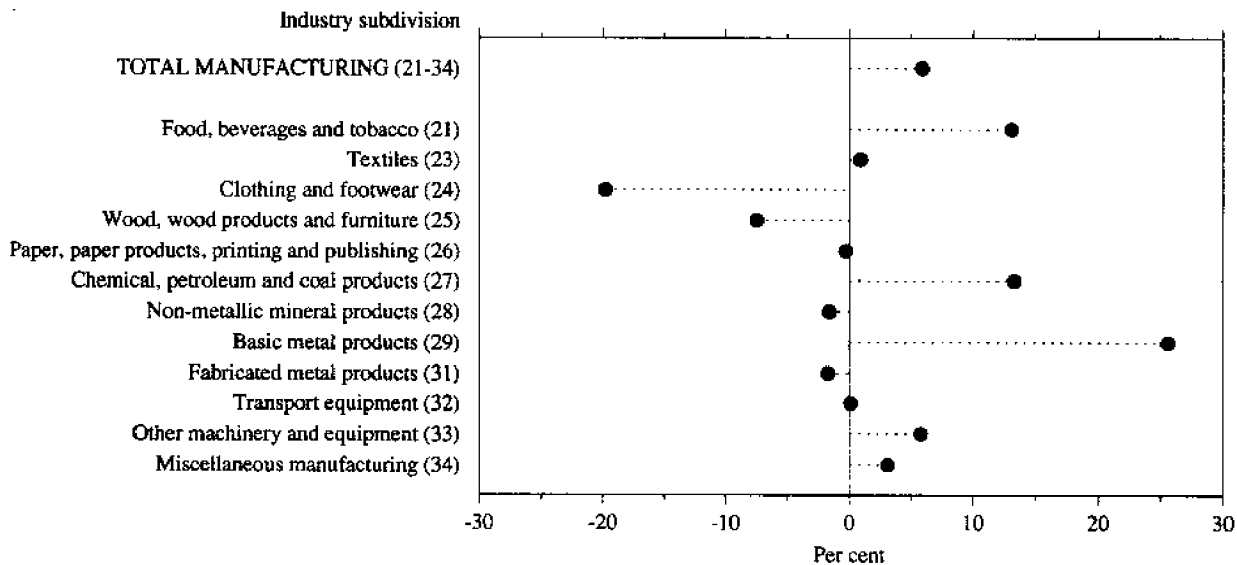
Nine of the 12 industry subdivisions recorded a decrease in constant price estimates of gross product at market prices over the period 1990-91 to 1991-92 and three recorded an increase. The largest percentage decreases were recorded by Transport equipment (down 8.6%) and Fabricated metal products (down 6.1%). Increases over this period were recorded by: Textiles (up 2.9%); Basic metal products (up 1.3%); and Food, beverages and tobacco (up 1.2%).

Food, beverages and tobacco was, by far, the largest contributor to these constant price estimates of total manufacturing gross product at market prices accounting for 18.6 per cent, followed by Basic metal products (13.5%). The smallest contributors were Textiles (2.5%) and Clothing and footwear (3.1%).

#### *Longer term trends (1986-87 to 1991-92)*

Over the five year period 1986-87 to 1991-92, manufacturing gross product in constant price terms increased by 5.9 per cent, although manufacturing gross product grew by 12.0 per cent between 1986-87 and 1988-89, before falling by increased amounts in each of the next three years. Seven industry subdivisions recorded an increase and five recorded a decrease in constant price estimates of gross product at market prices over this five year period. The largest percentage increases were recorded by: Basic metal products (up 25.6% - from \$5,634.3m to \$7,076.7m); Chemical, petroleum and coal products (up 13.3% - from \$4,977.9m to \$5,641.6m); and Food, beverages and tobacco (up 13.1% - from \$8,615.6m to \$9,741.2m). Clothing and footwear (down 19.8% - from \$2,040.3m to \$1,635.4m) recorded, by far, the largest decrease, followed by Wood, wood products and furniture (down 7.5% - from \$2,718.6m to \$2,515.2m).

#### PERCENTAGE CHANGE OF GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) BY INDUSTRY SUBDIVISION AUSTRALIA, 1986-87 TO 1991-92



#### **Environmental protection (Tables 9 and 10)**

*General issues associated with environmental impact assessments or audits, return of containers or packaging, and marketing or production of goods or services relating to the environment*

The 1991-92 manufacturing census included questions related to environmental protection. The following three questions were asked of all manufacturers:

- During 1991-92, did this business conduct any environmental impact assessments (for proposed new production) or any environmental audits (on existing production processes)?
- Does this business permit and/or encourage the return of its own packaging (eg returnable bottles, cardboard boxes, polystyrene, etc)?
- Does this business market or produce any goods or services for monitoring, maintaining or improving the environment?

In determining the proportion of the manufacturing industry for which these environmental issues are applicable, two measures have been calculated. The first is the proportion of establishments undertaking these activities, of the total number of manufacturing establishments. The second measure is the proportion of total manufacturing turnover contributed by those establishments that reported a positive response to the environmental issues. For each of the environmental issues raised, the percentage contribution to total turnover was generally higher than the proportion of total establishments. This indicates that larger establishments generally make up a relatively higher proportion of manufacturing establishments involved in these environmental protection activities.

In all, 5 per cent of manufacturing establishments in Australia reported conducting environmental impact assessments or audits in 1991-92. These establishments contributed 37 per cent of total manufacturing turnover, reflecting the substantially higher incidence of environmental impact assessments or audits being conducted by larger establishments. The highest proportion of establishments which conducted environmental impact assessments or audits occurred in Chemical, petroleum and coal products and Food, beverages and tobacco, where 14 per cent and 10 per cent (respectively) of all establishments conducted these studies. Other industry subdivisions with a relatively high incidence of the conduct of these studies were Basic metal products (9%) and Textiles (8%). The lowest incidence of the conduct of environmental impact assessments or audits in 1991-92 occurred in: Clothing and footwear (2%); Wood, wood products and furniture (3%); and Miscellaneous manufacturing (3%).

In terms of the proportion of total turnover contributed by establishments conducting environmental impact assessments or audits, Chemical, petroleum and coal products with 54 per cent was the highest, followed by Basic metal products (51%). The smallest contributions were recorded in Clothing and footwear (13%) and Miscellaneous manufacturing (15%).

Overall, 22 per cent of all manufacturing establishments permitted and/or encouraged the return of their own containers or packaging. Those establishments contributed 34 per cent of total manufacturing turnover. The highest incidence of the return of containers or packaging was reported in Chemical, petroleum and coal products, where 38 per cent of all establishments did so. Whilst the incidence of the return of containers or packaging was only 22 per cent of establishments in Transport equipment, those establishments were likely to be the larger ones, contributing 45 per cent of turnover, the highest of any industry subdivision.

Only 6 per cent of all manufacturing establishments reported that they were engaged in the marketing or production of goods or services for monitoring, maintaining or improving the environment. Those establishments also contributed 6 per cent of total manufacturing turnover. The results show that the size of the businesses marketing or producing environmental goods or services varied depending on the industry subdivision. The incidence of larger businesses marketing or producing goods or services to monitor, maintain or improve the environment was high in Paper, paper products, printing and publishing, with the 10 per cent of establishments marketing or producing these goods or services contributing 16 per cent of the turnover in the industry. The incidence of smaller businesses undertaking these activities was high in Chemical, petroleum and coal products, where there were 14 per cent of all establishments involved contributing only 5 per cent of the industry's turnover.

#### *Expenditure on Environmental Protection*

All manufacturers (with the exception of single establishment businesses with less than four persons employed) were also asked to provide information on their total current and capital expenditure related to environmental protection.

In selected industries, the following breakdowns were also requested:

- Current expenditure on environmental protection in respect of:
  - (i) Government and council fees, charges and taxes relating to pollution abatement and control;
  - (ii) Purchased services (eg payments to non-government contractors to remove and dispose of wastes); and
  - (iii) Other current expenditure on environmental protection.
- Current expenditure on environmental protection in respect of:
  - (i) Research and development carried out by individual businesses; and
  - (ii) Research and development carried out for individual businesses by other businesses.
- Current expenditure on environmental protection in respect of:
  - (i) Expenditure incurred on environmental impact assessments (for proposed new production);
  - (ii) Expenditure incurred on environmental audits (for existing production processes); and
  - (iii) Expenditure incurred on energy audits.

- Capital expenditure by individual businesses for new plant, machinery or equipment designed to abate or control water, hazardous and non-hazardous solid wastes, air, noise and other pollutants through:
  - (i) end-of-line techniques; and
  - (ii) change-in-production processes.

In 1991-92, total current expenditure by manufacturing establishments on environmental protection was \$523.6m. This amounts to 0.3 per cent of the total manufacturing industry turnover for the year. Of the total current expenditure on environmental protection, nearly half (49.0%) was spent by manufacturers in just two industry subdivisions - Chemical, petroleum and coal products (\$132.0m) and Basic metal products (\$124.4m).

At the ASIC class level, the highest amount of current expenditure on environmental protection in 1991-92 was \$36.3m spent by the Alumina (ASIC class 2953) industry, followed by \$29.1m spent by the Organic industrial chemicals n.e.c. (ASIC class 2754) industry, \$27.5m spent by the Aluminium smelting (ASIC class 2954) industry and \$26.9m spent by the Iron and steel basic products (ASIC class 2941) industry. However, these amounts were very small relative to total turnover in each industry (1.4%, 3.2%, 1.1% and 0.3% respectively). This ratio was highest in Organic industrial chemicals n.e.c. (3.2%). In most of the remaining industries, less than 1.0 per cent of total turnover for that industry was spent on ongoing environmental protection.

In 1991-92, reported total capital expenditure by manufacturers to abate pollution was \$505.5m. Of this total expenditure, 69.4 per cent was spent by manufacturers in the same two industry subdivisions who spent the most on ongoing environmental protection - Basic metal products (\$242.3m) and Chemical, petroleum and coal products (\$108.7m).

At the ASIC class level, the largest amount of capital expenditure in 1991-92 to abate pollution occurred in the Alumina (ASIC class 2953) industry, where \$98.6m was spent. Other industries with a relatively large capital expenditure on pollution abatement were: Aluminium smelting (ASIC class 2954) (\$64.7m); Petroleum refining (ASIC class 2770) (\$50.8m); and Iron and steel basic products (ASIC class 2941) (\$49.7m).

Further information on the environmental protection issues covered in the 1991-92 manufacturing census will be published in *Cost of Environment Protection, Australia, 1991-92* (4603.0).

#### **Manufacturing technology statistics (Tables 11 to 13)**

These statistics are from the Manufacturing Technology Survey, 31 December 1991, which updates information from a similar survey conducted in respect of 30 June 1988.

At 31 December 1991, there were an estimated 14,200 manufacturing establishments with 10 or more persons employed (which was the scope of the survey). Of these establishments, 41 per cent had already acquired at least one of the surveyed advanced manufacturing technologies. (These establishments contributed 80 per cent of all manufacturing turnover for the year ended 30 June 1991.)

The major reported uses in the manufacturing sector of advanced technologies were in design and engineering, fabrication, machining and assembly, and communications and control. Each of these activities accounted for more than 20 per cent of establishments reporting at least one of the surveyed technologies.

The 1991 survey showed a strong relationship between the employment size of an establishment and the acquisition of advanced technology. The larger the manufacturer, the more likely that it was using advanced technologies. Of establishments with 200 or more persons employed, 88 per cent were users of advanced technologies, whereas the proportion was only 32 per cent for establishments with between 10 and 49 persons employed. This relationship applied across all industry subdivisions.

Only a small proportion of manufacturing establishments not having a particular type of advanced technology in place at 31 December 1991 had plans to acquire that technology within the next five years. A very substantial proportion of manufacturing establishments (50 per cent) had neither already acquired any of the surveyed technologies nor had plans to acquire any of them within the next five years.

Further information on the use of advanced technology in the manufacturing industry can be found in *Manufacturing Technology Statistics, Australia, 31 December 1991* (8123.0).

### Australian and New Zealand Standard Industrial Classification (ANZSIC) (Table 14)

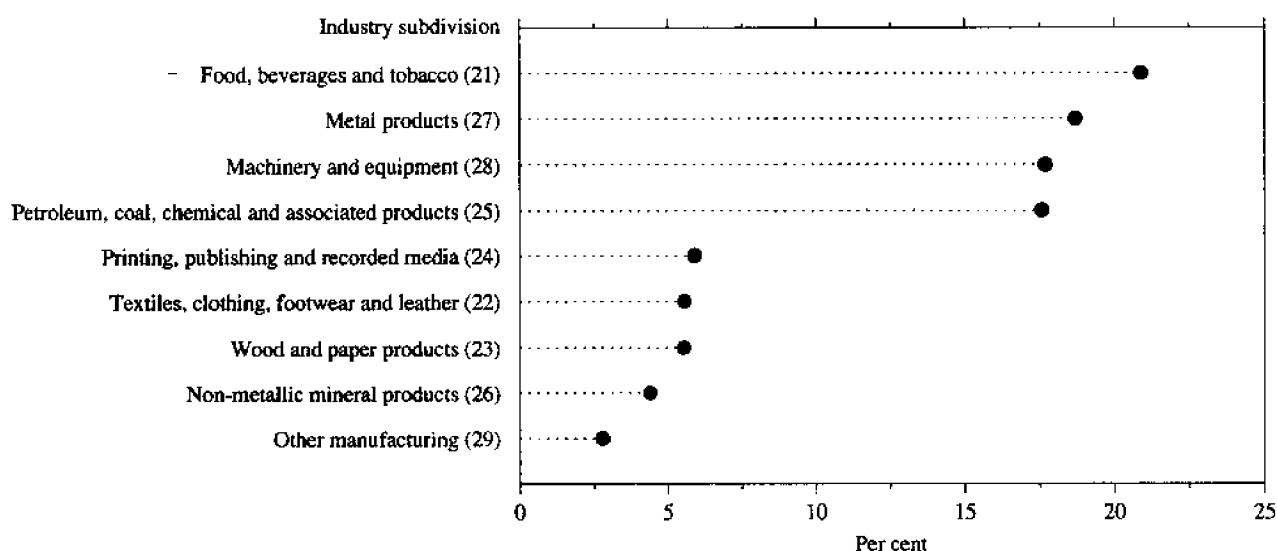
As explained in the introduction to Table 14, a new industry classification, the Australian and New Zealand Standard Industrial Classification (ANZSIC) is being introduced to replace the ASIC currently in use. Table 14 presents a concordance of data between those two industry classifications in respect of the 1991-92 reference year.

At the total manufacturing level, there is very little difference in the figures reported under the two industry classifications. Under ANZSIC, there are 2.8 per cent fewer establishments in the manufacturing industry, 1.5 per cent fewer persons employed and 0.8 per cent less turnover than under ASIC. This is because, on balance, there are more establishments classified to industries other than manufacturing under ANZSIC than under ASIC.

The major differences between the two classifications becomes apparent in examining turnover at the industry subdivision level. As the chart below shows, under ANZSIC there are four large industry subdivisions with turnover of about equal size and five industry subdivisions of a substantially smaller size. Under ASIC, there was a more even distribution of turnover (as the chart on page 1 shows).

The chart below ranks ANZSIC industry subdivisions from the largest to the smallest contributor for 1991-92 manufacturing turnover. Food, beverages and tobacco is the largest contributor with 21.1 per cent of total turnover. Metal products (18.9%), Machinery and equipment (17.9%) and Petroleum, coal, chemical and associated products (17.8%) were, by far, the next highest contributors. The remaining five industry subdivisions each contributed six per cent or less to total turnover, with Other manufacturing (2.8%) being the smallest.

**DISTRIBUTION OF TURNOVER, ANZSIC SUBDIVISIONS, AUSTRALIA, 1991-92**



Detailed tabulations of data included in this publication, classified according to ANZSIC, are available on request. The contact officer for those data is Mark Wise on Sydney (02) 268 4541.



TABLE 1. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, AUSTRALIA  
1988-89 TO 1991-92 (b)

Industry subdivision		Establishments at 30 June (c) (No.)	Employment at end of June (d) (000)	Wages and salaries (e)(f) (\$m)	Turnover (f) (\$m)	Persons employed per establishment (No.)	Turnover per person employed (f) (\$000)	
ASIC code	Description							
21	Food, beverages and tobacco	1991-92	4,228	166.0	4,607.6	35,768.1	39	215.5
		1990-91 (g)	3,973	169.6	4,561.9	34,677.9	43	204.5
		1989-90	4,212	173.5	r4,281.8	33,039.6	41	190.4
		1988-89	4,351	177.8	4,016.3	30,795.8	41	173.2
23	Textiles	1991-92	936	26.2	742.1	4,120.9	28	157.2
		1990-91 (g)	960	28.3	738.6	4,053.4	29	143.2
		1989-90	918	30.3	743.2	4,031.6	33	133.1
		1988-89	919	32.6	718.1	4,107.8	35	126.1
24	Clothing and footwear	1991-92	2,574	49.8	1,127.7	4,846.6	19	97.4
		1990-91 (g)	2,559	55.8	1,197.3	5,026.2	22	90.1
		1989-90	2,700	r64.9	1,308.0	5,177.9	r24	r79.7
		1988-89	2,899	74.6	1,313.5	5,234.1	26	70.1
25	Wood, wood products and furniture	1991-92	6,590	71.7	1,685.9	7,638.3	11	106.5
		1990-91 (g)	6,721	75.6	1,767.5	7,803.0	11	103.2
		1989-90	6,972	83.9	1,858.4	8,281.9	12	98.7
		1988-89	7,079	89.4	1,702.9	8,132.6	13	90.9
26	Paper, paper products, printing and publishing	1991-92	4,913	100.3	3,217.4	14,332.0	20	142.9
		1990-91 (g)	4,701	103.3	3,224.1	14,417.5	22	139.5
		1989-90	r4,745	107.3	3,052.1	13,717.4	23	127.5
		1988-89	4,626	114.8	2,895.9	13,523.5	25	117.8
27	Chemical, petroleum and coal products	1991-92	1,213	50.5	1,937.4	23,462.4	42	464.7
		1990-91 (g)	1,136	51.9	1,919.3	23,448.0	46	451.8
		1989-90	1,136	51.7	1,740.8	20,317.9	46	393.0
		1988-89	1,157	53.8	1,595.8	13,883.1	47	258.0
28	Non-metallic mineral products	1991-92	1,757	37.6	1,223.7	7,318.6	21	194.5
		1990-91 (g)	1,692	39.7	1,287.9	7,510.4	23	189.3
		1989-90	1,883	42.3	1,249.7	7,897.5	22	186.5
		1988-89	1,931	43.3	1,145.4	7,322.9	22	169.2
29	Basic metal products	1991-92	889	62.1	2,508.0	20,520.7	70	330.2
		1990-91 (g)	820	67.5	2,514.0	21,558.7	82	319.4
		1989-90	r830	69.3	2,394.3	r21,717.3	r83	r313.4
		1988-89	737	71.1	2,224.5	19,430.6	96	273.5
31	Fabricated metal products	1991-92	6,528	88.8	2,415.1	11,554.5	14	130.1
		1990-91 (g)	6,629	96.8	2,630.1	12,296.6	15	126.9
		1989-90	6,710	106.3	2,666.8	12,883.7	16	121.2
		1988-89	6,669	112.0	2,481.0	12,208.5	17	109.0
32	Transport equipment	1991-92	2,099	81.6	2,550.4	14,153.2	39	173.4
		1990-91 (g)	2,020	91.3	2,924.2	15,645.1	45	171.4
		1989-90	2,141	106.6	2,963.2	16,695.5	50	156.6
		1988-89	2,174	117.5	2,841.2	14,830.2	54	126.2
33	Other machinery and equipment	1991-92	5,910	114.2	3,432.3	15,901.6	19	139.3
		1990-91 (g)	5,716	121.6	3,612.1	16,295.9	21	134.0
		1989-90	5,710	131.5	3,529.4	15,756.8	23	119.8
		1988-89	5,718	140.8	3,387.6	15,392.0	25	109.3
34	Miscellaneous manufacturing	1991-92	3,843	58.2	1,620.4	8,401.9	15	144.4
		1990-91 (g)	3,761	60.2	1,645.2	8,512.5	16	141.1
		1989-90	3,985	63.4	1,589.6	8,276.2	16	130.6
		1988-89	4,013	69.0	1,534.1	8,285.9	17	120.0
21-34	Total manufacturing	1991-92	41,480	906.9	27,068.0	168,018.7	22	185.3
		1990-91 (g)	40,688	961.6	28,022.2	171,245.1	24	178.1
		1989-90	r41,942	r1,031.1	r27,377.2	r167,793.2	25	r162.7
		1988-89	42,273	1,096.8	25,856.5	153,147.0	26	139.6

(a) See paragraph 34 of the Explanatory Notes. (b) For comparability of data over the time periods shown, see paragraphs 30 to 33 of the Explanatory Notes. (c) See paragraphs 4 to 10 and 31 of the Explanatory Notes. (d) Includes working proprietors. (e) Excludes the drawings of working proprietors. (f) Value data are at current prices and, therefore, do not discount the impact of price changes. (g) Data presented for 1990-91 have undergone extensive revision due to further processing of that year's data and, therefore, generally differ from those previously published.

**TABLE 2. MANUFACTURING EMPLOYMENT INCLUDING SOLE PROPRIETORS AND PARTNERSHIPS NOT EMPLOYING OTHERS BY INDUSTRY SUBDIVISION, AUSTRALIA, 1991**

Industry subdivision		Manufacturing employment, August 1991 (a)		
		Sole proprietors and partnerships not employing others (No.)	Total other (b) (No.)	Manufacturing census employment at end of June 1991 (b) (No.)
ASIC code	Description			
21	Food, beverages and tobacco	4,609	151,156	169,583
23	Textiles	1,542	26,898	28,306
24	Clothing and footwear	5,246	50,802	55,788
25	Wood, wood products and furniture	7,504	66,461	75,605
26	Paper, paper products, printing and publishing	5,331	99,038	103,320
27	Chemical, petroleum and coal products	1,091	47,626	51,896
28	Non-metallic mineral products	3,640	37,769	39,682
29	Basic metal products	754	52,899	67,495
31	Fabricated metal products	4,610	80,124	96,839
32	Transport equipment	2,661	79,266	91,288
33	Other machinery and equipment	4,476	110,907	121,622
34	Miscellaneous manufacturing	5,647	52,182	60,174
..	Manufacturing undefined (c)	5,054	25,700	..
<b>21-34</b>	<b>Total manufacturing</b>	<b>52,165</b>	<b>880,828</b>	<b>961,598</b>

(a) Source: 1991 Census of Population and Housing. (b) Includes working proprietors with employees. For an explanation of the differences between 'Total other' and 'Manufacturing census employment at end of June 1991', see paragraphs 17, 18 and 36 to 39 of the Explanatory Notes. (c) Those persons who indicated that they were employed in the manufacturing industry but the description given was insufficient to enable them to be attributed to a specific industry subdivision.

**TABLE 3. DEMOGRAPHIC CHARACTERISTICS OF PERSONS EMPLOYED BY INDUSTRY SUBDIVISION AUSTRALIA, AUGUST 1991 (Per cent)**

Industry subdivision		Proportion of industry					
		Sex		Age group (years)			
ASIC code	Description	Males	Females	15-24	25-34	35-54	55 and over
<b>MANUFACTURING—</b>							
21	Food, beverages and tobacco	67.8	32.2	19.9	27.7	43.4	9.0
23	Textiles	58.7	41.3	15.0	26.8	47.8	10.4
24	Clothing and footwear	28.7	71.3	15.3	26.9	49.3	8.5
25	Wood, wood products and furniture	81.9	18.1	24.1	27.5	38.8	9.6
26	Paper, paper products, printing and publishing	63.9	36.1	18.6	26.9	45.2	9.3
27	Chemical, petroleum and coal products	71.3	28.7	11.4	29.7	49.7	9.2
28	Non-metallic mineral products	83.5	16.5	13.2	27.3	48.6	10.8
29	Basic metal products	90.6	9.4	14.3	28.5	46.9	10.3
31	Fabricated metal products	81.5	18.5	19.1	27.1	43.7	10.2
32	Transport equipment	84.1	15.9	17.8	28.1	44.2	9.9
33	Other machinery and equipment	74.3	25.7	16.9	28.6	44.7	9.8
34	Miscellaneous manufacturing	69.8	30.2	16.8	28.6	45.4	9.3
..	Manufacturing undefined (a)	77.7	22.3	18.3	26.8	44.7	10.2
<b>21-34</b>	<b>Total manufacturing</b>	<b>72.0</b>	<b>28.0</b>	<b>17.7</b>	<b>27.8</b>	<b>44.9</b>	<b>9.6</b>
<b>01-99</b>	<b>ALL INDUSTRIES</b>	<b>57.4</b>	<b>42.6</b>	<b>19.5</b>	<b>26.6</b>	<b>44.5</b>	<b>9.5</b>

Source: 1991 Census of Population and Housing.

(a) Those persons who indicated that they were employed in the manufacturing industry but the description given was insufficient to enable them to be attributed to a specific industry subdivision.

TABLE 4. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92

Industry class		Establishments at 30 June	Employment at end of June	Wages and salaries	Turnover	Persons employed per establishment	Turnover per person employed
ASIC code	Description	(No.)	(No.)	(\$m)	(\$m)	(No.)	(\$'000)
FOOD, BEVERAGES AND TOBACCO—							
Meat products—							
2115	Meat (except smallgoods or poultry)	352	27,364	752.8	5,360.0	78	195.9
2116	Poultry	110	9,749	222.0	1,498.5	89	153.7
2117	Bacon, ham and smallgoods n.e.c.	128	6,608	171.4	1,377.8	52	208.5
211	Total	590	43,721	1,146.2	8,236.2	74	188.4
Milk products—							
2121	Liquid milk and cream	68	6,548	199.9	2,418.9	96	369.4
2122	Butter	18	1,440	43.1	603.8	80	419.3
2123	Cheese	66	4,317	111.6	995.1	65	230.5
2124	Ice cream and frozen confections	37	1,830	55.9	540.2	49	295.2
2125	Milk products n.e.c.	21	1,532	47.8	473.4	73	309.0
212	Total	210	15,667	458.4	5,031.4	75	321.1
Fruit and vegetable products—							
2131	Fruit products	101	4,088	119.7	1,146.3	40	280.4
2132	Vegetable products	82	6,136	195.0	1,271.3	75	207.2
213	Total	183	10,224	314.7	2,417.5	56	236.5
214	Margarine and oils and fats n.e.c.	33	2,188	91.4	721.3	66	329.6
Flour mill and cereal food products—							
2151	Flour mill products	38	2,151	65.8	788.6	57	366.6
2152	Starch, gluten and starch sugars	11	645	27.4	258.6	59	401.0
2153	Cereal foods and baking mixes	96	5,787	169.7	1,522.4	60	263.1
215	Total	145	8,583	262.9	2,569.7	59	299.4
Bread, cakes and biscuits—							
2161	Bread	1,392	20,304	404.7	1,686.6	15	83.1
2162	Cakes and pastries	485	9,115	190.4	782.3	19	85.8
2163	Biscuits	43	5,087	161.8	769.3	118	151.2
216	Total	1,920	34,506	756.9	3,238.1	18	93.8
Other food products—							
2171	Raw sugar	23	n.p.	n.p.	n.p.	n.p.	n.p.
2173	Confectionery and cocoa products	129	6,857	217.9	1,160.6	53	169.3
2174	Processed seafoods	106	3,975	73.8	868.8	38	218.6
2175	Prepared animal and bird foods	183	4,414	131.9	1,613.4	24	365.5
2176	Food products n.e.c.	315	n.p.	n.p.	n.p.	n.p.	n.p.
217	Total	756	31,108	900.3	7,100.3	41	228.2
Beverages and malt—							
2185	Soft drinks, cordials and syrups	109	6,251	194.0	1,893.2	57	302.9
2186	Beer	19	5,355	231.9	2,354.4	282	439.7
2187	Malt	21	427	n.p.	n.p.	20	n.p.
2188	Wine and brandy	233	5,035	121.0	973.6	22	193.4
2189	Alcoholic beverages n.e.c.	4	36	n.p.	n.p.	9	n.p.
218	Total	386	17,104	565.2	5,488.8	44	320.9
219	Tobacco products	5	2,853	111.7	964.8	571	338.2
21	Total food, beverages and tobacco	4,228	165,954	4,607.6	35,768.1	39	215.5

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92—continued

Industry class		Establishments at 30 June (b) (No.)	Employment at end of June (c) (No.)	Wages and salaries (d) (\$m)	Turnover (\$m)	Persons employed per establishment (No.)	Turnover per person employed (\$'000)
ASIC code	Description						
<b>TEXTILES—</b>							
<b>Textile fibres, yarns and woven fabrics—</b>							
2341	Cotton ginning	17	479	12.8	297.5	28	621.0
2342	Wool scouring and top making	30	1,783	57.9	414.5	59	232.5
2343	Man-made fibres and yarns	15	1,293	44.5	170.8	86	132.1
2344	Man-made fibre broadwoven fabrics	44	2,559	72.6	382.7	58	149.6
2345	Cotton yarns and broadwoven fabrics	48	2,615	87.8	349.4	54	133.6
2346	Worsted yarns and broadwoven fabrics	11	1,426	36.9	154.1	130	108.1
2347	Woollen yarns and broadwoven fabrics	18	1,629	43.1	178.8	91	109.8
2348	Narrow woven and elastic textiles	21	800	21.9	114.4	38	143.0
2349	Textile finishing	84	2,063	57.6	261.4	25	126.7
234	<i>Total</i>	288	14,647	435.0	2,323.7	51	158.6
<b>Other textile products—</b>							
2351	Household textiles	101	1,815	43.3	224.8	18	123.9
2352	Textile floor coverings	78	3,257	94.4	666.7	42	204.7
2353	Felt and felt products	9	596	19.8	80.0	66	134.1
2354	Canvas and associated products n.e.c.	326	2,920	61.8	268.1	9	91.8
2355	Rope, cordage and twine	24	470	15.1	68.7	20	146.3
2356	Textile products n.e.c.	110	2,510	72.8	488.9	23	194.8
235	<i>Total</i>	648	11,568	307.1	1,797.1	18	155.4
23	<i>Total textiles</i>	936	26,215	742.1	4,120.9	28	157.2
<b>CLOTHING AND FOOTWEAR—</b>							
<b>Knitting mills—</b>							
2441	Hosiery	34	2,653	73.0	272.3	78	102.6
2442	Cardigans and pullovers	95	1,770	36.9	148.2	19	83.7
2443	Knitted goods n.e.c.	118	2,736	74.8	443.3	23	162.0
244	<i>Total</i>	247	7,159	184.8	863.8	29	120.7
<b>Clothing—</b>							
2451	Men's trousers and shorts; work clothing	118	4,059	96.7	403.2	34	99.3
2452	Men's suits and coats; waterproof clothing	102	3,234	69.4	218.5	32	67.6
2453	Women's outerwear n.e.c.	848	10,390	212.3	1,239.2	12	119.3
2454	Foundation garments	15	2,434	58.9	199.2	162	81.8
2455	Underwear and infants' clothing n.e.c.	162	6,779	171.5	576.0	42	85.0
2456	Headwear and clothing n.e.c.	880	8,615	169.9	751.6	10	87.2
245	<i>Total</i>	2,125	35,511	778.7	3,387.7	17	95.4
246	<i>Footwear</i>	202	7,106	164.2	595.1	35	83.7
24	<i>Total clothing and footwear</i>	2,574	49,776	1,127.7	4,846.6	19	97.4
<b>WOOD, WOOD PRODUCTS AND FURNITURE—</b>							
<b>Wood and wood products—</b>							
2531	Log sawmilling	583	9,795	232.0	1,010.4	17	103.1
2532	Resawn and dressed timber	127	3,848	100.9	533.3	30	138.6
2533	Veneers and manufactured boards of wood	85	4,449	142.2	766.2	52	172.2
2534	Wooden doors	50	1,071	27.5	166.7	21	155.7
2535	Wooden structural fittings and joinery n.e.c.	1,737	16,305	376.5	1,639.1	9	100.5
2536	Wooden containers	132	1,215	26.1	118.7	9	97.7
2537	Hardwood woodchips	19	613	24.9	341.1	32	556.5
2538	Wood products n.e.c.	612	3,063	57.9	225.3	5	73.6
253	<i>Total</i>	3,345	40,359	988.0	4,800.8	12	119.0
<b>Furniture and mattresses—</b>							
2541	Furniture (except sheet metal)	3,148	28,415	624.5	2,462.8	9	86.7
2542	Mattresses (except rubber)	97	2,919	73.4	374.7	30	128.4
254	<i>Total</i>	3,245	31,334	697.9	2,837.5	10	90.6
25	<i>Total wood, wood products and furniture</i>	6,590	71,693	1,685.9	7,638.3	11	106.5

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92—continued

Industry class		Establishments at 30 June	Employment at end of June	Wages and salaries	Turnover	Persons employed per establishment	Turnover per person employed
ASIC code	Description	(b) (No.)	(c) (No.)	(d) (\$m)	(\$m)	(No.)	(\$'000)
<b>PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—</b>							
<b>Paper and paper products—</b>							
2631	Pulp, paper and paperboard	93	6,528	311.1	1,953.2	70	299.2
2632	Paper bags (including textile bags)	42	1,396	39.7	305.5	33	218.8
2633	Solid fibreboard containers	41	1,846	60.0	272.9	45	147.8
2634	Corrugated fibreboard containers	34	5,231	191.1	1,204.8	154	230.3
2635	Paper products n.e.c.	102	3,930	139.4	801.3	39	203.9
263	<i>Total</i>	<i>312</i>	<i>18,931</i>	<i>741.4</i>	<i>4,537.6</i>	<i>61</i>	<i>239.7</i>
<b>Printing and allied industries—</b>							
2641	Publishing	740	11,715	340.7	1,870.0	16	159.6
2642	Printing and publishing	564	24,588	830.2	2,806.3	44	114.1
2643	Paper stationery	280	8,074	235.5	1,103.7	29	136.7
2644	Printing and bookbinding	2,307	30,775	884.3	3,459.6	13	112.4
2645	Printing trade services n.e.c.	710	6,182	185.3	554.7	9	89.7
264	<i>Total</i>	<i>4,601</i>	<i>81,334</i>	<i>2,476.0</i>	<i>9,794.4</i>	<i>18</i>	<i>120.4</i>
<b>26</b>	<b>Total paper, paper products, printing and publishing</b>	<b>4,913</b>	<b>100,265</b>	<b>3,217.4</b>	<b>14,332.0</b>	<b>20</b>	<b>142.9</b>
<b>CHEMICAL, PETROLEUM AND COAL PRODUCTS—</b>							
<b>Basic Chemicals—</b>							
2751	Chemical fertilisers	48	2,347	96.0	904.1	49	385.2
2752	Industrial gases	23	1,310	47.6	393.5	57	300.4
2753	Synthetic resins and rubber	98	4,420	194.7	1,609.0	45	364.0
2754	Organic industrial chemicals n.e.c.	59	1,921	89.3	942.3	33	490.5
2755	Inorganic industrial chemicals n.e.c.	119	4,148	167.8	1,309.4	35	315.7
275	<i>Total</i>	<i>347</i>	<i>14,146</i>	<i>595.4</i>	<i>5,158.2</i>	<i>41</i>	<i>364.6</i>
<b>Other chemical products—</b>							
2761	Ammunition, explosives and fireworks	35	2,799	108.0	656.5	80	234.5
2762	Paints	149	6,129	195.9	1,650.5	41	269.3
2763	Pharmaceutical and veterinary products	143	10,676	380.3	2,416.6	75	226.4
2764	Pesticides	32	1,192	48.8	564.8	37	473.8
2765	Soap and other detergents	178	3,859	134.5	1,132.8	22	293.6
2766	Cosmetics and toilet preparations	76	3,010	94.5	673.4	40	223.7
2767	Inks	45	1,241	33.3	216.4	28	174.4
2768	Chemical products n.e.c.	146	2,749	94.6	676.0	19	245.9
276	<i>Total</i>	<i>804</i>	<i>31,655</i>	<i>1,090.0</i>	<i>7,987.0</i>	<i>39</i>	<i>252.3</i>
277	<i>Petroleum refining</i>	<i>30</i>	<i>4,216</i>	<i>237.2</i>	<i>10,182.4</i>	<i>141</i>	<i>2,415.2</i>
278	<i>Petroleum and coal products n.e.c.</i>	<i>32</i>	<i>467</i>	<i>14.9</i>	<i>134.8</i>	<i>15</i>	<i>288.6</i>
<b>27</b>	<b>Total chemical, petroleum and coal products</b>	<b>1,213</b>	<b>50,484</b>	<b>1,937.4</b>	<b>23,462.4</b>	<b>42</b>	<b>464.7</b>

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92—continued

Industry class		Establishments at 30 June	Employment at end of June	Wages and salaries	Turnover	Persons employed per establishment	Turnover per person employed
ASIC code	Description	(b) (No.)	(c) (No.)	(d) (\$m)	(\$m)	(No.)	(\$'000)
<b>NON-METALLIC MINERAL PRODUCTS—</b>							
285	Glass and glass products	210	5,894	226.7	994.5	28	168.7
Clay products and refractories—							
2861	Clay bricks	87	4,721	150.0	685.0	54	145.1
2862	Refractories	31	906	40.2	160.7	29	177.4
2863	Ceramic tiles and pipes	55	1,673	53.0	187.5	30	112.0
2864	Ceramic goods n.e.c.	202	2,138	49.0	175.6	11	82.1
286	Total	375	9,438	292.2	1,208.7	25	128.1
Cement and concrete products—							
2871	Cement	24	2,626	106.9	828.4	109	315.5
2872	Ready mixed concrete	304	4,476	133.4	1,567.6	15	350.2
2873	Concrete pipes and box culverts	39	1,359	280.1	1,453.8	35 18	155.3
2874	Concrete products n.e.c.	446	8,001				
287	Total	813	16,462	520.4	3,849.9	20	233.9
Other non-metallic mineral products—							
2881	Plaster products and expanded minerals	79	1,933	62.6	550.5	24	284.8
2882	Stone products	167	1,267	33.3	124.2	8	98.0
2883	Glass wool and mineral wool products	41	1,357	49.3	272.1	33	200.5
2884	Non-metallic mineral products n.e.c.	72	1,276	39.3	318.6	18	249.7
288	Total	359	5,833	184.5	1,265.4	16	216.9
28	<b>Total non-metallic mineral products</b>	<b>1,757</b>	<b>37,627</b>	<b>1,223.7</b>	<b>7,318.6</b>	<b>21</b>	<b>194.5</b>
<b>BASIC METAL PRODUCTS—</b>							
Basic iron and steel—							
2941	Iron and steel basic products	329	26,088	1,108.5	7,989.7	79	306.3
2942	Iron casting	76	3,491	112.0	407.7	46	116.8
2943	Steel casting	87	2,693	81.7	334.9	31	124.3
2944	Iron and steel forging	46	822	25.7	137.5	18	167.3
2945	Steel pipes and tubes	67	2,780	96.3	673.5	41	242.3
294	Total	605	35,874	1,424.1	9,543.2	59	266.0
Basic non-ferrous metals—							
2951	Copper smelting, refining	8	1,306	58.4	1,380.9	163	1,057.4
2952	Silver, lead, zinc smelting, refining	13	3,060	n.p.	n.p.	235	n.p.
2953	Alumina	8	5,944	276.7	2,658.7	743	447.3
2954	Aluminium smelting	10	5,328	240.3	2,549.1	533	478.4
2955	Nickel smelting, refining	5	1,434	n.p.	n.p.	287	n.p.
2956	Non-ferrous metals n.e.c. smelting, refining	7	331	13.0	107.1	47	323.6
2957	Secondary recovery and alloying of non-ferrous metals n.e.c.	63	1,292	42.0	446.1	21	345.3
295	Total	114	18,695	814.5	9,060.1	164	484.6
Non-ferrous metal basic products—							
2961	Aluminium rolling, drawing, extruding	36	3,742	153.5	1,189.8	104	317.9
2962	Non-ferrous metals n.e.c. rolling, drawing, extruding	33	1,708	52.8	497.3	52	291.1
2963	Non-ferrous metal casting	101	2,119	63.2	230.4	21	108.7
296	Total	170	7,569	269.4	1,917.5	45	253.3
29	<b>Total basic metal products</b>	<b>889</b>	<b>62,138</b>	<b>2,508.0</b>	<b>20,520.7</b>	<b>70</b>	<b>330.2</b>

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92—continued

Industry class		Establishments at 30 June	Employment at end of June	Wages and salaries	Turnover	Persons employed per establishment	Turnover per person employed
ASIC code	Description	(b) (No.)	(c) (No.)	(d) (\$m)	(\$m)	(No.)	(\$'000)
<b>FABRICATED METAL PRODUCTS—</b>							
<b>Structural metal products—</b>							
3141	Fabricated structural steel	1,176	16,164	460.2	2,558.0	14	158.3
3142	Architectural aluminium products	834	11,507	295.8	1,410.1	14	122.5
3143	Architectural metal products n.e.c.	409	3,985	99.6	496.6	10	124.6
314	<i>Total</i>	2,419	31,656	855.7	4,464.7	13	141.0
<b>Sheet metal products—</b>							
3151	Metal containers	109	5,017	166.0	1,277.3	46	254.6
3152	Sheet metal furniture	157	3,047	84.4	331.4	19	108.8
3153	Sheet metal products n.e.c.	1,003	13,454	370.8	1,646.9	13	122.4
315	<i>Total</i>	1,269	21,518	621.3	3,255.6	17	151.3
<b>Other fabricated metal products—</b>							
3161	Cutlery and hand tools n.e.c.	214	2,286	56.8	205.2	11	89.7
3162	Springs and wire products	276	4,905	118.7	658.9	18	134.3
3163	Nuts, bolts, screws and rivets	109	2,411	75.2	384.7	22	159.6
3164	Metal coating and finishing	512	4,998	129.3	467.8	10	93.6
3165	Non-ferrous steam, gas and water fittings	61	2,555	72.4	246.9	42	96.6
3166	Boiler and plate work	167	2,199	66.0	282.1	13	128.3
3167	Metal blinds and awnings	118	1,658	42.9	212.2	14	128.0
3168	Fabricated metal products n.e.c.	1,383	14,651	376.9	1,376.4	11	93.9
316	<i>Total</i>	2,840	35,663	938.2	3,834.2	13	107.5
31	<i>Total fabricated metal products</i>	6,528	88,837	2,415.1	11,554.5	14	130.1
<b>TRANSPORT EQUIPMENT—</b>							
<b>Motor vehicles and parts—</b>							
3231	Motor vehicles	77	26,123	754.8	7,254.2	339	277.7
3232	Motor vehicle bodies, trailers, caravans	395	5,128	122.6	542.1	13	105.7
3233	Motor vehicle instruments and electrical equipment n.e.c.	64	4,638	147.4	681.0	72	146.8
3234	Motor vehicle parts n.e.c.	782	20,541	574.3	2,173.1	26	105.8
323	<i>Total</i>	1,318	56,430	1,599.0	10,650.5	43	188.7
<b>Other transport equipment—</b>							
3241	Ships	78	5,629	238.3	1,468.8	72	260.9
3242	Boats	393	3,096	69.5	257.9	8	83.3
3243	Railway rolling stock and locomotives	23	2,057	60.6	393.7	89	191.4
3244	Aircraft	227	13,920	573.4	1,330.2	61	95.6
3245	Transport equipment n.e.c.	60	480	9.7	52.1	8	108.6
324	<i>Total</i>	781	25,182	951.4	3,502.7	32	139.1
32	<i>Total transport equipment</i>	2,099	81,612	2,550.4	14,153.2	39	173.4

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS  
AUSTRALIA, 1991-92—continued

Industry class	Establishments at 30 June	Employment at end of June	Wages and salaries	Turnover	Persons employed per establishment	Turnover per person employed	
ASIC code	(b) (No.)	(c) (No.)	(d) (\$m)	(\$m)	(No.)	(\$'000)	
<b>OTHER MACHINERY AND EQUIPMENT—</b>							
<b>Photographic, professional and scientific equipment—</b>							
3341	Photographic and optical goods	73	1,605	57.3	369.4	22	230.1
3342	Photographic film processing	730	5,305	108.7	473.1	7	89.2
3343	Measuring, professional and scientific equipment n.e.c.	240	4,097	133.2	431.0	17	105.2
334	<b>Total</b>	<b>1,043</b>	<b>11,007</b>	<b>299.3</b>	<b>1,273.5</b>	<b>11</b>	<b>115.7</b>
<b>Appliances and electrical equipment—</b>							
3351	Radio and TV receivers; audio equipment	79	1,894	52.6	339.4	24	179.2
3352	Electronic equipment n.e.c.	572	16,615	583.5	3,010.7	29	181.2
3353	Refrigerators and household appliances	276	12,043	324.5	1,785.6	44	148.3
3354	Water heating systems	54	1,559	47.0	232.2	29	148.9
3355	Electric and telephone cable and wire	48	3,339	111.6	820.5	70	245.7
3356	Batteries	13	1,478	39.9	335.6	114	227.1
3357	Electrical machinery and equipment n.e.c.	764	20,342	577.7	2,536.4	27	124.7
335	<b>Total</b>	<b>1,806</b>	<b>57,270</b>	<b>1,736.8</b>	<b>9,060.5</b>	<b>32</b>	<b>158.2</b>
<b>Industrial machinery and equipment—</b>							
3361	Agricultural machinery	362	4,389	100.5	421.5	12	96.0
3362	Construction machinery	95	1,639	55.3	272.5	17	166.2
3363	Materials handling equipment	268	4,224	121.2	559.1	16	132.4
3364	Wood and metal working machinery	239	2,259	60.8	220.2	9	97.5
3365	Pumps and compressors	106	2,978	90.3	472.8	28	158.8
3366	Commercial space heating and cooling equipment	70	2,566	78.3	353.3	37	137.7
3367	Dies, saw blades and machine tool accessories	426	4,716	137.6	384.4	11	81.5
3368	Food processing machinery	110	2,024	59.2	249.6	18	123.3
3369	Industrial machinery and equipment n.e.c.	1,385	21,089	693.0	2,634.1	15	124.9
336	<b>Total</b>	<b>3,061</b>	<b>45,884</b>	<b>1,396.3</b>	<b>5,567.6</b>	<b>15</b>	<b>121.3</b>
33	<b>Total other machinery and equipment</b>	<b>5,910</b>	<b>114,161</b>	<b>3,432.3</b>	<b>15,901.6</b>	<b>19</b>	<b>139.3</b>
<b>MISCELLANEOUS MANUFACTURING—</b>							
<b>Leather and leather products—</b>							
3451	Leather tanning and fur dressing	98	2,350	63.2	455.3	24	193.7
3452	Leather and leather substitute goods n.e.c.	134	1,113	22.4	86.6	8	77.8
345	<b>Total</b>	<b>232</b>	<b>3,463</b>	<b>85.6</b>	<b>541.9</b>	<b>15</b>	<b>156.5</b>
<b>Rubber products—</b>							
3461	Rubber tyres, tubes, belts, hose and sheets	130	5,130	198.3	865.6	39	168.7
3462	Rubber products n.e.c.	121	2,838	74.0	316.1	23	111.4
346	<b>Total</b>	<b>251</b>	<b>7,968</b>	<b>272.3</b>	<b>1,181.8</b>	<b>32</b>	<b>148.3</b>
<b>Plastic and related products—</b>							
3471	Flexible packaging and abrasive papers	168	7,022	228.6	1,468.7	42	209.2
3472	Rigid plastic sheeting	27	717	29.2	161.5	27	165.5
3473	Hard surface floor coverings n.e.c.	6	259				
3474	Plastic products n.e.c.	1,173	24,282	686.1	3,643.1	21	150.0
347	<b>Total</b>	<b>1,374</b>	<b>32,280</b>	<b>943.9</b>	<b>5,273.2</b>	<b>23</b>	<b>163.4</b>
<b>Other manufacturing—</b>							
3481	Ophthalmic articles	70	1,652	38.5	128.2	24	77.6
3482	Jewellery and silverware	363	2,211	44.8	227.9	6	103.1
3483	Brooms and brushes	39	729	18.5	118.3	19	162.3
3484	Signs and advertising displays	909	5,377	116.3	407.8	6	75.8
3485	Sporting equipment	200	1,578	34.3	167.3	8	106.0
3486	Writing and marking equipment	47	633	16.1	77.5	13	122.4
3487	Manufacturing n.e.c.	358	2,285	50.1	278.0	6	121.7
348	<b>Total</b>	<b>1,986</b>	<b>14,465</b>	<b>318.6</b>	<b>1,405.1</b>	<b>7</b>	<b>97.1</b>
34	<b>Total miscellaneous manufacturing</b>	<b>3,843</b>	<b>58,176</b>	<b>1,620.4</b>	<b>8,401.9</b>	<b>15</b>	<b>144.4</b>
21-34	<b>TOTAL MANUFACTURING</b>	<b>41,480</b>	<b>906,938</b>	<b>27,068.0</b>	<b>168,018.7</b>	<b>22</b>	<b>185.3</b>

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraphs 4 to 10 of the Explanatory Notes. (c) Includes working proprietors. (d) Excludes the drawings of working proprietors.



TABLE 5. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	('000)	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
<b>FOOD, BEVERAGES AND TOBACCO</b>								
0 - 3 persons	747	17.7	1.7	1.1	28.5	0.6	186.5	0.5
4 - 9 persons	1,538	36.4	9.2	5.5	141.6	3.1	862.7	2.4
10 - 19 persons	759	18.0	10.0	6.0	201.1	4.4	1,510.5	4.2
20 - 49 persons	556	13.2	16.8	10.1	380.5	8.3	3,385.7	9.5
50 - 99 persons	260	6.1	18.3	11.0	493.2	10.8	4,293.2	12.0
<i>Total less than 100 persons</i>	<i>3,860</i>	<i>91.3</i>	<i>56.0</i>	<i>33.8</i>	<i>1,245.1</i>	<i>27.2</i>	<i>10,238.5</i>	<i>28.7</i>
100 - 199 persons	167	3.9	22.8	13.7	650.7	14.2	5,787.3	16.2
200 - 499 persons	151	3.6	48.8	29.4	1,441.4	31.5	10,553.2	29.6
500 - 999 persons	44	1.0	31.2	18.8	996.2	21.8	7,422.3	20.8
1000 or more persons	6	0.1	7.1	4.3	241.6	5.3	1,641.6	4.6
<i>Total 100 or more persons</i>	<i>368</i>	<i>8.7</i>	<i>109.9</i>	<i>66.2</i>	<i>3,329.9</i>	<i>72.8</i>	<i>25,404.3</i>	<i>71.3</i>
<b>Total</b>	<b>4,228</b>	<b>100.0</b>	<b>166.0</b>	<b>100.0</b>	<b>4,575.0</b>	<b>100.0</b>	<b>35,642.8</b>	<b>100.0</b>
<b>TEXTILES</b>								
0 - 3 persons	234	25.0	0.5	2.0	7.7	1.1	45.5	1.1
4 - 9 persons	344	36.8	2.0	7.8	38.1	5.2	204.3	5.1
10 - 19 persons	120	12.8	1.6	6.1	35.2	4.8	165.8	4.1
20 - 49 persons	117	12.5	3.5	13.3	96.7	13.3	653.5	16.2
50 - 99 persons	45	4.8	3.2	12.3	89.3	12.3	517.9	12.9
<i>Total less than 100 persons</i>	<i>860</i>	<i>91.9</i>	<i>10.8</i>	<i>41.4</i>	<i>267.0</i>	<i>36.8</i>	<i>1,587.0</i>	<i>39.4</i>
100 - 199 persons	51	5.4	7.0	26.8	204.9	28.2	1,144.9	28.4
200 - 499 persons	20	2.1	5.5	21.1	168.2	23.2	759.7	18.9
500 - 999 persons	5	0.5	2.8	10.8	85.7	11.8	534.4	13.3
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>76</i>	<i>8.1</i>	<i>15.4</i>	<i>58.6</i>	<i>458.8</i>	<i>63.2</i>	<i>2,439.0</i>	<i>60.6</i>
<b>Total</b>	<b>936</b>	<b>100.0</b>	<b>26.2</b>	<b>100.0</b>	<b>725.8</b>	<b>100.0</b>	<b>4,026.0</b>	<b>100.0</b>
<b>CLOTHING AND FOOTWEAR</b>								
0 - 3 persons	734	28.5	1.6	3.2	21.2	1.9	117.2	2.5
4 - 9 persons	901	35.0	5.2	10.5	82.7	7.5	403.8	8.5
10 - 19 persons	425	16.5	5.7	11.4	111.3	10.1	504.2	10.6
20 - 49 persons	319	12.4	9.6	19.3	207.7	18.9	1,058.9	22.3
50 - 99 persons	103	4.0	7.1	14.3	164.9	15.0	749.9	15.8
<i>Total less than 100 persons</i>	<i>2,482</i>	<i>96.4</i>	<i>29.2</i>	<i>58.7</i>	<i>587.8</i>	<i>53.4</i>	<i>2,834.0</i>	<i>59.6</i>
100 - 199 persons	53	2.1	7.1	14.3	173.1	15.7	694.4	14.6
200 - 499 persons	34	1.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	4	0.2	2.7	5.4	65.4	5.9	274.5	5.8
1000 or more persons	1	—	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total 100 or more persons</i>	<i>92</i>	<i>3.6</i>	<i>20.6</i>	<i>41.3</i>	<i>514.0</i>	<i>46.6</i>	<i>1,924.8</i>	<i>40.4</i>
<b>Total</b>	<b>2,574</b>	<b>100.0</b>	<b>49.8</b>	<b>100.0</b>	<b>1,101.8</b>	<b>100.0</b>	<b>4,758.8</b>	<b>100.0</b>
<b>WOOD, WOOD PRODUCTS AND FURNITURE</b>								
0 - 3 persons	2,322	35.2	5.1	7.2	75.2	4.5	359.3	4.8
4 - 9 persons	2,534	38.5	14.5	20.2	270.1	16.2	1,086.5	14.4
10 - 19 persons	1,003	15.2	13.4	18.8	301.4	18.1	1,243.7	16.5
20 - 49 persons	522	7.9	14.9	20.8	361.5	21.7	1,679.0	22.2
50 - 99 persons	130	2.0	8.8	12.3	230.7	13.9	1,126.9	14.9
<i>Total less than 100 persons</i>	<i>6,511</i>	<i>98.8</i>	<i>56.8</i>	<i>79.2</i>	<i>1,239.0</i>	<i>74.5</i>	<i>5,493.4</i>	<i>72.8</i>
100 - 199 persons	56	0.8	8.2	11.4	234.0	14.1	1,158.6	15.3
200 - 499 persons	23	0.3	6.7	9.4	190.6	11.5	896.4	11.9
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>79</i>	<i>1.2</i>	<i>14.9</i>	<i>20.8</i>	<i>424.6</i>	<i>25.5</i>	<i>2,055.0</i>	<i>27.2</i>
<b>Total</b>	<b>6,590</b>	<b>100.0</b>	<b>71.7</b>	<b>100.0</b>	<b>1,663.6</b>	<b>100.0</b>	<b>7,550.4</b>	<b>100.0</b>

For footnotes see end of table.

TABLE 5. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92—continued

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	('000)	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING								
0 - 3 persons	1,540	31.3	3.2	3.2	57.1	1.8	246.9	1.7
4 - 9 persons	1,765	35.9	10.3	10.3	224.2	7.0	875.3	6.1
10 - 19 persons	777	15.8	10.2	10.2	256.0	8.0	993.9	7.0
20 - 49 persons	492	10.0	14.6	14.5	409.5	12.8	1,673.0	11.7
50 - 99 persons	166	3.4	11.5	11.5	359.0	11.2	1,635.0	11.5
Total less than 100 persons	4,740	96.5	49.9	49.7	1,305.9	40.8	5,424.1	38.1
100 - 199 persons	99	2.0	13.6	13.6	433.6	13.6	2,110.4	14.8
200 - 499 persons	52	1.1	14.7	14.7	554.6	17.3	2,763.7	19.4
500 - 999 persons	15	0.3	10.7	10.6	438.7	13.7	2,125.8	14.9
1000 or more persons	7	0.1	11.4	11.4	464.2	14.5	1,821.2	12.8
Total 100 or more persons	173	3.5	50.4	50.3	1,891.1	59.2	8,821.0	61.9
<b>Total</b>	<b>4,913</b>	<b>100.0</b>	<b>100.3</b>	<b>100.0</b>	<b>3,196.9</b>	<b>100.0</b>	<b>14,245.2</b>	<b>100.0</b>
CHEMICAL, PETROLEUM AND COAL PRODUCTS								
0 - 3 persons	293	24.2	0.6	1.2	12.2	0.6	123.7	0.5
4 - 9 persons	312	25.7	1.8	3.6	45.1	2.3	360.1	1.5
10 - 19 persons	192	15.8	2.6	5.1	75.9	3.9	669.9	2.9
20 - 49 persons	180	14.8	5.7	11.3	189.3	9.8	1,829.7	7.8
50 - 99 persons	99	8.2	7.0	13.8	256.7	13.3	2,189.1	9.4
Total less than 100 persons	1,076	88.7	17.6	35.0	579.3	30.0	5,172.5	22.1
100 - 199 persons	67	5.5	9.3	18.4	372.7	19.3	3,002.9	12.8
200 - 499 persons	62	5.1	18.1	35.9	730.8	37.9	9,414.7	40.2
500 - 999 persons	7	0.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	1	0.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total 100 or more persons	137	11.3	32.8	65.0	1,348.5	70.0	18,239.7	77.9
<b>Total</b>	<b>1,213</b>	<b>100.0</b>	<b>50.5</b>	<b>100.0</b>	<b>1,927.8</b>	<b>100.0</b>	<b>23,412.2</b>	<b>100.0</b>
NON-METALLIC MINERAL PRODUCTS								
0 - 3 persons	601	34.2	1.3	3.5	21.1	1.7	146.7	2.0
4 - 9 persons	579	33.0	3.4	9.0	73.5	6.0	421.7	5.8
10 - 19 persons	216	12.3	2.8	7.6	76.4	6.3	417.3	5.7
20 - 49 persons	182	10.4	5.3	14.1	159.7	13.1	1,000.9	13.7
50 - 99 persons	83	4.7	5.7	15.1	188.9	15.5	1,291.1	17.7
Total less than 100 persons	1,661	94.5	18.5	49.2	519.7	42.6	3,277.7	44.9
100 - 199 persons	62	3.5	8.5	22.7	280.1	23.0	1,893.4	25.9
200 - 499 persons	32	1.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	2	0.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	96	5.5	19.1	50.8	699.5	57.4	4,020.8	55.1
<b>Total</b>	<b>1,757</b>	<b>100.0</b>	<b>37.6</b>	<b>100.0</b>	<b>1,219.1</b>	<b>100.0</b>	<b>7,298.4</b>	<b>100.0</b>
BASIC METAL PRODUCTS								
0 - 3 persons	224	25.2	0.5	0.7	8.3	0.3	376.4	1.8
4 - 9 persons	251	28.2	1.5	2.4	34.7	1.4	178.7	0.9
10 - 19 persons	146	16.4	2.0	3.2	52.5	2.1	302.4	1.5
20 - 49 persons	107	12.0	3.2	5.1	98.0	3.9	664.4	3.2
50 - 99 persons	61	6.9	4.2	6.8	145.5	5.8	1,414.4	6.9
Total less than 100 persons	789	88.8	11.3	18.2	339.0	13.5	2,936.2	14.3
100 - 199 persons	45	5.1	6.7	10.2	222.9	8.9	1,756.8	8.6
200 - 499 persons	35	3.9	10.6	17.0	407.7	16.3	4,342.8	21.2
500 - 999 persons	10	1.1	8.0	12.8	353.2	14.1	3,209.5	15.6
1000 or more persons	10	1.1	25.6	41.2	1,183.2	47.2	8,267.1	40.3
Total 100 or more persons	100	11.2	50.8	81.8	2,166.9	86.5	17,576.2	85.7
<b>Total</b>	<b>889</b>	<b>100.0</b>	<b>62.1</b>	<b>100.0</b>	<b>2,506.0</b>	<b>100.0</b>	<b>20,512.4</b>	<b>100.0</b>

For footnotes see end of table.

TABLE 5. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92—continued

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	('000)	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
<b>FABRICATED METAL PRODUCTS</b>								
0 - 3 persons	2,116	32.4	4.5	5.1	79.2	3.3	342.7	3.0
4 - 9 persons	2,408	36.9	14.1	15.9	305.5	12.8	1,269.5	11.1
10 - 19 persons	1,019	15.6	13.3	15.0	335.7	14.0	1,409.3	12.3
20 - 49 persons	635	9.7	18.7	21.1	502.0	21.0	2,315.4	20.2
50 - 99 persons	228	3.5	16.2	18.2	486.8	20.3	2,607.6	22.7
Total less than 100 persons	6,406	98.1	66.8	75.2	1,709.2	71.4	7,944.4	69.2
100 - 199 persons	92	1.4	12.2	13.7	365.4	15.3	1,871.4	16.3
200 - 499 persons	26	0.4	7.4	8.3	250.1	10.4	1,438.7	12.5
500 - 999 persons	4	0.1	2.4	2.7	69.1	2.9	228.5	2.0
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	122	1.9	22.0	24.8	684.5	28.6	3,538.5	30.8
<b>Total</b>	<b>6,528</b>	<b>100.0</b>	<b>88.8</b>	<b>100.0</b>	<b>2,393.7</b>	<b>100.0</b>	<b>11,482.9</b>	<b>100.0</b>
<b>TRANSPORT EQUIPMENT</b>								
0 - 3 persons	678	32.3	1.5	1.8	25.0	1.0	127.1	0.9
4 - 9 persons	740	35.3	4.2	5.2	88.9	3.5	375.0	2.7
10 - 19 persons	311	14.8	4.2	5.1	100.2	4.0	387.7	2.8
20 - 49 persons	191	9.1	5.8	7.1	153.1	6.0	669.4	4.8
50 - 99 persons	61	2.9	4.5	5.5	131.6	5.2	618.2	4.4
Total less than 100 persons	1,981	94.4	20.1	24.7	498.8	19.7	2,177.4	15.5
100 - 199 persons	50	2.4	6.6	8.1	206.0	8.1	1,102.2	7.8
200 - 499 persons	38	1.8	11.9	14.6	360.8	14.3	1,686.6	12.0
500 - 999 persons	17	0.8	11.7	14.4	401.4	15.9	2,826.1	20.1
1000 or more persons	13	0.6	31.2	38.3	1,063.5	42.0	6,267.0	44.6
Total 100 or more persons	118	5.6	61.5	75.3	2,031.7	80.3	11,882.0	84.5
<b>Total</b>	<b>2,099</b>	<b>100.0</b>	<b>81.6</b>	<b>100.0</b>	<b>2,530.5</b>	<b>100.0</b>	<b>14,059.4</b>	<b>100.0</b>
<b>OTHER MACHINERY AND EQUIPMENT</b>								
0 - 3 persons	2,018	34.1	4.4	3.8	79.5	2.3	382.6	2.4
4 - 9 persons	2,011	34.0	11.8	10.3	264.9	7.8	1,078.3	6.8
10 - 19 persons	858	14.5	11.5	10.0	307.6	9.0	1,278.5	8.1
20 - 49 persons	572	9.7	17.1	15.0	492.6	14.4	2,054.4	13.0
50 - 99 persons	244	4.1	16.8	14.7	532.6	15.6	2,455.3	15.5
Total less than 100 persons	5,703	96.5	61.5	53.9	1,677.2	49.1	7,249.1	45.7
100 - 199 persons	127	2.1	17.9	15.7	586.1	17.1	2,679.9	16.9
200 - 499 persons	62	1.0	18.3	16.0	610.5	17.9	3,095.6	19.5
500 - 999 persons	13	0.2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	5	0.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total 100 or more persons	207	3.5	52.6	46.1	1,740.9	50.9	8,606.3	54.3
<b>Total</b>	<b>5,910</b>	<b>100.0</b>	<b>114.2</b>	<b>100.0</b>	<b>3,418.1</b>	<b>100.0</b>	<b>15,855.4</b>	<b>100.0</b>
<b>MISCELLANEOUS MANUFACTURING</b>								
0 - 3 persons	1,460	38.0	3.1	5.4	48.0	3.0	217.6	2.6
4 - 9 persons	1,251	32.6	7.1	12.2	143.4	8.9	621.1	7.4
10 - 19 persons	504	13.1	6.7	11.6	161.8	10.0	743.1	8.9
20 - 49 persons	377	9.8	11.5	19.7	305.7	18.9	1,642.7	19.6
50 - 99 persons	158	4.1	11.2	19.3	335.8	20.8	1,914.2	22.8
Total less than 100 persons	3,750	97.6	39.7	68.2	994.7	61.6	5,138.7	61.3
100 - 199 persons	64	1.7	8.5	14.7	257.3	15.9	1,418.5	16.9
200 - 499 persons	25	0.7	7.0	12.0	249.9	15.5	1,439.7	17.2
500 - 999 persons	4	0.1	3.0	5.1	113.3	7.0	381.0	4.5
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	93	2.4	18.5	31.8	620.4	38.4	3,239.2	38.7
<b>Total</b>	<b>3,843</b>	<b>100.0</b>	<b>58.2</b>	<b>100.0</b>	<b>1,615.1</b>	<b>100.0</b>	<b>8,377.9</b>	<b>100.0</b>

For footnotes see end of table.

**TABLE 5. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92—continued**

<i>Employment size group</i>	<i>Establishments at 30 June (b)</i>		<i>Employment at end of June (c)</i>		<i>Wages and salaries (d) (e)</i>		<i>Turnover (e)</i>	
	<i>Number</i>	<i>Proportion (Per cent)</i>	<i>('000)</i>	<i>Proportion (Per cent)</i>	<i>(\$m)</i>	<i>Proportion (Per cent)</i>	<i>(\$m)</i>	<i>Proportion (Per cent)</i>
<b>TOTAL MANUFACTURING</b>								
0 - 3 persons	12,967	31.3	28.1	3.1	463.0	1.7	2,672.3	1.6
4 - 9 persons	14,634	35.3	85.2	9.4	1,712.8	6.4	7,736.8	4.6
10 - 19 persons	6,330	15.3	84.0	9.3	2,015.2	7.5	9,626.3	5.8
20 - 49 persons	4,250	10.2	126.7	14.0	3,356.4	12.5	18,626.9	11.1
50 - 99 persons	1,638	3.9	114.4	12.6	3,415.2	12.7	20,812.8	12.4
<i>Total less than 100 persons</i>	<i>39,819</i>	<i>96.0</i>	<i>438.4</i>	<i>48.3</i>	<i>10,962.7</i>	<i>40.8</i>	<i>59,475.0</i>	<i>35.6</i>
100 - 199 persons	933	2.2	128.5	14.2	3,986.8	14.8	24,620.5	14.7
200 - 499 persons	560	1.4	167.6	18.5	5,570.8	20.7	39,129.2	23.4
500 - 999 persons	125	0.3	87.3	9.6	3,094.8	11.5	24,380.5	14.6
1000 or more persons	43	0.1	85.1	9.4	3,258.4	12.1	19,616.6	11.7
<i>Total 100 or more persons</i>	<i>1,661</i>	<i>4.0</i>	<i>468.5</i>	<i>51.7</i>	<i>15,910.8</i>	<i>59.2</i>	<i>107,746.8</i>	<i>64.4</i>
<b>TOTAL</b>	<b>41,480</b>	<b>100.0</b>	<b>906.9</b>	<b>100.0</b>	<b>26,873.5</b>	<b>100.0</b>	<b>167,221.8</b>	<b>100.0</b>

(a) See paragraphs 34, 35 and 40 of the Explanatory Notes. (b) See paragraphs 4 to 10 of the Explanatory Notes. (c) Includes working proprietors. (d) Excludes the drawings of working proprietors. (e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1991-92 but were not operating at 30 June 1992. See paragraph 40 of the Explanatory Notes.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)		
			(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)	
21	Food, beverages and tobacco	First four	1991-92	4	—	75	0.02	19.4	0.12	623.7	0.14	5,549.8	0.16
			1990-91 (h)	4	—	94	0.02	24.3	0.14	743.7	0.16	5,767.9	0.17
			1987-88	4	—	167	0.04	22.5	0.13	580.8	0.15	3,826.6	0.14
			1982-83	4	—	132	0.04	20.0	0.12	336.2	0.12	2,013.2	0.11
		Second four	1991-92	4	—	74	0.02	16.9	0.10	488.7	0.11	3,332.4	0.09
			1990-91 (h)	4	—	52	0.01	12.9	0.08	420.8	0.09	3,364.5	0.10
			1987-88	4	—	60	0.02	10.2	0.06	212.0	0.05	2,147.2	0.08
			1982-83	4	—	53	0.02	12.0	0.07	256.1	0.09	1,440.3	0.08
		Third four	1991-92	4	—	56	0.01	10.8	0.07	375.3	0.08	2,859.5	0.08
			1990-91 (h)	4	—	54	0.01	10.6	0.06	325.0	0.07	2,806.3	0.08
			1987-88	4	—	39	0.01	11.0	0.06	292.2	0.08	1,819.0	0.07
			1982-83	4	—	80	0.02	12.6	0.07	214.7	0.08	1,279.8	0.07
Fourth four	1991-92	4	—	40	0.01	10.3	0.06	337.9	0.07	2,331.6	0.07		
	1990-91 (h)	4	—	40	0.01	10.8	0.06	289.9	0.06	2,067.9	0.06		
	1987-88	4	—	59	0.01	11.1	0.06	256.6	0.07	1,668.9	0.06		
	1982-83	4	—	48	0.01	8.9	0.05	174.9	0.06	1,007.1	0.05		
Fifth four	1991-92	4	—	41	0.01	6.4	0.04	185.5	0.04	1,981.7	0.06		
	1990-91 (h)	4	—	39	0.01	6.3	0.04	196.1	0.04	1,741.4	0.05		
	1987-88	4	—	31	0.01	6.3	0.04	161.3	0.04	1,356.3	0.05		
	1982-83	4	—	40	0.01	6.9	0.04	114.7	0.04	896.2	0.05		
Remainder	1991-92	3,605	0.99	3,942	0.93	102.2	0.62	2,596.6	0.56	19,713.0	0.55		
	1990-91 (h)	3,375	0.99	3,694	0.93	104.6	0.62	2,586.5	0.57	18,929.9	0.55		
	1987-88	3,128	0.99	3,582	0.91	114.5	0.65	2,363.1	0.61	16,966.8	0.61		
	1982-83	2,485	0.99	3,071	0.90	109.2	0.64	1,757.1	0.62	11,870.4	0.64		
Industry total	1991-92	3,625	1.00	4,228	1.00	166.0	1.00	4,607.6	1.00	33,768.1	1.00		
	1990-91 (h)	3,395	1.00	3,973	1.00	169.6	1.00	4,561.9	1.00	34,677.9	1.00		
	1987-88	3,148	1.00	3,938	1.00	175.5	1.00	3,866.0	1.00	27,764.7	1.00		
	1982-83	2,505	1.00	3,424	1.00	169.5	1.00	2,853.6	1.00	18,507.0	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover		Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)	
		(No.)	(Ratio)	(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)
23	Textiles	First four	1991-92	4	—	24	0.03	3.9	0.15	120.8	0.16	806.6	0.20
			1990-91 (h)	4	—	19	0.02	5.0	0.18	134.2	0.18	823.9	0.20
			1987-88	4	0.01	16	0.02	4.2	0.12	108.9	0.14	768.3	0.20
		Second four	1982-83	4	0.01	21	0.03	6.9	0.22	120.1	0.23	442.1	0.21
			1991-92	4	—	10	0.01	1.8	0.07	66.4	0.09	519.5	0.13
			1990-91 (h)	4	—	20	0.02	1.9	0.07	63.9	0.09	507.1	0.13
		Third four	1987-88	4	0.01	19	0.03	4.0	0.11	85.7	0.11	453.0	0.12
			1982-83	4	0.01	16	0.03	4.3	0.13	94.8	0.18	255.5	0.12
			1991-92	4	—	12	0.01	1.9	0.07	63.0	0.08	372.8	0.09
		Fourth four	1990-91 (h)	4	—	14	0.01	2.5	0.09	75.6	0.10	401.8	0.10
			1987-88	4	0.01	11	0.02	2.5	0.07	57.8	0.08	320.8	0.08
			1982-83	4	0.01	13	0.02	2.3	0.07	32.5	0.06	186.8	0.09
Fifth four	1991-92	4	—	11	0.01	1.4	0.06	50.6	0.07	267.0	0.06		
	1990-91 (h)	4	—	8	0.01	1.4	0.05	34.8	0.05	279.3	0.07		
	1987-88	4	0.01	6	0.01	1.4	0.04	29.4	0.04	257.7	0.07		
Remainder	1982-83	4	0.01	11	0.02	1.3	0.04	20.8	0.04	138.2	0.06		
	1991-92	4	—	5	0.01	1.4	0.05	38.4	0.05	229.1	0.06		
	1990-91 (h)	4	—	4	—	1.3	0.04	39.9	0.05	197.6	0.05		
Industry total	1987-88	4	0.01	13	0.02	1.7	0.05	35.1	0.05	217.9	0.06		
	1982-83	4	0.01	6	0.01	1.4	0.04	19.6	0.04	107.1	0.05		
	1991-92	845	0.98	874	0.93	15.8	0.60	402.9	0.54	1,925.8	0.47		
Industry total	1990-91 (h)	868	0.98	895	0.93	16.2	0.57	390.3	0.53	1,843.7	0.45		
	1987-88	618	0.97	666	0.91	21.7	0.61	437.7	0.58	1,873.2	0.48		
	1982-83	514	0.96	561	0.89	15.7	0.49	225.7	0.44	1,017.6	0.47		
	1991-92	865	1.00	936	1.00	26.2	1.00	742.1	1.00	4,120.9	1.00		
Industry total	1990-91 (h)	888	1.00	960	1.00	28.3	1.00	738.6	1.00	4,053.4	1.00		
	1987-88	638	1.00	731	1.00	35.4	1.00	754.7	1.00	3,891.0	1.00		
	1982-83	534	1.00	628	1.00	31.9	1.00	513.4	1.00	2,147.3	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover		Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)		
		(No.)	(Ratio)	(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)	
24	Clothing and footwear	1991-92	4	—	4	—	35	0.01	8.1	0.16	221.9	0.20	980.7	0.19
		1990-91 (h)	4	—	41	0.02	41	0.02	9.3	0.17	226.7	0.19	964.3	0.19
		1987-88	4	—	48	0.02	48	0.02	8.3	0.11	149.7	0.12	634.0	0.14
		1982-83	4	—	51	0.03	51	0.03	7.5	0.11	102.8	0.12	442.5	0.15
	Second four	1991-92	4	—	6	—	6	—	1.7	0.03	49.7	0.04	232.2	0.05
		1990-91 (h)	4	—	16	0.01	16	0.01	2.9	0.05	74.9	0.06	269.0	0.05
		1987-88	4	—	22	0.01	22	0.01	4.2	0.06	80.2	0.07	290.8	0.06
		1982-83	4	—	26	0.01	26	0.01	4.3	0.06	56.5	0.07	227.6	0.08
	Third four	1991-92	4	—	13	0.01	13	0.01	2.6	0.05	60.4	0.05	181.3	0.04
		1990-91 (h)	4	—	10	—	10	—	2.3	0.04	51.7	0.04	201.4	0.04
		1987-88	4	—	14	0.01	14	0.01	3.1	0.04	53.3	0.04	207.4	0.04
		1982-83	4	—	14	0.01	14	0.01	4.0	0.06	56.1	0.07	160.1	0.05
	Fourth four	1991-92	4	—	6	—	6	—	0.8	0.02	22.6	0.02	159.4	0.03
		1990-91 (h)	4	—	6	—	6	—	1.5	0.03	35.5	0.03	171.4	0.03
		1987-88	4	—	10	—	10	—	2.4	0.03	46.0	0.04	149.6	0.03
		1982-83	4	—	14	0.01	14	0.01	2.3	0.03	28.5	0.03	93.9	0.03
	Fifth four	1991-92	4	—	4	—	4	—	0.4	0.01	13.5	0.01	123.2	0.03
		1990-91 (h)	4	—	6	—	6	—	1.1	0.02	30.8	0.03	154.7	0.03
		1987-88	4	—	10	—	10	—	2.0	0.03	32.8	0.03	114.6	0.02
		1982-83	4	—	15	0.01	15	0.01	2.2	0.03	29.4	0.03	73.7	0.03
	Remainder	1991-92	2,489	0.99	2,510	0.98	2,510	0.98	36.2	0.73	759.6	0.67	3,249.7	0.67
		1990-91 (h)	2,475	0.99	2,480	0.97	2,480	0.97	38.8	0.69	777.8	0.65	3,265.4	0.65
		1987-88	2,174	0.99	2,228	0.96	2,228	0.96	55.1	0.73	855.1	0.70	3,275.7	0.70
		1982-83	1,770	0.99	1,849	0.94	1,849	0.94	48.6	0.71	573.4	0.68	1,919.4	0.66
	Industry total	1991-92	2,509	1.00	2,574	1.00	2,574	1.00	49.8	1.00	1,127.7	1.00	4,846.6	1.00
		1990-91 (h)	2,495	1.00	2,559	1.00	2,559	1.00	55.8	1.00	1,197.3	1.00	5,026.2	1.00
		1987-88	2,194	1.00	2,332	1.00	2,332	1.00	75.2	1.00	1,217.2	1.00	4,672.1	1.00
		1982-83	1,790	1.00	1,969	1.00	1,969	1.00	68.9	1.00	846.7	1.00	2,917.2	1.00

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)	Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)			
			(No.)	(Ratio)		('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)		
25	Wood, wood products and furniture	First four	1991-92	4	—	55	0.01	6.6	0.09	193.9	0.12	1,050.3	0.14
			1990-91 (h)	4	—	52	0.01	5.4	0.07	178.6	0.10	981.9	0.13
			1987-88	4	—	54	0.01	5.7	0.07	134.6	0.09	861.3	0.12
			1982-83	4	—	56	0.01	4.7	0.07	78.6	0.08	388.0	0.10
		Second four	1991-92	4	—	29	—	2.2	0.03	79.5	0.05	467.5	0.06
			1990-91 (h)	4	—	35	0.01	2.8	0.04	78.9	0.04	435.2	0.06
			1987-88	4	—	26	0.01	2.3	0.03	49.9	0.03	344.1	0.05
			1982-83	4	—	38	0.01	2.3	0.03	44.2	0.05	201.0	0.05
		Third four	1991-92	4	—	29	—	2.1	0.03	52.8	0.03	271.1	0.04
			1990-91 (h)	4	—	17	—	2.2	0.03	65.3	0.04	279.1	0.04
			1987-88	4	—	20	—	1.6	0.02	38.2	0.03	280.0	0.04
			1982-83	4	—	33	0.01	3.3	0.05	44.7	0.05	161.2	0.04
		Fourth four	1991-92	4	—	6	—	1.2	0.02	34.0	0.02	200.3	0.03
			1990-91 (h)	4	—	22	—	1.5	0.02	38.4	0.02	224.3	0.03
			1987-88	4	—	11	—	1.8	0.02	42.5	0.03	209.9	0.03
			1982-83	4	—	21	0.01	1.4	0.02	24.1	0.03	129.9	0.03
		Fifth four	1991-92	4	—	9	—	1.2	0.02	38.6	0.02	162.4	0.02
			1990-91 (h)	4	—	14	—	1.3	0.02	33.9	0.02	152.9	0.02
			1987-88	4	—	27	0.01	1.7	0.02	39.2	0.03	174.7	0.02
			1982-83	4	—	21	0.01	1.1	0.02	17.0	0.02	115.9	0.03
		Remainder	1991-92	6,329	1.00	6,462	0.98	58.3	0.81	1,287.1	0.76	5,486.7	0.72
			1990-91 (h)	6,467	1.00	6,581	0.98	62.3	0.82	1,372.3	0.78	5,729.6	0.73
			1987-88	4,344	1.00	4,550	0.97	68.9	0.84	1,199.0	0.80	5,136.4	0.73
			1982-83	3,551	0.99	3,859	0.96	57.1	0.82	741.5	0.78	2,985.9	0.75
Industry total		1991-92	6,349	1.00	6,590	1.00	71.7	1.00	1,685.9	1.00	7,638.3	1.00	
		1990-91 (h)	6,487	1.00	6,721	1.00	75.6	1.00	1,767.5	1.00	7,803.0	1.00	
		1987-88	4,364	1.00	4,688	1.00	82.0	1.00	1,503.3	1.00	7,006.5	1.00	
1982-83	3,571	1.00	4,028	1.00	69.9	1.00	950.1	1.00	3,981.8	1.00			

For footnotes see end of table.



TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)		
			(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)	
26	Paper, paper products, printing and publishing	First four	1991-92	4	—	82	0.02	22.7	0.23	910.2	0.28	4,467.4	0.31
			1990-91 (h)	4	—	80	0.02	24.6	0.24	954.7	0.30	4,497.9	0.31
			1987-88	4	—	64	0.02	21.0	0.19	669.6	0.25	3,100.0	0.26
			1982-83	4	—	58	0.02	21.0	0.21	427.5	0.25	1,480.5	0.23
		Second four	1991-92	4	—	21	—	6.9	0.07	284.3	0.09	1,450.4	0.10
			1990-91 (h)	4	—	23	—	7.1	0.07	269.1	0.08	1,496.8	0.10
			1987-88	4	—	48	0.01	9.2	0.08	252.3	0.09	1,481.0	0.12
			1982-83	4	—	38	0.01	8.7	0.09	175.2	0.10	920.0	0.14
		Third four	1991-92	4	—	20	—	4.9	0.05	181.5	0.06	870.6	0.06
			1990-91 (h)	4	—	20	—	4.0	0.04	157.2	0.05	892.8	0.06
			1987-88	4	—	24	0.01	7.0	0.06	181.5	0.07	818.8	0.07
			1982-83	4	—	47	0.02	6.4	0.06	124.2	0.07	584.4	0.09
Fourth four	1991-92	4	—	38	0.01	3.7	0.04	133.0	0.04	707.6	0.05		
	1990-91 (h)	4	—	38	0.01	4.4	0.04	145.5	0.05	693.7	0.05		
	1987-88	4	—	18	0.01	3.1	0.03	87.3	0.03	577.8	0.05		
	1982-83	4	—	27	0.01	4.5	0.05	75.7	0.04	345.0	0.05		
Fifth four	1991-92	4	—	39	0.01	4.3	0.04	131.7	0.04	511.0	0.04		
	1990-91 (h)	4	—	39	0.01	4.4	0.04	123.9	0.04	514.7	0.04		
	1987-88	4	—	12	—	2.1	0.02	55.8	0.02	339.5	0.03		
	1982-83	4	—	21	0.01	2.8	0.03	58.9	0.03	250.8	0.04		
Remainder	1991-92	4,567	1.00	4,713	0.96	57.7	0.58	1,576.7	0.49	6,325.1	0.44		
	1990-91 (h)	4,331	1.00	4,501	0.96	58.8	0.57	1,573.7	0.49	6,321.6	0.44		
	1987-88	2,930	0.99	3,190	0.95	67.2	0.61	1,433.7	0.53	5,701.3	0.47		
	1982-83	2,415	0.99	2,718	0.93	55.9	0.56	849.9	0.50	2,903.8	0.45		
Industry total	1991-92	4,587	1.00	4,913	1.00	100.3	1.00	3,217.4	1.00	14,332.0	1.00		
	1990-91 (h)	4,351	1.00	4,701	1.00	103.3	1.00	3,224.1	1.00	14,417.5	1.00		
	1987-88	2,950	1.00	3,356	1.00	109.5	1.00	2,680.2	1.00	12,018.3	1.00		
	1982-83	2,435	1.00	2,909	1.00	99.3	1.00	1,711.4	1.00	6,484.5	1.00		

For footnotes see end of table

TABLE 6. MANUFACTURING ESTABLISHMENTS (\*): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)---continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)		
			(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)	
27	Chemical, petroleum and coal products	First four	1991-92	4	—	51	0.04	7.7	0.15	394.9	0.20	10,017.2	0.43
			1990-91 (h)	4	—	57	0.05	8.6	0.16	391.8	0.20	10,358.8	0.44
			1987-88	4	0.01	80	0.08	7.4	0.14	264.1	0.17	3,533.4	0.27
			1982-83	4	0.01	49	0.05	7.7	0.13	199.6	0.17	2,303.8	0.28
		Second four	1991-92	4	—	22	0.02	2.9	0.06	137.9	0.07	3,243.5	0.14
			1990-91 (h)	4	—	11	0.01	2.8	0.05	141.2	0.07	3,121.6	0.13
			1987-88	4	0.01	23	0.02	4.1	0.08	135.0	0.09	1,198.6	0.09
			1982-83	4	0.01	21	0.02	3.1	0.05	68.0	0.06	770.3	0.09
		Third four	1991-92	4	—	19	0.02	3.4	0.07	116.8	0.06	1,125.1	0.05
			1990-91 (h)	4	—	24	0.02	3.7	0.07	149.7	0.08	1,117.7	0.05
			1987-88	4	0.01	11	0.01	2.2	0.04	57.4	0.04	753.2	0.06
			1982-83	4	0.01	31	0.03	4.3	0.07	85.9	0.08	528.0	0.06
Fourth four	1991-92	4	—	17	0.01	3.5	0.07	129.7	0.07	876.3	0.04		
	1990-91 (h)	4	—	19	0.02	3.4	0.07	106.1	0.06	851.4	0.04		
	1987-88	4	0.01	27	0.03	2.8	0.05	81.3	0.05	640.2	0.05		
	1982-83	4	0.01	20	0.02	2.8	0.05	53.9	0.05	424.5	0.05		
Fifth four	1991-92	4	—	7	0.01	2.7	0.05	122.7	0.06	719.4	0.03		
	1990-91 (h)	4	—	16	0.01	2.3	0.04	98.0	0.05	728.5	0.03		
	1987-88	4	0.01	9	0.01	1.9	0.04	66.9	0.04	559.4	0.04		
	1982-83	4	0.01	12	0.01	3.3	0.06	77.7	0.07	360.1	0.04		
Remainder	1991-92	927	0.98	1,097	0.90	30.3	0.60	1,033.3	0.53	7,480.8	0.32		
	1990-91 (h)	873	0.98	1,009	0.89	31.1	0.60	1,032.6	0.54	7,270.0	0.31		
	1987-88	644	0.97	810	0.84	35.8	0.66	961.5	0.61	6,192.5	0.48		
	1982-83	601	0.97	798	0.86	36.2	0.63	659.1	0.58	3,737.7	0.46		
Industry total	1991-92	947	1.00	1,213	1.00	50.5	1.00	1,937.4	1.00	23,462.4	1.00		
	1990-91 (h)	893	1.00	1,136	1.00	51.9	1.00	1,919.3	1.00	23,448.0	1.00		
	1987-88	664	1.00	960	1.00	54.3	1.00	1,566.2	1.00	12,877.3	1.00		
	1982-83	621	1.00	931	1.00	57.4	1.00	1,144.2	1.00	8,124.5	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)	Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)			
			(No.)	(Ratio)		('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)		
28	Non-metallic mineral products	First four	1991-92	4	—	200	0.11	15.2	0.41	543.0	0.44	3,797.9	0.52
			1990-91 (h)	4	—	209	0.12	15.6	0.39	561.4	0.44	3,878.7	0.52
			1987-88	4	—	617	0.33	9.3	0.23	259.9	0.26	1,961.6	0.33
			1982-83	4	0.01	401	0.23	14.2	0.37	317.0	0.42	1,453.2	0.39
		Second four	1991-92	4	—	27	0.02	4.7	0.12	175.0	0.14	904.8	0.12
			1990-91 (h)	4	—	24	0.01	4.7	0.12	179.2	0.14	895.8	0.12
			1987-88	4	—	81	0.04	7.5	0.18	197.2	0.20	1,153.1	0.19
			1982-83	4	0.01	310	0.18	6.1	0.16	122.4	0.16	752.2	0.20
		Third four	1991-92	4	—	18	0.01	1.6	0.04	80.0	0.07	423.5	0.06
			1990-91 (h)	4	—	15	0.01	2.0	0.05	88.5	0.07	435.9	0.06
			1987-88	4	—	69	0.04	4.2	0.10	115.1	0.11	609.6	0.10
			1982-83	4	0.01	18	0.01	2.8	0.07	56.8	0.07	312.1	0.08
Fourth four	1991-92	4	—	12	0.01	1.8	0.05	56.2	0.05	297.0	0.04		
	1990-91 (h)	4	—	20	0.01	1.7	0.04	54.6	0.04	319.7	0.04		
	1987-88	4	—	9	—	2.2	0.05	66.5	0.07	340.0	0.06		
	1982-83	4	0.01	17	0.01	1.5	0.04	33.5	0.04	169.4	0.05		
Fifth four	1991-92	4	—	13	0.01	0.7	0.02	26.8	0.02	175.4	0.02		
	1990-91 (h)	4	—	9	0.01	1.4	0.04	48.7	0.04	204.8	0.03		
	1987-88	4	—	18	0.01	2.1	0.05	53.5	0.05	241.1	0.04		
	1982-83	4	0.01	14	0.01	2.0	0.05	36.9	0.05	124.4	0.03		
Remainder	1991-92	1,393	0.99	1,487	0.85	13.5	0.36	342.6	0.28	1,720.0	0.24		
	1990-91 (h)	1,309	0.98	1,415	0.84	14.2	0.36	355.5	0.28	1,775.5	0.24		
	1987-88	873	0.98	1,069	0.57	15.2	0.38	314.0	0.31	1,715.4	0.28		
	1982-83	754	0.97	952	0.56	12.5	0.32	194.2	0.26	893.3	0.24		
Industry total	1991-92	1,413	1.00	1,757	1.00	37.6	1.00	1,223.7	1.00	7,318.6	1.00		
	1990-91 (h)	1,329	1.00	1,692	1.00	39.7	1.00	1,287.9	1.00	7,510.4	1.00		
	1987-88	893	1.00	1,863	1.00	40.5	1.00	1,066.2	1.00	6,020.8	1.00		
	1982-83	774	1.00	1,712	1.00	39.0	1.00	760.8	1.00	3,704.6	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover		Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)	
		(No.)	(Ratio)	(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)
29	Basic metal products	First four	1991-92	4	0.01	46	0.05	28.2	0.45	1,299.4	0.52	11,792.3	0.57
			1990-91 (h)	4	0.01	58	0.07	34.4	0.51	1,394.0	0.55	12,672.0	0.59
			1987-88	4	0.01	65	0.11	41.1	0.55	1,258.7	0.59	9,019.3	0.55
			1982-83	4	0.01	58	0.11	45.0	0.59	1,063.8	0.63	5,734.2	0.61
Second four		1991-92	4	0.01	23	0.03	8.6	0.14	369.6	0.15	2,727.0	0.13	
		1990-91 (h)	4	0.01	22	0.03	7.0	0.10	282.7	0.11	2,943.9	0.14	
		1987-88	4	0.01	26	0.04	6.6	0.09	203.4	0.09	2,095.7	0.13	
		1982-83	4	0.01	24	0.04	8.1	0.11	177.9	0.11	1,176.1	0.12	
Third four		1991-92	4	0.01	27	0.03	5.9	0.10	221.3	0.09	1,679.2	0.08	
		1990-91 (h)	4	0.01	29	0.04	6.6	0.10	216.8	0.09	1,696.0	0.08	
		1987-88	4	0.01	16	0.03	5.6	0.07	156.5	0.07	1,438.4	0.09	
		1982-83	4	0.01	7	0.01	4.5	0.06	91.2	0.05	759.7	0.08	
Fourth four		1991-92	4	0.01	25	0.03	2.7	0.04	107.0	0.04	1,019.1	0.05	
		1990-91 (h)	4	0.01	5	0.01	2.7	0.04	114.2	0.05	1,091.3	0.05	
		1987-88	4	0.01	6	0.01	3.2	0.04	93.3	0.04	1,034.3	0.06	
		1982-83	4	0.01	27	0.05	4.1	0.05	81.1	0.05	451.4	0.05	
Fifth four		1991-92	4	0.01	14	0.02	2.1	0.03	78.0	0.03	812.1	0.04	
		1990-91 (h)	4	0.01	30	0.04	2.3	0.03	76.0	0.03	713.9	0.03	
		1987-88	4	0.01	6	0.01	2.7	0.04	80.9	0.04	717.5	0.04	
		1982-83	4	0.01	9	0.02	1.9	0.02	40.7	0.02	247.5	0.03	
Remainder		1991-92	710	0.97	754	0.85	14.6	0.24	432.7	0.17	2,491.0	0.12	
		1990-91 (h)	629	0.97	676	0.82	14.5	0.21	430.2	0.17	2,441.5	0.11	
		1987-88	419	0.95	463	0.80	15.5	0.21	357.5	0.17	2,053.1	0.13	
		1982-83	367	0.95	423	0.77	13.2	0.17	227.3	0.14	1,062.5	0.11	
Industry total		1991-92	730	1.00	889	1.00	62.1	1.00	2,508.0	1.00	20,520.7	1.00	
		1990-91 (h)	649	1.00	820	1.00	67.5	1.00	2,514.0	1.00	21,558.7	1.00	
		1987-88	439	1.00	582	1.00	74.7	1.00	2,150.3	1.00	16,358.4	1.00	
	1982-83	387	1.00	548	1.00	76.8	1.00	1,682.0	1.00	9,431.4	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)		
			(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)	
31	Fabricated metal products	First four	1991-92	4	—	78	0.01	6.4	0.07	217.3	0.09	1,919.0	0.17
			1990-91 (h)	4	—	80	0.01	7.8	0.08	250.6	0.10	1,967.5	0.16
			1987-88	4	—	66	0.01	8.5	0.08	210.3	0.10	1,546.2	0.15
			1982-83	4	—	82	0.02	9.3	0.10	174.4	0.11	1,024.7	0.16
	Second four		1991-92	4	—	55	0.01	6.1	0.07	189.7	0.08	891.7	0.08
			1990-91 (h)	4	—	44	0.01	5.7	0.06	180.6	0.07	953.7	0.08
			1987-88	4	—	39	0.01	5.9	0.06	142.6	0.06	697.3	0.07
			1982-83	4	—	63	0.01	5.9	0.06	103.6	0.07	466.0	0.07
	Third four		1991-92	4	—	32	—	3.0	0.03	93.5	0.04	506.6	0.04
			1990-91 (h)	4	—	35	0.01	3.5	0.04	118.0	0.04	526.8	0.04
			1987-88	4	—	35	0.01	4.3	0.04	99.4	0.05	434.4	0.04
			1982-83	4	—	32	0.01	5.4	0.06	93.5	0.06	256.2	0.04
	Fourth four		1991-92	4	—	19	—	2.3	0.03	77.6	0.03	361.8	0.03
			1990-91 (h)	4	—	24	—	2.8	0.03	92.1	0.04	351.7	0.03
			1987-88	4	—	35	0.01	2.2	0.02	47.4	0.02	291.8	0.03
			1982-83	4	—	31	0.01	2.9	0.03	56.4	0.04	222.0	0.03
	Fifth four		1991-92	4	—	12	—	1.7	0.02	48.2	0.02	302.6	0.03
			1990-91 (h)	4	—	13	—	1.3	0.01	52.5	0.02	295.6	0.02
			1987-88	4	—	29	0.01	3.0	0.03	65.4	0.03	262.8	0.03
			1982-83	4	—	26	0.01	2.4	0.03	43.6	0.03	183.8	0.03
Remainder			1991-92	6,168	1.00	6,332	0.97	69.3	0.78	1,788.9	0.74	7,572.8	0.66
			1990-91 (h)	6,284	1.00	6,433	0.97	75.7	0.78	1,936.3	0.74	8,201.2	0.67
			1987-88	4,412	1.00	4,644	0.96	81.0	0.77	1,632.5	0.74	6,880.5	0.68
			1982-83	3,695	0.99	4,038	0.95	70.4	0.73	1,112.9	0.70	4,271.4	0.66
Industry total			1991-92	6,188	1.00	6,578	1.00	88.8	1.00	2,415.1	1.00	11,554.5	1.00
			1990-91 (h)	6,304	1.00	6,629	1.00	96.8	1.00	2,630.1	1.00	12,296.6	1.00
			1987-88	4,432	1.00	4,848	1.00	104.8	1.00	2,197.6	1.00	10,113.0	1.00
			1982-83	3,715	1.00	4,272	1.00	96.4	1.00	1,584.4	1.00	6,424.1	1.00

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover		Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)	
		(No.)	(Ratio)	(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)
32	Transport equipment	1991-92	4	—	14	0.01	20.4	0.25	596.5	0.23	6,375.9	0.45	
		1990-91 (h)	4	—	16	0.01	24.7	0.27	888.2	0.30	7,112.3	0.45	
		1987-88	4	—	16	0.01	26.0	0.23	652.5	0.25	5,570.8	0.44	
		1982-83	4	—	17	0.01	30.9	0.27	682.5	0.32	3,583.9	0.45	
	Second four	1991-92	4	—	19	0.01	11.4	0.14	463.1	0.18	1,996.6	0.14	
		1990-91 (h)	4	—	6	—	9.2	0.10	345.5	0.12	1,980.7	0.13	
		1987-88	4	—	24	0.02	11.1	0.10	265.1	0.10	1,458.2	0.11	
		1982-83	4	—	39	0.03	19.5	0.17	336.4	0.16	857.5	0.11	
	Third four	1991-92	4	—	11	0.01	6.9	0.08	240.2	0.09	984.7	0.07	
		1990-91 (h)	4	—	25	0.01	7.6	0.08	239.6	0.08	1,126.7	0.07	
		1987-88	4	—	15	0.01	9.0	0.08	251.7	0.10	747.5	0.06	
		1982-83	4	—	10	0.01	6.3	0.05	148.5	0.07	543.1	0.07	
Fourth four	1991-92	4	—	9	—	5.5	0.07	219.6	0.09	518.0	0.04		
	1990-91 (h)	4	—	8	—	6.6	0.07	261.1	0.09	660.0	0.04		
	1987-88	4	—	10	0.01	7.7	0.07	179.8	0.07	474.4	0.04		
	1982-83	4	—	16	0.01	9.1	0.08	155.8	0.07	396.0	0.05		
Fifth four	1991-92	4	—	14	0.01	2.2	0.03	68.6	0.03	394.2	0.03		
	1990-91 (h)	4	—	15	0.01	3.3	0.04	108.6	0.04	457.7	0.03		
	1987-88	4	—	6	—	3.2	0.03	78.9	0.03	375.7	0.03		
	1982-83	4	—	18	0.01	7.9	0.07	144.7	0.07	309.5	0.04		
Remainder	1991-92	1,954	0.99	2,032	0.97	35.1	0.43	962.5	0.38	3,883.9	0.27		
	1990-91 (h)	1,890	0.99	1,950	0.97	39.9	0.44	1,081.1	0.37	4,307.6	0.28		
	1987-88	1,329	0.99	1,423	0.95	54.4	0.49	1,133.8	0.44	4,137.2	0.32		
	1982-83	1,118	0.98	1,200	0.92	40.6	0.36	672.0	0.31	2,350.9	0.29		
Industry total	1991-92	1,974	1.00	2,099	1.00	81.6	1.00	2,550.4	1.00	14,153.2	1.00		
	1990-91 (h)	1,910	1.00	2,020	1.00	91.3	1.00	2,924.2	1.00	15,645.1	1.00		
	1987-88	1,349	1.00	1,494	1.00	111.3	1.00	2,561.9	1.00	12,763.8	1.00		
	1982-83	1,138	1.00	1,300	1.00	114.3	1.00	2,140.0	1.00	8,040.8	1.00		

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)	Employment at end of June (e)	Wages and salaries (f)(g)		Turnover (g)		
			(No.)	(Ratio)			(\$m)	(Ratio)			
33	Other machinery and equipment	First four	1991-92	4	—	32	0.01	316.3	0.09	1,949.0	0.12
			1990-91 (h)	4	—	32	0.01	319.8	0.09	1,897.6	0.12
			1987-88	4	—	38	0.01	232.5	0.08	1,368.5	0.10
			1982-83	4	—	44	0.01	185.0	0.08	872.3	0.10
		Second four	1991-92	4	—	32	0.01	232.1	0.07	1,412.6	0.09
			1990-91 (h)	4	—	15	—	246.0	0.07	1,414.3	0.09
			1987-88	4	—	94	0.02	197.7	0.07	1,003.7	0.08
			1982-83	4	—	34	0.01	133.6	0.06	608.9	0.07
		Third four	1991-92	4	—	19	—	152.3	0.04	787.0	0.05
			1990-91 (h)	4	—	39	0.01	196.2	0.05	760.5	0.05
			1987-88	4	—	37	0.01	149.1	0.05	715.9	0.05
			1982-83	4	—	40	0.01	129.7	0.06	428.7	0.05
Fourth four	1991-92	4	—	26	—	110.7	0.03	574.2	0.04		
	1990-91 (h)	4	—	30	0.01	136.5	0.04	631.1	0.04		
	1987-88	4	—	18	—	115.2	0.04	504.6	0.04		
	1982-83	4	—	26	0.01	115.9	0.05	348.3	0.04		
Fifth four	1991-92	4	—	12	—	130.5	0.04	512.7	0.03		
	1990-91 (h)	4	—	6	—	76.5	0.02	540.1	0.03		
	1987-88	4	—	15	—	86.9	0.03	404.6	0.03		
	1982-83	4	—	16	—	75.1	0.03	305.0	0.04		
Remainder	1991-92	5,508	1.00	5,789	0.98	85.7	0.75	2,490.4	0.73	10,666.1	0.67
	1990-91 (h)	5,357	1.00	5,594	0.98	91.9	0.76	2,637.2	0.73	11,052.2	0.68
	1987-88	3,605	0.99	4,018	0.95	102.2	0.76	2,254.5	0.74	9,091.1	0.69
	1982-83	3,248	0.99	3,606	0.96	97.3	0.74	1,669.6	0.72	6,021.8	0.70
Industry total	1991-92	5,528	1.00	5,910	1.00	114.2	1.00	3,432.3	1.00	15,901.6	1.00
	1990-91 (h)	5,377	1.00	5,716	1.00	121.6	1.00	3,612.1	1.00	16,295.9	1.00
	1987-88	3,625	1.00	4,220	1.00	135.0	1.00	3,035.9	1.00	13,088.4	1.00
	1982-83	3,268	1.00	3,766	1.00	131.8	1.00	2,309.0	1.00	8,585.0	1.00

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover	Enterprise groups at 30 June		Establishments at 30 June (d)	Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)			
			(No.)	(Ratio)		('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)		
34	Miscellaneous manufacturing	First four	1991-92	4	—	70	0.02	8.1	0.14	304.7	0.19	1,620.3	0.19
			1990-91 (h)	4	—	66	0.02	8.3	0.14	303.4	0.18	1,693.3	0.20
			1987-88	4	—	60	0.02	8.3	0.13	219.3	0.16	1,205.9	0.17
			1982-83	4	—	71	0.03	8.4	0.15	169.3	0.19	777.4	0.20
		Second four	1991-92	4	—	45	0.01	4.6	0.08	156.4	0.10	831.7	0.10
			1990-91 (h)	4	—	53	0.01	5.2	0.09	165.9	0.10	851.8	0.10
			1987-88	4	—	52	0.02	5.3	0.08	132.9	0.09	680.1	0.09
			1982-83	4	—	36	0.02	4.2	0.07	80.8	0.09	335.5	0.08
		Third four	1991-92	4	—	17	—	1.4	0.02	57.5	0.04	453.9	0.05
			1990-91 (h)	4	—	25	0.01	2.0	0.03	63.7	0.04	415.7	0.05
			1987-88	4	—	15	0.01	1.7	0.03	47.0	0.03	410.0	0.06
			1982-83	4	—	27	0.01	2.6	0.05	42.9	0.05	207.3	0.05
		Fourth four	1991-92	4	—	13	—	1.3	0.02	44.1	0.03	299.5	0.04
			1990-91 (h)	4	—	10	—	1.2	0.02	35.0	0.02	260.7	0.03
			1987-88	4	—	11	—	2.2	0.03	60.0	0.04	271.2	0.04
			1982-83	4	—	12	0.01	1.9	0.03	41.4	0.05	151.3	0.04
Fifth four	1991-92	4	—	8	—	1.5	0.03	36.5	0.02	226.5	0.03		
	1990-91 (h)	4	—	11	—	0.6	0.01	21.3	0.01	214.9	0.03		
	1987-88	4	—	7	—	0.8	0.01	17.5	0.01	213.6	0.03		
	1982-83	4	—	10	—	1.5	0.03	24.2	0.03	113.4	0.03		
Remainder	1991-92	3,575	0.99	3,690	0.96	41.3	0.71	1,021.2	0.63	4,970.1	0.59		
	1990-91 (h)	3,506	0.99	3,596	0.96	42.8	0.71	1,055.9	0.64	5,076.1	0.60		
	1987-88	2,334	0.99	2,449	0.94	47.2	0.72	933.8	0.66	4,464.8	0.62		
	1982-83	1,893	0.99	2,053	0.93	37.9	0.67	548.5	0.60	2,387.5	0.60		
Industry total	1991-92	3,595	1.00	3,843	1.00	58.2	1.00	1,620.4	1.00	8,401.9	1.00		
	1990-91 (h)	3,526	1.00	3,761	1.00	60.2	1.00	1,645.2	1.00	8,512.5	1.00		
	1987-88	2,354	1.00	2,594	1.00	65.5	1.00	1,410.4	1.00	7,245.5	1.00		
	1982-83	1,913	1.00	2,209	1.00	56.5	1.00	907.0	1.00	3,972.4	1.00		

For footnotes see end of table.



TABLE 6. MANUFACTURING ESTABLISHMENTS (a): CONCENTRATION RATIOS (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1982-83 TO 1991-92 (c)—continued

Industry subdivision ASIC code	Description	Enterprise groups ranked by turnover		Enterprise groups at 30 June		Establishments at 30 June (d)		Employment at end of June (e)		Wages and salaries (f)(g)		Turnover (g)	
		(No.)	(Ratio)	(No.)	(Ratio)	(No.)	(Ratio)	('000)	(Ratio)	(\$m)	(Ratio)	(\$m)	(Ratio)
21-34	Total manufacturing	First four	1991-92	4	—	208	0.01	45.7	0.05	1,959.6	0.07	16,298.0	0.10
			1990-91 (h)	4	—	130	—	39.6	0.04	1,640.8	0.06	16,880.0	0.10
			1987-88	4	—	167	0.01	64.7	0.06	1,812.8	0.08	12,476.4	0.09
			1982-83	4	—	233	0.01	82.4	0.08	1,802.0	0.10	8,229.9	0.10
	Second four	4	1991-92	4	—	212	0.01	33.4	0.04	1,207.7	0.04	10,188.4	0.06
			1990-91 (h)	4	—	240	0.01	43.4	0.05	1,533.0	0.05	10,673.7	0.06
			1987-88	4	—	356	0.01	28.9	0.03	818.1	0.03	5,992.3	0.04
			1982-83	4	—	306	0.01	21.5	0.02	535.4	0.03	3,968.7	0.05
	Third four	4	1991-92	4	—	161	—	30.9	0.03	916.0	0.03	1,747.2	0.05
			1990-91 (h)	4	—	115	—	22.2	0.02	748.8	0.03	1,023.7	0.05
			1987-88	4	—	370	0.01	26.9	0.03	712.1	0.03	1,524.2	0.03
			1982-83	4	—	363	0.01	33.4	0.03	645.5	0.04	2,962.4	0.04
	Fourth four	4	1991-92	4	—	182	—	20.8	0.02	790.4	0.03	7,114.9	0.04
			1990-91 (h)	4	—	270	0.01	31.4	0.03	1,077.6	0.04	7,223.1	0.04
			1987-88	4	—	340	0.01	18.9	0.02	503.1	0.02	3,945.3	0.03
			1982-83	4	—	396	0.01	21.2	0.02	372.9	0.02	2,374.5	0.03
	Fifth four	4	1991-92	4	—	95	—	15.7	0.02	502.5	0.02	5,713.8	0.03
			1990-91 (h)	4	—	137	—	19.1	0.02	585.5	0.02	5,727.5	0.03
			1987-88	4	—	109	—	15.2	0.01	390.3	0.02	3,355.2	0.03
			1982-83	4	—	41	—	8.3	0.01	175.2	0.01	1,900.6	0.02
Remainder			1991-92	37,856	1.00	40,622	0.98	760.6	0.84	21,691.8	0.80	119,956.5	0.71
			1990-91 (h)	37,145	1.00	39,796	0.98	805.8	0.84	22,436.4	0.80	121,717.0	0.71
			1987-88	26,527	1.00	30,264	0.96	909.1	0.85	19,713.3	0.82	103,526.3	0.77
			1982-83	21,966	1.00	26,357	0.95	844.9	0.84	13,871.7	0.80	62,884.5	0.76
Industry total			1991-92	37,876	1.00	41,480	1.00	906.9	1.00	27,068.0	1.00	168,018.7	1.00
			1990-91 (h)	37,165	1.00	40,688	1.00	961.6	1.00	28,022.2	1.00	171,245.1	1.00
			1987-88	26,547	1.00	31,606	1.00	1,063.8	1.00	23,949.8	1.00	133,819.8	1.00
			1982-83	21,986	1.00	27,696	1.00	1,011.6	1.00	17,402.7	1.00	82,320.6	1.00

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraphs 41 to 46 of the Explanatory Notes. (c) For comparability of data over the time periods shown, see paragraphs 30 to 33 of the Explanatory Notes. (d) See paragraphs 4 to 10 and 31 of the Explanatory Notes. (e) Includes working proprietors. (f) Excludes the drawings of working proprietors. (g) Value data are at current prices and, therefore, do not discount the impact of price changes. (h) Data presented for 1990-91 have undergone extensive revision due to further processing of that year's data and, therefore, generally differ from those previously published.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, STATES, TERRITORIES AND AUSTRALIA, 1990-91 AND 1991-92

Industry subdivision ASIC code	Description	Establishments at 30 June (b) (No.)		Employment at end of June (c) ('000)		Wages and salaries (d) (\$m)		Turnover (\$m)
		1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92	
NEW SOUTH WALES								
21	Food, beverages and tobacco	1,076	1,173	50.6	50.4	1,478.3	1,482.9	10,601.6
23	Textiles	283	278	7.0	6.4	191.6	194.7	1,213.0
24	Clothing and footwear	902	875	19.0	17.2	394.4	384.1	1,821.6
25	Wood, wood products and furniture	2,045	1,999	23.5	22.5	570.7	546.1	2,551.9
26	Paper, paper products, printing and publishing	1,850	1,950	38.1	37.8	1,235.4	1,256.2	5,617.6
27	Chemical, petroleum and coal products	444	455	22.3	21.8	819.3	860.8	8,385.3
28	Non-metallic mineral products	540	556	13.2	11.8	467.0	422.6	2,520.5
29	Basic metal products	284	319	30.8	27.8	1,189.5	1,182.1	8,144.7
31	Fabricated metal products	2,465	2,434	35.4	31.8	981.0	880.3	4,529.6
32	Transport equipment	584	592	20.1	16.6	683.7	595.2	2,638.0
33	Other machinery and equipment	2,106	2,156	50.5	46.6	1,531.5	1,445.3	6,949.5
34	Miscellaneous manufacturing	1,337	1,329	19.5	18.4	521.6	508.5	2,933.9
<b>21-34</b>	<b>Total manufacturing</b>	<b>13,916</b>	<b>14,116</b>	<b>330.0</b>	<b>309.1</b>	<b>10,064.1</b>	<b>9,758.8</b>	<b>58,074.7</b>
VICTORIA								
21	Food, beverages and tobacco	1,160	1,198	48.8	47.8	1,325.5	1,376.8	10,503.7
23	Textiles	387	379	14.3	13.3	382.4	374.9	1,967.7
24	Clothing and footwear	1,145	1,205	26.9	23.4	604.9	552.9	2,470.2
25	Wood, wood products and furniture	1,920	1,856	19.3	17.6	462.8	417.2	1,944.9
26	Paper, paper products, printing and publishing	1,457	1,471	33.1	31.5	1,061.3	1,033.4	4,729.9
27	Chemical, petroleum and coal products	371	396	17.8	17.3	657.5	658.2	7,990.0
28	Non-metallic mineral products	464	464	10.7	9.7	354.6	328.7	1,867.9
29	Basic metal products	270	288	11.4	10.7	427.8	394.7	4,085.4
31	Fabricated metal products	1,810	1,749	28.2	25.7	808.9	734.3	3,797.1
32	Transport equipment	578	598	45.0	39.2	1,506.1	1,211.5	7,296.5
33	Other machinery and equipment	1,816	1,860	39.0	36.5	1,216.7	1,136.2	5,681.9
34	Miscellaneous manufacturing	1,195	1,204	23.3	23.4	702.6	708.4	3,439.2
<b>21-34</b>	<b>Total manufacturing</b>	<b>12,573</b>	<b>12,668</b>	<b>317.6</b>	<b>296.1</b>	<b>9,511.2</b>	<b>8,927.1</b>	<b>55,774.4</b>

For footnotes see end of table.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, STATES, TERRITORIES AND AUSTRALIA, 1990-91 AND 1991-92—continued

Industry subdivision ASIC code	Description	Establishments at 30 June (b) (No.)		Employment at end of June (c) ('000)		Wages and salaries (d) (\$m)		Turnover (\$m)	
		1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92
QUEENSLAND									
21	Food, beverages and tobacco	761	817	34.2	33.1	882.8	851.8	6,990.6	6,945.4
23	Textiles	122	115	1.4	1.3	26.7	28.4	166.1	168.9
24	Clothing and footwear	271	270	4.6	4.2	89.5	85.3	399.6	305.8
25	Wood, wood products and furniture	1,249	1,297	14.5	14.5	301.1	315.5	1,308.2	1,409.3
26	Paper, paper products, printing and publishing	592	650	12.4	11.9	336.6	320.2	1,549.0	1,534.5
27	Chemical, petroleum and coal products	143	161	5.0	4.5	181.6	162.5	3,057.5	2,886.4
28	Non-metallic mineral products	286	312	7.2	7.3	200.1	208.8	1,441.1	1,582.3
29	Basic metal products	122	127	7.7	7.7	249.6	267.8	3,109.2	3,109.2
31	Fabricated metal products	1,046	1,051	15.3	14.8	381.1	374.7	1,843.7	1,821.0
32	Transport equipment	403	425	6.3	6.6	156.8	161.5	1,121.4	1,090.8
33	Other machinery and equipment	657	728	10.2	10.6	278.1	271.6	1,135.1	1,171.2
34	Miscellaneous manufacturing	584	620	6.1	6.3	141.1	146.9	803.7	812.2
<b>21-34</b>	<b>Total manufacturing</b>	<b>6,236</b>	<b>6,573</b>	<b>125.2</b>	<b>122.4</b>	<b>3,225.3</b>	<b>3,195.0</b>	<b>23,084.3</b>	<b>22,836.9</b>
SOUTH AUSTRALIA									
21	Food, beverages and tobacco	409	437	16.3	15.4	381.8	388.6	2,728.8	2,805.6
23	Textiles	70	65	2.5	2.2	64.3	70.2	393.1	435.6
24	Clothing and footwear	132	120	3.7	3.4	78.3	76.6	318.1	319.1
25	Wood, wood products and furniture	537	496	7.1	6.8	167.6	155.2	726.9	679.1
26	Paper, paper products, printing and publishing	299	311	7.2	6.8	213.9	213.4	879.3	929.5
27	Chemical, petroleum and coal products	73	81	2.7	2.6	89.1	93.2	1,444.4	1,260.9
28	Non-metallic mineral products	149	138	3.1	2.9	98.8	89.1	545.0	508.1
29	Basic metal products	60	61	7.1	6.1	238.8	247.5	1,447.2	1,486.2
31	Fabricated metal products	515	498	7.6	6.8	188.6	172.8	848.6	830.2
32	Transport equipment	174	175	15.3	14.4	455.7	444.1	4,095.8	3,917.6
33	Other machinery and equipment	468	474	13.1	13.0	360.8	360.2	1,593.9	1,581.1
34	Miscellaneous manufacturing	293	305	7.6	6.5	192.9	171.6	864.6	794.9
<b>21-34</b>	<b>Total manufacturing</b>	<b>3,179</b>	<b>3,161</b>	<b>93.3</b>	<b>86.8</b>	<b>2,530.7</b>	<b>2,482.4</b>	<b>15,885.7</b>	<b>15,547.9</b>

For footnotes see end of table.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, STATES, TERRITORIES AND AUSTRALIA, 1990-91 AND 1991-92—continued

Industry subdivision ASIC code	Description	Establishments at 30 June (b) (No.)		Employment at end of June (c) ('000)		Wages and salaries (d) (\$m)		Turnover (\$m)	
		1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92
WESTERN AUSTRALIA									
21	Food, beverages and tobacco	384	406	12.6	11.7	312.2	319.4	2,516.5	2,572.8
23	Textiles	73	74	1.8	1.6	41.9	39.6	159.8	151.0
24	Clothing and footwear	94	88	1.1	1.1	22.1	21.1	71.4	67.5
25	Wood, wood products and furniture	668	658	7.2	6.7	160.5	152.7	715.2	722.8
26	Paper, paper products, printing and publishing	348	364	6.5	6.3	167.8	165.8	697.9	715.9
27	Chemical, petroleum and coal products	88	100	3.5	3.7	137.9	138.7	2,374.1	2,538.1
28	Non-metallic mineral products	179	200	4.2	4.6	131.0	136.0	712.7	766.5
29	Basic metal products	59	73	6.4	6.1	248.5	264.0	3,328.5	2,900.5
31	Fabricated metal products	593	603	8.0	7.6	210.9	196.9	969.5	916.0
32	Transport equipment	225	248	3.0	3.4	84.2	94.7	355.4	406.3
33	Other machinery and equipment	535	547	7.1	6.7	192.3	185.6	805.3	784.6
34	Miscellaneous manufacturing	264	284	3.0	2.9	70.5	70.4	408.2	360.8
<b>21-34</b>	<b>Total manufacturing</b>	<b>3,510</b>	<b>3,645</b>	<b>64.5</b>	<b>62.5</b>	<b>1,779.7</b>	<b>1,785.0</b>	<b>13,114.6</b>	<b>12,903.0</b>
TASMANIA									
21	Food, beverages and tobacco	139	145	6.0	6.1	149.7	156.1	1,167.0	1,181.9
23	Textiles	19	19	1.4	1.4	30.6	33.1	149.5	140.1
24	Clothing and footwear	11	10	0.3	0.4	6.1	5.4	26.9	29.7
25	Wood, wood products and furniture	227	207	3.3	2.8	84.2	80.0	473.0	439.8
26	Paper, paper products, printing and publishing	71	79	4.6	4.4	162.5	180.1	803.8	695.5
27	Chemical, petroleum and coal products	16	16	n.p.	0.5	n.p.	n.p.	n.p.	n.p.
28	Non-metallic mineral products	40	50	0.9	0.9	25.3	26.6	151.4	159.6
29	Basic metal products	17	15	n.p.	3.0	n.p.	n.p.	n.p.	n.p.
31	Fabricated metal products	132	124	1.5	1.5	36.0	35.4	161.3	146.9
32	Transport equipment	35	37	1.3	1.2	31.7	36.8	118.3	149.5
33	Other machinery and equipment	90	91	0.9	0.8	20.5	19.6	75.0	74.4
34	Miscellaneous manufacturing	54	65	0.5	0.6	13.2	11.3	49.9	55.1
<b>21-34</b>	<b>Total manufacturing</b>	<b>851</b>	<b>858</b>	<b>24.5</b>	<b>23.5</b>	<b>716.9</b>	<b>723.9</b>	<b>4,124.2</b>	<b>3,923.7</b>

For footnotes see end of table.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, STATES, TERRITORIES AND AUSTRALIA, 1990-91 AND 1991-92—continued

Industry subdivision ASIC code	Description	Establishments at 30 June (b) (No.)		Employment at end of June (c) ('000)		Wages and salaries (d) (\$m)		Turnover (\$m)	
		1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92
NORTHERN TERRITORY									
21	Food, beverages and tobacco	20	26	0.6	0.6	15.7	15.0	100.1	103.9
23	Textiles	5	5	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
24	Clothing and footwear	1	1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	30	28	0.2	0.2	5.1	5.9	21.2	24.7
26	Paper, paper products, printing and publishing	24	19	0.4	0.3	8.5	8.9	27.6	27.1
27	Chemical, petroleum and coal products	1	3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
28	Non-metallic mineral products	17	17	0.2	0.1	4.4	5.2	51.0	47.9
29	Basic metal products	6	4	0.8	n.p.	46.1	n.p.	488.6	n.p.
31	Fabricated metal products	47	40	0.4	0.3	4.0	n.p.	12.0	n.p.
32	Transport equipment	12	15	0.2	0.2	1.7	4.5	7.6	12.8
33	Other machinery and equipment	17	19	0.1	0.1	1.8	4.1	7.5	16.0
34	Miscellaneous manufacturing	19	17	0.1	0.1	1.8	2.0	7.5	9.1
<b>21-34</b>	<b>Total manufacturing</b>	<b>199</b>	<b>194</b>	<b>2.9</b>	<b>2.8</b>	<b>89.4</b>	<b>91.9</b>	<b>723.9</b>	<b>673.0</b>
AUSTRALIAN CAPITAL TERRITORY									
21	Food, beverages and tobacco	24	26	0.6	0.7	16.0	17.0	69.5	74.8
23	Textiles	1	1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
24	Clothing and footwear	3	5	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	45	49	0.5	0.5	15.5	13.2	61.7	54.3
26	Paper, paper products, printing and publishing	60	69	1.2	1.3	38.0	39.4	104.5	118.8
27	Chemical, petroleum and coal products	—	1	—	n.p.	—	n.p.	—	n.p.
28	Non-metallic mineral products	17	20	0.2	0.2	6.7	6.7	61.0	54.3
29	Basic metal products	2	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
31	Fabricated metal products	21	29	0.4	0.4	n.p.	n.p.	n.p.	n.p.
32	Transport equipment	9	9	0.1	0.1	1.9	2.1	7.6	6.8
33	Other machinery and equipment	27	35	0.3	0.3	10.5	9.6	47.7	51.4
34	Miscellaneous manufacturing	15	19	0.1	0.1	1.5	1.4	5.5	4.9
<b>21-34</b>	<b>Total manufacturing</b>	<b>224</b>	<b>265</b>	<b>3.6</b>	<b>3.7</b>	<b>105.0</b>	<b>104.0</b>	<b>463.4</b>	<b>469.3</b>

For footnotes see end of table.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION, STATES, TERRITORIES AND AUSTRALIA, 1990-91 AND 1991-92—continued

Industry subdivision ASIC code	Description	Establishments at 30 June (b) (No.)		Employment at end of June (c) ('000)		Wages and salaries (d) (\$m)		Turnover (\$m)	
		1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92	1990-91 (e)	1991-92
AUSTRALIA									
21	Food, beverages and tobacco	3,973	4,228	169.6	166.0	4,561.9	4,607.6	34,677.9	35,768.1
23	Textiles	960	936	28.3	26.2	738.6	742.1	4,053.4	4,120.9
24	Clothing and footwear	2,559	2,574	55.8	49.8	1,197.3	1,127.7	5,026.2	4,846.6
25	Wood, wood products and furniture	6,721	6,590	75.6	71.7	1,767.5	1,685.9	7,803.0	7,638.3
26	Paper, paper products, printing and publishing	4,701	4,913	103.3	100.3	3,224.1	3,217.4	14,417.5	14,332.0
27	Chemical, petroleum and coal products	1,136	1,213	51.9	50.5	1,919.3	1,937.4	23,448.0	23,462.4
28	Non-metallic mineral products	1,692	1,757	39.7	37.6	1,287.9	1,223.7	7,510.4	7,318.6
29	Basic metal products	820	889	67.5	62.1	2,514.0	2,508.0	21,558.7	20,520.7
31	Fabricated metal products	6,629	6,528	96.8	88.8	2,630.1	2,415.1	12,296.6	11,554.5
32	Transport equipment	2,020	2,099	91.3	81.6	2,924.2	2,550.4	15,645.1	14,153.2
33	Other machinery and equipment	5,716	5,910	121.6	114.2	3,612.1	3,432.3	16,295.9	15,901.6
34	Miscellaneous manufacturing	3,761	3,843	60.2	58.2	1,645.2	1,620.4	8,512.5	8,401.9
<b>21-34</b>	<b>Total manufacturing</b>	<b>40,688</b>	<b>41,480</b>	<b>961.6</b>	<b>906.9</b>	<b>28,022.2</b>	<b>27,068.0</b>	<b>171,245.1</b>	<b>168,018.7</b>

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraphs 4 to 10 of the Explanatory Notes. (c) Includes working proprietors. (d) Excludes the drawings of workings proprietors. (e) Data presented for 1990-91 have undergone extensive revision due to further processing of that year's data and, therefore, generally differ from those previously published.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92

Industry class						Change between	
		1986-87 (\$m)	1989-90 (\$m)	1990-91 (\$m)	1991-92 (\$m)	1990-91 and 1991-92 (Per cent)	1986-87 and 1991-92 (Per cent)
<b>FOOD, BEVERAGES AND TOBACCO—</b>							
<b>Meat products—</b>							
2115	Meat (except smallgoods or poultry)	1,224.5	1,434.6	1,331.7	1,306.4	-1.9	6.7
2116	Poultry	282.8	340.7	375.4	418.1	11.4	47.8
2117	Bacon, ham and smallgoods n.e.c.	242.2	244.6	261.3	288.8	10.5	19.2
211	<i>Total</i>	1,749.5	2,019.9	1,968.4	2,013.3	2.3	15.1
<b>Milk products—</b>							
2121	Liquid milk and cream	407.6	439.6	447.7	471.5	5.3	15.7
2122	Butter	143.1	119.9	113.9	135.8	19.2	-5.1
2123	Cheese	223.1	247.9	228.5	207.0	-9.4	-7.2
2124	Ice cream and frozen confections	117.3	120.5	124.0	154.3	24.4	31.5
2125	Milk products n.e.c.	92.1	54.1	85.0	88.6	4.2	-3.8
212	<i>Total</i>	983.2	982.0	999.1	1,057.2	5.8	7.5
<b>Fruit and vegetable products—</b>							
2131	Fruit products	183.5	221.4	249.0	252.9	1.6	37.8
2132	Vegetable products	298.9	376.2	362.3	370.3	2.2	23.9
213	<i>Total</i>	482.4	597.6	611.3	623.2	1.9	29.2
214	<i>Margarine and oils and fats n.e.c.</i>	145.8	115.1	118.1	115.1	-2.5	-21.1
<b>Flour mill and cereal food products—</b>							
2151	Flour mill products	170.4	160.0	170.2	171.2	0.6	0.5
2152	Starch, gluten and starch sugars	50.7	51.3	51.5	43.5	-15.5	-14.2
2153	Cereal foods and baking mixes	290.8	354.9	441.2	417.2	-5.4	43.5
215	<i>Total</i>	511.9	566.2	662.9	631.9	-4.7	23.4
<b>Bread, cakes and biscuits—</b>							
2161	Bread	540.0	573.4	549.6	588.5	7.1	9.0
2162	Cakes and pastries	285.2	307.3	301.4	278.3	-7.7	-2.4
2163	Biscuits	217.0	256.9	236.2	273.6	15.8	26.1
216	<i>Total</i>	1,042.2	1,137.6	1,087.2	1,140.4	4.9	9.4
<b>Other food products—</b>							
2171	Raw sugar	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
2173	Confectionery and cocoa products	340.1	374.9	393.3	371.2	-5.6	9.1
2174	Processed seafoods	278.3	252.2	276.6	267.5	-3.3	-3.9
2175	Prepared animal and bird foods	290.4	287.7	314.2	297.0	-5.5	2.3
2176	Food products n.e.c.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
217	<i>Total</i>	1,806.0	1,951.6	2,068.2	2,017.1	-2.5	11.7
<b>Beverages and malt—</b>							
2185	Soft drinks, cordials and syrups	343.1	384.0	455.8	401.0	-12.0	16.9
2186	Beer	795.0	887.0	942.7	946.3	0.4	19.0
2187	Malt	52.0	n.p.	n.p.	n.p.	n.p.	n.p.
2188	Wine and brandy	363.9	366.6	344.8	385.6	11.8	6.0
2189	Alcoholic beverages n.e.c.	4.5	n.p.	n.p.	n.p.	n.p.	n.p.
218	<i>Total</i>	1,558.5	1,712.8	1,806.7	1,791.0	-0.9	14.9
219	<i>Tobacco products</i>	336.1	324.1	304.6	352.0	15.6	4.7
21	<b><i>Total food, beverages and tobacco</i></b>	<b>8,615.6</b>	<b>9,406.9</b>	<b>9,626.5</b>	<b>9,741.2</b>	<b>1.2</b>	<b>13.1</b>

For footnote see end of table.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92—continued

Industry class		Change between					
		1986-87	1989-90	1990-91	1991-92	1990-91 and 1991-92	1986-87 and 1991-92
ASIC code	Description	(\$m)	(\$m)	(\$m)	(\$m)	(Per cent)	(Per cent)
<b>TEXTILES—</b>							
Textile fibres, yarns and woven fabrics—							
2341	Cotton ginning	65.8	79.1	91.1	141.3	55.1	114.7
2342	Wool scouring and top making	70.8	53.6	61.6	81.3	32.0	14.8
2343	Man-made fibres and yarns	62.0	50.4	54.5	45.1	-17.2	-27.3
2344	Man-made fibre broadwoven fabrics	165.8	138.1	128.0	138.4	8.1	-16.5
2345	Cotton yarns and broadwoven fabrics	139.6	151.2	141.1	148.1	5.0	6.1
2346	Worsted yarns and broadwoven fabrics	89.5	86.6	74.0	69.3	-6.4	-22.6
2347	Woollen yarns and broadwoven fabrics	61.7	66.1	50.3	46.9	-6.8	-24.0
2348	Narrow woven and elastic textiles	35.2	49.3	46.0	36.5	-20.7	3.7
2349	Textile finishing	109.8	68.1	79.7	80.5	1.0	-26.7
234	<i>Total</i>	<i>800.2</i>	<i>742.5</i>	<i>726.3</i>	<i>787.4</i>	<i>8.4</i>	<i>-1.6</i>
Other textile products—							
2351	Household textiles	39.0	63.8	75.2	74.8	-0.5	91.8
2352	Textile floor coverings	185.9	186.0	178.9	170.0	-5.0	-8.6
2353	Felt and felt products	41.4	40.7	41.6	40.2	-3.4	-2.9
2354	Canvas and associated products n.e.c.	80.3	81.5	83.9	76.2	-9.2	-5.1
2355	Rope, cordage and twine	28.0	20.9	27.1	25.5	-5.9	-8.9
2356	Textile products n.e.c.	134.8	138.6	151.1	147.8	-2.2	9.6
235	<i>Total</i>	<i>509.4</i>	<i>531.5</i>	<i>557.8</i>	<i>534.5</i>	<i>-4.2</i>	<i>4.9</i>
23	<i>Total textiles</i>	<i>1,309.6</i>	<i>1,274.0</i>	<i>1,284.1</i>	<i>1,321.9</i>	<i>2.9</i>	<i>0.9</i>
<b>CLOTHING AND FOOTWEAR—</b>							
Knitting mills—							
2441	Hosiery	120.2	111.0	103.9	101.7	-2.1	-15.4
2442	Cardigans and pullovers	141.5	83.7	64.1	52.5	-18.1	-62.9
2443	Knitted goods n.e.c.	215.4	192.1	135.1	130.3	-3.6	-39.5
244	<i>Total</i>	<i>477.1</i>	<i>386.8</i>	<i>303.1</i>	<i>284.5</i>	<i>-6.1</i>	<i>-40.4</i>
Clothing—							
2451	Men's trousers and shorts; work clothing	214.9	185.5	150.9	144.7	-4.1	-32.7
2452	Men's suits and coats; waterproof clothing	123.6	123.7	102.8	103.9	1.1	-15.9
2453	Women's outerwear n.e.c.	362.5	376.3	372.8	352.0	-5.6	-2.9
2454	Foundation garments	73.1	93.8	86.5	99.3	14.8	35.8
2455	Underwear and infants' clothing n.e.c.	261.1	231.0	243.4	204.7	-15.9	-21.6
2456	Headwear and clothing n.e.c.	171.6	212.4	222.4	225.1	1.2	31.2
245	<i>Total</i>	<i>1,206.8</i>	<i>1,222.7</i>	<i>1,178.8</i>	<i>1,129.7</i>	<i>-4.2</i>	<i>-6.4</i>
246	<i>Footwear</i>	<i>356.4</i>	<i>274.6</i>	<i>256.6</i>	<i>221.2</i>	<i>-13.8</i>	<i>-37.9</i>
24	<i>Total clothing and footwear</i>	<i>2,040.3</i>	<i>1,884.1</i>	<i>1,738.5</i>	<i>1,635.4</i>	<i>-5.9</i>	<i>-19.8</i>
<b>WOOD, WOOD PRODUCTS AND FURNITURE—</b>							
Wood and wood products—							
2531	Log sawmilling	460.0	507.5	469.3	493.1	5.1	7.2
2532	Resawn and dressed timber	276.4	191.1	186.3	191.0	2.5	-30.9
2533	Veneers and manufactured boards of wood	190.0	240.0	195.8	185.3	-5.4	-2.5
2534	Wooden doors	52.9	51.9	45.8	52.3	14.2	-1.1
2535	Wooden structural fittings and joinery n.e.c.	582.9	586.7	538.1	516.4	-4.0	-11.4
2536	Wooden containers	41.0	41.2	53.3	45.9	-13.9	12.0
2537	Hardwood woodchips	108.0	104.3	97.8	98.9	1.1	-8.4
2538	Wood products n.e.c.	86.8	81.8	75.8	74.2	-2.1	-14.5
253	<i>Total</i>	<i>1,798.0</i>	<i>1,804.5</i>	<i>1,662.2</i>	<i>1,657.1</i>	<i>-0.3</i>	<i>-7.8</i>
Furniture and mattresses—							
2541	Furniture (except sheet metal)	796.9	917.3	806.1	734.7	-8.9	-7.8
2542	Mattresses (except rubber)	123.7	121.7	115.3	123.4	7.0	-0.2
254	<i>Total</i>	<i>920.6</i>	<i>1,039.0</i>	<i>921.4</i>	<i>858.1</i>	<i>-6.9</i>	<i>-6.8</i>
25	<i>Total wood, wood products and furniture</i>	<i>2,718.6</i>	<i>2,843.5</i>	<i>2,583.6</i>	<i>2,515.2</i>	<i>-2.6</i>	<i>-7.5</i>

For footnote see end of table.



TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92—continued

Industry class							Change between	
		1986-87	1989-90	1990-91	1991-92	1990-91 and 1991-92 (Per cent)	1986-87 and 1991-92 (Per cent)	
ASIC code	Description	(\$m)	(\$m)	(\$m)	(\$m)			
<b>PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—</b>								
<b>Paper and paper products—</b>								
2631	Pulp, paper and paperboard	672.5	675.5	651.6	655.5	0.6	-2.5	
2632	Paper bags (including textile bags)	47.3	76.1	92.2	85.8	-6.9	81.4	
2633	Solid fibreboard containers	193.5	103.0	103.5	114.6	10.7	-40.8	
2634	Corrugated fibreboard containers	280.3	306.5	326.7	305.7	-6.4	9.1	
2635	Paper products n.e.c.	180.7	181.3	200.7	191.8	-4.4	6.1	
263	<i>Total</i>	<i>1,374.3</i>	<i>1,342.4</i>	<i>1,374.7</i>	<i>1,353.4</i>	<i>-1.5</i>	<i>-1.5</i>	
<b>Printing and allied industries—</b>								
2641	Publishing	557.1	490.7	578.8	509.6	-12.0	-8.5	
2642	Printing and publishing	1,234.9	1,470.8	1,158.6	1,076.0	-7.1	-12.9	
2643	Paper stationery	353.4	373.7	441.4	418.5	-5.2	18.4	
2644	Printing and bookbinding	1,089.4	1,257.0	1,227.5	1,215.1	-1.0	11.5	
2645	Printing trade services n.e.c.	217.1	250.9	254.0	239.3	-5.8	10.2	
264	<i>Total</i>	<i>3,451.9</i>	<i>3,843.1</i>	<i>3,660.3</i>	<i>3,458.5</i>	<i>-5.5</i>	<i>0.2</i>	
26	<b>Total paper, paper products, printing and publishing</b>	<b>4,826.2</b>	<b>5,185.5</b>	<b>5,035.0</b>	<b>4,811.9</b>	<b>-4.4</b>	<b>-0.3</b>	
<b>CHEMICAL, PETROLEUM AND COAL PRODUCTS—</b>								
<b>Basic chemicals—</b>								
2751	Chemical fertilisers	181.9	154.6	149.3	132.4	-11.3	-27.2	
2752	Industrial gases	111.5	156.4	169.6	162.8	-4.0	46.0	
2753	Synthetic resins and rubber	456.3	445.6	437.1	457.5	4.7	0.3	
2754	Organic industrial chemicals n.e.c.	202.8	212.1	212.5	197.5	-7.1	-2.6	
2755	Inorganic industrial chemicals n.e.c.	377.4	416.7	460.7	470.6	2.1	24.7	
275	<i>Total</i>	<i>1,329.9</i>	<i>1,385.4</i>	<i>1,429.2</i>	<i>1,420.8</i>	<i>-0.6</i>	<i>6.8</i>	
<b>Other chemical products—</b>								
2761	Ammunition, explosives and fireworks	157.0	222.3	244.2	254.7	4.3	62.2	
2762	Paints	347.7	423.2	456.3	456.2	—	31.2	
2763	Pharmaceutical and veterinary products	461.6	507.3	554.8	593.2	6.9	28.5	
2764	Pesticides	137.5	155.6	149.3	141.2	-5.4	2.7	
2765	Soap and other detergents	394.8	366.5	358.1	328.0	-8.4	-16.9	
2766	Cosmetics and toilet preparations	292.1	251.8	287.8	283.7	-1.4	-2.9	
2767	Inks	55.9	81.3	98.0	71.4	-27.1	27.7	
2768	Chemical products n.e.c.	140.6	181.0	185.9	171.9	-7.5	22.3	
276	<i>Total</i>	<i>1,987.2</i>	<i>2,189.0</i>	<i>2,334.4</i>	<i>2,300.3</i>	<i>-1.5</i>	<i>15.8</i>	
277	<i>Petroleum refining</i>	<i>1,618.6</i>	<i>1,804.6</i>	<i>1,840.6</i>	<i>1,889.1</i>	<i>2.6</i>	<i>16.7</i>	
278	<i>Petroleum and coal products n.e.c.</i>	<i>42.2</i>	<i>32.0</i>	<i>41.0</i>	<i>31.4</i>	<i>-23.4</i>	<i>-25.6</i>	
27	<b>Total chemical, petroleum and coal products</b>	<b>4,977.9</b>	<b>5,411.0</b>	<b>5,645.2</b>	<b>5,641.6</b>	<b>-0.1</b>	<b>13.3</b>	

For footnote see end of table.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92—continued

Industry class		Change between					
		1986-87	1989-90	1990-91	1991-92	1990-91 and 1991-92 (Per cent)	1986-87 and 1991-92 (Per cent)
ASIC code	Description	(\$m)	(\$m)	(\$m)	(\$m)	(Per cent)	(Per cent)
<b>NON-METALLIC MINERAL PRODUCTS—</b>							
285	Glass and glass products	492.1	601.5	512.1	492.4	-3.8	0.1
Clay products and refractories—							
2861	Clay bricks	407.0	446.7	372.5	369.0	-0.9	-9.3
2862	Refractories	67.0	69.0	61.1	56.3	-7.9	-16.0
2863	Ceramic tiles and pipes	68.1	67.8	67.2	62.1	-7.6	-8.8
2864	Ceramic goods n.e.c.	94.1	83.8	86.3	82.9	-3.9	-11.9
286	Total	636.2	667.3	587.1	570.3	-2.9	-10.4
Cement and concrete products—							
2871	Cement	342.3	353.3	292.1	274.8	-5.9	-19.7
2872	Ready mixed concrete	250.2	287.8	233.9	222.6	-4.8	-11.0
2873	Concrete pipes and box culverts	99.1	102.0	522.0	495.3	-5.1	3.6
2874	Concrete products n.e.c.	379.2	461.0				
287	Total	1,070.8	1,204.1	1,048.0	992.7	-5.3	-7.3
Other non-metallic mineral products—							
2881	Plaster products and expanded minerals	125.8	168.1	176.9	189.4	7.1	50.6
2882	Stone products	39.7	65.7	59.8	53.8	-10.0	35.5
2883	Glass wool and mineral wool products	71.0	119.7	127.6	95.0	-25.5	33.8
2884	Non-metallic mineral products n.e.c.	112.3	107.0	113.0	113.4	0.4	1.0
288	Total	348.8	460.5	477.3	451.6	-5.4	29.5
28	Total non-metallic mineral products	2,547.9	2,933.4	2,624.5	2,507.0	-4.5	-1.6
<b>BASIC METAL PRODUCTS—</b>							
Basic iron and steel—							
2941	Iron and steel basic products	1,947.7	2,173.7	2,101.1	2,071.8	-1.4	6.4
2942	Iron casting	123.9	171.9	155.1	151.7	-2.2	22.4
2943	Steel casting	72.5	107.0	95.0	96.4	1.5	33.0
2944	Iron and steel forging	36.2	41.8	36.1	38.8	7.5	7.2
2945	Steel pipes and tubes	144.3	128.0	126.2	117.9	-6.6	-18.3
294	Total	2,324.6	2,622.4	2,513.5	2,476.6	-1.5	6.5
Basic non-ferrous metals—							
2951	Copper smelting, refining	n.p.	383.4	448.5	447.8	-0.2	n.p.
2952	Silver, lead, zinc smelting, refining	426.8	442.9	n.p.	n.p.	n.p.	n.p.
2953	Alumina	1,182.9	1,612.6	1,676.0	1,631.4	-2.7	37.9
2954	Aluminium smelting	764.1	1,016.3	1,195.0	1,339.2	12.1	75.3
2955	Nickel smelting, refining	n.p.	137.6	n.p.	n.p.	n.p.	n.p.
2956	Non-ferrous metals n.e.c. smelting, refining	38.3	n.p.	76.4	47.1	-38.4	23.0
2957	Secondary recovery and alloying of non-ferrous metals n.e.c.	34.5	n.p.	38.4	71.4	85.9	107.0
295	Total	2,779.1	3,657.8	4,024.1	4,130.9	2.7	48.6
Non-ferrous metal basic products—							
2961	Aluminium rolling, drawing, extruding	291.8	281.4	261.7	262.4	0.3	-10.1
2962	Non-ferrous metals n.e.c. rolling, drawing, extruding	155.0	190.6	131.8	124.2	-5.8	-19.9
2963	Non-ferrous metal casting	83.8	60.2	58.1	82.6	42.2	-1.4
296	Total	530.6	532.2	451.6	469.2	3.9	-11.6
29	Total basic metal products	5,634.3	6,812.4	6,989.2	7,076.7	1.3	25.6

For footnote see end of table.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92—continued

Industry class		Change between					
		1986-87	1989-90	1990-91	1991-92	1990-91 and 1991-92 (Per cent)	1986-87 and 1991-92 (Per cent)
ASIC code	Description	(\$m)	(\$m)	(\$m)	(\$m)		
<b>FABRICATED METAL PRODUCTS—</b>							
<b>Structural metal products—</b>							
3141	Fabricated structural steel	773.4	921.6	805.6	698.3	-13.3	-9.7
3142	Architectural aluminium products	345.9	400.2	370.9	343.9	-7.3	-0.6
3143	Architectural metal products n.e.c.	100.7	195.9	181.6	149.2	-17.8	48.2
314	<i>Total</i>	1,220.0	1,517.7	1,358.1	1,191.4	-12.3	-2.3
<b>Sheet metal products—</b>							
3151	Metal containers	394.7	323.2	429.0	434.6	1.3	10.1
3152	Sheet metal furniture	71.7	141.7	119.5	95.5	-20.1	33.2
3153	Sheet metal products n.e.c.	585.3	806.2	597.0	557.1	-6.7	-4.8
315	<i>Total</i>	1,051.7	1,271.1	1,145.5	1,087.2	-5.1	3.4
<b>Other fabricated metal products—</b>							
3161	Cutlery and hand tools n.e.c.	72.7	94.0	79.7	70.2	-11.9	-3.4
3162	Springs and wire products	317.0	274.1	252.5	272.1	7.8	-14.2
3163	Nuts, bolts, screws and rivets	106.5	135.7	128.4	151.4	17.9	42.2
3164	Metal coating and finishing	216.3	221.2	203.2	192.4	-5.3	-11.0
3165	Non-ferrous steam, gas and water fittings	147.1	132.3	110.2	102.7	-6.8	-30.2
3166	Boiler and plate work	75.6	90.6	105.2	113.6	8.0	50.3
3167	Metal blinds and awnings	45.2	47.7	42.7	45.2	5.9	—
3168	Fabricated metal products n.e.c.	552.9	582.3	555.9	513.4	-7.6	-7.1
316	<i>Total</i>	1,533.3	1,577.9	1,477.8	1,461.0	-1.1	-4.7
31	<b>Total fabricated metal products</b>	<b>3,805.0</b>	<b>4,366.7</b>	<b>3,981.4</b>	<b>3,739.6</b>	<b>-6.1</b>	<b>-1.7</b>
<b>TRANSPORT EQUIPMENT—</b>							
<b>Motor vehicles and parts—</b>							
3231	Motor vehicles	1,761.2	2,311.2	2,268.5	2,015.4	-11.2	14.4
3232	Motor vehicle bodies, trailers, caravans	229.0	206.1	171.0	152.5	-10.8	-33.4
3233	Motor vehicle instruments and electrical equipment n.e.c.	158.8	318.2	288.2	224.3	-22.2	41.2
3234	Motor vehicle parts n.e.c.	931.4	1,026.3	957.3	806.9	-15.7	-13.4
323	<i>Total</i>	3,080.4	3,861.8	3,685.0	3,199.1	-13.2	3.9
<b>Other transport equipment—</b>							
3241	Ships	299.5	775.6	517.9	511.6	-1.2	70.8
3242	Boats	93.4	107.7	76.8	84.9	10.5	-9.1
3243	Railway rolling stock and locomotives	870.7	451.9	453.4	501.8	10.7	-42.4
3244	Aircraft	542.7	596.6	618.1	595.1	-3.7	9.7
3245	Transport equipment n.e.c.	13.6	15.6	14.3	13.8	-3.5	1.5
324	<i>Total</i>	1,819.9	1,947.4	1,680.5	1,707.2	1.6	-6.2
32	<b>Total transport equipment</b>	<b>4,900.3</b>	<b>5,809.2</b>	<b>5,365.5</b>	<b>4,906.3</b>	<b>-8.6</b>	<b>0.1</b>

For footnote see end of table.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): GROSS PRODUCT AT MARKET PRICES (AVERAGE 1989-90 PRICES) (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1986-87 TO 1991-92—continued

Industry class	ASIC code	Description	1986-87 (\$m)	1989-90 (\$m)	1990-91 (\$m)	1991-92 (\$m)	Change between	
							1990-91 and 1991-92 (Per cent)	1986-87 and 1991-92 (Per cent)
<b>OTHER MACHINERY AND EQUIPMENT—</b>								
Photographic, professional and scientific equipment—								
	3341	Photographic and optical goods	82.5	112.7	87.7	96.8	10.4	17.3
	3342	Photographic film processing	133.8	151.6	127.4	174.9	37.3	30.7
	3343	Measuring, professional and scientific equipment n.e.c.	136.8	168.5	179.9	178.3	-0.9	30.3
	334	<i>Total</i>	353.1	432.8	395.0	450.0	13.9	27.4
Appliances and electrical equipment—								
	3351	Radio and TV receivers; audio equipment	111.0	115.9	130.6	128.0	-2.0	15.3
	3352	Electronic equipment n.e.c.	789.3	884.5	1,015.0	1,154.0	13.7	46.2
	3353	Refrigerators and household appliances	592.0	599.7	611.1	595.9	-2.5	0.7
	3354	Water heating systems	83.0	84.1	74.7	73.6	-1.5	-11.3
	3355	Electric and telephone cable and wire	351.1	234.4	239.1	222.4	-7.0	-36.7
	3356	Batteries	68.7	64.8	58.6	65.5	11.8	-4.7
	3357	Electrical machinery and equipment n.e.c.	920.6	992.6	1,028.6	967.0	-6.0	5.0
	335	<i>Total</i>	2,915.7	2,976.0	3,157.7	3,206.4	1.5	10.0
Industrial machinery and equipment—								
	3361	Agricultural machinery	216.5	213.6	191.1	161.3	-15.6	-25.5
	3362	Construction machinery	44.0	85.5	95.5	102.2	7.0	132.3
	3363	Materials handling equipment	175.6	218.5	190.5	175.0	-8.1	-0.3
	3364	Wood and metal working machinery	124.8	96.6	130.7	88.3	-32.4	-29.2
	3365	Pumps and compressors	165.9	223.7	197.4	175.1	-11.3	5.5
	3366	Commercial space heating and cooling equipment	62.5	73.1	88.2	89.3	1.2	42.9
	3367	Dies, saw blades and machine tool accessories	197.7	201.1	181.5	161.0	-11.3	-18.6
	3368	Food processing machinery	88.0	102.7	81.5	72.3	-11.3	-17.8
	3369	Industrial machinery and equipment n.e.c.	884.8	957.5	916.8	848.4	-7.5	-4.1
	336	<i>Total</i>	1,959.8	2,172.3	2,073.2	1,872.9	-9.7	-4.4
	33	<i>Total other machinery and equipment</i>	5,228.6	5,581.1	5,625.9	5,529.3	-1.7	5.8
<b>MISCELLANEOUS MANUFACTURING—</b>								
Leather and leather products—								
	3451	Leather tanning and fur dressing	110.9	72.2	76.5	81.9	7.1	-26.1
	3452	Leather and leather substitute goods n.e.c.	35.0	33.7	35.8	33.3	-7.0	-4.9
	345	<i>Total</i>	145.9	105.9	112.3	115.2	2.6	-21.0
Rubber products—								
	3461	Rubber tyres, tubes, belts, hose and sheets	361.9	440.1	396.9	376.7	-5.1	4.1
	3462	Rubber products n.e.c.	133.6	130.4	121.5	99.7	-17.9	-25.4
	346	<i>Total</i>	495.5	570.5	518.4	476.4	-8.1	-3.9
Plastic and related products—								
	3471	Flexible packaging and abrasive papers	497.7	465.7	493.7	500.6	1.4	0.6
	3472	Rigid plastic sheeting	39.5	59.4	56.5	48.8	-13.6	-8.4
	3473	Hard surface floor coverings n.e.c.	13.8					
	3474	Plastic products n.e.c.	1,098.1	1,206.7	1,250.4	1,213.9	-2.9	10.5
	347	<i>Total</i>	1,649.1	1,731.8	1,800.6	1,763.3	-2.1	6.9
Other manufacturing—								
	3481	Ophthalmic articles	59.0	47.6	58.8	59.1	0.5	0.2
	3482	Jewellery and silverware	48.0	64.3	62.1	56.9	-8.4	18.5
	3483	Brooms and brushes	41.9	41.8	36.4	44.3	21.7	5.7
	3484	Signs and advertising displays	158.1	168.9	146.4	142.6	-2.6	-9.8
	3485	Sporting equipment	54.1	55.5	52.8	50.4	-4.5	-6.8
	3486	Writing and marking equipment	36.1	46.9	41.2	44.9	9.0	24.4
	3487	Manufacturing n.e.c.	84.3	78.0	89.9	104.6	16.4	24.1
	348	<i>Total</i>	481.5	503.0	487.6	502.8	3.1	4.4
	34	<i>Total miscellaneous manufacturing</i>	2,772.0	2,911.2	2,918.9	2,857.7	-2.1	3.1
	21-34	<b>TOTAL MANUFACTURING</b>	<b>49,376.3</b>	<b>54,419.0</b>	<b>53,418.3</b>	<b>52,283.8</b>	<b>-2.1</b>	<b>5.9</b>

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraphs 47 to 49 of the Explanatory Notes.

TABLE 9. MANUFACTURING ESTABLISHMENTS (a): ENVIRONMENTAL PROTECTION ISSUES (b), SUMMARY STATISTICS BY INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92

Industry subdivision (c) ASIC code	Description	Establishments that conducted environmental impact assessments or environmental audits		Establishments that encouraged the return of their own containers or packaging		Establishments engaged in the marketing or production of goods or services for monitoring, maintaining or improving the environment		
		Number	Proportion of total establishments (Per cent)	Number	Proportion of total establishments (Per cent)	Number	Proportion of total establishments (Per cent)	Proportion of total turnover (Per cent)
21	Food, beverages and tobacco	421	10	44	23	93	2	1
23	Textiles	79	8	38	25	42	4	5
24	Clothing and footwear	49	2	13	19	32	1	1
25	Wood, wood products and furniture	203	3	18	14	161	2	2
26	Paper, paper products, printing and publishing	198	4	30	30	519	10	16
27	Chemical, petroleum and coal products	170	14	54	38	176	14	5
28	Non-metallic mineral products	105	6	27	27	116	7	7
29	Basic metal products	79	9	51	23	57	6	9
31	Fabricated metal products	279	4	24	21	370	6	5
32	Transport equipment	107	5	33	22	96	5	2
33	Other machinery and equipment	258	4	26	21	553	9	8
34	Miscellaneous manufacturing	125	3	15	25	276	7	9
<b>21-34</b>	<b>Total manufacturing</b>	<b>2,073</b>	<b>5</b>	<b>37</b>	<b>22</b>	<b>9,389</b>	<b>34</b>	<b>6</b>

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraph 50 of the Explanatory Notes. Establishments which did not respond to the environmental protection issues are treated as not participating in the relevant issue. (c) Data are also available on request by ASIC class by State.

Note: The 1991-92 manufacturing census included a number of questions related to environmental protection. The following three questions were asked of all manufacturers:

- During 1991-92, did this business conduct any environmental impact assessments (for proposed new production) or any environmental audits (on existing production processes)?
- Does this business permit and/or encourage the return of its own containers or packaging (eg reusable bottles, cardboard boxes, polystyrene, etc)?
- Does this business market or produce any goods or services for monitoring, maintaining or improving the environment?

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>FOOD, BEVERAGES AND TOBACCO—</b>				
<b>Meat products—</b>				
2115	Meat (except smallgoods or poultry)	10,369	0.2	4,273
2116	Poultry	3,661	0.3	895
2117	Bacon, ham and smallgoods n.e.c.	2,321	0.2	398
211	<i>Total</i>	16,351	0.2	5,566
<b>Milk products—</b>				
2121	Liquid milk and cream	5,440	0.2	1,211
2122	Butter	380	0.1	2,644
2123	Cheese	1,810	0.2	5,654
2124	Ice cream and frozen confections	1,267	0.2	406
2125	Milk products n.e.c.	623	0.1	786
212	<i>Total</i>	9,520	0.2	10,701
<b>Fruit and vegetable products—</b>				
2131	Fruit products	3,558	0.3	1,528
2132	Vegetable products	4,729	0.4	3,286
213	<i>Total</i>	8,287	0.4	4,814
214	<i>Margarine and oils and fats n.e.c.</i>	2,309	0.3	1,769
<b>Flour mill and cereal food products—</b>				
2151	Flour mill products	513	0.1	209
2152	Starch, gluten and starch sugars	453	0.2	20,701
2153	Cereal foods and baking mixes	2,596	0.2	3,561
215	<i>Total</i>	3,562	0.1	24,471
<b>Bread, cakes and biscuits—</b>				
2161	Bread	1,733	0.1	630
2162	Cakes and pastries	1,293	0.2	131
2163	Biscuits	686	0.1	306
216	<i>Total</i>	3,712	0.1	1,067
<b>Other food products—</b>				
2171	Raw sugar	2,432	n.p.	2,581
2173	Confectionery and cocoa products	1,430	0.1	3,594
2174	Processed seafoods	900	0.1	658
2175	Prepared animal and bird foods	2,308	0.2	1,962
2176	Food products n.e.c.	6,329	n.p.	2,145
217	<i>Total</i>	13,399	0.2	10,940
<b>Beverages and malt—</b>				
2185	Soft drinks, cordials and syrups	2,012	0.1	2,718
2186	Beer	8,024	0.3	1,705
2187	Malt	1,072	n.p.	254
2188	Wine and brandy	721	0.1	339
2189	Alcoholic beverages n.e.c.	154	n.p.	—
218	<i>Total</i>	11,983	0.2	5,016
219	<i>Tobacco products</i>	1,098	0.1	12,120
21	<b><i>Total food, beverages and tobacco</i></b>	<b>70,221</b>	<b>0.2</b>	<b>76,464</b>

For footnotes see end of table.

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92—continued

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>TEXTILES—</b>				
Textile fibres, yarns and woven fabrics—				
2341	Cotton ginning	n.p.	n.p.	n.p.
2342	Wool scouring and top making	4,057	1.0	1,492
2343	Man-made fibres and yarns	n.p.	n.p.	n.p.
2344	Man-made fibre broadwoven fabrics	1,236	0.3	260
2345	Cotton yarns and broadwoven fabrics	825	0.2	133
2346	Worsted yarns and broadwoven fabrics	n.p.	n.p.	n.p.
2347	Woolen yarns and broadwoven fabrics	n.p.	n.p.	n.p.
2348	Narrow woven and elastic textiles	n.p.	n.p.	n.p.
2349	Textile finishing	561	0.2	222
234	<i>Total</i>	7,773	0.3	2,466
Other textile products—				
2351	Household textiles	377	0.2	395
2352	Textile floor coverings	978	0.2	91
2353	Felt and felt products	115	0.1	186
2354	Canvas and associated products n.e.c.	n.p.	n.p.	n.p.
2355	Rope, cordage and twine	n.p.	n.p.	n.p.
2356	Textile products n.e.c.	480	0.1	189
235	<i>Total</i>	2,368	0.1	968
23	<i>Total textiles</i>	10,141	0.3	3,434
<b>CLOTHING AND FOOTWEAR—</b>				
Knitting mills—				
2441	Hosiery	292	0.1	30
2442	Cardigans and pullovers	n.p.	n.p.	n.p.
2443	Knitted goods n.e.c.	n.p.	n.p.	n.p.
244	<i>Total</i>	823	0.1	37
Clothing—				
2451	Men's trousers and shorts; work clothing	335	0.1	42
2452	Men's suits and coats; waterproof clothing	n.p.	n.p.	n.p.
2453	Women's outerwear n.e.c.	782	0.1	646
2454	Foundation garments	n.p.	n.p.	n.p.
2455	Underwear and infants' clothing n.e.c.	175	—	377
2456	Headwear and clothing n.e.c.	409	0.1	154
245	<i>Total</i>	1,905	0.1	1,230
246	<i>Footwear</i>	443	0.1	445
24	<i>Total clothing and footwear</i>	3,171	0.1	1,712
<b>WOOD, WOOD PRODUCTS AND FURNITURE—</b>				
Wood and wood products—				
2531	Log sawmilling	3,003	0.3	1,952
2532	Resawn and dressed timber	1,466	0.3	567
2533	Veneers and manufactured boards of wood	2,273	0.3	1,142
2534	Wooden doors	303	0.2	330
2535	Wooden structural fittings and joinery n.e.c.	2,799	0.2	656
2536	Wooden containers	434	0.4	111
2537	Hardwood woodchips	1,453	0.4	245
2538	Wood products n.e.c.	328	0.2	135
253	<i>Total</i>	12,059	0.3	5,138
Furniture and mattresses—				
2541	Furniture (except sheet metal)	4,402	0.2	998
2542	Mattresses (except rubber)	306	0.1	160
254	<i>Total</i>	4,708	0.2	1,158
25	<i>Total wood, wood products and furniture</i>	16,767	0.2	6,296

For footnotes see end of table.

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92—continued

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—</b>				
Paper and paper products—				
2631	Pulp, paper and paperboard	22,019	1.1	11,261
2632	Paper bags (including textile bags)	312	0.1	—
2633	Solid fibreboard containers	381	0.1	2,277
2634	Corrugated fibreboard containers	12,679	1.1	1,413
2635	Paper products n.e.c.	3,042	0.4	4,148
263	<i>Total</i>	38,433	0.9	19,099
Printing and allied industries—				
2641	Publishing	1,543	0.1	12
2642	Printing and publishing	1,119	—	143
2643	Paper stationery	1,256	0.1	294
2644	Printing and bookbinding	3,753	0.1	1,428
2645	Printing trade services n.e.c.	850	0.2	244
264	<i>Total</i>	8,521	0.1	2,121
26	<b>Total paper, paper products, printing and publishing</b>	<b>46,954</b>	<b>0.3</b>	<b>21,220</b>
<b>CHEMICAL, PETROLEUM AND COAL PRODUCTS—</b>				
Basic chemicals—				
2751	Chemical fertilisers	2,868	0.3	2,904
2752	Industrial gases	790	0.2	169
2753	Synthetic resins and rubber	14,606	0.9	6,803
2754	Organic industrial chemicals n.e.c.	29,134	3.2	12,568
2755	Inorganic industrial chemicals n.e.c.	24,621	2.0	20,347
275	<i>Total</i>	72,019	1.4	42,791
Other chemical products—				
2761	Ammunition, explosives and fireworks	2,338	0.4	226
2762	Paints	5,597	0.3	3,375
2763	Pharmaceutical and veterinary products	17,412	0.7	1,975
2764	Pesticides	3,832	0.7	1,770
2765	Soap and other detergents	3,007	0.3	5,237
2766	Cosmetics and toilet preparations	1,501	0.2	568
2767	Inks	900	0.4	371
2768	Chemical products n.e.c.	2,658	0.4	982
276	<i>Total</i>	37,245	0.5	14,504
277	<i>Petroleum refining</i>	22,167	0.2	50,763
278	<i>Petroleum and coal products n.e.c.</i>	548	0.4	665
27	<b>Total chemical, petroleum and coal products</b>	<b>131,979</b>	<b>0.6</b>	<b>108,723</b>

For footnotes see end of table.



TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92—continued

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>NON-METALLIC MINERAL PRODUCTS—</b>				
285	Glass and glass products	2,346	0.2	611
Clay products and refractories—				
2861	Clay bricks	4,452	0.7	720
2862	Refractories	389	0.3	650
2863	Ceramic tiles and pipes	817	0.5	163
2864	Ceramic goods n.e.c.	845	0.5	24
286	Total	6,503	0.6	1,557
Cement and concrete products—				
2871	Cement	5,999	0.7	755
2872	Ready mixed concrete	5,350	0.4	4,246
2873	Concrete pipes and box culverts	3,892	0.6	1,187
2874	Concrete products n.e.c.			
287	Total	15,241	0.4	6,188
Other non-metallic mineral products—				
2881	Plaster products and expanded minerals	9,924	2.0	548
2882	Stone products	427	0.4	155
2883	Glass wool and mineral wool products	1,639	0.6	1,053
2884	Non-metallic mineral products n.e.c.	1,618	0.5	191
288	Total	13,608	1.1	1,947
28	Total non-metallic mineral products	37,698	0.5	10,303
<b>BASIC METAL PRODUCTS—</b>				
Basic iron and steel—				
2941	Iron and steel basic products	26,910	0.3	49,746
2942	Iron casting	2,794	0.7	844
2943	Steel casting	2,313	0.7	739
2944	Iron and steel forging	298	0.2	44
2945	Steel pipes and tubes	1,254	0.2	1,565
294	Total	33,569	0.4	52,938
Basic non-ferrous metals—				
2951	Copper smelting, refining	3,255	0.2	3,919
2952	Silver, lead, zinc smelting, refining	11,418	n.p.	15,653
2953	Alumina	36,337	1.4	98,596
2954	Aluminium smelting	27,464	1.1	64,746
2955	Nickel smelting, refining	n.p.	n.p.	n.p.
2956	Non-ferrous metals n.e.c. smelting, refining	n.p.	n.p.	n.p.
2957	Secondary recovery and alloying of non-ferrous metals n.e.c.	3,716	0.9	867
295	Total	86,882	1.0	187,849
Non-ferrous metal basic products—				
2961	Aluminium rolling, drawing, extruding	2,010	0.2	674
2962	Non-ferrous metals n.e.c. rolling, drawing, extruding	1,013	0.2	476
2963	Non-ferrous metal casting	973	0.4	372
296	Total	3,996	0.2	1,522
29	Total basic metal products	124,447	0.6	242,309

For footnotes see end of table.

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92—continued

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>FABRICATED METAL PRODUCTS—</b>				
Structural metal products—				
3141	Fabricated structural steel	2,988	0.1	701
3142	Architectural aluminium products	1,443	0.1	263
3143	Architectural metal products n.e.c.	717	0.2	232
314	<i>Total</i>	5,148	0.1	1,196
Sheet metal products—				
3151	Metal containers	2,129	0.2	1,816
3152	Sheet metal furniture	567	0.2	229
3153	Sheet metal products n.e.c.	2,012	0.1	665
315	<i>Total</i>	4,708	0.2	2,710
Other fabricated metal products—				
3161	Cutlery and hand tools n.e.c.	337	0.2	245
3162	Springs and wire products	959	0.2	196
3163	Nuts, bolts, screws and rivets	733	0.2	267
3164	Metal coating and finishing	3,180	0.7	1,058
3165	Non-ferrous steam, gas and water fittings	568	0.2	280
3166	Boiler and plate work	n.p.	n.p.	n.p.
3167	Metal blinds and awnings	n.p.	n.p.	n.p.
3168	Fabricated metal products n.e.c.	3,486	0.3	816
316	<i>Total</i>	9,739	0.3	2,900
31	<i>Total fabricated metal products</i>	19,595	0.2	6,806
<b>TRANSPORT EQUIPMENT—</b>				
Motor vehicles and parts—				
3231	Motor vehicles	4,510	0.1	6,456
3232	Motor vehicle bodies, trailers, caravans	595	0.1	365
3233	Motor vehicle instruments and electrical equipment n.e.c.	1,424	0.2	647
3234	Motor vehicle parts n.e.c.	4,033	0.2	1,777
323	<i>Total</i>	10,562	0.1	9,245
Other transport equipment—				
3241	Ships	748	0.1	158
3242	Boats	n.p.	n.p.	n.p.
3243	Railway rolling stock and locomotives	294	0.1	148
3244	Aircraft	755	0.1	628
3245	Transport equipment n.e.c.	n.p.	n.p.	n.p.
324	<i>Total</i>	2,176	0.1	1,037
32	<i>Total transport equipment</i>	12,738	0.1	10,282

For footnotes see end of table.

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)  
BY INDUSTRY CLASS, AUSTRALIA, 1991-92—continued

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
<b>OTHER MACHINERY AND EQUIPMENT—</b>				
Photographic, professional and scientific equipment—				
3341	Photographic and optical goods	2,335	0.6	1,724
3342	Photographic film processing	395	0.1	162
3343	Measuring, professional and scientific equipment n.e.c.	971	0.2	341
334	<i>Total</i>	3,701	0.4	2,227
Appliances and electrical equipment—				
3351	Radio and TV receivers; audio equipment	251	0.1	140
3352	Electronic equipment n.e.c.	1,616	0.1	809
3353	Refrigerators and household appliances	2,626	0.2	681
3354	Water heating systems	535	0.2	76
3355	Electric and telephone cable and wire	686	0.1	191
3356	Batteries	923	0.3	539
3357	Electrical machinery and equipment n.e.c.	3,124	0.1	1,342
335	<i>Total</i>	9,761	0.1	3,778
Industrial machinery and equipment—				
3361	Agricultural machinery	501	0.1	127
3362	Construction machinery	206	0.1	9
3363	Materials handling equipment	596	0.1	60
3364	Wood and metal working machinery	542	0.3	58
3365	Pumps and compressors	472	0.1	164
3366	Commercial space heating and cooling equipment	381	0.1	106
3367	Dies, saw blades and machine tool accessories	634	0.2	87
3368	Food processing machinery	322	0.1	4
3369	Industrial machinery and equipment n.e.c.	3,371	0.1	2,102
336	<i>Total</i>	7,025	0.1	2,717
33	<i>Total other machinery and equipment</i>	20,487	0.1	8,722
<b>MISCELLANEOUS MANUFACTURING—</b>				
Leather and leather products—				
3451	Leather tanning and fur dressing	5,026	1.2	2,745
3452	Leather and leather substitute goods n.e.c.	49	0.1	4
345	<i>Total</i>	5,075	1.0	2,749
Rubber products—				
3461	Rubber tyres, tubes, belts, hose and sheets	4,048	0.5	299
3462	Rubber products n.e.c.	536	0.2	166
346	<i>Total</i>	4,584	0.4	465
Plastic and related products—				
3471	Flexible packaging and abrasive papers	2,954	0.2	1,037
3472	Rigid plastic sheeting	1,135	1.1	102
3473	Hard surface floor coverings n.e.c.			
3474	Plastic products n.e.c.	9,231	0.3	3,430
347	<i>Total</i>	13,320	0.3	4,569
Other manufacturing—				
3481	Ophthalmic articles	127	0.1	189
3482	Jewellery and silverware	333	0.2	351
3483	Brooms and brushes	n.p.	n.p.	n.p.
3484	Signs and advertising displays	561	0.2	179
3485	Sporting equipment	164	0.1	54
3486	Writing and marking equipment	n.p.	n.p.	n.p.
3487	Manufacturing n.e.c.	5,010	2.2	607
348	<i>Total</i>	6,386	0.5	1,396
34	<i>Total miscellaneous manufacturing</i>	29,365	0.4	9,179
21-34	<b>TOTAL MANUFACTURING</b>	<b>523,563</b>	<b>0.3</b>	<b>505,450</b>

(a) Data in this table exclude expenditure by single establishment businesses with less than four persons employed. (b) See paragraph 51 of the Explanatory Notes. Establishments which did not respond to the questions are treated as having nil expenditure. (c) See paragraph 23 of the Explanatory Notes.

**TABLE 11. MANUFACTURING ESTABLISHMENTS<sup>(a)</sup> WITH TECHNOLOGY BY BROAD TECHNOLOGY CATEGORY<sup>(b)</sup> AND INDUSTRY SUBDIVISION, AUSTRALIA, 31 DECEMBER 1991**  
(Per cent)

Industry subdivision		Broad technology category					Total (c)
		Design and engineering	Fabrication, machining and assembly	Automated material handling	Automated inspection and/or testing equipment	Communications and control	
ASIC code	Description						
21	Food, beverages and tobacco	8	13	9	7	29	32
23	Textiles	12	15	4	7	26	34
24	Clothing and footwear	15	17	3	1	8	29
25	Wood, wood products and furniture	17	18	3	3	13	30
26	Paper, paper products, printing and publishing	16	8	2	2	15	27
27	Chemical, petroleum and coal products	19	14	8	8	43	44
28	Non-metallic mineral products	12	20	15	7	36	47
29	Basic metal products	28	45	12	8	44	62
31	Fabricated metal products	23	34	2	1	21	46
32	Transport equipment	28	44	3	7	34	54
33	Other machinery and equipment	44	43	3	5	34	64
34	Miscellaneous manufacturing	23	25	5	7	24	44
<b>21-34</b>	<b>Total manufacturing</b>	<b>21</b>	<b>24</b>	<b>5</b>	<b>4</b>	<b>24</b>	<b>41</b>

Source: *Manufacturing Technology Statistics, Australia* (8123.0).

(a) All data for this table relate to manufacturing establishments with 10 or more persons employed. See paragraph 28 of the Explanatory Notes. (b) For a listing of the detailed technology types reported in the survey see Table 13. (c) Proportion of manufacturing establishments having one or more of the listed technologies.

**TABLE 12. MANUFACTURING ESTABLISHMENTS<sup>(a)</sup> WITH TECHNOLOGY<sup>(b)</sup> BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, AUSTRALIA, 31 DECEMBER 1991**  
(Per cent)

Industry subdivision		Employment size			
		10-49	50-99	100-199	200 or more
ASIC code	Description				
21	Food, beverages and tobacco	16	47	67	86
23	Textiles	19	46	76	79
24	Clothing and footwear	22	47	59	89
25	Wood, wood products and furniture	24	73	79	100
26	Paper, paper products, printing and publishing	21	33	56	72
27	Chemical, petroleum and coal products	26	53	81	88
28	Non-metallic mineral products	31	81	85	97
29	Basic metal products	47	79	90	100
31	Fabricated metal products	40	63	85	92
32	Transport equipment	41	81	94	90
33	Other machinery and equipment	57	82	92	96
34	Miscellaneous manufacturing	36	62	77	83
<b>21-34</b>	<b>Total manufacturing</b>	<b>32</b>	<b>61</b>	<b>77</b>	<b>88</b>

Source: *Manufacturing Technology Statistics, Australia* (8123.0).

(a) All data for this table relate to manufacturing establishments with 10 or more persons employed. See paragraph 28 of the Explanatory Notes. (b) For a listing of the detailed technology types reported in the survey see Table 13.

TABLE 13. MANUFACTURING ESTABLISHMENTS (a): PLANNED ACQUISITION OF ADVANCED TECHNOLOGY  
BY TECHNOLOGY TYPE (b), AUSTRALIA, 31 DECEMBER 1991  
(Per cent)

<i>Detailed technology type</i>	<i>Technology acquired</i>	<i>Planning to acquire within the next 2 years</i>	<i>Planning to acquire within the next 2-5 years</i>	<i>No plans to acquire (c)</i>
<b>DESIGN AND ENGINEERING—</b>				
Computer-aided design(CAD) and/or engineering(CAE)	18	4	3	75
CAD output used to control manufacturing machine(s) (CAD/CAM)	8	2	3	88
Digital representation of CAD output used in procurement activities	6	2	3	90
<b>FABRICATION, MACHINING AND ASSEMBLY—</b>				
Standalone NC/CNC machines	17	1	2	81
Flexible manufacturing cell(s) or system(s)	3	1	2	94
Materials working laser(s)	1	1	1	97
Advanced cutting technologies apart from lasers	7	1	1	91
Advanced joining and coating technologies apart from lasers	1	—	—	99
Advanced heat treatment(s) apart from lasers	1	—	—	99
Filament winding, reaction injection moulding (RIM), pultrusion, and/or casting	1	—	—	99
Simple pick and place robots(s)	2	1	2	94
Other more complex robots - those used for spot or arc welding	2	—	1	97
Other more complex robots - those used for assembly, finishing or other applications	1	—	1	98
<b>AUTOMATED MATERIAL HANDLING—</b>				
Automated storage and retrieval system(s)	4	1	2	93
Automated guided vehicle system(s)	1	—	1	98
<b>AUTOMATED INSPECTION AND/OR TESTING EQUIPMENT—</b>				
Performed on incoming materials or in process	2	1	2	95
Performed on final products	4	1	2	94
<b>COMMUNICATIONS AND CONTROL—</b>				
Local area computer network (LAN) for technical data	7	3	3	88
Local area computer network (LAN) for factory use	8	3	3	86
Programmable logic controllers	16	1	1	81
Intercompany computer network (EDI) linking plant to subcontractors, suppliers and/or customers	5	4	3	88
Computer used for control on the factory floor	9	2	3	86
<b>ONE OR MORE TECHNOLOGIES</b>	<b>41</b>	<b>5</b>	<b>4</b>	<b>50</b>

Source: *Manufacturing Technology Statistics, Australia* (8123.0).

(a) All data for this table relate to manufacturing establishments with 10 or more persons employed. See paragraph 28 of the Explanatory Notes. (b) See paragraph 29 of the Explanatory Notes. (c) *No plans to acquire* includes 'not applicable to this type of operation' and 'do not know'.

## INTRODUCTION OF THE ANZSIC INDUSTRY CLASSIFICATION INTO MANUFACTURING STATISTICS

The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both Australia and New Zealand for the production and analysis of industrial statistics. ANZSIC replaces the Australian Standard Industrial Classification previously used. The data in Table 14 present a concordance between the outgoing Australian Standard Industrial Classification (ASIC) and ANZSIC for data collected in respect of the 1991-92 reference year. Data presented in Tables 1 to 13 of this publication are ASIC based.

The ASIC classification was first released in 1969 and underwent an extensive revision in 1978 and a partial revision in 1983. In 1985, a major review of the ASIC commenced. The principal objectives were to improve the alignment of the ASIC with the International Standard Industrial Classification (ISIC), to achieve a better balance across the classification by giving more attention to the services sector (including segments relating to culture, entertainment and other recreational industries), and to take into account the effects of technological changes and changes in structure of the industry generally since the previous edition.

A succession of economic agreements between Australia and New Zealand have operated since 1922. The most recent of these (the Australia - New Zealand Closer Economic Relations Trade Agreement [CER]) became effective from 1 January 1983. This has resulted in joint working relationships being set up to harmonise statistics wherever possible. This ultimately resulted in the ANZSIC being developed and adopted as the standard industry classification in both countries.

The major change between ASIC and ANZSIC for the manufacturing division is that the number of industry subdivisions has decreased from twelve to nine. In very broad terms, the three industry subdivisions (or parts thereof) under ASIC that have been merged in ANZSIC are:

- Textiles and Clothing and footwear have been combined to form the Textiles, clothing, footwear and leather industry subdivision.
- Basic metal products and Fabricated metal products have been combined to form the Metal products industry subdivision.
- Transport equipment has been combined with Other machinery and equipment to form the Machinery and equipment industry subdivision.

There have been further changes at the industry group and industry class levels, which were made to address changes in technology and structure in the manufacturing industry.

In addition, a small number of activities which were classified to the manufacturing industry under ASIC have been classified to non-manufacturing industries under ANZSIC. The reverse has also occurred.

From the 1992-93 reference year onwards, the manufacturing industry publications 8201.0 and 8221.0 to 8221.7 will be ANZSIC based. Manufacturing collections dating back to the 1989-90 reference year have been coded using both classifications to assist in time series analysis in future years. In the meantime, these data are available as unpublished data. There is also a range of ANZSIC-based data (in addition to the following concordance) which is available as unpublished data from the 1991-92 manufacturing census.



TABLE 14. MANUFACTURING ESTABLISHMENTS (a): ASIC-ANZSIC CONCORDANCE (b) BY INDUSTRY SUBDIVISION, AUSTRALIA, 1991-92—continued

ANZSIC subdivision description and code		ANZSIC subdivision description and code											
Industry subdivision ASIC code	Description	ANZSIC subdivision description and code											
		21	22	23	24	25	26	27	28	29	21-29	Non-manufacturing (under ANZSIC)	Total ASIC
		Food, beverage and tobacco	Textiles, clothing, footwear and leather	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemical and associated products	Non- metallic mineral products	Metal products	Machinery and equipment	Other manufacturing	Total manufacturing	Non-manufacturing (under ANZSIC)	Total ASIC
21	Food, beverages and tobacco	4,425.0	—	—	—	3.4	—	—	—	—	4,428.4	179.2	4,607.6
23	Textiles	—	729.3	—	—	—	—	—	—	—	729.3	12.8	742.1
24	Clothing and footwear	—	1,127.7	—	—	—	—	—	—	—	1,127.7	—	1,127.7
25	Wood, wood products and furniture	—	17.1	988.1	—	—	—	—	680.7	—	1,685.9	—	1,685.9
26	Paper, paper products, printing and publishing	—	1.4	740.1	2,475.9	—	—	—	—	—	3,217.4	—	3,217.4
27	Chemical, petroleum and coal products	—	—	—	1,902.4	—	35.0	—	—	—	1,937.4	—	1,937.4
28	Non-metallic mineral products	—	—	—	—	1,223.7	—	—	—	—	1,223.7	—	1,223.7
29	Basic metal products	—	—	—	—	0.8	2,507.2	—	150.0	—	2,508.0	—	2,508.0
31	Fabricated metal products	—	—	—	—	—	2,265.1	—	—	—	2,415.1	—	2,415.1
32	Transport equipment	—	—	—	—	—	—	2,549.9	0.6	—	2,550.4	—	2,550.4
33	Other machinery and equipment	—	—	—	18.8	—	—	3,304.8	—	—	3,323.6	108.7	3,432.3
34	Miscellaneous manufacturing	—	88.0	—	—	1,190.9	—	73.4	251.6	—	1,616.4	4.0	1,620.4
21-34	Total manufacturing (under ASIC)	4,425.0	1,963.4	1,728.2	2,494.8	3,097.6	1,236.1	5,928.1	1,082.9	26,763.3	304.7	27,068.0	
	Non-manufacturing (under ASIC)	7.3	—	—	—	—	—	34.4	—	41.7	—	—	—
	Total ANZSIC	4,432.3	1,963.4	1,728.2	2,494.8	3,097.6	1,236.1	5,962.5	1,082.9	26,805.0	—	—	—
TURNOVER (\$m)													
21	Food, beverages and tobacco	34,991.9	—	—	—	19.9	—	—	—	—	35,011.8	756.3	35,768.1
23	Textiles	—	3,823.4	—	—	—	—	—	—	—	3,823.4	297.5	4,120.9
24	Clothing and footwear	—	4,846.6	—	—	—	—	—	—	—	4,846.6	—	4,846.6
25	Wood, wood products and furniture	—	79.5	4,788.6	—	—	—	—	2,770.2	—	7,638.3	—	7,638.3
26	Paper, paper products, printing and publishing	—	16.1	4,522.0	9,793.9	—	—	—	—	—	14,332.0	—	14,332.0
27	Chemical, petroleum and coal products	—	—	—	—	23,305.1	—	—	—	—	23,462.4	—	23,462.4
28	Non-metallic mineral products	—	—	—	—	—	7,318.6	—	—	—	7,318.6	—	7,318.6
29	Basic metal products	—	—	—	—	5.0	20,515.7	—	—	—	20,520.7	—	20,520.7
31	Fabricated metal products	—	—	—	—	—	10,808.6	—	746.0	—	11,554.5	—	11,554.5
32	Transport equipment	—	—	—	—	—	—	14,148.5	4.7	—	14,153.2	—	14,153.2
33	Other machinery and equipment	—	—	—	134.4	—	—	15,294.1	—	—	15,428.5	473.1	15,901.6
34	Miscellaneous manufacturing	—	558.5	—	—	6,303.9	92.1	265.5	1,168.4	—	8,388.4	13.5	8,401.9
21-34	Total manufacturing (under ASIC)	34,991.9	9,324.0	9,310.6	9,928.3	29,633.9	7,410.6	29,708.0	4,689.3	166,478.2	1,540.5	168,018.7	
	Non-manufacturing (under ASIC)	89.4	—	—	—	—	—	88.2	—	177.6	—	—	—
	Total ANZSIC	35,081.3	9,324.0	9,310.6	9,928.3	29,633.9	7,410.6	29,796.2	4,689.3	166,655.8	—	—	—

(a) See paragraph 34 of the Explanatory Notes. (b) See paragraph 52 of the Explanatory Notes. (c) See paragraphs 4 to 10 of the Explanatory Notes. (d) Includes working proprietors. (e) Excludes the drawings of working proprietors.



## EXPLANATORY NOTES

### Introduction

This publication presents final statistics compiled from a census of manufacturing establishments for 1991-92, with some comparative statistics relating to preceding years. In this respect it should be noted that there have been extensive revisions to the data from the 1990-91 census, due to further processing of that year's data subsequent to the release of the previous issue of this publication.

2. For the 1991-92 manufacturing census, businesses were requested to provide only data on employment, wages and salaries paid, turnover and issues relating to environmental protection.

3. Manufacturing, as specified in Division C of the *Australian Standard Industrial Classification (ASIC)*, 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.

### Scope and coverage

4. The unit for which statistics are reported in the manufacturing census is the establishment. Prior to the 1988-89 census, this unit covered, in general, all the operations carried on under the ownership of one enterprise (business) at a single physical location.

5. The standard units definitions were revised for the 1988-89 census, with the establishment now being generally delineated on the basis of availability of accounting data rather than in terms of a location (refer to paragraph 10).

6. These new definitions were progressively implemented on the ABS central business register as reporting arrangements with individual businesses were finalised. The new management unit and establishment definitions were implemented on the ABS central business register in time for the 1990-91 census for those units classified to the manufacturing industry.

7. A manufacturing establishment is one predominantly engaged in manufacturing activities, but the data collected for it cover all activities of the establishment (including non-manufacturing activities). Conversely, there are some establishments predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities and which are excluded.

8. Some of those establishments predominantly engaged in one activity are 'split' into two or more establishments, when the secondary activity exceeds a specific value. (For 1991-92, this value was \$6.6 million in terms of sales and transfers out of goods and services.) These separate establishments are then classified to the industry appropriate to its activity.

9. In general, data contained in this publication relate to all manufacturing establishments which operated in Australia during the year ended 30 June 1992, except for sole proprietorships or family partnerships not employing staff at 30 June 1992. Information about these businesses was collected in the 1991 Census of Population and Housing, with summary employment information presented in Table 2 of this publication. As these data indicate, these businesses contribute only

marginally to statistical aggregates (other than number of establishments). In addition, the ABS attempts to obtain data for those businesses which either commenced or ceased operation during the year, but it is not possible to obtain data for all of them.

### Unit definitions

10. The standard units now in use are:

(a) *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). These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised.

(b) *Management unit.* The management unit is the highest-level unit within a business, having regard to industry homogeneity, for which accounts are maintained; in nearly all cases, it coincides with the legal entity owning the business (that is, company, partnership, trust, sole operator, etc). In the case of large diversified businesses, however, there may be more than one management unit, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it.

(c) *Establishment.* The establishment is the smallest accounting unit of a business, within a State or Territory, controlling its productive activities and maintaining a specified range of detailed data enabling value added to be calculated. In general, an establishment covers all operations at a physical location, but may consist of a group of locations provided they are within the same State or Territory. The majority of establishments operate at one location only.

### Data item definitions

11. *Establishments at 30 June.* The number of establishments in operation at 30 June.

12. *Employment at end of June.* The number of working proprietors and the number of employees on the payroll for the last pay period ending in June. (Sole proprietors and partnerships not employing others are excluded.)

13. *Wages and salaries.* The gross wages and salaries of all employees of the establishment. The drawings of working proprietors are excluded.

14. *Turnover* (see Note below). Sales (exclusive of excise and sales tax) of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same business, plus bounties and subsidies on production, plus all other operating revenue from outside the business (such as commission revenue, repair and service revenue, and rent, leasing and hiring revenue), plus capital work done for own use, or for rental or lease. Receipts from interest, royalties,

dividends and the sale of fixed tangible assets are excluded.

Note: Transfers to other establishments of the same business referred to in the definition of turnover are valued, for statistical purposes, at prices commensurate with the prices which would have been received if the establishments concerned had been under separate ownership, that is, at commercial selling price. A significant proportion of the commodities manufactured by some industries is manufactured on commission for non-manufacturing businesses from materials owned and supplied by those businesses. As a consequence, the turnover figures do not reflect the gross value of those commodities but only the commission earned relating to them.

15. *Persons employed per establishment.* Employment at the last pay period ending in June divided by the number of establishments in operation at 30 June of the same year.

16. *Turnover per person employed.* Turnover of manufacturing establishments which operated during the year ended 30 June divided by the total number of persons employed at the last pay period ending in June of the same year.

17. *Manufacturing employment, August 1991.* These statistics are from the 1991 Census of Population and Housing and represent those persons who were classified as being employed in the manufacturing industry. 'Sole proprietors and partnerships not employing others' were those persons that indicated that they were employed in the manufacturing industry in this category but they did not have any salaried employees. The 'Total other' employed were those persons who worked for employing units (ie total employment excluding sole proprietors and partnerships not employing others).

18. *Manufacturing census employment at end of June 1991.* The number of working proprietors and the number of employees on manufacturing establishments' payrolls for the last pay period ending in June 1991. (Sole proprietors and partnerships not employing others are excluded). These data are from the 1990-91 manufacturing census.

19. *Demographic characteristics of persons employed, August 1991.* The source of these data is the 1991 Census of Population and Housing. The statistics presented show (in percentage terms) the sex and age characteristics of persons employed in the manufacturing industry and for all industries.

20. *Establishments that conducted environmental impact assessments or environmental audits.* Establishments that either conducted their own environmental impact assessments or environmental audits (including energy audits) or contracted others to do so.

21. *Establishments that encouraged the return of their own containers or packaging.* Establishments that encouraged and/or permitted the return of containers or packaging used in the marketing or distribution of their product.

22. *Establishments engaged in the marketing or production of goods or services for monitoring,*

*maintaining or improving the environment.* Establishments involved in marketing or producing goods or services specifically for monitoring, maintaining or improving the environment.

23. *Proportion of total turnover.* The percentage of total manufacturing industry turnover attributed to establishments that gave positive responses to questions on environmental protection issues (for Table 9). The percentage of total reported turnover (excluding single establishment businesses with less than four persons employed) of establishments that had current expenditure on environmental protection (for Table 10).

24. *Current expenditure on environmental protection.* Expenditure on waste management plus other operational or maintenance costs incurred in protection of the environment from pollution. Included are such expenses as government and council fees, charges and taxes relating to pollution abatement and control, charges to remove and dispose of wastes arising from an establishment's production processes, research and development expenditure on pollution abatement and control, and expenditure on environmental impact assessments and environmental audits.

25. *Capital expenditure to abate pollution.* Expenditure on new plant, machinery or equipment designed to abate or control air, water, solid waste, noise or other pollutants by using either end-of-line techniques or change-in-production processes.

#### **Manufacturing technology statistics**

26. These statistics are based on information obtained from a sample of manufacturing establishments with 10 or more persons employed. As such, the estimates shown in Tables 11 to 13 of this publication are subject to sampling variability, that is, they may differ from figures that would have been obtained if all units had been included in that survey.

27. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. There are approximately 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 all units had been included in the survey and approximately 19 chances in 20 that the difference will be less than two standard errors. For details of estimates of standard errors, please refer to *Manufacturing Technology Statistics, Australia, 31 December 1991* (8123.0).

28. The population for this survey was restricted to establishments with 10 or more persons employed. Care should be exercised when comparing data from this survey with data from the manufacturing census (in which all manufacturing establishments as defined above are included).

29. For a detailed explanation of the broad and detailed technology categories shown in Tables 11 and 13, see the Glossary in *Manufacturing Technology Statistics, Australia, 31 December 1991* (8123.0).

#### **Comparability with previous statistics**

30. As explained above, the standard units definitions were revised for the 1988-89 census and the new

definitions have been implemented on the ABS central business register for units classified to the manufacturing industry.

31. For a detailed explanation of the various factors which affected the count of 'Number of manufacturing establishments' in the years to 1989-90, see the Appendix to the 1989-90 issue of this publication. Also, as indicated in paragraph 35 of the Explanatory Notes to that issue, there was a fairly constant level of undercoverage on the ABS central business register for the years from 1982. Coverage factors to convert previous years' data (with the exception of number of establishments) to a comparable basis with 1989-90 data are shown in Table 12 of the 1989-90 issue of this publication.

32. The combining of railway workshop locations (primary to ASIC class 3243) with rail transport locations (primary to ASIC class 5200) to form establishments primary to Division G: Transport and Storage (that is, out of scope of this collection) has affected time series statistics for subdivision 32 presented in this publication. The effect of this change was not present for this census.

33. Prior to the 1989-90 census, most commodities produced in the petroleum refining industry (ASIC class 2770) were manufactured on commission for non-manufacturing businesses from materials owned and supplied by those businesses. In these cases, manufacturing turnover reflected only the value of commission earned by manufacturing establishments involved (not the gross value of the commodities produced). In 1989-90 and again in 1990-91 (but to a lesser extent), some businesses changed their accounting practices to report gross value of commodities produced. The effect of this change was not present for this census.

34. As with the 1990-91 issue, this publication no longer makes the distinction in tables presented between those single establishment businesses with less than four persons employed and all other establishments. All time series statistics included in this publication now reflect this change (except where indicated).

35. For users still interested in the dissection between establishments employing less than four persons and establishments employing four or more persons, attention is drawn to Table 5 and the employment size category 0 - 3 persons. This new category includes all establishments employing less than four persons. In most cases, data in this new employment size category equates to the 'old' category of less than four persons employed (the major exception being Subdivision 28). A detailed break up of the differences can be made available on request.

#### **Comparability of manufacturing and population census data**

36. There are variations between the conceptually similar population census 'Total other' and manufacturing census employment figures presented in Table 2. These variations occur because of differences in the reference periods and collection methods used.

37. The manufacturing census estimates relate to employment in the last pay period ending in June 1991.

The population census estimates relate to employment during the week ended 6 August 1991.

38. The population census was conducted through self-enumeration from individual households. The manufacturing census was collected through mail forms sent to all manufacturing establishments (except for single establishment businesses not employing staff) as recorded on the ABS central business register and which operated in Australia during the year ended 30 June 1991.

39. In the processing of the population census, there were cases where the industry of employment was not stated by the householder or where it could not be classified from the response provided. In these cases, a not classified code was allocated, which accounted for 7.5 per cent of total employment (across all industries). In the manufacturing census, all businesses (and, thereby, their total employment) were industry coded.

#### **Employment size data**

40. Summary of operations data at the industry subdivision level classified by employment size are presented in Table 5. These statistics relate only to those manufacturing establishments operating at 30 June 1992. As such, the figures presented in Table 5 may be slightly less than those presented in the other manufacturing census tables. These other tables include data for those manufacturing establishments which operated at any time during 1991-92.

#### **Concentration statistics**

41. Industry concentration statistics at the industry subdivision level are presented in Table 6. This information relates to manufacturing establishments which operated at any time during the year ended 30 June 1992.

42. Data included in Table 6 for the reference years 1982-83 and 1987-88 exclude those single establishment businesses with less than four persons employed. Data for the 1990-91 and 1991-92 reference years include these establishments. However, this difference is not expected to have any major impact on the figures presented, as these small businesses contribute only marginally to statistical aggregates (other than number of establishments).

43. Industry concentration statistics are concerned with providing measures of the extent to which a few enterprise groups predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

44. These statistics provide measures of concentration in industries as a whole and, therefore, are not measures of concentration in the market for commodities or activities.

#### **Calculation of concentration ratios**

45. The following steps outline the method used to calculate concentration ratios for each industry.

- (a) Enterprise group/industry units were formed by combining establishments within the enterprise group with the same industry classification.

- (b) Because some enterprise groups own or control establishments in a number of industry classes, the composition of their enterprise group/industry units might differ for different levels of the industry classification. Concentration ratios are presented in this publication only for manufacturing subdivisions. What this means, for example, is that where data are presented for ASIC Subdivision 21 (Food, beverages and tobacco), the enterprise group/industry units for Subdivision 21 include all the establishments owned and/or controlled by the enterprise group and classified to any ASIC class within Subdivision 21.
- (c) Enterprise group/industry units were then ranked in descending order according to the size of the contribution of their establishments to the total turnover of the industry concerned.
- (d) For the purpose of compiling Table 6, the ranked enterprise groups were brought together into a number of cumulative categories.

Note: Where an enterprise group ceased operation prior to 30 June, the enterprise group has not been counted in the item 'Enterprise groups at 30 June', but its activities have been included, where appropriate, in the items 'Wages and salaries' and 'Turnover'.

46. Categories of four enterprise groups were chosen to conform with international practice and will, therefore, facilitate comparison of concentration patterns in Australian industries with those in other countries.

#### Gross product at market prices

47. Table 8 presents annual constant price estimates of gross product at market prices for the years 1986-87, 1989-90, 1990-91 and 1991-92. Previously, these estimates were published in *Constant Price Estimates of Manufacturing Production, Australia* (8211.0) (the last issue of this publication was for 1988-89). The meaning and measurement of production at constant prices and the limitations and qualifications of the estimates are discussed in detail in *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

48. Since the last time these estimates were released, the base year has changed from 1984-85 to 1989-90. Additionally, the methodology used to derive these estimates has been changed. The gross output method has traditionally been used to derive these estimates. This approach involves extrapolating a base year estimate of gross product (described below) by a measure of output at constant prices. Manufacturing output is normally defined as turnover plus the change in the value of stocks of finished goods and work-in-progress. However, from 1986-87, comprehensive censuses have only been conducted triennially, with intervening censuses only collecting data for a limited number of major items. As a result, only turnover data are available on a continuous basis. Therefore, constant price turnover is now used as the output indicator with which to extrapolate base year gross product. To obtain constant price estimates of turnover, current price estimates at the ASIC class level are deflated by components of the price indices contained in *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (6412.0).

49. The base year gross product for each ASIC class is estimated using manufacturing census data for value added and adjusted value added. Value added is calculated using turnover, plus the increase (or less the decrease) in the value of stocks, less purchases, transfers in and selected expenses. Adjusted value added is defined as value added less land tax, rates and payroll tax, insurance premiums (other than for workers' compensation) and other business expenses. To conform to the national accounting concept of gross product at market prices, further adjustments would be necessary using information from other than manufacturing census sources eg by the addition of workers' compensation paid less premiums received. However, due to data limitations, these further adjustments can only be made at the ASIC subdivision level and are, therefore, not taken into account in this publication. The base year gross product values used in this publication are derived by taking establishment based estimates of adjusted value added and applying a stock valuation adjustment. (See Section 8 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0) for an explanation of how this adjustment is undertaken).

#### Environmental statistics

50. A summary of environmental protection issues data at the industry subdivision level are presented in Table 9. All manufacturing establishments were asked to provide a 'yes' or 'no' answer as to whether they participated in the environment-related activities set out. The statistics presented relate to those establishments which responded 'yes' to the relevant issues. Establishments which did not respond were treated as if they had responded 'no'.

51. Data contained in Table 10 relate to current and capital expenditure on environmental protection in the year ended 30 June 1992. Data were not collected from those single establishment businesses with less than four persons employed. Establishments which did not respond were treated as if they had no current or capital expenditure on environmental protection.

#### Introduction of ANZSIC

52. The Australian and New Zealand Standard Industrial Classification (ANZSIC) is to be fully introduced into the manufacturing statistics collection from the 1992-93 collection. This classification replaces the Australian Standard Industrial Classification currently in use. An ASIC/ANZSIC concordance of data from the 1991-92 census is presented in Table 14 as a forerunner to what users can expect in future collections. For a more detailed explanation, users attention is drawn to the introduction to Table 14 and to the *Australian and New Zealand Standard Industrial Classification, 1993* (1292.0).

#### Related publications

53. A series of publications (8221.1 to 8221.7) will be produced for each State and the Northern Territory, which will contain a range of data items generally at the industry class level.

54. Users may also wish to refer to the following publications:

*Cost of Environment Protection, Australia, 1991-92* (4603.0), to be released later in 1994.

*Manufacturing Technology Statistics, Australia, 31 December 1991* (8123.0), released on 22 February 1993.

*Quarterly Indexes of Industrial Production, Australia* (8125.0).

*Business Operations and Industry Performance, Australia, 1991-92* (8140.0), released on 31 August 1993.

*Manufacturing Production, Australia: Principal Commodities Produced, 1989-90* (8365.0), released on 4 February 1994.

#### Monthly and quarterly commodity data

55. A number of publications are produced each month or quarter showing monthly details of the quantity produced of an extensive range of the more important commodities manufactured in Australia (some 600 in all). These publications include *Production Statistics, Australia, Preliminary* (8301.0) and a series of ten publications each relating to a particular range of products (8357.0 to 8369.0).

#### Back data and unpublished statistics

56. A range of manufacturing industry statistics publications is available for previous years. As well, a considerable amount of data from the manufacturing census exists in unpublished form. More detailed information to satisfy individual user requirements may be available on request. A charge would normally be made for providing such information.

#### Symbols and other usages

ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
n.e.c.	not elsewhere classified
n.p.	not available for publication but included in totals where applicable
r	figure or series revised since previous issue
..	not applicable
—	nil or rounded to zero

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

## Unpublished data from the Manufacturing Census

A considerable amount of data from the manufacturing census exists in unpublished form.

More detailed information to satisfy individual user requirements may be available on request.

Some examples of the information available include:

**Industry concentration statistics** : are published at the 2 digit ASIC level for Australia and are available at more detailed levels on request.

**Small business statistics** : a range of data for Australia and the States are published and are available at more detailed levels on request.

**Small area data** : information at the two digit ASIC level are published for Statistical Divisions and are available for selected Statistical Local Areas and Statistical Subdivisions throughout Australia on request.



Further details can be obtained by contacting Frank Orton of the Manufacturing Publishing and Consultancy Area in the Sydney Office of the ABS on (02) 268 4282.

## Business and Industry Profiles

**Business Profiles** contain a core of industry averages and financial accounting ratios from the manufacturing census database at the four digit (most detailed) level of the ASIC, usually by size of business, for a single ASIC level.

**Business Profiles** also include industry concentration statistics and environmental data.

**Business Profiles are available now.**

**Industry Profiles** contain similar core information as in the **Business Profiles** for all the ASICs in an Industry Sub-division (two digit ASIC level).

**Industry Profiles** also have a very wide selection of survey data from around the ABS at the lowest level of the ASIC for which it is available, either published or unpublished.

**Industry Profiles** contain a selection of commodity data from the manufacturing census along with imports and exports information for the same commodities.

**Industry Profiles will be released progressively over the next few months.**



For more information please telephone John Ridley, Manager Economic Statistics Unit in the Sydney Office of the ABS on (02) 268 4237.





## For more information ...

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the *ABS Catalogue of Publications and Products* available at all ABS Offices (see below for contact details).

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