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1996

# Availability of Statistics Related to Manufacturing

Information Paper

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**Information Paper: Availability of Statistics Related to  
Manufacturing, 1996**

**W. McLennan  
Australian Statistician**

**AUSTRALIAN BUREAU OF STATISTICS**

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- INQUIRIES
- for further information about the contents of this publication and the availability of related unpublished statistics, contact Frank Orton on Sydney (02) 268 4245.
  - for information about other ABS statistics and services, please refer to the back page of this publication.
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## CHAPTER 1

## INTRODUCTION

This information paper provides information on the wide range of data available from the ABS relating to the manufacturing sector of the economy. The paper's prime emphasis is on data available from the annual manufacturing collection. The paper particularly concentrates on the collections from 1989-90 onwards.

The paper provides details of the annual manufacturing collection, which will help the reader's understanding of the output available from the collection. It outlines the considerable volume of data available from the collection, particularly in unpublished form. Finally, it provides details of a number of ABS products and services through which users can gain access to these data.

The staff of the Manufacturing Industry National Project Centre in Sydney would be pleased to provide further information about these data — see page iii for contact details.

Comments on future data requirements or on manufacturing statistics generally should be forwarded to:

Assistant Director (Operations)  
Manufacturing Industry National Project Centre  
GPO Box 796  
Sydney NSW 2001

Facsimile (02) 268 4463

## CHAPTER 2

### A BRIEF HISTORY OF THE ANNUAL MANUFACTURING COLLECTION

## BACKGROUND AND METHODOLOGY

The manufacturing census (previously factory census) is one of the longest running Australian statistical collections. Though such censuses were first conducted in the 19th century, the relevant statistics were not collected on a definite and uniform basis prior to 1906.

A series of substantially uniform manufacturing industry statistics exists in published form from 1906 until 1967–68, when the framework for collecting manufacturing statistics was changed.

Commencing with the 1968–69 collection, the manufacturing collection has been conducted as a component of the ABS's integrated economic statistics system. This means that the manufacturing collection and other economic data collections are conducted on the basis of a common framework of reporting units and data concepts, and in accordance with a standard industrial classification. As a consequence, the results of the manufacturing collection are broadly comparable, not only over time but also with other ABS economic data collections.

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. The manufacturing industry is similarly specified in the Australian and New Zealand Standard Industrial Classification (ANZSIC), first used with the 1992–93 manufacturing collection. (For more details, see Chapter 4.)

A manufacturing collection has been conducted in respect of every year since 1968–69, with the exception of 1970–71 and 1985–86.

From the 1989–90 collection onwards, a National Project Centre based in ABS New South Wales has been responsible for collecting, processing and disseminating data from the manufacturing collection.

### METHODOLOGY EMPLOYED

The manufacturing collection is conducted by mail. The scope of the collection is all businesses in Australia that are classified to manufacturing on the ABS business register. Commencing with the 1988–89 collection, single establishment businesses not employing staff (such as sole proprietorships and partnerships) were excluded from the scope of the collection. Commencing with the 1993–94 collection, those single establishment businesses not employing staff which have registered as group employers with the Australian Taxation Office have been included in the scope of the collection.

For the 1974–75 to 1991–92 collections (inclusive), the collection methodology made a distinction between single establishment businesses with less than four persons employed (known as *postcard* units) and the remainder (known as *mainstream* units). The former group was sent a shorter form in which only details of employment, wages and salaries, and turnover were requested. This distinction was reflected in the published data until the 1989–90 collection. Most published data up to that time related to the mainstream units, with only limited data being



available for the postcard units. From the 1990-91 collection onwards, the manufacturing publications have ceased to make any distinction between single establishment businesses with less than four persons employed and all other units. Forms sent to all types and sizes of businesses from this period onwards have been essentially the same. Commencing with the 1990-91 collection, the data presented in the manufacturing collection publications have reverted to *total manufacturing data*.

Commencing with the 1987-88 manufacturing collection, a strategy was implemented to conduct a detailed *long census* triennially and a *short census* of key data items in intervening years. For short censuses, businesses were requested to provide only data on employment, wages and salaries, and turnover (known as the *core data items*). For long censuses, employment and income dissections were requested, as was detailed information on current expenditure, stocks, capital expenditure and disposal of assets, fuels used, materials used, and commodities produced and sold. The 1987-88 and 1988-89 collections were short census years, the 1989-90 collection was a long census and the 1990-91 and 1991-92 collections were short censuses.

For the 1992-93 collection, the strategy was reviewed as part of the ABS review of manufacturing statistics. The collection for that year was a survey of approximately 40% of manufacturing businesses. All previous manufacturing collections had been conducted as a census of all manufacturing establishments. Establishment data collected for 1992-93 were a subset of those collected in a long census year. The data not collected related to commodities produced and sold, fuels used and materials used. The 1992-93 collection also obtained detailed management unit level financial information. This means that data items usually only available from business records at the higher management unit level (as indicated by an asterisk in Appendix 3) have also been obtained. However, it should be noted that the majority of management units only have the one establishment. The definitions of a management unit and of an establishment are contained in Appendix 1. Taken together, the 1992-93 collection is best summarised as a structural data collection.

Commencing with the 1990-91 collection, businesses have also been requested to provide data in respect of a limited number of issues of current policy significance, including waste management and other environmental issues, and exports of manufactured products. The individual data items collected in the various years are contained in the yearly listings of Appendix 3.

As well as these policy-related topics, the ABS collects data as part of the manufacturing collection which have been requested by non-ABS organisations. To date, these complementary data collections have related to detailed studies of particular industries. Extra information has been requested of manufacturers in the Textiles, Clothing and Footwear industries (commencing with the 1990-91 collection); a Survey of Abattoir Operations was conducted in conjunction with the 1992-93

collection; a Survey of Book Publishers was conducted in respect of the year ended 31 December 1994 in conjunction with the 1993-94 collection; and a Survey of Selected Food Producers is currently being conducted in conjunction with the 1994-95 collection. The data collected in this way are available to all ABS clients on request.

#### CURRENT STRATEGY

Following the completion of the manufacturing statistics review, the broad collection strategy adopted is as follows.

- 1993-94 A census to obtain information on the core data items (employment, wages and salaries, and turnover), with a sample of approximately one-third of businesses being asked to provide detailed commodities produced and sold information. Final data in respect of the core data items are expected to be released about May 1996, whilst commodities produced and sold data are expected to be released towards the middle of 1996.
- 1994-95 A large-scale survey to obtain information on the core data items, with a sub-sample of businesses being asked to provide detailed income and expenses and commodities sold information, plus materials used information (in broad categories). This collection is currently being conducted.
- 1995-96 A large-scale survey to obtain information on the core data items, with a sub-sample of businesses being asked to provide detailed commodities sold and materials used information. The 1995-96 collection will be very similar, in content and style, to the 1994-95 collection.

The annual collection of detailed income and expenses data enables the ABS to compile comparative economic performance measures for the range of manufacturing industries. These data are also used in the compilation of aggregate measures such as Australia's national accounts.

**STATISTICAL UNITS USED IN THE MANUFACTURING COLLECTION**

The statistical units from which data are collected in the manufacturing collection are contained on the ABS business register as a hierarchical structure of units. Prior to the 1988-89 manufacturing collection, there were three main levels in the hierarchy. The middle level units were *enterprises*, which were defined (in general terms) as units covering all the operations in Australia of a single operating legal entity. Separate enterprises that comprised related companies falling under common ownership and control were brought together in a higher level unit called the *enterprise group*. The third level of the hierarchy was the *establishment*, which usually equated to a single physical location.

In recent years, the ABS has modified the definitions of units recorded on the business register to better reflect the operating structure of businesses in the 1990s. At the same time the scope of the business register was modified to exclude unincorporated businesses which do not employ staff.

While legal entities are still recorded on the business register, the major units utilised for statistical reporting purposes are now the *enterprise group*, the *management unit*, the *establishment* and the *location*.

The definition of the enterprise group is largely unchanged from before.

A management unit is the highest-level unit within a business, having regard for industry homogeneity, for which accounts are maintained; in nearly all cases, it coincides with the legal entity owning the business. 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*.

An 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.

A location is a physical unit of the establishment.

The full definitions of the standard units now in use are included in Appendix 1.

These new definitions were progressively implemented on the ABS business register as reporting arrangements with individual businesses were finalised. For those units classified to the manufacturing industry, a small number of businesses reported in the 1988-89 collection according to the new management unit and establishment definitions; most large businesses did so for the 1989-90 collection; and all businesses have done so commencing with the 1990-91 collection.

The system used to update business information on the business register was also upgraded at the beginning of the 1990s. As a result coverage

was enhanced, i.e. a significant number of manufacturing businesses which should have been included in previous collections were detected. However, analysis indicated that the level of undercoverage on the business register had been fairly constant since 1982. Coverage factors to convert previous years' data (with the exception of number of establishments and number of locations) to a comparable basis with 1989-90 data are shown in Table 12 of the 1989-90 issue of *Manufacturing Industry, Australia* (8221.0) and in the corresponding table of the 1989-90 State publications (8221.1 to 8221.7).

These changes in units definitions and register scope, plus periodic large-scale coverage enhancement exercises, have also affected the count of number of manufacturing establishments (and of locations) in recent years, but especially as regards the 1986-87 to 1989-90 collections. These factors have had both upwards and downwards impacts on these statistics of numbers of manufacturing establishments/locations. Users need to bear this in mind in attempting to analyse changes in counts over this period, especially if the analysis is on numbers of small businesses. The ABS does not promote the use of these count statistics as an analytical tool to look at specific changes over time, especially where the focus is on counts of small businesses. For a detailed explanation of the various factors involved, see the Appendix to the 1989-90 issue of the above publications.

## CHAPTER 4

# CLASSIFICATIONS USED IN THE MANUFACTURING COLLECTION

### ASIC/ANZSIC

The Australian Standard Industrial Classification (ASIC) was developed by the ABS as part of its program for the integration of economic statistics. It was introduced in the processing of the 1968–69 Integrated Economic Censuses.

ASIC 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 of All Economic Activities (ISIC), Release 3, 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. One of the outcomes of this was the setting up of joint working arrangements with the aim of harmonising the statistics of the two countries wherever possible. This resulted in the Australian and New Zealand Standard Industrial Classification (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 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 Textile, clothing, footwear and leather manufacturing industry subdivision.
- Basic metal products and Fabricated metal products have been combined to form the Metal product manufacturing industry subdivision.
- Transport equipment and Other machinery and equipment have been combined to form the Machinery and equipment manufacturing industry subdivision.

Some activities have also been moved between most of the industry subdivisions.

The industry subdivision structure under ASIC and ANZSIC is as follows:

| ASIC  | ANZSIC  |
|---|---|
| 21 Food, beverages and tobacco                    | 21 Food, beverage and tobacco manufacturing                       |
| 23 Textiles                                       | 22 Textile, clothing, footwear and leather manufacturing          |
| 24 Clothing and footwear                          | 23 Wood and paper product manufacturing                           |
| 25 Wood, wood products and furniture              | 24 Printing, publishing and recorded media                        |
| 26 Paper, paper products, printing and publishing | 25 Petroleum, coal, chemical and associated product manufacturing |
| 27 Chemical, petroleum and coal products          | 26 Non-metallic mineral product manufacturing                     |
| 28 Non-metallic mineral products                  | 27 Metal product manufacturing                                    |
| 29 Basic metal products                           | 28 Machinery and equipment manufacturing                          |
| 31 Fabricated metal products                      | 29 Other manufacturing  |
| 32 Transport equipment                            |   |
| 33 Other machinery and equipment                  |   |
| 34 Miscellaneous manufacturing                    |   |

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.

Table 14 of the 1991-92 issue of *Manufacturing Industry, Australia* (8221.0) and the corresponding table of the 1991-92 State publications (8221.1 to 8221.7) provide an indication of the significance of the changes discussed above.

Commencing with the 1992-93 collection, the manufacturing collection is ANZSIC-based. In order to provide a link between the ANZSIC-based data and the previous ASIC-based data, the ABS has coded the individual manufacturing records back to the 1989-90 collection using both industry classifications. Detailed national ANZSIC-based employment and turnover data for each year from 1989-90 to 1991-92 will be included as an Appendix in the 1992-93 edition of *Manufacturing Industry, Australia* (8221.0); value added data for 1989-90 will also be included. Equivalent State level ANZSIC data will be included in the corresponding State publication. Detailed ANZSIC-based establishments and wages and salaries data are available as unpublished data. Other collected data items compiled on an ANZSIC basis can be made available as a special data service.

ASGC

The Australian Standard Geographical Classification (ASGC) is the principal classification used by the ABS for the collection, compilation and publication of geographically classified statistics.

Manufacturing statistics produced by the ABS are classified at the following ASGC hierarchic levels:

- States/Territories;
- Statistical Divisions;

## ASCC/ANZSCC

- Statistical Subdivisions; and
- Statistical Local Areas.

The Australian Standard Commodity Classification (ASCC) was used in the 1989-90 manufacturing census to collect details of the production and/or sales of approximately 2,200 manufacturing commodity items.

The ASCC was the result of an extensive review of commodity items and was introduced in an effort to improve:

- comparability between production, import and export statistics;
- links between commodities and industries; and
- comparability between Australian and international standard commodity classifications.

The ASCC is based on the Harmonized Commodity Description and Coding System (HCDCS, or HS), which is now the effective international standard which describes and defines goods which are typically subject to international trade. Overseas trade commodity items were themselves rebased on the HS from 1 January 1988.

In August 1993, agreement was reached between the ABS and Statistics New Zealand to develop a joint commodity classification, the Australian and New Zealand Standard Commodity Classification (ANZSCC). This classification is based on the 3-digit level of the United Nations Central Product Classification (CPC). The CPC has been developed as a multipurpose classification covering all goods and services, its categories for transportable goods being composed of one or more whole HS items.

The ANZSCC provides a unifying framework for commodities from a wide range of disparate collections and its goal is to promote the adoption of standard concepts and definitions both in Australia and New Zealand. The first edition of the ANZSCC has been used to collect commodity data in the 1993-94 manufacturing collection.

## CHAPTER 5

## DATA AVAILABILITY

A considerable volume of data is available from the annual manufacturing collection. Whilst printed publications are the primary form in which data are released, there is a large volume of data available as unpublished data.

Some unpublished data are readily available. For details, see Appendix 2.

Additional unpublished data may also be available from some or all of the annual manufacturing collections. A full listing of the data items available from each of the 1989-90 to 1993-94 manufacturing collections is included as Appendix 3. Requests for tabulations of any of these variables may be available, depending upon data reliability and the need to limit publication to maintain confidentiality of data relating to individual businesses.

If you are interested in obtaining unpublished data, please call Frank Orton of the Manufacturing Industry National Project Centre on Sydney (02) 268 4245 for a quote of the cost and timing for delivery of the data.

### PUBLISHED STATISTICS

For each of the 1989-90 to 1993-94 collections, the ABS has released the preliminary publication *Manufacturing Industry, Australia, Preliminary* (8201.0) to provide early results for core data items at the industry subdivision level. This is followed by separate publications of final detailed data for Australia, the States and the Northern Territory. These publications are *Manufacturing Industry, Australia* (8221.0) and the State publications (8221.1 to 8221.7). For 1989-90, there were two additional publications. These were *Manufacturing Industry, Summary of Operations, Australia* (8202.0) (released between the preliminary and final national publications) and the commodities publication *Manufacturing Production, Australia: Principal Commodities Produced* (8365.0).

### CONTENTS OF THE PUBLICATIONS

- 8201.0 *Manufacturing Industry, Australia, Preliminary* (all years) provides preliminary details of the number of establishments, employment, wages and salaries, and turnover for each State/Territory and for Australia by industry subdivision. The 1992-93 issue also provides corresponding value added data. Also included for all years are details of percentage changes in employment and turnover between the current and the preceding year for each State/Territory and Australia by industry subdivision. Commencing with the 1992-93 issue, the turnover annual comparison is made on a *constant prices* basis, replacing the *current prices* basis of comparison of previous issues. The 1993-94 issue of this publication was released in December 1995 and the 1994-95 issue is expected to be released about May 1996.



8202.0 *Manufacturing Industry, Summary of Operations, Australia, 1989-90* provided final details of the number of establishments, employment, wages and salaries, and turnover, by industry class, for Australia for the years 1986-87 to 1989-90. It also provided details of selected operating ratios (e.g. value added per person employed) by industry group for Australia for 1989-90. Also included are details of the number of establishments, employment, wages and salaries, turnover, stocks, the total of purchases, transfers in and selected expenses, and value added by industry group for all States and Australia for 1989-90; these data are also included for the Territories by industry subdivision. This publication has not been repeated.

8221.0 *Manufacturing Industry, Australia* (all years) presents the final results from the manufacturing collection. It includes details of the number of establishments, employment, wages and salaries, and turnover by industry class for Australia, with these data for each State/Territory by industry subdivision also being shown. It also includes national data by employment size and degree of industry concentration by industry subdivision, as well as selected operating ratios by industry class.

The 1989-90 issue contains additional national data on value added, purchases, selected expenses, stocks and capital expenditure and disposal of assets by industry class.

From the 1990-91 issue onwards, the publication also contains national data related to environmental protection. These comprise data on a range of environmental protection issues, by industry subdivision, for 1990-91 and 1991-92 and expenditure on environmental protection by selected industry class for 1990-91 and by industry class from 1991-92 onwards.

From the 1991-92 issue onwards, constant price estimates of national gross product at factor cost at the industry class level have been included. Previously, these estimates were published in *Constant Price Estimates of Manufacturing Production, Australia* (8211.0). This separate publication has now been discontinued.

As well as containing all of the data summarised above, the 1992-93 issue will contain national data for a range of other items, including selected productivity and performance ratios, industry gross product, dissections of turnover, of expenses, and of opening and closing stocks, and data on exporting activity by manufacturers. Most of these additional data are to be published at the industry subdivision level. The 1992-93 issue is expected to be released in March 1996.

The 1993-94 issue is expected to be released about May 1996, with subsequent releases expected to occur about 15 months after the end of the reference year.

8221.1 to 8221.7 *Manufacturing Industry, (State/NT)* (all years), this series of publications presents the final results for each State and the Northern Territory from the manufacturing collection.

The varying content of these publications for the different issues follows the same general outline as summarised above for the national publication (8221.0). However, the range of data items included in these publications is only a subset of that included in the corresponding national publication. On the other hand, as well as the State-level data, each of these publications contains details of the number of locations, employment, wages and salaries, and turnover by industry subdivision for regions within that State/Northern Territory.

The main State-level data items included in these publications are number of establishments, employment, wages and salaries, turnover and selected operating ratios by industry class and employment size by industry subdivision. Also included in these publications are data on value added by industry class and purchases and selected expenses by industry subdivision (1989-90 issue), data in respect of environmental protection issues (for the 1990-91 and 1991-92 issues) and environmental expenditure (from the 1991-92 issue).

The 1992-93 issues will have an expanded data content, including value added, purchases, selected expenses, stocks and net capital expenditure by industry class. Also included will be constant price estimates of the State's gross product at factor cost by industry class and data on exporting activity by manufacturers by industry subdivision.

The 1992-93 issue of *Manufacturing Industry, Northern Territory* (8221.7) will be the final issue. From 1993-94, Northern Territory data in respect of the core data items (at the industry subdivision level) will be published in the two national publications (i.e. 8201.0 and 8221.0). More detailed data will be available as a special data service.

There is no separate manufacturing industry publication for the Australian Capital Territory. Such data in respect of the core data items by industry subdivision are published in the two national publications (i.e. 8201.0 and 8221.0). Commencing with the 1991-92 issue, this table is also included in the New South Wales publication (8221.1).

8365.0 *Manufacturing Production, Australia: Principal Commodities Produced, 1989-90* presents national data on the value of sales and transfers out in respect of approximately 900 major ASCC commodity items manufactured in Australia as obtained by the 1989-90 collection. This publication will next be released in respect of the 1993-94 collection, based on ANZSCC (see page 9).

## INDUSTRY PROFILES

Industry profiles were developed by the ABS to provide detailed and comprehensive manufacturing industry data in a single report. There is one profile for each of the 12 manufacturing subdivisions (under ASIC), except for the Food, beverages and tobacco subdivision which has been split into two profiles. The subdivisions are listed on page 8.

Each industry profile contains the most detailed and comprehensive data which were available, as determined by data availability, reliability and confidentiality constraints. The data were gathered from over 25 different

collections and some non-ABS sources (e.g. customs records). Wherever possible, the most detailed industry information is presented in the profiles, which (in the case of data from the annual manufacturing collection) are data at the industry class level.

Each industry profile contains approximately 250 pages of detailed tables, graphs and commentary, including a substantial volume of data not previously published at the same level of detail or industry breakdown. In particular, a substantial volume of previously unpublished data from the 1989-90, 1990-91 and 1991-92 manufacturing collections has been included. No date has been scheduled for the preparation of the next issue of the profiles. In the interim, the annual manufacturing collection data presented in these profiles (as collected in each of the reference years) are available as a special data service. The topics covered by each industry profile are:

- Quarterly economic performance measures (such as current and constant prices manufacturers' sales and stocks figures, new fixed capital expenditure, company profits, and trend series indexes of manufacturing gross product at constant prices).
- Business performance measures (such as earnings before interest and tax, profit before tax, turnover per employee and net capital expenditure per employee).
- Manufacturing establishment statistics (such as numbers of establishments and dissections of labour, turnover and expenses by size of business, and by State).
- Manufacturing management unit statistics (from the 1989-90 manufacturing collection) — these data have not previously been released.
- Gross product at factor cost at average 1989-90 prices.
- Production, export and import statistics for selected commodities.
- A selection of input-output type tables.
- Labour and labour-related statistics (such as average weekly earnings and hours worked, detailed information about labour costs, industrial disputes, trade union membership and training expenditure).
- Other industry statistics (covering research and development, technology, international investment and environmental protection).

The industry profiles are available as printed volumes and on floppy disk.

## BUSINESS PROFILES

Business profiles are also available. They contain all of the industry class data contained in the industry profiles for the particular (manufacturing) industry class(es) in which the client is interested.

OTHER ABS PUBLICATIONS  
AND PRODUCTS

This series of ABS publications and products includes data obtained in the annual manufacturing collection.

PC AUSSTATS

PC AUSSTATS (1401.0) is an online electronic data service. A subscription may be arranged through any ABS Office. It enables clients to have access at any time to the ABS statistical database.

Data from the manufacturing collection are included amongst the thousands of series covering both economic and social data, available through PC AUSSTATS. The total range of data on PC AUSSTATS come from both ABS and non-ABS collections. Some data to enable international comparisons are also included.

IRDB

The Integrated Regional Data Base (IRDB) is a CD-ROM product, which may be obtained from any ABS Office. Data may be purchased for all of Australia (1353.0), or separately for each State and the Northern Territory (1353.1 to 1353.7). Data for the Australian Capital Territory are included with the New South Wales output (1353.1).

Data from the manufacturing collection are included amongst the approximately 10,000 data items covering both economic and social data available from the IRDB. The data on the IRDB come from a wide range of ABS collections, as well as from other Commonwealth agencies. The IRDB incorporates data on the environment, health and disability, employment and unemployment, rural economies, regional population migration and Commonwealth electoral enrolment numbers. The IRDB also allows a client to import their own data.

The manufacturing collection data items included on the IRDB are the core data items (i.e. number of locations, employment, wages and salaries, and turnover) at the manufacturing industry division level for all Statistical Local Areas.

Economic Activity Survey  
(EAS)

The EAS is an annual management unit-based collection, covering most sectors of the Australian economy. The data in respect of the manufacturing industry are obtained as part of the annual manufacturing collection. These data are then merged with data collected by other industry-specific collections and data collected directly for other industries to produce an integrated set of results for private sector employing and public sector trading businesses.

The data published in *Business Operations and Industry Performance, Australia* (8140.0) are at the industry division level, with equivalent data at the manufacturing industry subdivision level being available as unpublished data. These data provide information on the structure, activity and performance of businesses in the various industries. For example, data on various measures of the profitability of businesses are shown. The data published are generally cross-classified by broad size of business. For more details about this survey and unpublished output available, please contact the Assistant Director, Economic Activity Survey on Canberra (06) 252 5454.

4603.0 *Cost of Environment Protection* was first issued in respect of 1990-91 and presents data in respect of various environmental protection issues and expenditure on environmental protection incurred by the manufacturing and mining industries and the public sector. The 1991-92 issue was expanded to also include retail, wholesale and household sector environment protection expenditure. The data items for the manufacturing industry included in this publication are the same environmental protection issues included in the manufacturing industry publications (8221.0 to 8221.7), but are presented in this publication at a greater level of detail and industry. Some more detailed data are available as unpublished data. For more details about ABS data on environmental issues, including unpublished statistics, please contact the Assistant Director of the Environment Statistics Unit on Canberra (06) 252 7889.

#### SPECIAL DATA SERVICES

More detailed information is available from the ABS than is included in publications. If a data item was included in the manufacturing collection, the ABS may be able to produce a special tabulation. Please refer to the list of readily available unpublished data in Appendix 2 and the full list of data items in Appendix 3.

Special tabulations will only be supplied, however, where the ABS is satisfied that the data are reliable and after confidentiality restrictions have been applied. A charge is made for providing such information.

Small area data The majority of the small area data available from the manufacturing collection is in the form of unpublished data. Some small area data are included in the State and Northern Territory publications (8221.1 to 8221.7). Each of these publications contains a table which shows the core data items (i.e. number of locations, employment, wages and salaries, and turnover) classified by industry subdivision for each statistical division in that particular State/Territory.

Data for areas smaller than statistical divisions are available from the ABS as unpublished data. The available data include:

- For all Statistical Local Areas (SLAs) in Australia — the core data items at the total manufacturing level.
- For all SLAs in the State capital cities and other areas where there are large concentrations of manufacturing industry — the core data items at the industry subdivision level. (Some industry group and industry class data may also be available.)

The latest small area data available are in respect of the 1991-92 year. There will not be any data produced for regions within States/Territories in respect of the 1992-93 year. The full range of small area data will be next available from the 1993-94 collection. It is expected that this full range of data will be available triennially in future.

Historical manufacturing collection data As mentioned in Chapter 2 of this paper, a series of substantially uniform manufacturing industry statistics exists from 1906 to 1967-68, when the framework for collecting manufacturing statistics was changed.

From 1968–69 onwards, manufacturing statistics have been collected using a common framework of reporting units and data concepts and in accordance with a standard industrial classification. The data available for the years 1968–69 to 1986–87 (with the exception of 1970–71 and 1985–86 when no censuses were conducted) are much the same as the data available for the 1989–90 year, i.e. data for a full range of detailed income and expenses items (including value added data) and data on commodities produced and sold. The data available for 1987–88 and 1988–89 years are much less detailed, comprising only data on number of establishments, employment, wages and salaries, and turnover.

Access to historical data can be obtained through the printed publications which were released after each manufacturing census. Copies of these publications are kept in ABS libraries and in major external libraries. In addition, manufacturing data back to 1977–78 are held in electronic form. It may, therefore, be possible to meet client requests for unpublished data back to the 1977–78 collection. Only the published data are available prior to the 1977–78 collection.

Manufacturing data on disk      The ABS will generally provide on request any statistical output from the manufacturing collection in disk form, if required by a client. This applies to the printed publications, the readily available unpublished data and special tabulations produced at client request.

#### DATA IN OTHER ABS COLLECTIONS

A considerable amount of data relating to the manufacturing industry is available from numerous other ABS collections. Some of the more important publications and products containing data about the manufacturing industry from other collections are listed below.

Monthly production statistics      Estimates of monthly or quarterly production for 63 major economic indicator items (including foods, textiles, building materials, household appliances, energy and metals) are published each month in *Manufacturing Production, Australia* (8301.0). This publication contains original, seasonally adjusted and trend data.

Indexes of industrial production      Estimates of gross product at constant prices for the industrial sector and for each of its major component industries (including manufacturing) are published in *Quarterly Indexes of Industrial Production, Australia* (8125.0). Indexes for manufacturing subdivisions are included. This publication contains original, seasonally adjusted and trend data.

Foreign trade data      Statistics on foreign trade in manufactured goods are available from a range of publications, including: *Balance of Payments, Australia* (5301.0) — issued monthly; *Balance of Payments, Australia* (5302.0) — issued quarterly; *Balance of Payments, Australia* (5303.0) — issued annually; and *International Merchandise Trade, Australia* (5422.0) — issued quarterly. More detailed information on foreign trade is available from the FASTTRACCS service. FASTTRACCS reports are available by electronic delivery (5460.0) or hardcopy output (5461.0).

|                                     |   |
|-------------------------------------|---|
| Price index data                    | Indexes of price movements in materials used in, and articles produced by, manufacturing industries are published each month in <i>Price Indexes of Materials Used in Manufacturing Industries, Australia</i> (6411.0) and <i>Price Indexes of Articles Produced by Manufacturing Industry, Australia</i> (6412.0). Separate indexes are published for the manufacturing industry division, as well as for 14 manufacturing sectors (defined in terms of industry subdivisions, industry groups or combinations of industry groups) for 6411.0 and for each of the manufacturing industry subdivisions for 6412.0.  |
| Manufacturing technology statistics | Statistics on the use of microelectronic-based technologies (including robots) in manufacturing establishments in Australia was published in <i>Manufacturing Technology Statistics, Australia, 31 December 1991</i> (8123.0). This publication provides statistics on technologies in use at 31 December 1991 and those expected to be acquired in following years. Statistics on the use of advanced management techniques, training, reasons for the introduction of technology, and projected technology budgets are also included. Some details are classified by State and/or industry subdivision.   |
| Manufacturing industry labour force | <p>The Population Census is a major source of labour force data on the manufacturing industry every five years. Standard population census output includes labour force data for the manufacturing industry classified by age, sex and occupation. Data are also available for small geographic areas. Information on industry, by occupation, by hours worked, and by sex is also available on floppy disk. Customised reports can also be produced, which classify industry of employment with other characteristics collected in the census.</p> <p>The Monthly Population Survey (MPS) is a household-based survey, comprising the monthly labour force survey and supplementary surveys. The MPS produces estimates at the national, State and regional levels. Much of the data obtained in the MPS can be classified by industry. Some of these classifications are published (e.g. see <i>Labour Force, Australia</i> (6203.0)), some are readily available as unpublished data and others can be prepared as a special data service.</p> |
| Labour market data                  | Statistics on numerous aspects of the labour market for the manufacturing industry can be obtained from a wide range of publications. A selection of relevant publications include: <i>Employed Wage and Salary Earners, Australia</i> (6248.0); <i>Distribution and Composition of Employee Earnings and Hours, Australia</i> (6306.0); <i>Industrial Disputes, Australia</i> (6321.0); <i>Labour Costs, Australia</i> (6348.0); <i>Employer Training Expenditure, Australia</i> (6353.0); and <i>Job Vacancies and Overtime, Australia</i> (6345.0).  |
| Other statistics                    | Statistics providing indicators of the financial performance and situation of manufacturing businesses are available. Relevant publications include: <i>International Investment Position, Australia</i> (5305.0); <i>Stocks, Selected Industry Sales and Expected Sales</i> (5629.0); and <i>Company Profits, Australia</i> (5651.0). Publications concerning the Australian National  |

Accounts (which relate the manufacturing industry to the rest of economy) are also available. These publications include: *Australian National Accounts: National Income, Expenditure and Product* (5204.0) — issued annually; *Australian National Accounts: National Income, Expenditure and Product* (5206.0) — issued quarterly; and *Australian National Accounts: Capital Stock* (5221.0). Other publications containing data relating to the manufacturing industry include: *Australian Business Expectations* (5250.0); *Private New Capital Expenditure and Expected Expenditure, Australia* (5625.0); and *State Estimates of Private New Capital Expenditure* (5646.0).

If you would like more information on any of these statistics, or any of the publications or unpublished data referred to above, please contact the Information Services area in any ABS office.



## APPENDIX 1

## UNIT DEFINITIONS

The standard units now in use are as follows.

### 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.

### 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.

### 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.

### LOCATION

A location is a physical unit of the establishment. It consists usually of an unbroken physical area or site, occupied by an establishment, at which, or from which, the establishment engages in productive activity on a relatively permanent basis. An establishment can consist of one or more locations. In specified circumstances, non-contiguous sites occupied by the same establishment can be combined to form a location.

## APPENDIX 2

### READILY AVAILABLE UNPUBLISHED DATA (COVERING THE 1989-90 TO 1993-94 COLLECTIONS)

#### FOR EACH COLLECTION

- Employment size category data for the *core data items* (i.e. establishments, employment, wages and salaries and turnover) by industry class for Australia and industry group for States.
- Industry concentration ratios for the core data items by industry group and industry class for Australia.
- Capital City Statistical Divisions. The core data items by industry group and industry class can be compiled. The data readily available are — 1989-90 for industry group; 1990-91 for industry subdivision; 1991-92 for industry class; and 1993-94 for industry class.
- All Statistical Local Areas. From 1990-91 for the core data items by total manufacturing.
- Statistical Local Areas in State capital cities. For 1991-92 for the core data items by industry subdivision. Corresponding data can be compiled for 1990-91 and 1993-94.

Data for regions within a State/Territory are only available in census years. Therefore, these data are only available for the 1989-90 to 1991-92 collections (inclusive). The 1993-94 collection was the next census year. Thereafter, it is currently planned that there will be a census every third year.

#### 1989-90 COLLECTION

- Components of turnover (i.e. sales and transfers out, all other operating revenue, and capital work done for own use) by industry subdivision, industry group and industry class for Australia and States.
- Opening and closing stocks by type of stock (i.e. raw materials, work-in-progress and finished goods) by industry subdivision, industry group and industry class for Australia and States.
- Components of selected expenses (i.e. purchases and transfers in, rent, leasing and hiring, outward freight and cartage, motor vehicle running expenses, commission and subcontract expenses, and repair and maintenance) by industry subdivision, industry group and industry class for States.
- Electricity and type of fuels used by industry subdivision, industry group and industry class for Australia and States.
- Average employment by industry subdivision, industry group and industry class for States.
- Management unit level data — performance ratios (e.g. profitability ratio, debt ratio) by industry subdivision, industry group and industry class for Australia. (Availability of these data is subject to data quality considerations.)
- Commodity data — quantities produced and sold data are available for many of the 900 published items (for which only value of

sales/transfers out has been published). Also, data on quantities produced and sold and/or value of sales are available for many of the 1,300 commodities which were not published. (Availability of these data is subject to data quality considerations.)

#### 1990-91 AND 1991-92 COLLECTIONS

As these collections were *short census* collections, the only additional data readily available as unpublished data relate to the *add-on* topic environmental protection.

As indicated in Chapter 5 of this paper, more detailed environmental protection data than those contained in the manufacturing industry publications have been released in *Cost of Environment Protection, Australia* (4603.0). Subject to confidentiality considerations, some more detailed data are available as unpublished data as follows:

- Environmental protection issues data by industry class for Australia and by industry group and industry class for States. Different issues were covered in the two collections — see Appendix 3 for details.
- For the 1990-91 collection, total capital and total current expenditure on environmental protection by selected industry classes for States. (For the 1991-92 collection, full industry by State details were published in the appropriate State manufacturing industry publication.) For the 1990-91 collection, capital expenditure by process (i.e. change-in-production process and end-of-line techniques) and area of protection (i.e. air, water and other) and current expenditure by type (i.e. waste management and other) by selected industry classes for Australia and by selected industry groups and selected industry classes for States.
- For the 1991-92 collection, capital expenditure by area of protection is more detailed than for the 1990-91 collection, as is the type of current expenditure. These data are available down to the industry class level for selected industries and for Australia and States.

#### 1992-93 COLLECTION

- Components of turnover (i.e. sales and transfers out (broken up by *goods produced* and *goods not produced*), income from services, Government subsidies, rent, leasing and hiring income, and own account capital work done) by industry group and industry class for Australia and by industry subdivision, industry group and industry class for States.
- Opening and closing stocks by type of stock (i.e. raw materials, work-in-progress and finished goods) by industry group and industry class for Australia and by industry subdivision, industry group and industry class for States.
- Average employment by industry subdivision, industry group and industry class for Australia and States.
- Components of selected expenses (i.e. purchases and transfers in, rent, leasing and hiring, outward freight and cartage, motor vehicle running expenses, contract, subcontract and commission expenses,

and repair and maintenance) by industry group and industry class for Australia and by industry subdivision, industry group and industry class for States.

- Environmental current expenditure by type (i.e. Government and council fees, charges and taxes relating to pollution abatement and control, and other) by industry subdivision, industry group and industry class for Australia and States.
- Environmental capital expenditure by type (i.e. end-of-line techniques and change-in-production processes) by industry subdivision, industry group and industry class for Australia and States.
- Exports data — proportion of contribution by exporters and non-exporters to employment, wages and salaries, turnover and value added by industry group and industry class for Australia and States. (It is possible to prepare numerous cross classifications of data in respect of exporters and non-exporters.)
- Acquisition and disposal of assets by type (i.e. plant, machinery and equipment, dwellings, other buildings and structures and other) by industry group and industry class for Australia.
- Industry gross product by industry group and industry class for Australia.
- Operating profit before tax by industry group and industry class for Australia.
- Components of assets, liabilities and net worth by industry group and industry class for Australia.
- Industry performance ratios (i.e. turnover ratios, profitability ratios, liquidity ratios, debt ratios, labour ratios and capital expenditure ratios) by industry group and industry class for Australia.
- Source of funds for capital expenditure by type of institution by industry group and industry class for Australia.

#### 1993-94 COLLECTION

This collection was primarily a core data item census. Therefore, other than those unpublished data readily available annually (see page 20), there are currently no data available as *readily available unpublished data*.

## APPENDIX 3

### DETAILED LIST OF DATA ITEMS (COVERING THE 1989-90 TO 1993-94 COLLECTIONS)

Potentially, all of the data items listed below are available as unpublished data. However, each request for such data will be considered to determine actual availability, taking account of reliability and confidentiality. It should also be noted that data for many of the data items listed have already been published.

#### DATA ITEMS COLLECTED IN THE 1989-90 COLLECTION

Many of these data items are only available at the management unit level. These are indicated with an asterisk after the data item. Only the *core data items* (i.e. number of locations, employment at the end of June, wages and salaries and turnover) are available at the location level. All other data items are available at the establishment level.

- General items
  - Number of establishments
  - Number of locations
  - ASIC
  - ASGC
  
- Income items
  - Sales of goods produced by this establishment (or for it on commission)
  - Sales of goods not produced by this establishment
  - Sales of goods and services \*
  - Service income (including service income commodities)
  - Interest income \*
  - Dividends received from related and unrelated businesses \*
  - Royalties income \*
  - Government subsidies
  - Rent, leasing and hiring income (by type)
  - Other income (which includes net profit or loss on the sale of fixed tangible assets and net profit or loss on foreign loans/transactions) \*
  - Total income
  - Transfers out of goods to other establishments of this business:
    - Produced by this establishment for sale
    - Produced by this establishment for further processing, assembly or installation
    - Bought in by this establishment

- Expense items
- Wages and salaries
  - Payroll tax \*
  - Fringe benefits tax \*
  - Employer contributions to superannuation funds not operated by this business \*
  - Workers' compensation costs \*
  - Purchases (total) \*
  - Purchases of:
    - Materials, components, containers, packaging materials and water
    - Electricity and fuels
    - Goods for resale
  - Rent, leasing and hiring expenses for motor vehicles
  - Other rent, leasing and hiring expenses
  - Outward freight and cartage
  - Motor vehicle expenses (for the management unit, this data item includes motor vehicle rent, leasing and hiring) \*
  - Motor vehicle expenses (for the establishment unit, this data item excludes motor vehicle rent, leasing and hiring)
  - Contract, subcontract and commission expenses
  - Repair and maintenance expenses
  - Insurance premiums \*
  - Interest expenses \*
  - Royalties expenses \*
  - Depreciation on buildings and other fixed tangible assets (by type) \*
  - Bad/doubtful debts \*
  - Other expenses (e.g. advertising, bank charges, cleaning, paper and stationery, telephone, postage, legal expenses) \*
  - Total expenses
  - Transfers in of goods from other establishments of this business:
    - Produced by other establishments for sale
    - Produced by other establishments for further processing, assembly or installation
    - Bought in by other establishments

- Assets and liabilities
  - Current assets — trading stock:
    - Opening stocks:
      - Raw materials, fuels, containers, etc.
      - Work-in-progress
      - Finished goods
      - Total stocks
    - Closing stocks:
      - Raw materials, fuels, containers, etc.
      - Work-in-progress
      - Finished goods
      - Total stocks
  - Current assets other than trading stocks \*
  - Non-current assets \*
  - Current liabilities \*
  - Non-current liabilities \*
- Profit
  - Reported net operating profit/loss before tax \*
- Employment
  - Male/female employment at the end of June:
    - Number of working proprietors and working partners
    - Number of employees
    - Total employment
  - Number of employees at the last pay period of each month of 1989-90
- Acquisition and disposal of assets
  - Acquisition of:
    - Land
    - Dwellings
    - Other buildings and structures:
      - New
      - Second hand
    - Own account capital work
    - Plant, machinery and equipment
    - Intangible assets (such as goodwill)

Acquisition and disposal of assets — *continued*

- Disposal of:
  - Land
  - Dwellings
  - Other buildings and structures
  - Plant, machinery and equipment
  - Intangible assets (such as goodwill)

Usage of electricity and fuels

- Electricity
- Industrial and diesel fuel
- Fuel oils
  - Other petroleum oils (i.e. lighting kerosene, power kerosene, heating oil, light, straight or virgin naphtha)
  - Mains gas (i.e. reticulated natural gas, TLPG, SNG and town gas)
  - Other fuels (i.e. coke, coal, LPG, other gases used as fuel, wood, steam, tar fuel)
- Total usage

Commodity data

Data were collected in respect of 2,200 individual commodities. Reference to the *Australian Standard Commodity Classification (ASCC) Revised — Transportable Goods (1254.0)* will provide a detailed listing of the commodities.

- Quantity produced on commission
- Quantity produced on own account
- Sales of goods produced/transferred out to other establishments of this business:
  - Quantity
  - Value

DERIVED DATA ITEMS (ALREADY AVAILABLE) FROM THE 1989-90 COLLECTION

For establishments only

- Average employment over the whole year
- Average employees over the whole year
- Total purchases
- Purchases and transfers in
- Purchases, transfers in and selected expenses
- Inputs (i.e. the sum of total purchases and transfers in and change in stocks)
- Derived non-establishment expenses



For establishments only —  
*continued*

- Turnover per person employed at the end of June
- Turnover per person employed for the average over the whole year
- Turnover per establishment
- Persons employed per establishment
- Value added per person employed for the average over the whole year
- Wages and salaries per employee at the end of June
- Wages and salaries per employee for the average over the whole year
- Value added to turnover
- Wages and salaries to value added

For management units only

- Selected labour costs
- Major labour costs
- Cost of goods sold
- Cost of sales (i.e. the sum of total purchases, transfers in and selected expenses and change in stocks)
- Trading profit
- Earnings before interest and tax
- Change in stocks
- Industry gross product
- Total value of assets
- Total value of liabilities
- Net worth
- Funds
- Total capital expenditure
- Total disposal of assets
- Net capital expenditure
- Stocks turnover
- Assets turnover
- Operating profit margin
- Return on funds
- Return on assets
- Return on net worth
- Liquidity ratio

- For management units only  
— *continued*
- Current ratio
  - Interest coverage
  - Debt to assets
  - Short-term debt to equity
  - Long-term debt to equity
  - Operating profit before tax per person employed at the end of June
  - Selected labour costs per person employed at the end of June
  - Labour costs per person employed at the end of June
  - Assets per person employed at the end of June
  - Industry gross product per person employed at the end of June
  - Acquisitions of assets to disposals of assets
  - Net capital expenditure to assets
  - Net capital expenditure to profit
  - Debt coverage
  - Trading profit margin
  - Government subsidisation (i.e. government subsidies divided by total income)
- For both establishments  
and management units
- Turnover
  - Value added
  - Selected expenses

## DATA ITEMS COLLECTED IN THE 1990-91 COLLECTION

Only the core data items (i.e. number of locations, employment at the end of June, wages and salaries, and turnover) are available at the location level. All data items are available at the establishment level. The only data available at the management unit level are those obtained as part of the manufacturing collection on behalf of the Economic Activity Survey (see page 14).

- General items
  - Number of establishments
  - Number of locations
  - ASIC
  - ASGC
- Income items
  - Sales of goods and services
  - Income from rent, leasing and hiring
  - Government subsidies
  - Total selected income
  - Own account capital work
  - Transfers out of goods to other establishments of this business
- Expense item
  - Wages and salaries
- Employment
  - Number of persons employed (at the end of June)
- Environmental issues (all industries)
  - Number of establishments that recycle materials
  - Number of establishments operating sites licensed under Federal or State Acts relating to the environment
  - Number of establishments operating any equipment or using any processes to reduce, eliminate or control pollutants or wastes
- Environmental expenditure (selected industries)
  - Current expenditure on:
    - Waste management
    - Other operational and maintenance costs incurred for the protection of the environment from pollution
  - Capital expenditure for new plant, machinery and equipment designed to abate air pollutants through:
    - End-of-line techniques
    - Change-in-production processes
  - Capital expenditure for new plant, machinery and equipment designed to abate water pollutants through:

Environmental expenditure  
(selected industries)  
-- *continued*

- End-of-line techniques
- Change-in-production processes
- Capital expenditure for new plant, machinery and equipment designed to control and manage wastes other than those emitted to air and water:
  - Hazardous wastes
  - Non-hazardous wastes

DERIVED DATA ITEMS (ALREADY AVAILABLE) FROM THE 1990-91 COLLECTION

- For establishments only
- Turnover per person employed at the end of June
  - Turnover per establishment
  - Persons employed per establishment
  - Wages and salaries per employee at the end of June
  - Wages and salaries to turnover
  - Turnover
  - Proportion of total turnover for current expenditure on environmental protection

## DATA ITEMS COLLECTED IN THE 1991-92 COLLECTION

Only the core data items (i.e. number of locations, employment at the end of June, wages and salaries, and turnover) are available at the location level. All data items are available at the establishment level. The only data available at the management unit level are those obtained as part of the manufacturing collection on behalf of the Economic Activity Survey (see page 14).

- General items
  - Number of establishments
  - Number of locations
  - ASIC
  - ASGC
- Income items
  - Sales of goods and services and other income
  - Government subsidies for pollution abatement and control (for selected industries)
  - Capital work done for own use, rental or lease
  - Transfers out of goods to other establishments of this business
- Expense item
  - Wages and salaries
- Employment
  - Number of persons employed (at the end of June)
- Environmental issues (all industries)
  - Number of establishments permitting and/or encouraging the return of its own containers or packaging
  - Number of establishments marketing or producing any goods or services for monitoring, maintaining or improving the environment
  - The percentage of turnover that comes from sales of these goods and services
  - Number of establishments that conducted environmental impact assessments (for proposed new production) or environmental audits (on existing production processes)
- Environmental expenditure
  - Current expenditure on waste management and environmental protection (which includes protection from air, water and noise pollutants) for all industries. For selected industries, the following dissection was also collected:
    - Government and council fees, charges and taxes relating to pollution abatement and control (PAC)
    - Current expenditure for purchased services (e.g. payments to non-government contractors for waste removal)
    - Other current expenditure on environmental protection

Environmental expenditure  
— continued

- Research and development expenditure carried out by this establishment on PAC
- Research and development expenditure carried out for this establishment by other establishments or businesses on PAC
- Expenditure incurred on environmental impact assessments for proposed new production
- Expenditure incurred on environmental audits for existing production processes
- Expenditure incurred on energy audits
- Capital expenditure for new plant, machinery and equipment designed to abate or control pollution for all industries. For selected industries, the following dissection was also collected:
  - End-of-line techniques:
    - To abate water pollutants
    - To abate solid waste pollutants:
      - Non-hazardous wastes
      - Hazardous wastes
    - To abate air pollutants
    - To abate noise pollutants
    - To abate other pollutants
  - Change-in-production processes:
    - To abate water pollutants
    - To abate solid waste pollutants:
      - Non-hazardous wastes
      - Hazardous wastes
    - To abate air pollutants
    - To abate noise pollutants
    - To abate other pollutants

DERIVED DATA ITEMS (ALREADY AVAILABLE) FROM THE 1991-92 COLLECTION

- For establishments only
- Turnover per person employed at the end of June
  - Turnover per establishment
  - Persons employed per establishment
  - Wages and salaries per employee at the end of June
  - Wages and salaries to turnover

For establishments only  
— *continued*

- Turnover
- Proportion of total turnover used for current expenditure on environmental protection

## DATA ITEMS COLLECTED IN THE 1992-93 COLLECTION

Many of these data items are only available at the management unit level. These are indicated with an asterisk after the data item. All other data items are available at the establishment level. No location level data are available from this collection.

- General items
  - Number of establishments
  - ANZSIC
  
- Income items
  - Sales of goods produced by this establishment (or for it on commission)
  - Sales of goods not produced by this establishment
  - Percentage of sales of goods produced by this establishment (or for it on commission) which are exported (outside Australia) by this business or its agent
  - Whether any other business exports goods produced by this establishment; if so, type of business (classified by wholesaler, manufacturer and other)
  - Service income
  - Interest income \*
  - Dividends received from related and unrelated businesses \*
  - Royalties income \*
  - Government subsidies for pollution abatement and control
  - Other government subsidies
  - Rent, leasing and hiring income
  - Other income (which included net profit or loss on the sale of fixed tangible assets, net profit or loss on foreign loans/transactions and net profit or loss on share trading) \*
  - Capital work done by own employees for own use or for rental or lease
  - Total income
  - Transfers out of goods to other establishments of this business:
    - Produced by this establishment for sale
    - Produced by this establishment for further processing, assembly or installation
    - Bought in by this establishment
  
- Expense items
  - Wages and salaries
  - Payroll tax \*



Expense items — *continued*

- Fringe benefits tax \*
  - Employer contributions to superannuation funds \*
  - Workers' compensation costs \*
  - Purchases of:
    - Materials, components, containers, packaging materials and water and fuels
    - Goods for resale
  - Total purchases \*
  - Rent, leasing and hiring expenses (other than for motor vehicles)
  - Outward freight and cartage
  - Motor vehicle running expenses (which includes rent, leasing and hiring expenses for motor vehicles)
  - Contract, subcontract and commission expenses
  - Repair and maintenance expenses
  - Insurance premiums \*
  - Interest expenses \*
  - Royalties expenses \*
  - Depreciation on buildings and other fixed tangible assets \*
  - Bad debts written off \*
  - Other expenses (e.g. advertising, bank charges, cleaning, paper and stationery, telephone, postage, legal expenses, etc.) \*
  - Total expenses
  - Transfers in of goods from other establishments of this business:
    - Produced by other establishments for sale
    - Produced by other establishments for further processing, assembly or installation
    - Bought in by other establishments
- Assets and liabilities
- Current assets — trading stock:
    - Opening stocks of:
      - Raw materials, fuels, containers, etc.
      - Work-in-progress
      - Finished goods
      - Total stocks

|  |  |
|--|--|
| Assets and liabilities<br>— <i>continued</i> | <ul style="list-style-type: none"> <li>■ Closing stocks of: <ul style="list-style-type: none"> <li>■ Raw materials, fuels, containers, etc.</li> <li>■ Work-in-progress</li> <li>■ Finished goods</li> <li>■ Total stocks</li> </ul> </li> <li>■ Current assets other than trading stocks *</li> <li>■ Non-current assets *</li> <li>■ Current liabilities *</li> <li>■ Non-current liabilities *</li> <li>■ Owners' equity *</li> </ul>   |
| Profit                                       | <ul style="list-style-type: none"> <li>■ Reported operating profit/loss before tax and extraordinary items *</li> </ul>  |
| Employment                                   | <ul style="list-style-type: none"> <li>■ Number of persons working for this establishment during the last pay period of each month of 1992–93 (including at the end of June)</li> </ul>  |
| Capital expenditure and disposal of assets   | <ul style="list-style-type: none"> <li>■ Capital expenditure on selected assets (including capital work done by own employees): <ul style="list-style-type: none"> <li>■ Plant, machinery and equipment</li> <li>■ Dwellings, other buildings and structures</li> <li>■ Other, including land and intangible assets (such as patents and licences but excluding goodwill)</li> </ul> </li> <li>■ Disposal of selected assets: <ul style="list-style-type: none"> <li>■ Plant, machinery and equipment</li> <li>■ Dwellings, other buildings and structures</li> <li>■ Other, including land and intangible assets (such as patents and licences but excluding goodwill)</li> </ul> </li> </ul> |
| Sources of capital expenditure funds         | <ul style="list-style-type: none"> <li>■ Sources of funds used by this business for any capital expenditure reported: * <ul style="list-style-type: none"> <li>■ Local banks and lending authorities</li> <li>■ Debentures and notes</li> <li>■ Share float</li> <li>■ Borrowing from parent company: <ul style="list-style-type: none"> <li>■ Australia</li> <li>■ Overseas</li> </ul> </li> <li>■ Sale of assets</li> </ul> </li> </ul>  |

Sources of capital  
expenditure funds  
— *continued*

- Retained profits
- Government grants
- Private loans (including shareholders' loans)
- Other:
  - Australia
  - Overseas

Environmental expenditure

- Current expenditure on waste management and environmental protection (which includes protection from air, water and noise pollutants) on:
  - Government and council fees, charges and taxes relating to pollution abatement and control
  - Other
- Capital expenditure for new plant, machinery and equipment designed to abate or control pollution:
  - End-of-line techniques
  - Change-in-production processes

#### DERIVED DATA ITEMS (ALREADY AVAILABLE) FROM THE 1992-93 COLLECTION

For establishments only

- Average employment over the whole year
- Average employees over the whole year
- Total purchases
- Purchases and transfers in
- Purchases, transfers in and selected expenses
- Inputs (i.e. the sum of total purchases and transfers in and change in stocks)
- Derived non-establishment expenses
- Value of exports (of goods produced)
- Turnover per person employed at the end of June
- Turnover per person employed for the average over the whole year
- Turnover per establishment
- Persons employed per establishment
- Value added per person employed for the average over the whole year
- Wages and salaries per employee at the end of June
- Wages and salaries per employee for the average over the whole year

For establishments only  
— *continued*

- Value added to turnover
- Wages and salaries to value added
- Proportion of total turnover used for current expenditure on environmental protection
- Proportion of total capital expenditure used for capital expenditure on environmental protection

For management units only

- Selected labour costs
- Major labour costs
- Cost of goods sold
- Cost of sales (i.e. the sum of total purchases, transfers in and selected expenses and change in stocks)
- Trading profit
- Earnings before interest and tax
- Change in stocks
- Industry gross product
- Total value of assets
- Total value of liabilities
- Net worth
- Funds
- Total capital expenditure
- Total disposal of assets
- Net capital expenditure
- Stocks turnover
- Assets turnover
- Operating profit margin
- Return on funds
- Return on assets
- Return on net worth
- Liquidity ratio
- Current ratio
- Interest coverage
- Debt to assets
- Short-term debt to equity

For management units only

— *continued*

- Long-term debt to equity
- Operating profit before tax per person employed at the end of June
- Selected labour costs per person employed at the end of June
- Labour costs per person employed at the end of June
- Assets per person employed at the end of June
- Industry gross product per person employed at the end of June
- Acquisitions of assets to disposals of assets
- Net capital expenditure to assets
- Net capital expenditure to profit
- Debt coverage
- Trading profit margin
- Government subsidisation (i.e. total government subsidies divided by total income)

For both establishments  
and management units

- Turnover
- Value added
- Selected expenses

## DATA ITEMS COLLECTED IN THE 1993-94 COLLECTION

Only the core data items (i.e. number of locations, employment at the end of June, wages and salaries and turnover) are available at the location level. The only data available at the management unit level are those obtained as part of the manufacturing collection on behalf of the Economic Activity Survey (see page 14). However, the environmental data items detailed below with an asterisk after them are to be published in *Manufacturing Industry, Australia, 1993-94* (8221.0). With the exception of these environmental expenditure data items, all data items below are available at the establishment level.

- |                           |   |
|---------------------------|---|
| General items             | <ul style="list-style-type: none"><li>■ Number of establishments</li><li>■ Number of locations</li><li>■ ANZSIC</li><li>■ ASGC</li></ul>  |
| Income items              | <ul style="list-style-type: none"><li>■ Sales of goods</li><li>■ Income from services</li><li>■ Income from rent, leasing and hiring</li><li>■ Government subsidies</li><li>■ Capital work done by own employees for own use or for rental or lease</li><li>■ Transfers out of goods to other establishments of this business for sale</li><li>■ Transfers out of goods to other establishments of this business for further processing, assembly or installation</li></ul>   |
| Expense item              | <ul style="list-style-type: none"><li>■ Wages and salaries</li></ul>  |
| Employment                | <ul style="list-style-type: none"><li>■ Number of persons employed (at the end of June)</li></ul>   |
| Environmental expenditure | <ul style="list-style-type: none"><li>■ Current expenditure on waste management and environmental protection: *<ul style="list-style-type: none"><li>■ Government and council fees, charges and taxes relating to pollution abatement and control</li><li>■ Other current expenditure on environmental protection</li></ul></li><li>■ Capital expenditure for new plant, machinery, or equipment designed to abate or control pollution: *<ul style="list-style-type: none"><li>■ End-of-line techniques</li><li>■ Change-in-production processes</li></ul></li></ul> |

Commodity data    Data were collected in respect of 2,500 individual commodities. Reference to the *Australian and New Zealand Standard Commodity Classification (ANZSCC)* (1254.0) will provide a detailed listing of the commodities.

- Quantity produced on commission
- Quantity produced on own account
- Value of sales of goods produced/transferred out to other establishments of this business

#### DERIVED DATA ITEMS (ALREADY AVAILABLE) FROM THE 1993-94 COLLECTION

- For establishments only
- Turnover per person employed at the end of June
  - Turnover per establishment
  - Persons employed per establishment
  - Wages and salaries per employee at the end of June
  - Wages and salaries to turnover
  - Turnover

- For management units only
- Proportion of total turnover used for current expenditure on environmental protection
  - Proportion of total capital expenditure used for capital expenditure on environmental protection







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