

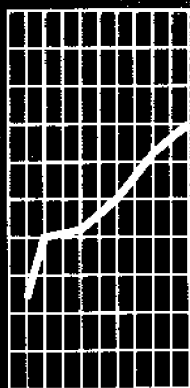


1995-96

EMBARGO: 11:30 AM (CANBERRA TIME) TUES 23 DEC 1997

Manufacturing Industry

Tasmania



NOTES

ABOUT THIS ISSUE

This issue sees the introduction of the data item Industry Gross Product (IGP). IGP replaces the data item value added which was only available every third year and which was last published for 1992-93. Because of changes to the collection strategy of the annual manufacturing collection to support an improved National Accounts model, IGP will now be available for each year of the collection at the industry class level.

The data contained in this publication relate to the operations of manufacturing establishments. Presented are details on employment, turnover, wages and salaries, IGP and direct exports. If you need additional information, analysis and commentary about manufacturing, you will find it valuable to order a copy of the new ABS publication *Manufacturing, Australia* (Cat. no. 8225.0). Data for the total manufacturing industry as well as other major industries are contained in *Business Operations and Industry Performance, Australia* (Cat. no. 8140.0).

NEW PUBLICATION— *Manufacturing, Australia, 1997* (Cat. No. 8225.0)

The first issue of *Manufacturing, Australia* (Cat. no. 8225.0) will be released in March 1998. It is a new compendium publication about manufacturing businesses, which will cover topics such as industry performance, employment and output levels, export activity, cost structures and profits.

The publication will highlight the range of ABS data about manufacturing which is available and will draw on the latest information. Feature articles from non-ABS sources will also be included.

In general, data will be presented by broad level of manufacturing industry with most tables presenting data for total manufacturing and its nine major subdivisions. Selected data will be presented in terms of constant prices as well as current prices. You will have access to historical as well as the most recent data and there will be analysis of and commentary on major trends. Order your copy of *Manufacturing, Australia, 1997* (Cat. no. 8225.0) by phoning 1300 366 323.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
IGP	Industry Gross Product
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
*	data subject to sampling variability of between 25% and 50%
**	data subject to sampling variability of greater than 50%
..	not applicable
—	nil or rounded to zero

INQUIRIES

For information about other ABS statistics and services, please refer to the back of this publication.

For further information about statistics in this publication and the availability of related unpublished statistics, contact John Ridley on Sydney (02) 9268 4541.

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PREFACE

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THE 1995-96 MANUFACTURING INDUSTRY SURVEY

This publication contains detailed industry statistics for Tasmania compiled from a survey of manufacturing establishments (see paragraph 5 of the Explanatory Notes) conducted in respect of 1995-96, with some comparative statistics for earlier years. It expands and updates the information which was published in *Manufacturing Industry, Australia, Preliminary, 1995-96* (Cat. no. 8201.0), released on 21 April 1997 and *Manufacturing Industry, Australia, 1995-96* (Cat. no. 8221.0), which was released on 10 October 1997.

For the 1995-96 manufacturing collection, a sample of approximately 20,000 manufacturing establishments was approached to provide data on employment, wages and salaries, turnover, purchases and whether their products were exported. Information related to exports emanating from the manufacturing sector is shown in tables 4 and 5.

Approximately 5,900 of the 20,000 establishments were asked to provide additional information related to detailed structural and performance data. They were also asked to supply value of sales for commodities produced.

All data in this publication, with the exception of IGP estimates, have been compiled from the larger sample. Estimates of IGP were compiled using data from both samples.

Guidelines to the quality of estimates from the sample surveys as measured by the standard (sampling) error are shown on page 35.

DATA AS CONTAINED IN THIS PUBLICATION

The data contained in this publication have been adjusted for deficiencies in the number of businesses recorded on the ABS business register. The nature of these adjustments and the reasons for making them are described in paragraphs 10 and 11 of the Explanatory Notes.

As noted above, about 5,900 establishments included in the 1995-96 collection were asked to supply value of sales for commodities produced. Similarly, about 7,500 establishments included in the 1994-95 collection (and 18,000 establishments included in the 1993-94 collection) were asked to supply this information. This has meant that the industry code for the responding units included in any of these commodity samples has been able to be determined on an objective industry coding basis, compared to the more subjective industry coding which has occurred for non-responding units to these collections and for all units in each of the 1990-91 to 1992-93 (inclusive) collections. More information on this subject is in paragraph 15 of the Explanatory Notes.

For these reasons, comparison of industry data (particularly at class level) published in the 1993-94 and later issues of this publication with data published in the 1992-93 and earlier issues of this publication should be undertaken with caution.

PREFACE *continued*

DATA TO BE RELEASED IN OTHER PUBLICATIONS

Detailed manufacturing industry statistics for each State have been progressively released in a series of publications (Cat. nos 8221.1 to 8221.6). The publication for New South Wales (Cat. no. 8221.1) also contains selected data for the Australian Capital Territory.

Commodity data will be released in *Manufacturing Production, Australia: Principal Commodities Produced, 1995-96* (Cat. no. 8365.0), to be released early in 1998.

Management unit and other ABS data, as well as data from other sources, will be released in the new compendium publication *Manufacturing, Australia, 1997* (Cat. no. 8225.0), to be released in March 1998. Management unit data are also included in *Business Operations and Industry Performance, Australia* (Cat. no. 8140.0).

UNPUBLISHED DATA

A considerable amount of data from the annual manufacturing collection is available in unpublished form. More detailed information to satisfy individual user requirements may be available on request. In general, unpublished data for 1995-96 consist of finer industry dissections of the data presented in tables 3 to 5. Further details can be obtained by referring to the *Information Paper: Availability of Statistics Related to Manufacturing, 1997* (Cat. no. 8205.0) or by contacting the New South Wales Office of the ABS — see page 2 for contact details.

Denis W. Rogers
Regional Director
Tasmania

SUMMARY OF FINDINGS

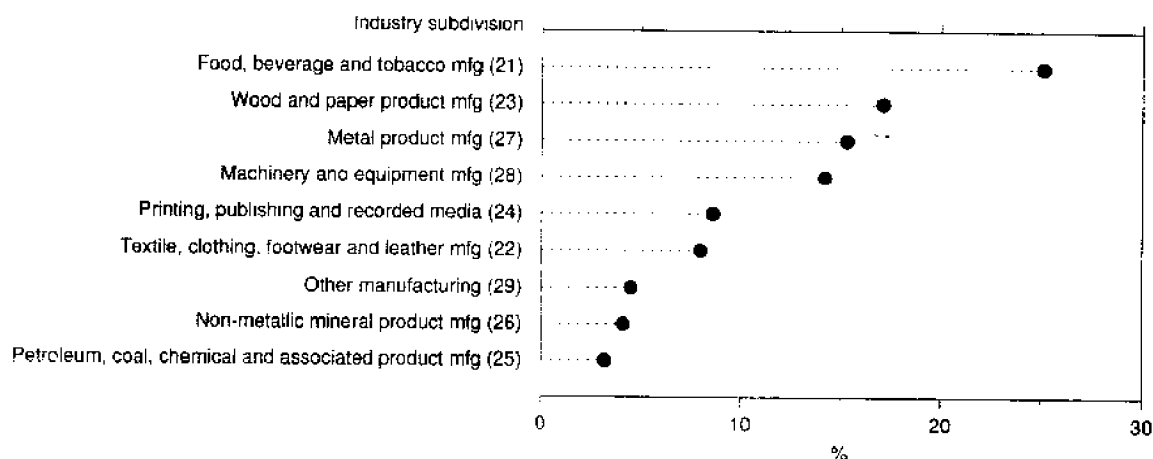
OVERVIEW

Turnover for the year 1995-96 by manufacturing establishments operating in Tasmania was \$4,789m. This represents a 9.7% increase, in current price terms, from the \$4,366m turnover recorded for the year 1994-95. Manufacturing employment at the end of June 1996 was 22,100, the same as that recorded 12 months earlier.

EMPLOYMENT (TABLES 1 AND 2)

The 1995-96 manufacturing survey estimated that 22,100 persons were employed at the end of June 1996. As in previous years, Food, beverage and tobacco manufacturing (25.1%), Wood and paper product manufacturing (17.1%) and Metal product manufacturing (15.3%) were the major contributors to employment at the end of June 1996. Petroleum, coal, chemical and associated product manufacturing (3.2%) has now become the smallest contributor.

Distribution of employment – June 1996



Manufacturing employment was the same at June 1996 as at June 1995. Five of the nine industry subdivisions recorded decreases in the level of employment over this period, three recorded increases in the level of employment and one recorded no change. The industry subdivisions which recorded the largest percentage decreases were Petroleum, coal, chemical and associated product manufacturing (down 20.0% from 900 persons to 700 persons), Textile, clothing, footwear and leather manufacturing (down 6.7% from 1,900 persons to 1,800 persons) and Non-metallic mineral product manufacturing (down 6.0% from 1,000 persons to 900 persons). Other manufacturing (up 28.7% from 800 persons to 1,000 persons) and Machinery and equipment manufacturing (up 14.2% from 2,700 persons to 3,100 persons) recorded the largest percentage increases. Employment in Metal product manufacturing remained unchanged (at 3,400 persons).

The percentage of Australian manufacturing employment in Tasmania at the end of June 1996 was 2.4%, the same proportion as the previous two years. The proportion to total manufacturing employment by the other States and Territories at the end of June 1996 was: New South Wales 32.8%, Victoria 32.3%, Queensland 14.8%, South Australia 9.4%, Western Australia 7.6%, the Northern Territory 0.4% and the Australian Capital Territory 0.4%.

SUMMARY OF FINDINGS *continued*

EMPLOYMENT (TABLES 1 AND 2) *continued*

The Tasmanian industry subdivisions which made a significant contribution to national manufacturing employment at the end of June 1996 at the industry subdivision level were Wood and paper product manufacturing (6.2%) and Food, beverage and tobacco manufacturing (3.5%).

Longer-term trends (June 1991 to June 1996)

Employment in the Tasmanian manufacturing industry decreased by 3,100 persons (down 12.2% from 25,100 persons to 22,100 persons) over the period June 1991 to June 1996. Four industry subdivisions recorded decreases in employment over this period, two recorded increases and three recorded the same level of employment. Wood and paper product manufacturing (down 32.7% from 5,600 persons to 3,800 persons), Metal product manufacturing (down 27.6% from 4,700 persons to 3,400 persons) and Petroleum, coal, chemical and associated product manufacturing (down 25.3% from 900 persons to 700 persons) recorded the largest percentage decreases. Machinery and equipment manufacturing (up 35.3% from 2,300 persons to 3,100 persons) and Printing, publishing and recorded media (up 9.8% from 1,700 persons to 1,900 persons) recorded the increases. Employment in the three remaining industry subdivisions has fluctuated between June 1991 and June 1996, but was at the same level for both June 1991 and June 1996, as follows: Textile, clothing, footwear and leather manufacturing (1,800 persons), Non-metallic mineral product manufacturing (900 persons) and Other manufacturing (1,000 persons).

The decrease in employment in Tasmania over the period June 1991 to June 1996 was the largest in percentage terms of any State or Territory. Decreases were also recorded in New South Wales (down 11.4% from 335,300 persons to 297,100 persons), South Australia (down 10.9% from 95,600 persons to 85,200 persons), Victoria (down 9.2% from 322,300 persons to 292,600 persons) and the Australian Capital Territory (down 3.1% from 4,000 persons to 3,900 persons). During this period, the Northern Territory (up 14.1% from 3,100 persons to 3,500 persons) recorded the largest percentage increase of any State or Territory. Employment also increased in Western Australia (up 4.7% from 65,700 persons to 68,800 persons) and Queensland (up 2.7% from 130,200 persons to 133,800 persons).

The percentage of Australian manufacturing employment in Tasmania has decreased since June 1991 (decreasing by 0.1 percentage points to 2.4%), as has that for New South Wales (down 1.4 percentage points to 32.8%), Victoria (down 0.6 percentage points to 32.3%) and South Australia (down 0.3 percentage points to 9.4%). Queensland increased its proportion of employment over this period (up 1.5 percentage points to 14.8%), as did Western Australia (up 0.9 percentage points to 7.6%) and the Northern Territory (up 0.1 percentage points to 0.4%). The Australian Capital Territory maintained its proportion of Australian manufacturing employment over the period (at 0.4%).

SUMMARY OF FINDINGS *continued*

TURNOVER (TABLES 1 AND 2)

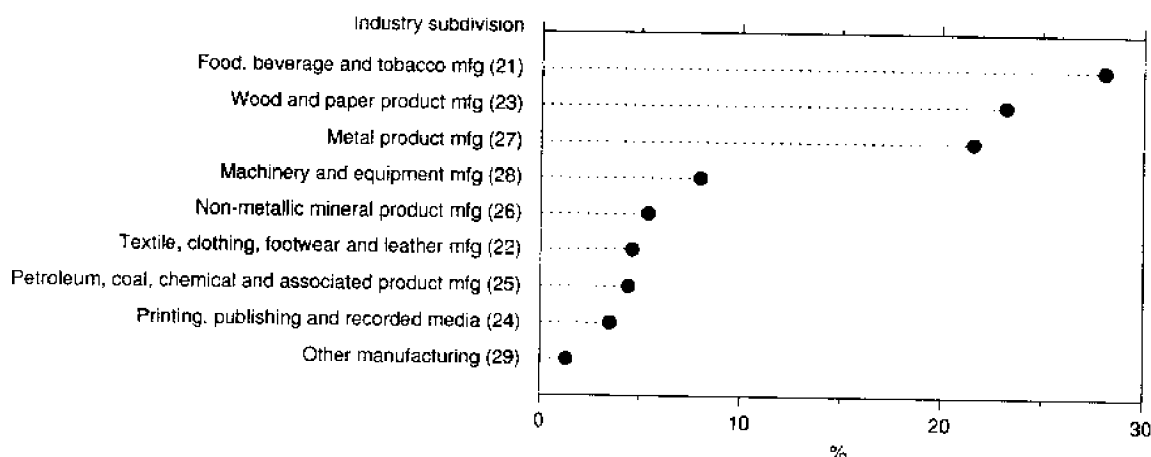
Turnover for the year 1995-96 by manufacturing establishments operating in Tasmania was \$4,789m. This represents a 9.7% increase, in current price terms, from \$4,366m turnover recorded for the year 1994-95. Food, beverage and tobacco manufacturing remains the manufacturing industry subdivision with the largest contribution to turnover.

The industry subdivisions contributing the largest proportions to total manufacturing turnover and the most notable industry groups (of those available for publication) within those subdivisions (as a percentage of total manufacturing turnover) were:

- Food, beverage and tobacco manufacturing (28.1%), where the industry groups Other food manufacturing (ANZSIC group 217 at 8.2%), Dairy product manufacturing (ANZSIC group 212 at 5.7%) and Meat and meat product manufacturing (ANZSIC group 211 at 3.3%) were the most substantial.
- Wood and paper product manufacturing (23.2%), where the industry group Log sawmilling and timber dressing (ANZSIC group 231 at 8.6%) was the most substantial.
- Metal product manufacturing (21.6%), where the data for the most substantial industry groups are not available for publication.

Industry groups (of those available for publication) making a notable contribution to total turnover and not included in the subdivisions listed above included Cement, lime, plaster and concrete product manufacturing (ANZSIC group 263 at 4.3%). Other transport equipment manufacturing (ANZSIC group 282 at 3.2%) and Industrial machinery and equipment manufacturing (ANZSIC group 286 at 2.4%).

Distribution of turnover



SUMMARY OF FINDINGS *continued*

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TURNOVER (TABLES 1 AND 2) *continued*

The percentage contribution by Tasmania to total Australian manufacturing turnover in 1995-96 was 2.4%. This represents an increase of 0.1 percentage points on the contribution reported in 1994-95. The percentage contribution to turnover by the other States and Territories in 1995-96 was: New South Wales 33.3%, Victoria 32.3%, Queensland 14.6%, South Australia 9.1%, Western Australia 7.6%, the Northern Territory 0.5% and the Australian Capital Territory 0.3%.

The Tasmanian industry subdivision which made a relatively significant contribution to national manufacturing turnover in 1995-96 at the industry subdivision level was Wood and paper product manufacturing (10.0%).

Longer-term trends (1990-91 to 1995-96)

Turnover for the manufacturing industry in Tasmania increased, in current price terms, by 14.7% over the period 1990-91 to 1995-96, although employment decreased by 12.2% over the same period. Six industry subdivisions recorded increases and three recorded decreases in turnover. The industry subdivisions with the largest percentage increases were Machinery and equipment manufacturing (up 88.5% from \$203m to \$382m), Non-metallic mineral product manufacturing (up 65.6% from \$155m to \$256m) and Printing, publishing and recorded media (up 30.7% from \$126m to \$165m). The industry subdivisions recording the largest percentage decreases were Petroleum, coal, chemical and associated product manufacturing (down 11.3% from \$238m to \$211m) and Other manufacturing (down 8.0% from \$68m to \$62m).

Tasmania (at 2.4%) maintained its share of Australian turnover between 1990-91 and 1995-96, as did the Northern Territory (at 0.5%) and the Australian Capital Territory (at 0.3%). The three States to increase their share over this period were Queensland (up 0.9 percentage points to 14.6%), Victoria (up 0.1 percentage points to 32.3%) and South Australia (up 0.1 percentage points to 9.1%). The two States to record a decrease in their share were New South Wales (down 1.0 percentage points to 33.3%) and Western Australia (down 0.1 percentage points to 7.6%).

INDUSTRY GROSS PRODUCT (TABLES 1 AND 2)

Industry gross product (see the Glossary for its definition) for the year 1995-96 by manufacturing establishments operating in Tasmania was \$1,807m. This represents a 47.8% increase, in current price terms, from \$1,223m industry gross product recorded for the year 1992-93.

For 1995-96, Wood and paper product manufacturing, Food, beverage and tobacco manufacturing and Metal product manufacturing were the industry subdivisions with the largest contribution to industry gross product in the manufacturing industry.

SUMMARY OF FINDINGS *continued*

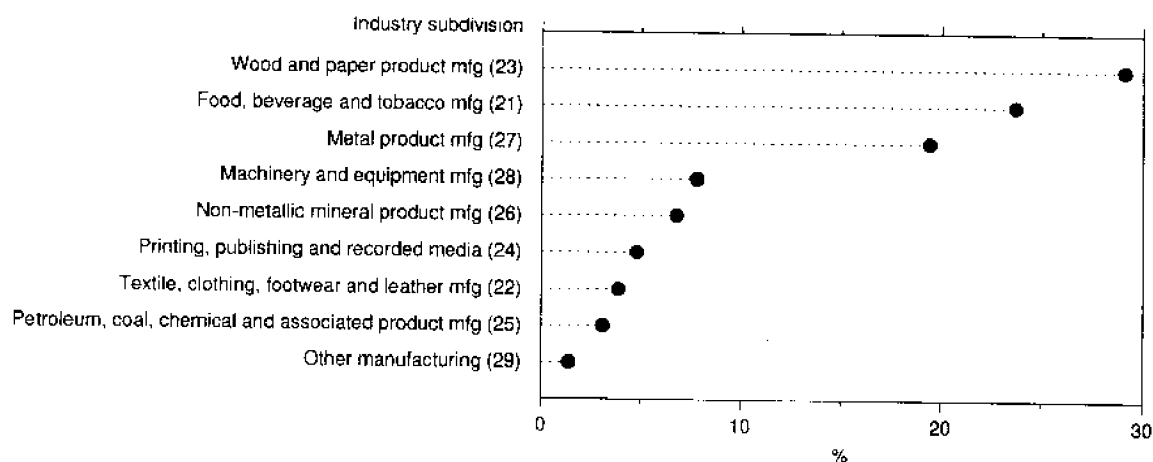
INDUSTRY GROSS PRODUCT (TABLES 1 AND 2) *continued*

The contribution of these industry subdivisions to total manufacturing industry gross product and the most notable industry groups (of those available for publication) within those subdivisions (as a percentage of total manufacturing industry gross product) were:

- Wood and paper product manufacturing (29.1%), where the industry group Log sawmilling and timber dressing (ANZSIC group 231 at 11.0%) was the most substantial.
- Food, beverage and tobacco manufacturing (23.7%), where the industry groups Other food manufacturing (ANZSIC group 217 at 9.1%) and Dairy product manufacturing (ANZSIC group 212 at 3.9%) were the most substantial.
- Metal product manufacturing (19.4%), where data for the most substantial industry groups are not available for publication.

Industry groups making a notable contribution to industry gross product and not included in the subdivisions listed above included Cement, lime, plaster and concrete product manufacturing (ANZSIC group 263 at 5.4%), Other transport equipment manufacturing (ANZSIC group 282 at 3.3%) and Publishing (ANZSIC group 242 at 2.6%).

Distribution of industry gross product



product in 1995-96 was 2.9%. The percentage contribution to industry gross product by the other States and Territories in 1995-96 was: New South Wales 34.2%, Victoria 31.8%, Queensland 13.8%, South Australia 9.6%, Western Australia 6.8%, the Northern Territory 0.5% and the Australian Capital Territory 0.4%.

The Tasmanian industry subdivision which made a relatively significant contribution to national manufacturing industry gross product in 1995-96 at the industry subdivision level was Wood and paper product manufacturing (13.7%).

SUMMARY OF FINDINGS *continued*

INDUSTRY GROSS PRODUCT (TABLES 1 AND 2) *continued*

Longer-term trends (1992-93 to 1995-96)

Industry gross product for the manufacturing industry increased, in current price terms, by 47.8% over the period 1992-93 to 1995-96. Eight industry subdivisions recorded increases in industry gross product and one recorded a decrease. The industry subdivisions with the largest percentage increases were Machinery and equipment manufacturing (up 135.1% from \$60m to \$140m), Non-metallic mineral product manufacturing (up 81.1% from \$67m to \$122m), Metal product manufacturing (up 80.0% from \$195m to \$351m) and Wood and paper product manufacturing (up 50.3% from \$350m to \$525m). The industry subdivision to record a decrease, in current price terms, was Petroleum, coal, chemical and associated product manufacturing (down 23.2% from \$73m to \$56m).

Tasmania was one of three States to increase their share of Australian industry gross product between 1992-93 and 1995-96, with an increase of 0.5 percentage points (to 2.9% of Australian industry gross product). The other States to increase their share were South Australia (up 1.5 percentage points to 9.6%) and Queensland (up 0.9 percentage points to 13.8%). The three States to record a decrease in their share were New South Wales (down 1.9 percentage points to 34.2%), Victoria (down 0.5 percentage points to 31.8%) and Western Australia (down 0.4 percentage points to 6.8%). The Northern Territory (at 0.5%) and the Australian Capital Territory (at 0.4%) maintained their share of Australian industry gross product over the period.

RATIO OF WAGES AND SALARIES TO TURNOVER (TABLE 1)

In 1995-96, the ratio of wages and salaries to turnover for Tasmania's manufacturing industry was 0.14; that is, on average, 14 cents in wages and salaries is paid for each \$1.00 of turnover. This ratio is a decrease on the 0.15 measured in 1994-95 and the 0.17 measured in 1990-91. This is the fourth year in a row that this ratio has decreased (from 0.18 in 1991-92).

The wages and salaries to turnover ratio decreased in seven of the nine industry subdivisions between 1990-91 and 1995-96, with the largest falls being recorded by Metal product manufacturing (down from 0.17 to 0.11), Wood and paper product manufacturing (down from 0.17 to 0.12), Petroleum, coal, chemical and associated product manufacturing (down from 0.19 to 0.14) and Non-metallic mineral product manufacturing (down from 0.17 to 0.12). Textile, clothing, footwear and leather manufacturing was the only subdivision to record an increase (from 0.21 to 0.22) in the ratio over the period. The ratio for Printing, publishing and recorded media (at 0.34) was the same for both 1990-91 and 1995-96.

TURNOVER PER PERSON EMPLOYED (TABLES 1 AND 2)

Turnover per person employed for total manufacturing in 1995-96 was \$217,100, which is 9.7% higher than the figure recorded for 1994-95. The subdivisions to record the highest values for this ratio were Metal product manufacturing (\$306,700) and Petroleum, coal, chemical and associated product manufacturing (\$303,000). Other manufacturing recorded the lowest value for this ratio (\$62,300). 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.

SUMMARY OF FINDINGS *continued*

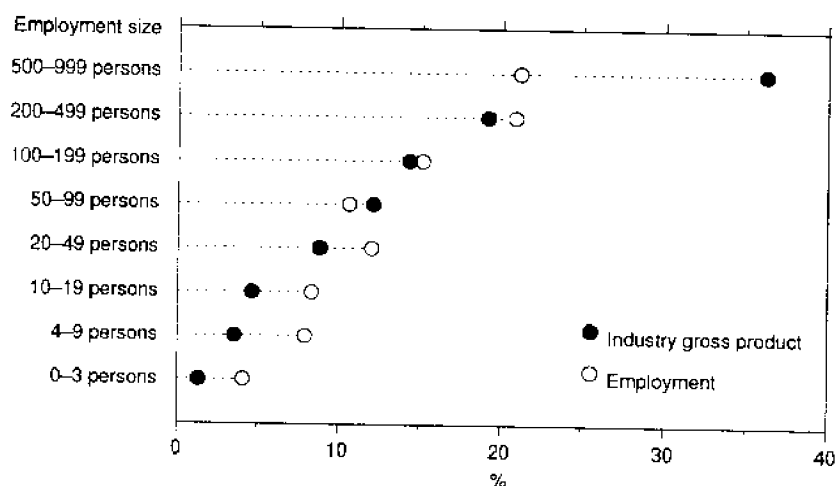
INDUSTRY GROSS PRODUCT PER PERSON EMPLOYED (TABLE 2)

Industry gross product per person employed for total manufacturing in 1995-96 was \$81,900 which is 51.1% higher than the figure recorded in 1992-93. The industries (of those available for publication) with the highest industry gross product per person employed in 1995-96 were Inorganic industrial chemical manufacturing n.e.c. (ANZSIC class 2535) (\$259,300), Prepared animal and bird feed manufacturing (ANZSIC class 2174) (\$231,400) and Copper, silver, lead and zinc smelting, refining (ANZSIC class 2723) (\$166,500). The industries (of those available for publication) with the lowest industry gross product per person employed in 1995-96 were Ceramic product manufacturing n.e.c. (ANZSIC class 2629) (\$9,100), Synthetic resin manufacturing (ANZSIC class 2533) (\$18,100), Structural metal product manufacturing n.e.c. (ANZSIC class 2749) (\$18,500) and Motor vehicle body manufacturing (ANZSIC class 2812) (\$18,500).

EMPLOYMENT SIZE (TABLE 3)

Establishments employing 100 or more persons accounted for 57.0% of employment at the end of June 1996 and 69.6% of industry gross product for 1995-96. Establishments employing 20-99 persons accounted for 22.7% of employment and 20.9% of industry gross product. Small establishments (i.e. those employing 0-19 persons) accounted for 20.3% of employment and 9.4% of industry gross product. Manufacturing establishments employing between 500 and 999 persons at the end of June 1996 employed 21.1% of all persons working in the manufacturing industry in Tasmania and contributed 36.2% to industry gross product.

Distribution of industry gross product and employment



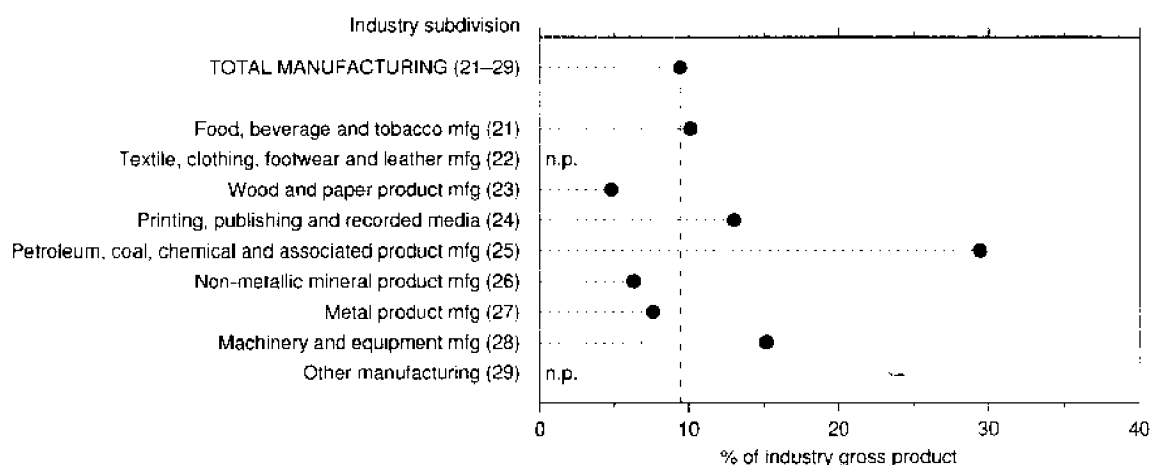
For five of the six industry subdivisions available for publication, more than 50% of industry gross product was contributed by establishments employing 100 or more persons. The industries where these establishments contributed most to industry gross product were Machinery and equipment manufacturing (81.3%) and Textile, clothing, footwear and leather manufacturing (76.3%).

SUMMARY OF FINDINGS *continued*

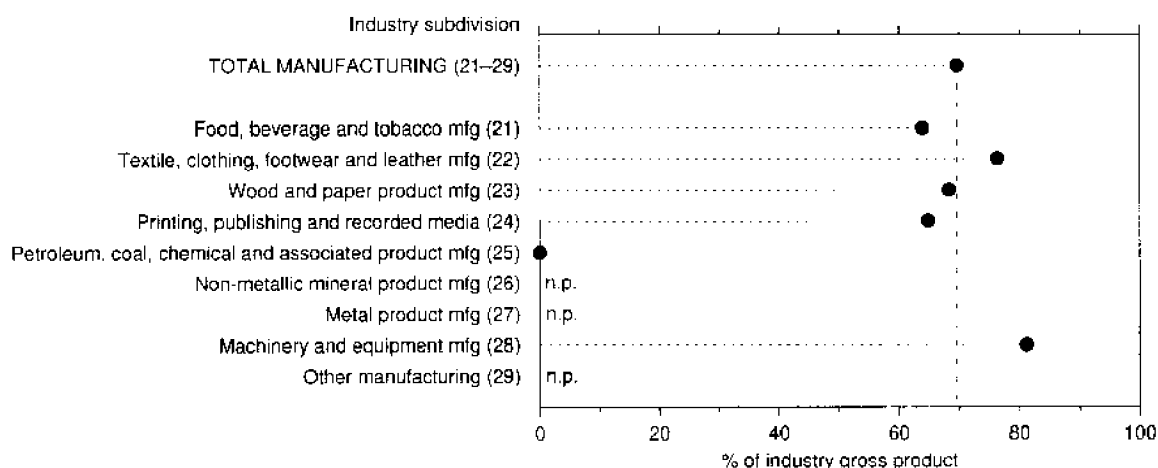
EMPLOYMENT SIZE (TABLE 3) *continued*

For the seven industry subdivisions available for publication, small establishments (employing 0–19 persons) made a relatively significant contribution to industry gross product for Petroleum, coal, chemical and associated product manufacturing (29.4%). Data for this employment size for Other manufacturing are not available for publication. However, establishments employing 0–9 persons contributed 29.1% to the industry gross product for this subdivision.

Distribution of industry gross product, 0–19 persons



Distribution of industry gross product, 100 or more persons

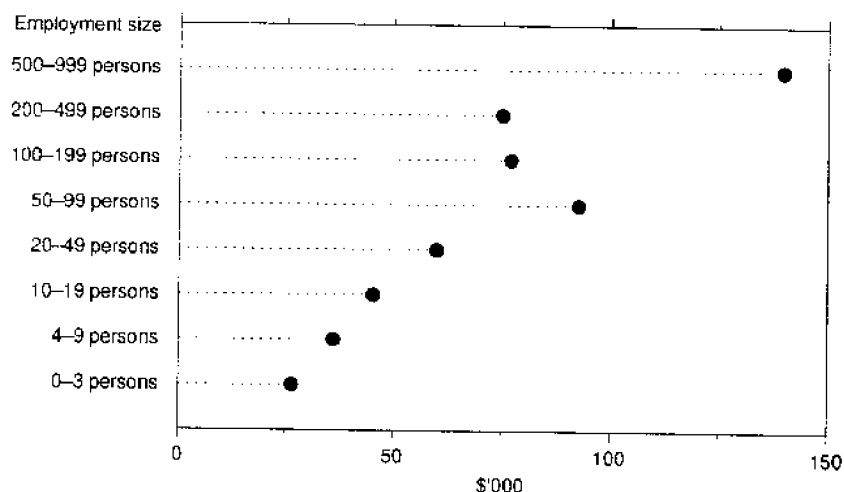


Small establishments (employing 0–19 persons) displayed a much lower ratio of industry gross product per person employed at the end of June 1996 (\$37,900) than establishments in the larger size categories. Establishments employing 100 or more persons recorded an average industry gross product per person employed of \$99,600, with establishments employing 500 to 999 persons having a ratio of \$139,800.

SUMMARY OF FINDINGS *continued*

EMPLOYMENT SIZE (TABLE 3) *continued*

Industry gross product per person employed



EXPORTS BY MANUFACTURERS (TABLES 4 AND 5)

For 1995-96, the percentage of the sales of goods produced in the manufacturing industry which were subsequently exported by the manufacturer or its agent was 29.0%. Of the five industry subdivisions available for publication, Metal product manufacturing recorded the highest percentage contribution (66.2%). The industry subdivisions to record the smallest percentage contribution were Non-metallic mineral product manufacturing (0.3%), Printing, publishing and recorded media (0.5%) and Other manufacturing (0.6%).

The percentage of the sales of goods produced in the manufacturing industry which were subsequently exported varied according to employment size. Establishments employing 100 or more persons recorded the highest contribution (32.0%), while establishments employing 50-99 persons recorded 29.2% and establishments employing 0-49 persons recorded 19.0%.

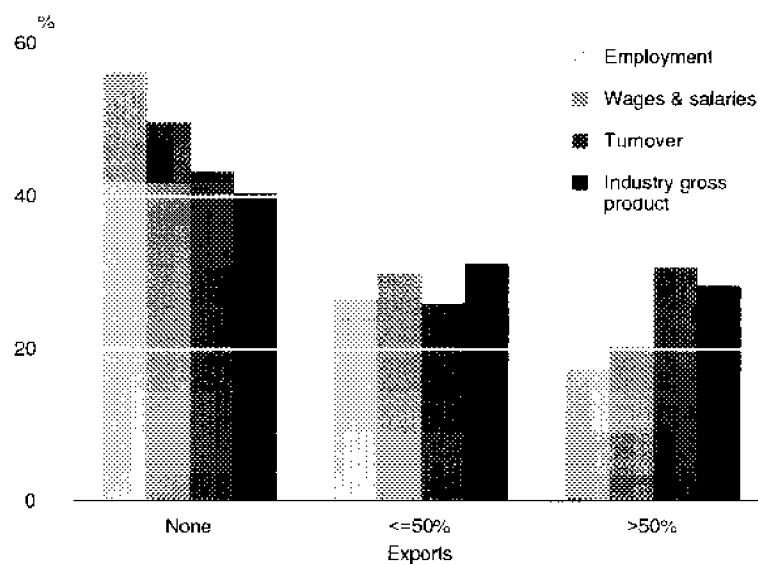
Tables 4 and 5 do not include all exports of goods manufactured in Tasmania. Rather, they show the extent to which Tasmanian manufacturers are directly involved in the export process. Further information about the data in tables 4 and 5 is contained in paragraphs 18-21 of the Explanatory Notes.

Establishments that export made up a significant proportion of employment (43.9%), wages and salaries (50.3%), turnover (56.8%) and industry gross product (59.5%) in the manufacturing industry. Establishments that export more than 50% of their sales of goods produced accounted for 17.2% of employment, 20.4% of wages and salaries, 30.8% of turnover and 28.3% of industry gross product in the manufacturing industry.

SUMMARY OF FINDINGS *continued*

EXPORTS BY MANUFACTURERS (TABLES 4 AND 5) *continued*

Distribution of selected variables, by proportion of goods exported



MANUFACTURING ESTABLISHMENTS(a), Summary of Operations(b)

INDUSTRY SUBDIVISION			Employment at end of June(c)	Wages and salaries(d)(e)	Turnover(e)	Industry gross product(e)	Ratio of wages and salaries to turnover(e)	Turnover per person employed(e)(f)
ANZSIC code	Description		000	\$m	\$m	\$m	Ratio	\$'000
.....								
21	Food, beverage and tobacco mfg	1995-96	5.5	157.9	1 346.0	428.6	0.12	243.3
		1994-95r	5.7	160.3	1 291.5	..	0.12	227.6
		1993-94	6.0	165.4	1 342.3	..	0.12	223.0
		1992-93	6.0	148.8	1 234.0	335.6	0.12	205.9
		1991-92	6.1	154.5	1 182.5	..	0.13	193.0
		1990-91	6.2	150.5	1 178.8	..	0.13	190.9
22	Textile, clothing, footwear and leather mfg	1995-96	1.8	47.9	222.5	70.5	0.22	126.8
		1994-95	1.9	46.4	211.3	..	0.22	112.3
		1993-94	1.9	47.8	200.3	..	0.24	105.4
		1992-93	1.9	42.9	187.1	58.0	0.23	100.8
		1991-92	1.8	40.2	180.5	..	0.22	98.8
		1990-91	1.8	38.8	186.0	..	0.21	101.9
23	Wood and paper product mfg	1995-96	3.8	133.6	1 110.7	525.4	0.12	294.3
		1994-95	3.9	139.8	1 097.6	..	0.13	279.1
		1993-94	3.5	111.8	886.6	..	0.13	250.1
		1992-93	4.5	172.8	953.8	349.6	0.18	213.3
		1991-92	5.1	207.5	970.5	..	0.21	192.1
		1990-91	5.6	193.4	1 117.2	..	0.17	199.1
24	Printing, publishing and recorded media	1995-96	1.9	56.3	165.2	87.6	0.34	86.8
		1994-95	1.8	50.4	157.0	..	0.32	86.6
		1993-94	1.8	50.4	143.8	..	0.35	81.9
		1992-93	1.6	42.7	126.2	65.2	0.34	80.5
		1991-92	1.8	43.1	130.2	..	0.33	73.9
		1990-91	1.7	43.0	126.4	..	0.34	72.9
25	Petroleum, coal, chemical and associated product mfg	1995-96	0.7	30.4	211.1	55.9	0.14	303.0
		1994-95r	0.9	33.0	214.6	..	0.15	246.6
		1993-94	0.9	27.8	209.3	..	0.13	236.8
		1992-93	0.9	30.4	227.0	72.8	0.13	253.1
		1991-92	0.9	32.3	214.1	..	0.15	234.8
		1990-91	0.9	44.2	238.0	..	0.19	255.1
26	Non-metallic mineral product mfg	1995-96	0.9	29.7	256.3	122.0	0.12	284.1
		1994-95	1.0	30.1	249.7	..	0.12	260.2
		1993-94	1.0	29.2	244.2	..	0.12	252.3
		1992-93	0.8	26.2	195.1	67.4	0.13	229.8
		1991-92	0.9	27.1	163.2	..	0.17	181.3
		1990-91	0.9	25.7	154.8	..	0.17	175.7

(a) See paragraph 5 of the Explanatory Notes.

(b) For factors affecting comparability of data over the time periods shown, see paragraphs 13-16 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Value data are at current prices and, therefore, do not discount the impact of price changes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)(e)	Turnover(e)	Industry gross product(f)	Ratio of wages and salaries to turnover(f)	Turnover per person employed(e)(f)	
ANZSIC code	Description	'000	\$m	\$m	\$m	Ratio	\$'000	

27	Metal product mfg	1995-96	3.4	111.5	1 032.7	350.5	0.11	306.7
		1994-95	3.4	114.6	819.1	..	0.14	240.2
		1993-94	3.3	132.7	796.6	..	0.17	240.4
		1992-93	4.1	150.0	834.6	194.7	0.18	204.0
		1991-92	4.4	148.6	821.7	..	0.18	187.3
		1990-91	4.7	154.6	902.4	..	0.17	193.9
28	Machinery and equipment mfg	1995-96	3.1	94.2	381.9	140.4	0.25	122.1
		1994-95r	2.7	78.6	265.8	..	0.30	97.0
		1993-94	2.5	66.8	236.9	..	0.28	94.6
		1992-93	2.0	48.7	188.9	59.7	0.26	92.8
		1991-92	1.8	48.5	206.7	..	0.23	112.0
		1990-91	2.3	55.9	202.6	..	0.28	87.7
29	Other manufacturing	1995-96	1.0	17.3	62.4	25.9	0.28	62.3
		1994-95	0.8	14.8	59.7	..	0.25	76.9
		1993-94	0.7	13.4	54.2	..	0.25	72.7
		1992-93	0.8	15.5	58.2	19.7	0.27	74.0
		1991-92	0.9	17.6	62.3	..	0.28	72.5
		1990-91	1.0	20.7	67.8	..	0.31	67.1
21-29	Total manufacturing	1995-96	22.1	678.8	4 788.8	1 806.7	0.14	217.1
		1994-95r	22.1	667.9	4 366.4	0.15	197.9
		1993-94	21.6	645.4	4 114.2	..	0.16	190.2
		1992-93	22.5	678.1	4 005.0	1 222.6	0.17	177.6
		1991-92	23.7	719.5	3 931.8	..	0.18	166.1
		1990-91	25.1	726.9	4 173.9	..	0.17	166.1

(a) See paragraph 5 of the Explanatory Notes.

(b) For factors affecting comparability of data over the time periods shown, see paragraphs 13-16 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

(e) Value data are at current prices and, therefore, do not discount the impact of price changes.

(f) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

MANUFACTURING ESTABLISHMENTS(a), Summary of Operations by Industry Class

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry gross product	Turnover per person employed(d)	Industry gross product per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
FOOD, BEVERAGE AND TOBACCO MFG							
Meat and meat product mfg							
2113	Bacon, ham and smallgoods mfg	212	4.9	25.5	5.9	120.2	27.7
211	Total(f)	1 077	27.5	158.4	37.0	147.0	34.3
Dairy product mfg							
2129	Dairy product mfg n.e.c.	531	14.4	198.8	58.7	374.6	110.6
212	Total(f)	711	19.9	272.7	70.0	383.6	98.5
213	Fruit and vegetable processing	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
214	Oil and fat mfg	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
215	Flour mill and cereal food mfg	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Bakery product mfg							
2161	Bread mfg	456	10.1	40.2	17.0	88.1	37.3
2162	Cake and pastry mfg	207	4.5	20.2	7.6	97.6	36.7
216	Total(f)	663	14.6	60.4	24.6	91.1	37.1
Other food mfg							
2172	Confectionery mfg	754	27.4	172.5	105.8	228.7	140.3
2173	Seafood processing	535	15.5	176.0	47.4	329.3	88.7
2174	Prepared animal and bird feed mfg	49	2.0	40.2	11.2	828.6	231.4
2179	Food mfg n.e.c.	*42	*0.4	*2.2	*0.8	*51.4	**19.0
217	Total(f)	1 379	45.3	390.9	165.2	283.4	119.8
218	Beverage and malt mfg	*371	11.6	94.2	27.9	263.7	75.2
219	Tobacco product mfg	—	—	—	—	—	—
21	Total food, beverage and tobacco mfg	5 532	157.9	1 346.0	428.6	243.3	77.5
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MFG							
Textile fibre, yarn and woven fabric mfg							
2213	Cotton textile mfg	315	8.5	35.1	11.7	111.5	37.0
221	Total(f)	666	n.p.	n.p.	n.p.	n.p.	n.p.
Textile product mfg							
2221	Made-up textile product mfg	305	n.p.	n.p.	n.p.	n.p.	n.p.
2222	Textile floor covering mfg	234	6.4	18.9	10.3	80.6	44.1
2223	Rope, cordage and twine mfg	14	0.5	3.2	1.1	236.0	81.4
222	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
223	Knitting mills	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Clothing mfg							
2249	Clothing mfg n.e.c.	44	0.6	2.1	1.0	46.6	22.4
224	Total(f)	76	1.1	3.3	1.5	43.8	20.0
225	Footwear mfg	354	n.p.	n.p.	n.p.	n.p.	n.p.

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(e) Industry gross product divided by the number of persons employed at the end of June. Includes working proprietors.

(f) The total shown is that for all ANZSIC classes within this industry group. Data for other ANZSIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ANZSIC classes.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry gross product	Turnover per person employed(d)	Industry gross product per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
Leather and leather product mfg							
2261	Leather tanning and fur dressing	51	n.p.	n.p.	n.p.	n.p.	n.p.
226	Total(f)	51	n.p.	n.p.	n.p.	n.p.	n.p.
22	Total textile, clothing, footwear and leather mfg	1 755	47.9	222.5	70.5	126.8	40.2
WOOD AND PAPER PRODUCT MFG							
Log sawmilling and timber dressing							
2311	Log sawmilling	650	n.p.	n.p.	n.p.	n.p.	n.p.
2312	Wood chipping	284	n.p.	n.p.	n.p.	n.p.	n.p.
2313	Timber resawing and dressing	673	19.5	104.9	56.6	156.0	84.1
231	Total	1 607	48.4	410.7	198.7	255.6	123.7
Other wood product mfg							
2323	Wooden structural component mfg	369	7.3	28.1	9.1	76.2	24.8
2329	Wood product mfg n.e.c.	145	2.9	12.0	6.9	82.6	47.6
232	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Paper and paper product mfg							
2331	Pulp, paper and paperboard mfg	1 335	n.p.	n.p.	n.p.	n.p.	n.p.
233	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
23	Total wood and paper product mfg	3 774	133.6	1 110.7	525.4	294.3	139.2
PRINTING, PUBLISHING AND RECORDED MEDIA							
Printing and services to printing							
2412	Printing	854	23.5	68.3	37.3	80.0	43.7
241	Total(f)	948	25.9	74.5	40.1	78.6	42.3
Publishing							
2421	Newspaper printing or publishing	937	30.1	89.1	46.8	95.1	50.0
242	Total(f)	956	30.4	90.7	47.5	95.0	49.7
243	Recorded media manufacturing and publishing	—	—	—	—	—	—
24	Total printing, publishing and recorded media	1 904	56.3	165.2	87.6	86.8	46.0
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MFG							
251	Petroleum refining	—	—	—	—	—	—
252	Petroleum and coal product mfg n.e.c.	—	—	—	—	—	—
Basic chemical mfg							
2532	Industrial gas mfg	50	2.4	6.1	2.8	121.2	55.5
2533	Synthetic resin mfg	*23	**0.2	**1.0	**0.4	**41.4	**18.1
2535	Inorganic industrial chemical mfg n.e.c.	47	9.2	72.7	12.1	1 551.9	259.3
253	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
254	Other chemical product mfg	193	9.4	62.3	21.3	323.5	110.7
Rubber product mfg							
2559	Rubber product mfg n.e.c.	**26	**1.1	**2.6	**1.3	98.8	*47.8
255	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(e) Industry gross product divided by the number of persons employed at the end of June. Includes working proprietors.

(f) The total shown is that for all ANZSIC classes within this industry group. Data for other ANZSIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ANZSIC classes.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry gross product	Turnover per person employed(d)	Industry gross product per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
256	Plastic product mfg	281	5.8	30.5	11.3	108.7	40.2
25	Total petroleum, coal, chemical and associated product mfg	697	30.4	211.1	55.9	303.0	80.2
NON-METALLIC MINERAL PRODUCT MFG							
261	Glass and glass product mfg	155	7.8	34.9	16.1	224.8	104.0
Ceramic mfg							
2629	Ceramic product mfg n.e.c.	19	0.2	0.3	0.2	18.0	9.1
262	Total(f)	103	n.p.	n.p.	n.p.	n.p.	n.p.
Cement, lime, plaster and concrete product mfg							
2633	Concrete slurry mfg	115	3.0	33.2	4.5	289.2	38.8
2635	Concrete product mfg n.e.c.	197	n.p.	n.p.	n.p.	n.p.	n.p.
263	Total(f)	570	17.7	205.3	98.3	360.1	172.4
264	Non-metallic mineral product mfg n.e.c.	*74	n.p.	n.p.	n.p.	n.p.	n.p.
26	Total non-metallic mineral product mfg	902	29.7	256.3	122.0	284.1	135.2
METAL PRODUCT MFG							
Iron and steel mfg							
2711	Basic iron and steel mfg	404	n.p.	n.p.	n.p.	n.p.	n.p.
271	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Basic non-ferrous metal mfg							
2723	Copper, silver, lead and zinc smelting, refining	642	27.7	367.8	106.9	572.9	166.5
272	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
273	Non-ferrous basic metal product mfg	—	—	—	—	—	—
Structural metal product mfg							
2741	Structural steel fabricating	*279	*5.9	31.9	*9.4	114.3	33.7
2742	Architectural aluminium product mfg	330	8.9	39.0	10.6	118.2	32.1
2749	Structural metal product mfg n.e.c.	15	0.3	1.1	0.3	71.1	18.5
274	Total	624	15.0	71.9	20.3	115.3	32.5
Sheet metal product mfg							
2751	Metal container mfg	87	n.p.	n.p.	n.p.	n.p.	n.p.
2759	Sheet metal product mfg n.e.c.	266	n.p.	n.p.	n.p.	n.p.	n.p.
275	Total	353	9.0	39.6	13.0	112.1	36.9
Fabricated metal product mfg							
2761	Hand tool and general hardware mfg	*101	*2.4	**6.8	*2.7	66.6	26.7
2764	Metal coating and finishing	47	1.0	3.5	1.7	73.3	36.5
2769	Fabricated metal product mfg n.e.c.	302	6.9	25.0	10.3	82.9	34.2
276	Total(f)	488	11.2	38.1	15.9	78.0	32.7
27	Total metal product mfg	3 367	111.5	1 032.7	350.5	306.7	104.1

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(e) Industry gross product divided by the number of persons employed at the end of June. Includes working proprietors.

(f) The total shown is that for all ANZSIC classes within this industry group. Data for other ANZSIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ANZSIC classes.

INDUSTRY CLASS		Employment at end of June(b)	Wages and salaries(c)	Turnover	Industry gross product	Turnover per person employed(d)	Industry gross product per person employed(e)
ANZSIC code	Description	no.	\$m	\$m	\$m	\$'000	\$'000
MACHINERY AND EQUIPMENT MFG							
Motor vehicle and part mfg							
2812	Motor vehicle body mfg	56	*1.0	3.8	*1.0	67.1	*18.5
2819	Automotive component mfg n.e.c.	768	n.p.	n.p.	n.p.	n.p.	n.p.
281	Total(f)	824	n.p.	n.p.	n.p.	n.p.	n.p.
Other transport equipment mfg							
2821	Shipbuilding	1 027	30.2	144.0	56.0	140.2	54.5
2822	Boatbuilding	127	2.7	9.2	2.6	72.6	20.5
2824	Aircraft mfg	6	0.2	0.5	0.2	77.3	27.8
282	Total(f)	1 160	33.1	153.7	58.7	132.5	50.6
Photographic and scientific equipment mfg							
2831	Photographic and optical good mfg	10	0.2	1.4	0.5	138.2	44.1
2832	Medical and surgical equipment mfg	45	0.9	2.3	1.2	52.2	26.9
2839	Professional and scientific equipment mfg n.e.c.	5	—	0.3	0.1	53.7	21.0
283	Total	60	1.2	4.0	1.8	67.1	29.3
Electronic equipment mfg							
2841	Computer and business machine mfg	3	0.1	0.6	0.1	185.2	37.2
284	Total(f)	24	n.p.	n.p.	n.p.	n.p.	n.p.
Electrical equipment and appliance mfg							
2851	Household appliance mfg	47	1.4	5.1	1.8	107.2	37.0
285	Total(f)	271	7.4	28.3	9.6	104.3	35.5
Industrial machinery and equipment mfg							
2861	Agricultural machinery mfg	*43	*0.8	3.4	1.3	**78.7	**28.9
2862	Mining and construction machinery mfg	370	n.p.	n.p.	n.p.	n.p.	n.p.
2864	Machine tool and part mfg	41	0.7	2.6	1.2	64.1	28.4
2869	Industrial machinery and equipment mfg n.e.c.	83	1.8	9.9	4.1	120.2	49.2
286	Total(f)	788	21.4	112.7	37.0	143.0	46.9
28	Total machinery and equipment mfg	3 127	94.2	381.9	140.4	122.1	44.9
OTHER MANUFACTURING							
Prefabricated building mfg							
2911	Prefabricated metal building mfg	30	*0.5	*3.6	*1.3	*121.4	*43.0
291	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Furniture mfg							
2921	Wooden furniture and upholstered seat mfg	575	11.3	36.5	14.4	63.4	25.0
292	Total(f)	876	15.3	51.7	20.6	59.0	23.6
Miscellaneous manufacturing							
2942	Toy and sporting good mfg	24	0.3	1.0	0.5	41.4	21.0
2949	Manufacturing n.e.c.	*56	*0.9	*3.2	*1.5	*56.4	*26.1
294	Total(f)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
29	Total other manufacturing	1 000	17.3	62.4	25.9	62.3	25.9
21-29	TOTAL MANUFACTURING	22 058	678.8	4 788.8	1 806.7	217.1	81.9

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Turnover divided by the number of persons employed at the end of June. Includes working proprietors.

(e) Industry gross product divided by the number of persons employed at the end of June. Includes working proprietors.

(f) The total shown is that for all ANZSIC classes within this industry group. Data for other ANZSIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ANZSIC classes.

Employment size group	Employment at end of June(b).....		Wages and salaries(c)(d).....		Turnover(d).....		Industry gross product(d).....	
	no.	%	\$m	%	\$m	%	\$m	%
FOOD, BEVERAGE AND TOBACCO MANUFACTURING								
0-3 persons	166	3.0	2.2	1.4	14.0	1.0	4.2	1.0
4-9 persons	227	4.1	3.8	2.4	51.7	3.9	13.1	3.1
10-19 persons	239	4.3	6.4	4.1	95.7	7.1	26.0	6.1
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	2 096	37.9	51.7	32.8	541.7	40.4	154.9	36.2
100-199 persons	1 306	23.6	37.7	24.0	275.9	20.6	65.3	15.3
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	3 436	62.1	105.7	67.2	800.6	59.6	273.0	63.8
Total	5 532	100.0	157.3	100.0	1 342.4	100.0	427.9	100.0
TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING								
0-3 persons	54	3.1	0.8	1.7	2.8	1.2	1.1	1.6
4-9 persons	123	7.0	2.1	4.4	11.0	4.9	4.4	6.2
10-19 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	464	26.4	10.1	21.1	50.7	22.8	16.7	23.7
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	1 290	73.5	37.8	78.9	171.9	77.2	53.9	76.3
Total	1 755	100.0	47.9	100.0	222.5	100.0	70.5	100.0
WOOD AND PAPER PRODUCT MANUFACTURING								
0-3 persons	138	3.7	2.4	1.8	11.2	1.0	3.4	0.7
4-9 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10-19 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	429	11.4	17.7	13.3	235.4	21.2	111.5	21.2
Total less than 100 persons	1 617	42.8	43.5	32.5	376.8	33.9	166.4	31.7
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	2 158	57.2	90.1	67.5	733.8	66.1	358.8	68.3
Total	3 774	100.0	133.6	100.0	1 110.5	100.0	525.2	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996. See paragraph 17 of the Explanatory Notes.

Employment size group	Employment at end of June(b).....		Wages and salaries(c)(d).....		Turnover(d).....		Industry gross product(d).....	
	no.	%	\$m	%	\$m	%	\$m	%
PRINTING, PUBLISHING AND RECORDED MEDIA								
0-3 persons	65	3.4	0.7	1.2	3.7	2.2	1.6	1.8
4-9 persons	78	4.1	1.4	2.6	4.3	2.6	2.2	2.5
10-19 persons	250	13.1	5.3	9.4	16.0	9.7	7.7	8.8
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	899	47.2	22.1	39.3	63.9	38.7	30.8	35.2
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	1 005	52.8	34.2	60.7	101.3	61.3	56.7	64.8
Total	1 904	100.0	56.3	100.0	165.2	100.0	87.6	100.0
PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING								
0-3 persons	43	6.2	1.3	5.5	5.3	3.3	2.0	4.0
4-9 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10-19 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20-49 persons	245	35.2	6.3	27.4	49.5	30.9	17.1	34.8
50-99 persons	197	28.3	9.2	40.0	63.6	39.7	17.7	35.8
Total less than 100 persons	697	100.0	23.1	100.0	160.3	100.0	49.3	100.0
100-199 persons	—	—	—	—	—	—	—	—
200-499 persons	—	—	—	—	—	—	—	—
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	—	—	—	—	—	—	—	—
Total	697	100.0	23.1	100.0	160.3	100.0	49.3	100.0
NON-METALLIC MINERAL PRODUCT MANUFACTURING								
0-3 persons	48	5.3	1.0	3.2	10.2	4.0	1.9	1.5
4-9 persons	109	12.1	2.1	7.1	10.5	4.1	2.6	2.1
10-19 persons	54	6.0	1.3	4.3	6.7	2.6	3.2	2.6
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	—	—	—	—	—	—	—	—
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	902	100.0	29.7	100.0	256.3	100.0	122.0	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996. See paragraph 17 of the Explanatory Notes.

Employment size group	Employment at end of June(b).....		Wages and salaries(c)(d).....		Turnover(d).....		Industry gross product(d).....	
	no.	%	\$m	%	\$m	%	\$m	%
METAL PRODUCT MANUFACTURING								
0-3 persons	92	2.7	1.3	1.2	7.6	0.7	3.2	0.9
4-9 persons	378	11.2	7.9	7.0	28.8	2.8	9.9	2.8
10-19 persons	409	12.1	9.8	8.8	44.8	4.3	13.4	3.8
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	3 367	100.0	111.5	100.0	1 032.7	100.0	350.5	100.0
MACHINERY AND EQUIPMENT MANUFACTURING								
0-3 persons	162	5.2	2.2	2.3	11.0	2.9	4.2	3.0
4-9 persons	183	5.9	4.3	4.6	18.7	4.9	7.9	5.6
10-19 persons	315	10.1	7.7	8.1	25.3	6.6	9.2	6.6
20-49 persons	167	5.3	4.7	5.0	16.9	4.4	4.9	3.5
50-99 persons	—	—	—	—	—	—	—	—
Total less than 100 persons	826	26.4	18.9	20.0	72.0	18.8	26.2	18.7
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	2 301	73.6	75.3	80.0	309.9	81.2	114.2	81.3
Total	3 127	100.0	94.2	100.0	381.9	100.0	140.4	100.0
OTHER MANUFACTURING								
0-3 persons	149	14.9	1.7	9.7	6.9	11.1	2.7	10.7
4-9 persons	100	10.0	2.0	11.9	9.2	14.9	4.7	18.4
10-19 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20-49 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50-99 persons	—	—	—	—	—	—	—	—
Total less than 100 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200-499 persons	—	—	—	—	—	—	—	—
500-999 persons	—	—	—	—	—	—	—	—
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	1 000	100.0	17.1	100.0	61.5	100.0	25.4	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996. See paragraph 17 of the Explanatory Notes.

Employment size group	Employment at end of June(b).....		Wages and salaries(c)(d).....		Turnover(d).....		Industry gross product(d).....	
	no.	%	\$m	%	\$m	%	\$m	%
TOTAL MANUFACTURING								
0-3 persons	915	4.1	13.4	2.0	72.7	1.5	24.3	1.3
4-9 persons	1 744	7.9	34.5	5.1	182.2	3.8	62.9	3.5
10-19 persons	1 826	8.3	43.8	6.5	258.2	5.5	82.7	4.6
20-49 persons	2 651	12.0	67.7	10.1	486.2	10.3	159.1	8.8
50-99 persons	2 346	10.6	76.7	11.4	570.3	12.0	217.4	12.1
Total less than 100 persons	9 482	43.0	236.0	35.2	1 569.5	33.2	546.3	30.4
100-199 persons	3 335	15.1	104.1	15.5	653.4	13.8	256.9	14.3
200-499 persons	4 579	20.8	151.6	22.6	1 010.4	21.3	343.6	19.1
500-999 persons	4 682	21.1	178.9	26.7	1 500.0	31.7	652.0	36.2
1 000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	12 576	57.0	434.6	64.8	3 163.8	66.8	1 252.5	69.6
TOTAL	22 058	100.0	670.6	100.0	4 733.4	100.0	1 798.8	100.0

(a) See paragraph 5 of the Explanatory Notes.

(b) Includes working proprietors.

(c) Excludes the drawings of working proprietors.

(d) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996. See paragraph 17 of the Explanatory Notes.

INDUSTRY SUBDIVISION		Sales and transfers out of goods produced by this establishment	Amount exported by this business or its agent	Exports as a proportion of sales of goods produced
ANZSIC code	Description	\$m	\$m	%
0-49 PERSONS				
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	29.2	2.5	8.5
23	Wood and paper product mfg	134.7	19.0	14.1
24	Printing, publishing and recorded media	n.p.	n.p.	n.p.
25	Petroleum, coal, chemical and associated product mfg	92.0	20.1	21.8
26	Non-metallic mineral product mfg	n.p.	n.p.	n.p.
27	Metal product mfg	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	n.p.	n.p.	n.p.
29	Other manufacturing	52.9	0.4	0.7
21-29	Total manufacturing	924.7	175.6	19.0
50-99 PERSONS				
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	n.p.	n.p.	n.p.
23	Wood and paper product mfg	233.2	138.5	59.4
24	Printing, publishing and recorded media	n.p.	n.p.	n.p.
25	Petroleum, coal, chemical and associated product mfg	n.p.	n.p.	n.p.
26	Non-metallic mineral product mfg	13.2	—	—
27	Metal product mfg	35.4	—	—
28	Machinery and equipment mfg	—	—	—
29	Other manufacturing	—	—	—
21-29	Total manufacturing	549.5	160.6	29.2
100 OR MORE PERSONS				
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	n.p.	n.p.	n.p.
23	Wood and paper product mfg	726.5	31.6	4.4
24	Printing, publishing and recorded media	38.5	—	—
25	Petroleum, coal, chemical and associated product mfg	—	—	—
26	Non-metallic mineral product mfg	n.p.	n.p.	n.p.
27	Metal product mfg	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	290.7	181.0	62.3
29	Other manufacturing	3.9	—	—
21-29	Total manufacturing	3 039.3	973.7	32.0
TOTAL				
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	n.p.	n.p.	n.p.
23	Wood and paper product mfg	1 094.5	189.1	17.3
24	Printing, publishing and recorded media	97.6	0.5	0.5
25	Petroleum, coal, chemical and associated product mfg	n.p.	n.p.	n.p.
26	Non-metallic mineral product mfg	248.2	0.8	0.3
27	Metal product mfg	1 001.4	663.3	66.2
28	Machinery and equipment mfg	n.p.	n.p.	n.p.
29	Other manufacturing	56.7	0.4	0.6
21-29	Total manufacturing	4 513.5	1 309.9	29.0

(a) See paragraph 5 of the Explanatory Notes.

(b) See paragraphs 18-21 of the Explanatory Notes.

(c) This table excludes those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996. See paragraph 17 of the Explanatory Notes.

INDUSTRY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)	Turnover	Industry gross product
ANZSIC code	Description	%	%	%	%
ESTABLISHMENTS THAT DO NOT EXPORT					
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	n.p.	n.p.	n.p.	n.p.
23	Wood and paper product mfg	64.1	55.2	51.0	44.0
24	Printing, publishing and recorded media	97.1	97.7	97.3	98.0
25	Petroleum, coal, chemical and associated product mfg	68.0	65.6	63.6	53.8
26	Non-metallic mineral product mfg	71.9	64.8	82.6	83.2
27	Metal product mfg	n.p.	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	n.p.	n.p.	n.p.	n.p.
29	Other manufacturing	97.1	97.0	97.7	97.4
21-29	Total manufacturing	56.1	49.7	43.3	40.5
ESTABLISHMENTS WITH EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	n.p.	n.p.	n.p.	n.p.
22	Textile, clothing, footwear and leather mfg	69.8	72.4	77.2	76.9
23	Wood and paper product mfg	n.p.	n.p.	n.p.	n.p.
24	Printing, publishing and recorded media	n.p.	n.p.	n.p.	n.p.
25	Petroleum, coal, chemical and associated product mfg	15.2	13.6	16.5	21.7
26	Non-metallic mineral product mfg	28.1	35.2	17.4	16.8
27	Metal product mfg	n.p.	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	n.p.	n.p.	n.p.	n.p.
29	Other manufacturing	n.p.	n.p.	n.p.	n.p.
21-29	Total manufacturing	26.7	29.9	26.0	31.2
ESTABLISHMENTS WITH EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED					
21	Food, beverage and tobacco mfg	9.9	9.3	18.1	15.9
22	Textile, clothing, footwear and leather mfg	n.p.	n.p.	n.p.	n.p.
23	Wood and paper product mfg	n.p.	n.p.	n.p.	n.p.
24	Printing, publishing and recorded media	n.p.	n.p.	n.p.	n.p.
25	Petroleum, coal, chemical and associated product mfg	16.9	20.7	19.9	24.5
26	Non-metallic mineral product mfg	—	—	—	—
27	Metal product mfg	n.p.	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	38.3	40.6	44.3	42.6
29	Other manufacturing	n.p.	n.p.	n.p.	n.p.
21-29	Total manufacturing	17.2	20.4	30.8	28.3

(a) See paragraph 5 of the Explanatory Notes.

(b) See paragraphs 18-21 of the Explanatory Notes.

(c) Includes working proprietors.

(d) Excludes the drawings of working proprietors.

EXPLANATORY NOTES

INTRODUCTION

- 1** This publication presents final statistics for Tasmania compiled from a survey of manufacturing establishments for 1995–96, with some comparative statistics relating to preceding years. The emphasis of this publication is on the release of statistics for the main data items included in the survey.
- 2** The manufacturing collection is conducted on an annual basis. For the 1995–96 collection, a variety of samples was selected to produce data on a range of variables.
- 3** A sample of approximately 20,000 manufacturing establishments was requested to provide data on employment, wages and salaries, turnover, purchases and exporting activity. All data in this publication, with the exception of IGP estimates, have been compiled from this sample. Estimates of IGP were compiled using data from both this sample and a sub-sample of approximately 5,900 establishments which were asked to provide detailed structural and performance data. These 5,900 establishments were also asked to supply value of sales for commodities produced. (These commodity data will be released in the publication *Manufacturing Production, Australia: Principal Commodities Produced, 1995–96* (Cat. no. 8365.0).) A sample of approximately 4,100 manufacturing management units was asked the detailed information required to derive operating profit before tax. A separate sample of 4,500 manufacturing management units was asked for information related to waste management and environmental protection. Selected data from these other samples will be included in the new compendium publication *Manufacturing, Australia, 1997* (Cat. no. 8225.0), to be released in March 1998.
- 4** Manufacturing, as specified in Division C of the Australian and New Zealand Standard Industrial Classification (ANZSIC), 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

- 5** The main unit for which statistics are reported in the 1995–96 manufacturing collection is the establishment. 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.
- 6** A small number of manufacturing establishments engage, in a significant way, in a variety of activities which are normally carried out by different industries. For example, a predominantly manufacturing establishment may also undertake significant amounts of wholesaling. Similarly, a manufacturing establishment may produce significant volumes of a variety of goods which are normally produced in different manufacturing industries. In such cases, the original establishment is 'split' into a separate establishment for each significant activity which belongs to a separate industry. For the 1995–96 manufacturing collection, 'significant' was defined as \$7.2 million or more.

EXPLANATORY NOTES *continued*

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SCOPE AND COVERAGE *continued*

7 The statistics in this publication exclude some very small manufacturers. Those excluded are manufacturers not employing staff at 30 June of the reference year (such as sole proprietorships or family partnerships) which had not registered as group employers with the Australian Taxation Office. Though a substantial number, these businesses would contribute only marginally to aggregate data were they to be included. In addition, the ABS attempts to obtain data for those businesses which ceased operation during the year, but it is not possible to obtain data for all of them.

STANDARD UNITS

8 For the definition of the standard units now in use, see the Glossary.

RELIABILITY OF ESTIMATES

9 For information on this subject, see the sections Technical Note and Standard Errors.

DATA ADJUSTED

10 As was done for the 1993-94 and 1994-95 issues of this publication, data have been adjusted to allow for lags in processing new businesses to the ABS business register, and the omission of some businesses from the business register. First, adjustments have been made to allow for new businesses which had commenced operations but for which details had not been processed to the ABS business register in time for inclusion in the annual manufacturing industry survey. Adjustments of this type will continue to be applied in future periods. Second, some adjustments have been made for businesses which had been in existence for several years, but, for various reasons, were not previously added to the ABS business register. The ABS is remedying these omissions and all of the omitted businesses will be included in estimates from the 1996-97 census.

11 The majority of businesses affected and to which both types of adjustments apply are small in size. The effect of the adjustments applied on 1995-96 turnover for Tasmania is an increase of 0.1% while the effect on employment is an increase of 1.2%. Most industries were affected to a similar degree. The exceptions are Petroleum, coal, chemical and associated product manufacturing (for which the adjustments are 0.7% and 6.1% respectively) and Non-metallic mineral product manufacturing (0.3% and 3.7% respectively).

12 For further information on the adjustments for new businesses and the omissions, please refer to *Information Paper: Improvements to ABS Economic Statistics, 1997* (Cat. no. 1357.0) released on 22 August 1997.

COMPARABILITY WITH PREVIOUS STATISTICS

13 Commencing with the 1993-94 manufacturing collection, manufacturers not employing staff at 30 June of the reference year (such as sole proprietorships or family partnerships) which had registered as group employers with the Australian Taxation Office are included in the manufacturing collection. Data in respect of these 'non-employers' were excluded from the scope of the manufacturing collection for the 1988-89 to 1992-93 (inclusive) reference years. However, the inclusion of these types of businesses has only had a marginal affect on statistical aggregates.

EXPLANATORY NOTES *continued*

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COMPARABILITY WITH PREVIOUS STATISTICS *continued*

14 Commencing with the 1994-95 manufacturing collection, multi-establishment management units have been 'collapsed' for reporting purposes into single establishment management units, unless they had significant activity in more than one industry and/or State or Territory. The effect of this process is that most manufacturing businesses which previously reported for more than one establishment were asked to combine operations by those establishments into a single reporting unit. The effect of this on manufacturing statistics as contained in this publication has been minimal. (In 1995-96, across Australia, approximately 1,700 manufacturing establishments were no longer separately identified and counted as a result of this process. There were about 1,500 of them in 1994-95.)

15 As explained above, about 5,900 establishments included in the 1995-96 collection were asked to supply value of sales for commodities produced. Also, as explained in the previous issue of this publication, this procedure was similarly followed in respect of the 7,500 establishments included in the commodity sample as part of the 1994-95 collection and the 18,000 establishments included in the commodity sample for the 1993-94 collection. The availability of this fine level commodity/activity data for these units has enabled ABS survey processing staff to better identify those establishments which were actually in the scope of the manufacturing collection and those which should not be included in the manufacturing collection, because (for example) they were actually wholesalers or retailers. These fine level commodity/activity data have also enabled an objective industry code to be determined for the responding units in the samples, compared to the more subjective industry coding which occurred for all units in each of the 1990-91 to 1992-93 (inclusive) manufacturing collections. The industry code for the units not responding or not included in any of these commodity samples has continued to be a subjectively determined code.

16 For the 1995-96 collection, provisions for employee entitlements have been excluded from wages and salaries. Previously, these provisions were included in wages and salaries.

EMPLOYMENT SIZE DATA

17 Summary of operations data at the industry subdivision level classified by employment size are presented in table 3. Similarly, exports of goods produced data at the industry subdivision level classified by broad employment size are presented in table 4. The statistics in these two tables relate only to those manufacturing establishments operating at 30 June 1996. As such, the figures presented may differ slightly from those presented in the other tables from the manufacturing collection. These other tables include data for those manufacturing establishments which operated at any time during 1995-96.

EXPORTS BY MANUFACTURERS

18 Data relating to the amount of sales and transfers out of goods produced which were subsequently exported by the manufacturer or its agent are presented in tables 4 and 5. This is the third time that these data have been obtained by the annual manufacturing collection, the first occasion being the 1992-93 collection. It is expected that these data will now be collected annually.

EXPLANATORY NOTES *continued*

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EXPORTS BY MANUFACTURERS *continued*

19 All establishments selected in the manufacturing survey were asked whether they exported and, if so, what percentage of their sales of goods produced plus transfers out of goods produced by the establishment for sale were exported by their business or an agent on their behalf. The data presented in table 4 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. The data in table 4 exclude those manufacturing establishments which operated during 1995-96 but were not operating at 30 June 1996.

20 The statistics presented in table 4 for the value of exports by manufacturers or their agents are not intended to be the same as the value of exports classified by manufacturing industry of origin as published by the ABS in international trade statistics. These latter statistics are intended to measure total exports regardless of which business or organisation does the exporting (and to identify the probable industry from which the goods originated), whereas the statistics in tables 4 and 5 only include exports directly undertaken by the manufacturer or by its agent.

21 The data in table 4 showing exports by manufacturers or their agents can be expected to show a much lower value than the exports data from the international trade series. The main reason is that for many exports of goods manufactured in Australia, the actual exporting activity is undertaken by a business other than the manufacturer. Also, the value of goods produced on a commission or fee basis for non-manufacturing businesses and which are then exported is not included in the data in tables 4 and 5. Examples of relevant commission work are the 'slaughtering fee' charged by an abattoir for processing livestock owned by a meat exporter and the 'tolling fee' charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from tables 4 and 5 are any exports by manufacturers of goods which were not produced by that manufacturer. These and other goods exported (e.g. re-exports) are included in the international trade data. Finally, differences in valuation of exports arise because the value of exports in the international trade series would include the value to the manufacturer plus profit margins for the exporter and for any intermediaries between the manufacturer and the exporter.

USE OF ANZSIC

22 The 1992-93 manufacturing survey introduced the Australian and New Zealand Standard Industrial Classification (ANZSIC) into the annual manufacturing collection. This classification replaced the Australian Standard Industrial Classification (ASIC) previously used. All time series statistics contained in this publication are ANZSIC-based. Corresponding ANZSIC-based data for years prior to 1989-90 are not available, except for constant prices data (see paragraph 27). Similarly, ASIC-based data are not available from 1992-93.

INFORMATION PAPER

23 The *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (Cat. no. 8205.0) outlines the vast amount of data available about the manufacturing industry in both published and unpublished form available from the annual manufacturing industry collection and other ABS collections. An update of this publication is currently being prepared.

EXPLANATORY NOTES *continued*

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RELATED PUBLICATIONS

24 A series of publications (Cat. nos 8221.1 to 8221.6) have been produced for each State and were progressively released. The publication for New South Wales (Cat. no. 8221.1) also contains selected data for the Australian Capital Territory.

25 Users may also wish to refer to the following publications:

- *Business Operations and Industry Performance, Australia* (Cat. no. 8140.0)
- *Environment Protection Expenditure, Australia, 1992-93 and 1993-94* (Cat. no. 4603.0), released on 20 March 1997
- *Indexes of Industrial Production, Australia* (Cat. no. 8125.0)
- *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (Cat. no. 8205.0), released on 21 March 1996
- *Information Paper: Availability of Statistics Related to Manufacturing, 1997* (Cat. no. 8205.0), expected to be released shortly
- *Information Paper: Improvements to ABS Economic Statistics, 1997* (Cat. no. 1357.0), released on 22 August 1997
- *Labour Force, Australia* (Cat. no. 6203.0)
- *Manufacturing, Australia, 1997* (Cat. no. 8225.0), to be released in March 1998
- *Manufacturing Industry, Australia, 1995-96* (Cat. no. 8221.0), released on 10 October 1997
- *Manufacturing Industry, Australia, Preliminary, 1996-97* (Cat. no. 8201.0), to be released in March 1998
- *Manufacturing Production, Australia: Principal Commodities Produced, 1993-94* (Cat. no. 8365.0), released on 6 August 1997
- *Manufacturing Production, Australia: Principal Commodities Produced, 1995-96* (Cat. no. 8365.0), to be released early in 1998

BACK DATA AND UNPUBLISHED STATISTICS

26 A range of manufacturing industry statistics publications is available for previous years. As well, a considerable amount of data from the annual manufacturing collection exists in unpublished form. More detailed information to satisfy individual user requirements may be available on request. In general, unpublished data consist of finer industry dissections of the published data. A charge is made for providing such information. The Information Paper referred to above provides more details.

27 In particular, constant price estimates of gross product at factor cost on an ANZSIC basis are available back to 1984-85. However, constant price estimates on a true ANZSIC basis are only available from 1989-90. Nevertheless, an exercise has been undertaken to convert estimates for earlier years onto an ANZSIC basis using the relationships that applied between ASIC and ANZSIC in the years 1990-91 and 1991-92. These estimates are available at both the Australian and State and Territory levels back to 1984-85. It should be noted that the relationships that applied in 1990-91 and 1991-92 are less likely to apply the earlier the reference year. Also, annual constant price estimates of gross product at factor cost for the period 1989-90 to 1995-96 (inclusive) by ANZSIC class are available as unpublished data. All of these data can be purchased from the ABS in Canberra by contacting Paul Curran on (02) 6252 6801.

EXPLANATORY NOTES *continued*

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ROUNDING

28 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS business register and the omission of some businesses from the business register (see paragraph 10), this 'rounding rule' also applies to employment counts.

29 Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

TECHNICAL NOTE DATA RELIABILITY

SAMPLE ERROR

The 1995-96 manufacturing survey was designed primarily to deliver industry class estimates for Australia and States for the data items employment, wages and salaries, turnover and industry gross product. For the two Territories, the sample was designed to deliver industry subdivision data only.

All 1995-96 data contained in this publication have, therefore, been obtained from samples of manufacturers. As such, these data are subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all manufacturers in the population. 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 the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.

The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error. The relative standard errors for the 1995-96 employment, wages and salaries, turnover and industry gross product data covered by this publication are mostly 3% or less.

Relative standard errors at the industry subdivision level for Tasmania for selected data items representing the full range of data contained in this publication are shown in the section Standard Errors. Detailed relative standard errors can be made available on request.

NON-SAMPLE ERROR

The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of inadequacies in available sources from which the population frame was compiled, imperfections in reporting by providers, errors made in collection such as in recording and coding data, and errors made in processing data. Inaccuracies of this kind are referred to collectively as non-sampling error and they may occur in any enumeration, whether it be a full count or a sample.

While it is not possible to quantify non-sampling error, every effort is made to reduce it to a minimum. Collection forms are designed to be easy to complete and assist businesses to report accurately. Efficient and effective operating procedures and systems are used to compile the statistics. In addition, the ABS has undertaken a program of upgrading the business register. This on-going upgrade has resulted in improvements in the quality of the statistical series whose population frames are drawn from the register.

STANDARD ERRORS SELECTED DATA ITEMS

INDUSTRY SUBDIVISION		Employment at end of June(a)	Wages and salaries(b)	Turnover	Industry gross product
ANZSIC code	Description	%	%	%	%
21	Food, beverage and tobacco mfg	3.2	2.4	2.2	1.8
22	Textile, clothing, footwear and leather mfg	1.4	1.2	2.2	2.1
23	Wood and paper product mfg	2.6	1.8	1.0	1.1
24	Printing, publishing and recorded media	7.9	7.8	6.7	6.7
25	Petroleum, coal, chemical and associated product mfg	4.5	2.8	1.2	1.9
26	Non-metallic mineral product mfg	5.1	3.8	2.2	1.7
27	Metal product mfg	4.2	2.3	1.0	1.0
28	Machinery and equipment mfg	1.9	1.7	1.3	1.3
29	Other manufacturing	9.2	6.7	5.6	6.4
21-29 Total manufacturing		1.4	1.1	0.8	0.7

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

G L O S S A R Y

ABS	Australian Bureau of Statistics
Amount of goods produced by this establishment (or for it on commission) that are exported by this business or its agent	This represents the sales value of goods produced by an establishment (or for it on commission), including the value of manufactured goods transferred to other establishments of the business for sale, that are exported (outside Australia) by the business or its agent.
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASIC	Australian Standard Industrial Classification
Capital work done for own use	The value of work done by the employees or proprietors of an establishment for the business' own use, or for rental or lease. This item includes the capitalised value of the cost of the materials and the wages and salaries involved.
Change in stocks	The value of total closing stocks minus total opening stocks.
Closing stocks	The value of all stocks of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the end of the financial year.
Employment at end of June	The number of working proprietors, working partners, permanent, part-time, temporary and casual employees, and managerial and executive employees working for an establishment during the last pay period ending in June each year. Employees absent on paid or prepaid leave are included, as are employees on workers' compensation who continue to be paid through the payroll system. Non-salaried directors, self-employed persons such as consultants, contractors and persons paid solely by commission without a retainer, and volunteer workers are excluded.
Enterprise group	A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the <i>Corporations Legislation Amendment Act 1991</i>). These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised.
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.
Establishments that do not export	Establishments that reported no exports (either by their business or for them by an agent) of goods that they produced.
Establishments with exports of more than 50% of sales	Establishments that reported exports (either by their business or for them by an agent) of more than 50% of sales and transfers out of goods for sale that they produced.
Establishments with exports up to and including 50% of sales	Establishments that reported exports (either by their business or for them by an agent) of up to and including 50% of sales and transfers out of goods for sale that they produced.

Exports as a proportion of sales of goods produced (Table 4) For an individual establishment, this represents the percentage of the total sales and transfers out of goods for sale produced by the establishment (or for it on commission) which are exported (outside Australia) by the business or its agent. In table 4, the ratio is calculated by dividing the total value of goods exported by the total value of sales and transfers out of goods for sale produced by all establishments, not just the aggregated value for those units which exported.

Income from services Income received from service activities. This income includes: repair, maintenance and service income and fees; income from work done on a commission basis; delivery and/or installation charges separately invoiced to customers; advertising income; and management fees/charges from related and unrelated businesses. Excluded are rent, leasing and hiring income, interest income and royalties income.

Industry class Within ANZSIC, there is a structure comprising four levels ranging from industry division (broadest level) to the industry class (finest level). At the industry class level, the activities are narrowly defined and recognised by a four digit code e.g. industry class 2331 for Pulp, paper and paperboard manufacturing. Usually, an activity is primarily confined to one class. However, some activities may be primary to more than one class.

Industry Gross Product Industry Gross Product (IGP) is very similar to the national accounting measure gross product at factor cost which is the official statistical measure of production. IGP for an industry is a measure of the value which is added by the industry's production processes to the raw materials and services which are input to those processes. Another way of describing IGP is the value of an industry's output minus the value of intermediate inputs.

The formula used to calculate IGP is as follows — definitions of the relevant component items also appear in this Glossary:

$$\begin{aligned}
 \text{Calculation of IGP} &= \text{Turnover} \\
 &+ \text{Change in stocks} \\
 &- \text{Purchases, transfers in and selected expenses} \\
 &= \text{Establishment value added} \\
 &- \text{Fringe benefits tax} \\
 &- \text{Payroll tax} \\
 &- \text{Other operating expenses} \\
 &= \text{Industry Gross Product}
 \end{aligned}$$

Industry gross product per person employed Industry gross product of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.

Industry group This is the intermediate level within the manufacturing industry division of ANZSIC and is recognised by a three digit code e.g. industry group 233 for Paper and paper product manufacturing. It gives more detail than the industry subdivision and is created in a way that groups like industry classes together.

Industry subdivision	This is the broadest level category within the manufacturing industry division of ANZSIC and is recognised by a two digit code e.g. industry subdivision 23 for Wood and paper product manufacturing. Industry subdivisions are built up from industry groups which, in turn, are built up from industry classes. The following list gives the manufacturing industry subdivision codes and their descriptions:
21	Food, beverage and tobacco mfg
22	Textile, clothing, footwear and leather mfg
23	Wood and paper product mfg
24	Printing, publishing and recorded media
25	Petroleum, coal, chemical and associated product mfg
26	Non-metallic mineral product mfg
27	Metal product mfg
28	Machinery and equipment mfg
29	Other manufacturing
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.
Manufacturing establishment	An establishment predominantly engaged in manufacturing activities. The data collected for such establishments 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.
Manufacturing management unit	A management unit predominantly engaged in manufacturing activities. The data collected for such management units cover all activities of the management unit (including in respect of non-manufacturing activities). Conversely, there are some management units predominantly engaged in non-manufacturing activities which have establishments engaged in manufacturing activities and which are excluded.
Opening stocks	The value of all stocks of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the beginning of the financial year.
Other operating expenses	Includes operating expenses such as management fees and charges paid to related and unrelated businesses, office supplies and printing costs, rates, telephone and postage charges, travelling and entertainment expenses, accounting and legal services, advertising costs and land tax. Excludes income tax and extraordinary expenses.
Own account capital work	The value of work done by the employees or proprietors of an establishment for the business' own use, or for rental or lease. This item includes the capitalised value of the cost of the materials and the wages and salaries involved.
Purchases	Purchase of materials, components, containers, packaging, fuels, electricity and water, and of goods for resale. The purchase of parts and fuel for motor vehicles is excluded.

GLOSSARY *continued*

Purchases, transfers in and selected expenses	Purchase of materials, components, containers, packaging, fuels, electricity and water, and of goods for resale, plus transfers in of goods from other establishments of the same business for further processing, assembly, installation or resale, plus commission expenses (including sales commission expenses), repair and maintenance expenses, outward freight and cartage expenses, motor vehicle running expenses, and rent, leasing and hiring expenses. Transfers in are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership i.e. at commercial selling price.
Sales and transfers out of goods produced by the establishment	Includes sales of goods produced by the establishment (or for it on commission), sales or transfers to related businesses, progress payments billed for long-term contracts, and delivery and/or installation charges not separately invoiced to customers. Also included are goods transferred out to other establishments of the same business for sale. Transfers out are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership i.e. at commercial selling price. Excluded are export freight charges, sales of fixed tangible assets, and sales tax, excise and duties received (on behalf of the Government).
Service income	Income received from service activities. This income includes: repair, maintenance and service income and fees; income from work done on a commission basis; delivery and/or installation charges separately invoiced to customers; advertising income; and management fees/charges from related and unrelated businesses. Excluded are rent, leasing and hiring income, interest income and royalties income.
Turnover	<p>(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 income from outside the establishment (such as commission income, repair and service income, and rent, leasing and hiring income), plus capital work done by an establishment's own employees for the business' own use, or for rental or lease. Receipts from interest, royalties, dividends and the sale of fixed tangible assets are excluded.</p> <p>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.</p>
Turnover per person employed	Turnover of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.
Value added	Turnover, plus the increase (or less the decrease) in the value of stocks, less purchases, transfers in and selected expenses.

GLOSSARY *continued*

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Wages and salaries	The gross wages and salaries (including capitalised wages and salaries) of all employees of the establishment. The item includes severance, termination and redundancy payments, but excludes reimbursements or allowances to employees for travel, entertainment, etc. For the 1995-96 collection, provisions for employee entitlements (e.g. provisions for annual leave and leave bonus, long service leave, sick leave, and severance, termination and redundancy payments) are excluded. The drawings of working proprietors are also excluded.
Wages and salaries to turnover ratio	The wages and salaries paid by manufacturing establishments which operated during the year ended 30 June as a proportion of the turnover of manufacturing establishments which operated during the same year.

For more information . . .

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