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**MANUFACTURING INDUSTRY
TASMANIA
1991-92**

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INQUIRIES • *for further information about statistics in this publication and the availability of related unpublished statistics, contact Mark Wise on Sydney (02) 268 4541 or any other ABS office.*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

INTRODUCTION

This publication contains detailed industry statistics compiled from a census of manufacturing establishments conducted in respect of 1991–92 and some comparative statistics for earlier years. It provides more detailed information on manufacturing in Tasmania than was published in the previous publications from this census — *Manufacturing Industry, Australia, 1991–92, Preliminary* (8201.0), which was released on 25 May 1993 and *Manufacturing Industry, Australia, 1991–92* (8221.0), which was released on 21 February 1994.

The 1990–91 census data presented in this publication generally differ from those published in the 1990–91 issue of this publication. This is due to further processing of that year's data. All time series statistics presented in this publication show these revised data. Further details about the extent of these revisions can be obtained by contacting ABS NSW — see previous page for contact details.

For the 1991–92 manufacturing census, information on only employment, wages and salaries paid and turnover were collected. However, as with the 1990–91 census, the 1991–92 census also included some questions related to environmental protection by manufacturers. The environmental protection issues covered in 1991–92 were different to those covered in 1990–91. These data are presented in Table 7. Information at the ASIC class level showing both current and capital expenditure on environmental protection are presented in Table 8. This expands on the information collected in 1990–91.

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

- Census of Population and Housing (1991) data are presented in Tables 2 and 3. This includes information on the characteristics of persons employed in the manufacturing industry.
- A concordance between the ASIC and ANZSIC industry classifications is presented in Table 10. For a detailed explanation of this concordance, see the introduction to Table 10.

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

Unpublished data

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

SUMMARY OF FINDINGS

Overview

Turnover for the year 1991–92 by manufacturing establishments operating in Tasmania was \$3,903.7 million. This represents a 5.3 per cent decrease, in current price terms, from the \$4,124.2 million in turnover recorded for the year 1990–91. Since the ABS began collecting integrated economic statistics (in respect of 1968–69), this is the first time that turnover at current prices for the manufacturing industry in Tasmania has fallen compared to the previous year. Manufacturing employment at the end of June 1992 was 23,303, some 4.8 per cent lower than twelve months earlier.

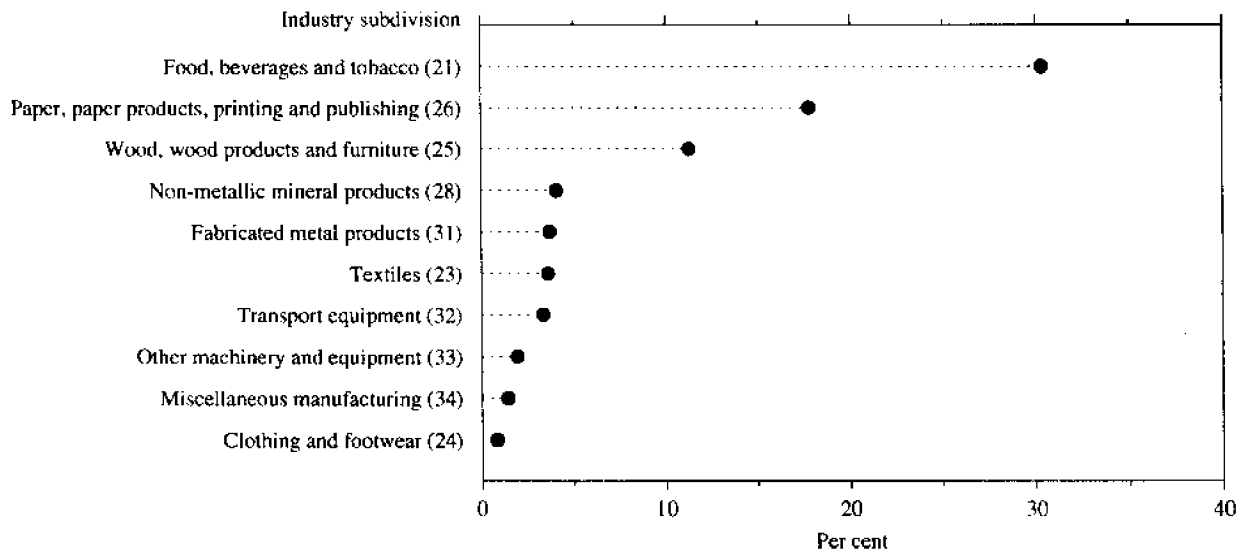
Turnover (Tables 1 and 5)

Turnover data for 1991–92 are not available for publication for two of the 12 industry subdivisions.

For those industry subdivisions available for publication (which together account for 78.2% of total manufacturing turnover in Tasmania), the chart below ranks industry subdivisions from the largest to the smallest contributor for 1991–92 manufacturing turnover. Food, beverages and tobacco continues to be the largest contributor, by far, with 30.3 per cent of total turnover, with Paper, paper products, printing and publishing (17.8%) continuing as the second largest contributor. Clothing and footwear (0.8%) and Miscellaneous manufacturing (1.4%) continue to be the smallest contributors to total turnover.

Turnover of manufacturing establishments decreased, in current price terms, by 5.3 per cent between 1990–91 and 1991–92. Of the ten industry subdivisions available for publication, five industry subdivisions recorded increases and five recorded decreases. Miscellaneous manufacturing (up 10.3% — from \$49.9m to \$55.1m), Clothing and footwear (up 10.3% — from \$26.9m to \$29.7m) and Transport equipment (up 9.5% — from \$118.3m to \$129.5m) recorded the largest percentage increases. The largest percentage decreases were recorded by Paper, paper products, printing and publishing (down 13.5% — from \$803.8m to \$695.5m), Fabricated metal products (down 8.9% — from \$161.3m to \$146.9m) and Wood, wood products and furniture (down 7.0% — from \$473.0m to \$439.8m).

DISTRIBUTION OF TURNOVER (a), TASMANIA, 1991–92



(a) Industry subdivisions Chemical, petroleum and coal products (27) and Basic metal products (29) are not available for publication. Taken together, these two industry subdivisions accounted for 21.8 per cent of manufacturing turnover in Tasmania in 1991–92.

The percentage contribution by Tasmania to total Australian manufacturing turnover in 1991–92 was 2.3 per cent. This represents a decrease of 0.1 percentage points on the contribution reported in 1990–91. The percentage contribution by the other States and Territories in 1991–92 was: New South Wales 34.6 per cent; Victoria 31.6 per cent; Queensland 13.7 per cent; South Australia 9.3 per cent; Western Australia 7.7 per cent; the Northern Territory 0.4 per cent; and the Australian Capital Territory 0.3 per cent.

Longer term trends (1988–89 to 1991–92)

Turnover for the manufacturing industry in Tasmania increased by 1.1 per cent over the period 1988–89 to 1991–92 in current price terms. While analyses of turnover data over the longer term in current prices are affected by movements in prices and quantities produced, some indications of relative growth across manufacturing industries can still be produced. Of the ten industry subdivisions available for publication, six industry subdivisions recorded increases and four recorded decreases. Transport equipment (up 123.1% — from \$58.1m to \$129.5m), Food,

beverages and tobacco (up 17.7% — from \$1,004.4m to \$1,181.9m) and Textiles (up 16.5% — from \$120.2m to \$140.1m) recorded the largest percentage growth in turnover over the period. The largest percentage decreases were recorded in Fabricated metal products (down 23.2% — from \$191.2m to \$146.9m) and Wood, wood products and furniture (down 17.3% — from \$532.1m to \$439.8m).

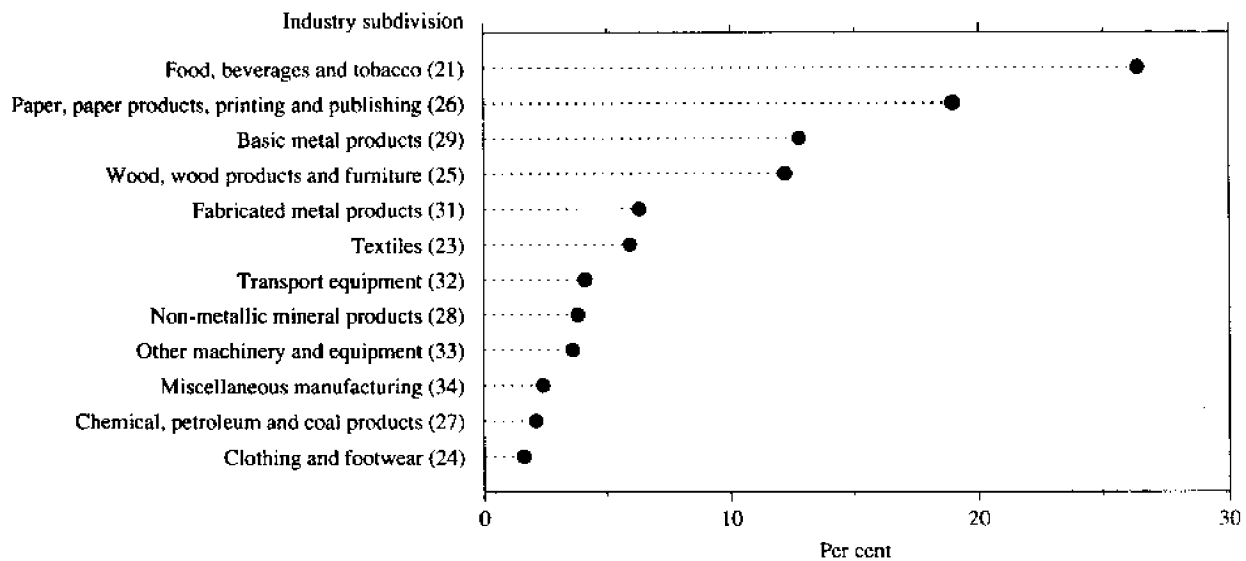
The percentage contribution by Tasmania to total Australian turnover has decreased since 1988–89, decreasing 0.2 percentage points to 2.3 per cent. The only other State to decrease its percentage share was Victoria (down 2.4 percentage points to 31.6%). The States to increase their percentage share of turnover were: South Australia (up 0.7 percentage points to 9.3%); Western Australia (up 0.7 percentage points to 7.7%); New South Wales (up 0.5 percentage points to 34.6%); and Queensland (up 0.5 percentage points to 13.7%). Both the Northern Territory (0.4%) and the Australian Capital Territory (0.3%) held their percentage share.

Employment (Tables 1 and 5)

The Food, beverages and tobacco (26.4%) and Paper, paper products, printing and publishing (19.0%) industry subdivisions were, once again, the major contributors to employment in the manufacturing industry. Clothing and footwear (1.6%) remained the smallest contributor to employment in the manufacturing industry, followed by Chemical, petroleum and coal products (2.1%).

Manufacturing employment decreased by 4.8 per cent between June 1991 and June 1992. Of the 10 industry subdivisions available for publication, six industry subdivisions recorded decreases and four recorded increases in the level of employment over this period. Transport equipment (down 27.5% — from 1,312 persons to 951 persons) and Wood, wood products and furniture (down 14.3% — from 3,320 persons to 2,844 persons) recorded the largest percentage decreases. Miscellaneous manufacturing (up 14.4% — from 487 persons to 557 persons) and Clothing and footwear (up 9.7% — from 331 persons to 363 persons) recorded the largest percentage increases.

DISTRIBUTION OF EMPLOYMENT, TASMANIA, 1991-92

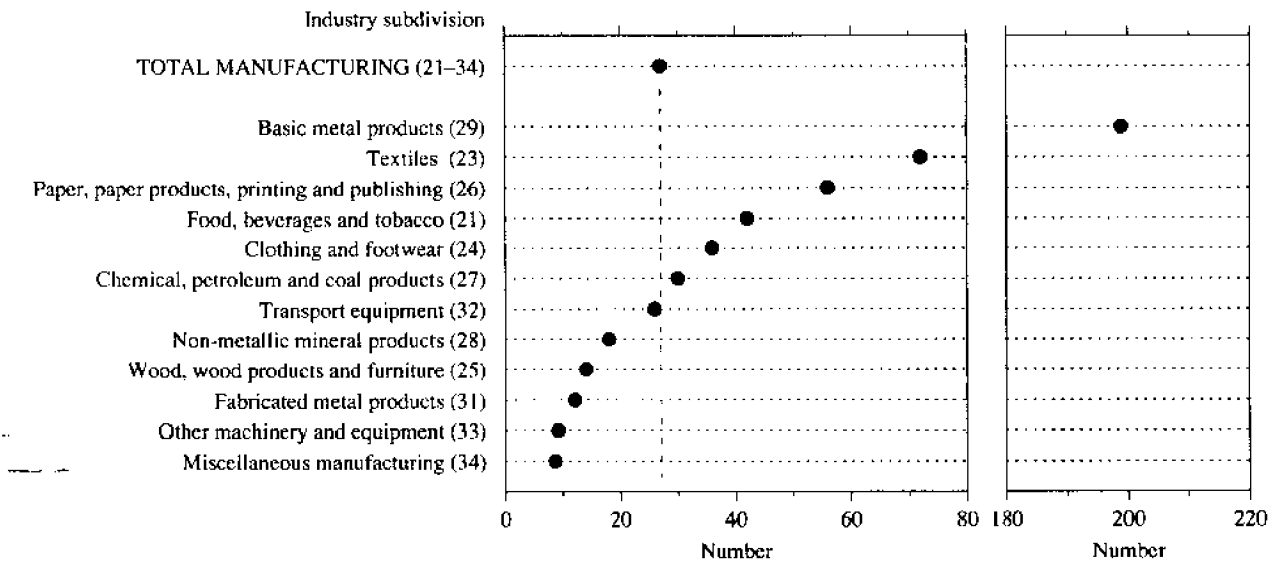


The percentage contribution by Tasmania to total Australian manufacturing employment at the end of June 1992 compared to the end of June 1991 was unchanged at 2.6 per cent. The percentage contribution to total manufacturing employment by the other States and Territories at the end of June 1992 was: New South Wales 34.1 per cent; Victoria 32.7 per cent; Queensland 13.5 per cent; South Australia 9.5 per cent; Western Australia 6.9 per cent; the Australian Capital Territory 0.4 per cent; and the Northern Territory 0.3 per cent.

On average, each manufacturing establishment in Tasmania employed 27 persons at the end of June 1992, which continues the decline evident since June 1990 (when the average was 30 persons employed per establishment). At the end of both June 1989 and June 1991, the average was 27 persons employed per establishment. Over the period from 1988–89, however, the ratio of turnover per person employed has grown considerably. In 1988–89, the average turnover per person employed for all manufacturing establishments was \$140,200. By 1991–92, this had risen to \$167,500, a growth of 19.5 per cent. This is well above the 1.1 per cent increase in turnover and suggests significant productivity growth.

As the chart below shows, the number of persons employed per establishment varied greatly across industry subdivisions, ranging from 9 persons for both Miscellaneous manufacturing and Other machinery and equipment to an average of 199 persons for Basic metal products.

PERSONS EMPLOYED PER ESTABLISHMENT, TASMANIA, 1991-92



Of the 10 industry subdivisions available for publication, Food, beverages and tobacco (\$192,400) and Non-metallic mineral products (\$182,400) recorded the highest values of turnover per person employed. Clothing and footwear recorded the lowest value for this ratio (\$81,800). Turnover per person employed for total manufacturing in 1991-92 was \$167,500. Various factors affect the magnitude of turnover per person employed. In general, industries which are labour intensive will record lower values of turnover per person employed than will those industries which are capital intensive. This ratio may also be influenced by commodity prices.

Longer term trends (June 1989 to June 1992)

Employment in the Tasmanian manufacturing industry decreased by 4,229 persons (down 15.4% — from 27,532 persons to 23,303 persons) over the period June 1989 to June 1992. All 10 industry subdivisions available for publication recorded decreases over this period, with Clothing and footwear (down 48.1% — from 699 persons to 363 persons), Wood, wood products and furniture (down 30.8% — from 4,107 persons to 2,844 persons), Fabricated metal products (down 27.3% — from 2,014 persons to 1,465 persons) and Transport equipment (down 24.3% — from 1,256 persons to 951 persons) recording the largest percentage decreases.

All other States and both Territories also recorded decreases in manufacturing employment between June 1989 and June 1992. The decreases were: Victoria (down 20.9% — from 374,309 persons to 296,108 persons); South Australia (down 17.6% — from 105,063 persons to 86,601 persons); the Northern Territory (down 16.8% — from 3,392 persons to 2,821 persons); New South Wales (down 16.6% — from 370,436 persons to 309,124 persons); Western Australia (down 16.1% — from 74,500 persons to 62,475 persons); Queensland (down 11.0% — from 137,479 persons to 122,424 persons); and the Australian Capital Territory (down 10.0% — from 4,099 persons to 3,691 persons).

The percentage contribution by Tasmania to Australian manufacturing employment has increased since June 1989, increasing by 0.1 percentage points to 2.6 per cent. Other States to show increases in their percentage share of employment over this period were: Queensland (up 1.0 percentage points to 13.5%); New South Wales (up 0.3 percentage points to 34.1%); and Western Australia (up 0.1 percentage points to 6.9%). States to show decreases in their percentage share of employment over this period were Victoria (down 1.4 percentage points to 32.7%) and South Australia (down 0.1 percentage points to 9.5%). The Australian Capital Territory (0.4%) and the Northern Territory (0.3%) held their percentage share of employment over this period.

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

The 1991 Census of Population and Housing provides additional information to the manufacturing census on the characteristics of persons employed in the manufacturing industry. It shows that employment at August 1991 among manufacturing sole proprietors and partnerships not employing others was 1,248. (Note: These persons are excluded from the scope of the manufacturing census — see paragraph 9 of the Explanatory Notes.) The population census also

recorded 21,940 'other' persons employed in the manufacturing industry in Tasmania at August 1991. (Note: Whilst these population census figures are conceptually similar to the data collected in the manufacturing census, there are many reasons why the data do not agree — see paragraphs 31 to 34 of the Explanatory Notes.)

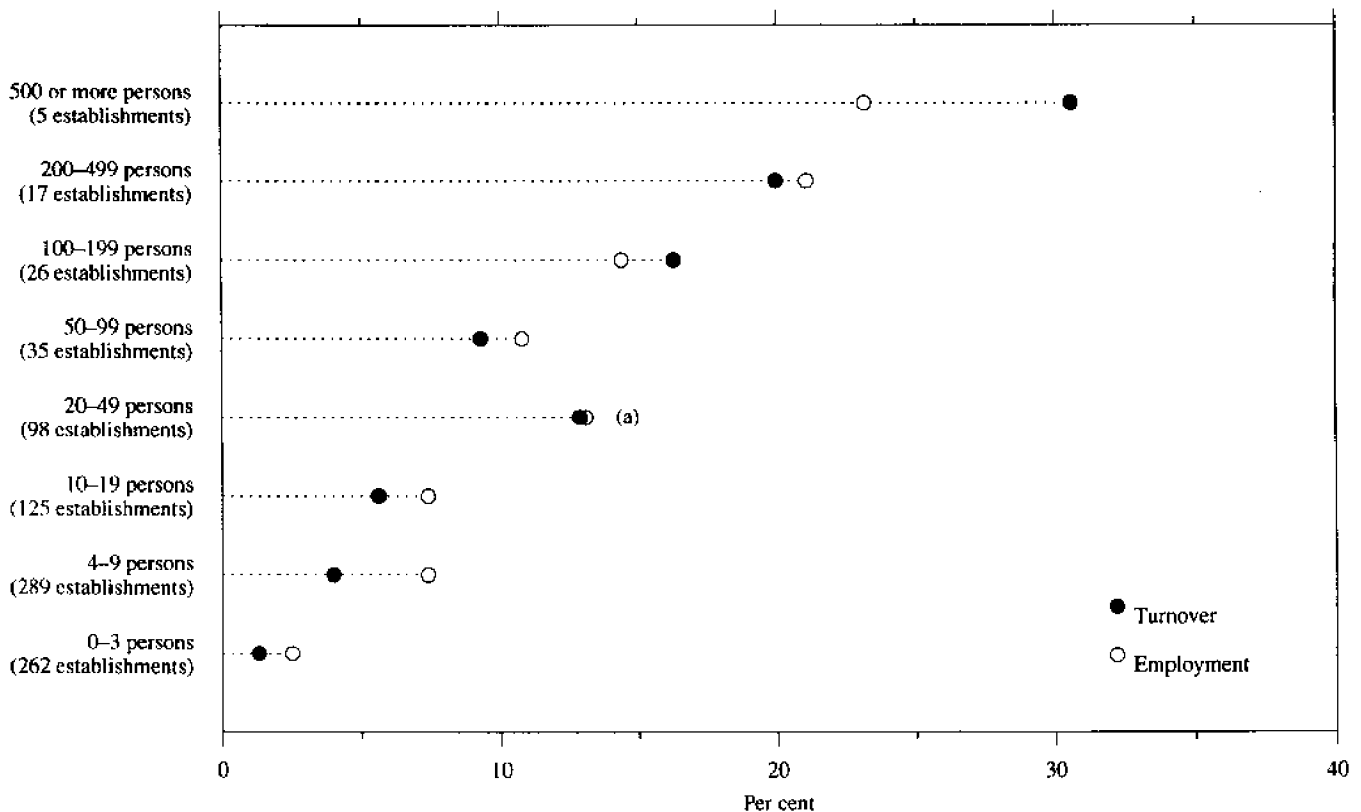
A breakdown of the age composition of persons employed in the manufacturing industry shows that it has a similar distribution as for all industries combined. However, there are relatively more people working in manufacturing aged 15–24 years (20.4% compared with 19.0% for all industries) and 25–34 years (29.1% compared with 26.2% for all industries) and slightly less people working in manufacturing aged 35–54 years (42.6% compared with 45.7%) and 55 and over (7.9% compared with 9.1%). The age distribution across the manufacturing industry subdivisions is more variable, but still broadly consistent with the average for all manufacturing industry. The major variations to this pattern were the younger employment recorded in Clothing and footwear (where 38.7% of persons employed were in the age group 15–24 years, with 31.9% in the age group 35–54 years and 3.9% in the age group 55 years and over) and Chemical, petroleum and coal products (where the figures were 11.1% aged 15–24 years and 48.0% aged 35–54 years) where the average age of persons employed was much higher.

The proportion of those employed in the manufacturing industry who were male was 76.7 per cent, whilst females made up 23.3 per cent. These are substantial differences from the figures for all industries combined (males — 58.1%; females — 41.9%), showing the significance of male employment in the manufacturing industry. The highest concentration of male employment in the manufacturing industry was in Basic metal products, where 93.0 per cent of persons employed were male. The highest incidence of female employment in the manufacturing industry was, by far, in Clothing and footwear, where 68.2 per cent of persons employed were female.

Employment size (Table 6)

Of the 857 manufacturing establishments operating at 30 June 1992, 48 were large establishments (employing 100 or more persons). While making up only 5.6 per cent of all establishments, they accounted for 66.8 per cent of manufacturing turnover for 1991–92 and 58.8 per cent of employment at the end of June 1992. Although establishments employing 0–19 persons comprised 78.9 per cent of manufacturing establishments in Tasmania at 30 June 1992, they accounted for only 11.0 per cent of turnover and 17.3 per cent of employment. There were five manufacturing establishments employing 500 or more persons at the end of June 1992. They employed 23.2 per cent of all persons working in the manufacturing industry in Tasmania and contributed 30.6 per cent of all manufacturing turnover.

DISTRIBUTION OF MANUFACTURING TURNOVER AND EMPLOYMENT BY EMPLOYMENT SIZE, TASMANIA, 1991–92



(a) Percentage distribution of turnover is 12.9 per cent and employment 13.1 per cent.

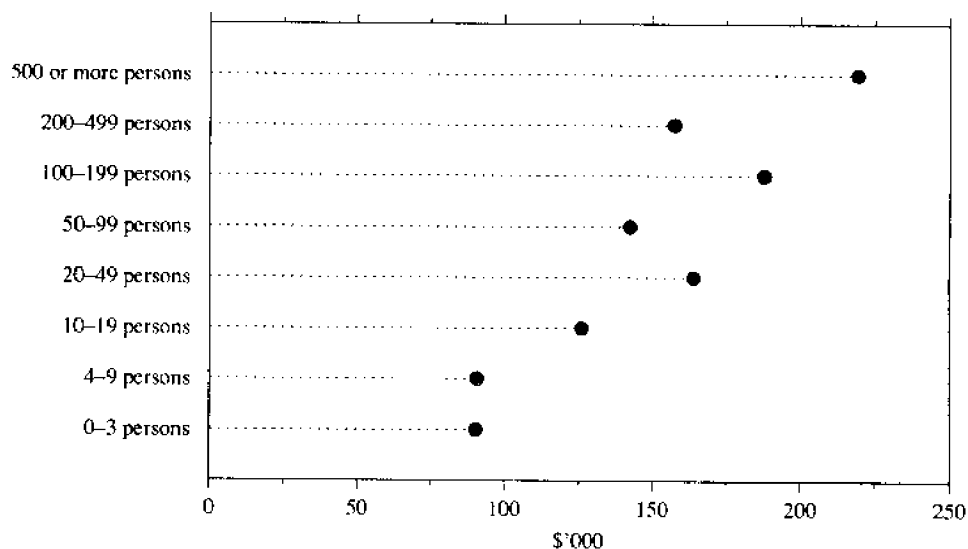
For 1991-92, the percentage distribution of turnover by employment size for the manufacturing industry was:

0-19 persons	11.0 per cent
20-49 persons	12.9 per cent
50-99 persons	9.3 per cent
100 or more persons	66.8 per cent

For three industry subdivisions, more than 50 per cent of turnover was contributed by large establishments (employing 100 or more persons). These industries were: Paper, paper products, printing and publishing (91.9%); Textiles (80.9%); and Food, beverages and tobacco (57.1%). (Data for the other nine industry subdivisions were either not available for publication or were nil.) Small establishments (employing 0-19 persons) made significant contributions to turnover for Other machinery and equipment (44.8%) and Fabricated metal products (42.4%).

Small establishments (employing 0-19 persons) displayed a much lower ratio of average turnover per person employed at the end of June 1992 (\$106,000) than establishments in the larger size categories. Large establishments (employing 100 or more persons) recorded an average turnover per person employed at the end of June 1992 of \$189,400, with establishments employing 500 or more persons having a ratio of \$219,300. It should be remembered that the data include all manufacturing industries and that somewhat different patterns may emerge through analysis of individual industries.

TURNOVER PER PERSON EMPLOYED BY EMPLOYMENT SIZE, TASMANIA, 1991-92



Environmental protection (Tables 7 and 8)

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

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

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

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

establishments at the total manufacturing level. This indicates that larger establishments generally make up a relatively higher proportion of manufacturing establishments involved in these environmental protection activities.

In all, 7 per cent of manufacturing establishments in Tasmania reported conducting environmental impact assessments or audits in 1991–92. These establishments contributed 31 per cent of total manufacturing turnover, reflecting the substantially higher incidence of environmental impact assessments or audits being conducted by larger establishments. The highest proportion of establishments which conducted environmental impact assessments or audits occurred in Textiles and Food, beverages and tobacco, where 19 per cent and 14 per cent (respectively) of all establishments conducted these studies. The only other industry subdivision with a relatively high incidence of the conduct of these studies was Chemical, petroleum and coal products (11%). Apart from Clothing and footwear where no environmental impact assessments or audits were conducted, the lowest incidence of the conduct of these studies occurred in Other machinery and equipment (2%).

Overall, 19 per cent of all manufacturing establishments permitted and/or encouraged the return of their own containers or packaging. Those establishments contributed 21 per cent of total manufacturing turnover. The highest incidence of the return of containers or packaging was reported in Chemical, petroleum and coal products, where 33 per cent of all establishments did so. A high incidence of the return of containers or packaging was also reported in Food, beverages and tobacco, where 30 per cent of all establishments did so. However, those establishments were likely to be the smaller ones as they contributed only 20 per cent of turnover in that industry. Whilst the incidence of the return of containers or packaging was only 25 per cent of establishments in Miscellaneous manufacturing, those establishments were likely to be the larger ones, contributing 52 per cent of turnover, the highest of any industry subdivision.

Only 5 per cent of all manufacturing establishments reported that they were engaged in the marketing or production of goods or services for monitoring, maintaining or improving the environment. Those establishments contributed 3 per cent of total manufacturing turnover. The results show that the size of the businesses marketing or producing environmental goods or services varied depending on the industry subdivision. The incidence of larger businesses marketing or producing goods or services to monitor, maintain or improve the environment was high in Miscellaneous manufacturing, with the 11 per cent of manufacturing establishments marketing or producing these goods or services contributing 20 per cent of turnover in the industry. The incidence of smaller businesses undertaking these activities was high in Non-metallic mineral products, where the 10 per cent of all establishments involved contributed only 5 per cent of the industry's turnover.

Expenditure on Environmental Protection

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

In selected industries, the following breakdowns were also requested:

- Current expenditure on environmental protection in respect of:
 - (i) Government and council fees, charges and taxes relating to pollution abatement and control;
 - (ii) Purchased services (e.g. payments to non-government contractors to remove and dispose of wastes); and
 - (iii) Other current expenditure on environmental protection.
- Current expenditure on environmental protection in respect of:
 - (i) Research and development carried out by individual businesses; and
 - (ii) Research and development carried out for individual businesses by other businesses.
- Current expenditure on environmental protection in respect of:
 - (i) Expenditure incurred on environmental impact assessments (for proposed new production);
 - (ii) Expenditure incurred on environmental audits (for existing production processes); and
 - (iii) Expenditure incurred on energy audits.
- Capital expenditure by individual businesses for new plant, machinery or equipment designed to abate or control water, hazardous and non-hazardous solid wastes, air, noise and other pollutants through:
 - (i) end-of-line techniques; and
 - (ii) change-in-production processes.

In 1991–92, total current expenditure by manufacturing establishments in Tasmania on environmental protection was \$21.2m. This amounts to 0.6 per cent of the total manufacturing industry turnover for the year. Of the total current expenditure, 61.3 per cent was spent by manufacturers in just one industry subdivision — Basic metal products

(\$13.0m). Most of this amount (\$12.5m) was spent by manufacturers in the Basic non-ferrous metals (ASIC group 295) industry.

In 1991–92, total capital expenditure by manufacturers to abate pollution in Tasmania was \$21.8m. Of this total expenditure, 89.1 per cent was spent by manufacturers in three industry subdivisions — Chemical, petroleum and coal products (\$10.1m), Basic metal products (\$5.1m) and Food, beverages and tobacco (\$4.1m).

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

Regional manufacturing activity (Table 9)

The manufacturing industry in Tasmania in 1991–92 was shared between the three largest statistical divisions. Greater Hobart (37.9% of all locations in the State, 34.9% of State employment and 35.9% of State turnover), Northern (31.8% of locations, 32.4% of employment and 29.9% of turnover) and Mersey–Lyell (24.2% of locations, 29.9% of employment and 30.6% of turnover) were the dominant statistical divisions.

An analysis of data from 1988–89 to 1991–92 shows that there has been some change in the geographic distribution of manufacturing activity outside Greater Hobart Statistical Division. Northern Statistical Division increased its percentage share of employment (up 0.7 percentage points to 32.4%) and of turnover (up 1.9 percentage points to 29.9%). Mersey–Lyell Statistical Division increased its percentage share of employment (up 0.2 percentage points to 29.9%), whilst its percentage share of turnover fell (down 2.0 percentage points to 30.6%). Southern Statistical Division decreased its percentage share of employment (down 1.1 percentage points to 2.7%) and of turnover (down 0.6 percentage points to 3.7%).

Australian and New Zealand Standard Industrial Classification (ANZSIC) (Table 10)

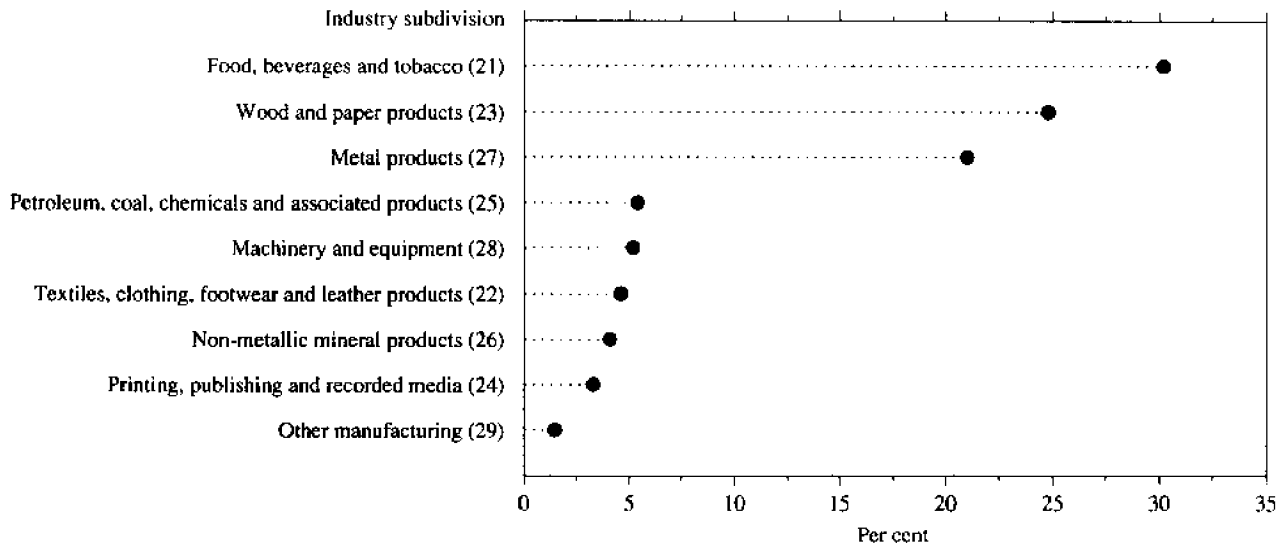
As explained in the introduction to Table 10, a new industry classification called the Australian and New Zealand Standard Industrial Classification (ANZSIC) is being introduced to replace the ASIC currently in use. Table 10 presents a concordance of data between those two industry classifications in respect of the 1991–92 reference year.

At the total manufacturing level, there is very little difference in the figures reported for Tasmania under the two industry classifications. Under ANZSIC, there are 2.3 per cent fewer establishments in the manufacturing industry, 0.7 per cent fewer persons employed and 0.4 per cent less turnover than under ASIC. This is because, on balance, there are more establishments classified to industries other than manufacturing under ANZSIC than under ASIC.

The major differences between the two classifications becomes apparent in examining turnover at the industry subdivision level. As the chart below shows, under ANZSIC there are three large industry subdivisions with the remaining six being of a substantially smaller size. Under ASIC (for which there were 12 industry subdivisions), for those 10 subdivisions available for publication, there was one large industry subdivision, two intermediate sized industry subdivisions and seven industry subdivisions of a substantially smaller size (see the chart on page 1).

The chart on the next page ranks ANZSIC industry subdivisions from the largest to the smallest contributor for 1991–92 manufacturing turnover. Food, beverages and tobacco continues as the largest contributor to Tasmanian manufacturing industry turnover with 30.2 per cent of the total turnover. Wood and paper products (24.8%) and Metal products (21.0%) were, by far, the next highest contributors. The remaining five industry subdivisions each contributed less than 6 per cent to total turnover, with Other manufacturing (1.5%) being the smallest.

DISTRIBUTION OF TURNOVER, ANZSIC SUBDIVISIONS, TASMANIA, 1991-92



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

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

<i>Industry subdivision</i>			<i>Employment</i>	<i>Wages and</i>	<i>Turnover</i>	<i>Persons</i>	<i>Turnover</i>	
<i>ASIC</i>	<i>Description</i>		<i>at end of</i>	<i>salaries</i>	<i>(f)</i>	<i>employed per</i>	<i>per person</i>	
<i>code</i>		<i>Establishments</i>	<i>June</i>	<i>(e)(f)</i>	<i>(f)</i>	<i>establishment</i>	<i>employed</i>	
		<i>(c)</i>	<i>(d)</i>	<i>(\$m)</i>	<i>(\$m)</i>	<i>(No.)</i>	<i>(f)</i>	
		<i>(No.)</i>	<i>('000)</i>				<i>(\$'000)</i>	
21	Food, beverages and tobacco	1991-92	145	6.1	156.1	1,181.9	42	192.4
		1990-91 (g)	139	6.0	149.7	1,167.0	43	193.8
		1989-90	137	n.p.	n.p.	n.p.	n.p.	n.p.
		1988-89	142	6.5	139.8	1,004.4	46	153.8
23	Textiles	1991-92	19	1.4	33.1	140.1	72	102.0
		1990-91	19	1.4	30.6	149.5	73	107.9
		1989-90	17	n.p.	n.p.	n.p.	n.p.	n.p.
		1988-89	15	1.4	26.4	120.2	96	83.8
24	Clothing and footwear	1991-92	10	0.4	5.4	29.7	36	81.8
		1990-91	11	0.3	6.1	26.9	30	81.3
		1989-90	7	n.p.	n.p.	n.p.	n.p.	n.p.
		1988-89	17	0.7	9.9	28.8	41	41.2
25	Wood, wood products and furniture	1991-92	207	2.8	80.0	439.8	14	154.6
		1990-91 (g)	227	3.3	84.2	473.0	15	142.5
		1989-90	237	3.8	88.8	529.2	16	137.9
		1988-89	284	4.1	82.0	532.1	14	129.6
26	Paper, paper products, printing and publishing	1991-92	79	4.4	180.1	695.5	56	157.3
		1990-91	71	4.6	162.5	803.8	64	175.8
		1989-90	72	4.7	140.9	756.1	65	160.4
		1988-89	75	5.1	147.0	797.7	67	157.8
27	Chemical, petroleum and coal products	1991-92	16	0.5	n.p.	n.p.	30	n.p.
		1990-91	16	n.p.	n.p.	n.p.	n.p.	n.p.
		1989-90	19	n.p.	n.p.	n.p.	n.p.	n.p.
		1988-89	20	n.p.	n.p.	n.p.	n.p.	n.p.
28	Non-metallic mineral products	1991-92	50	0.9	26.6	159.6	18	182.4
		1990-91 (g)	40	0.9	25.3	151.4	21	176.6
		1989-90	45	0.9	20.8	152.2	19	178.8
		1988-89	48	0.9	23.1	158.6	19	170.5
29	Basic metal products	1991-92	15	3.0	n.p.	n.p.	199	n.p.
		1990-91	17	n.p.	n.p.	n.p.	n.p.	n.p.
		1989-90	19	n.p.	n.p.	n.p.	n.p.	n.p.
		1988-89	13	n.p.	n.p.	n.p.	n.p.	n.p.
31	Fabricated metal products	1991-92	124	1.5	35.4	146.9	12	100.3
		1990-91 (g)	132	1.5	36.0	161.3	12	105.0
		1989-90	131	1.6	35.3	154.8	12	97.5
		1988-89	149	2.0	40.2	191.2	14	94.9
32	Transport equipment	1991-92	36	1.0	27.7	129.5	26	136.2
		1990-91	35	1.3	31.7	118.3	37	90.2
		1989-90	42	1.3	33.4	120.7	31	93.0
		1988-89	50	1.3	24.7	58.1	25	46.3
33	Other machinery and equipment	1991-92	91	0.8	19.6	74.4	9	88.9
		1990-91 (g)	90	0.9	20.5	75.0	10	87.7
		1989-90	82	0.9	19.0	69.6	11	79.4
		1988-89	78	1.0	19.6	81.4	12	85.1
34	Miscellaneous manufacturing	1991-92	65	0.6	11.3	55.1	9	98.9
		1990-91	54	0.5	13.2	49.9	9	102.5
		1989-90	66	0.7	14.1	58.8	10	89.0
		1988-89	71	0.7	11.9	53.5	10	78.8
21-34	Total manufacturing	1991-92	857	23.3	714.9	3,903.7	27	167.5
		1990-91 (g)	851	24.5	716.9	4,124.2	29	168.5
		1989-90	874	26.1	689.6	4,087.5	30	156.7
		1988-89	962	27.5	652.2	3,860.9	29	140.2

(a) See paragraph 29 of the Explanatory Notes. (b) For comparability of data over the time periods shown, see paragraphs 27 and 28 of the Explanatory Notes. (c) See paragraphs 4 to 10 and 28 of the Explanatory Notes. (d) Includes working proprietors. (e) Excludes the drawings of working proprietors. (f) Value data are at current prices and, therefore, do not discount the impact of price changes. (g) Data presented for 1990-91 have undergone extensive revision due to further processing of that year's data and, therefore, generally differ from those previously published.

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

Industry subdivision		Manufacturing employment, August 1991 (a)		Manufacturing census employment at end of June 1991 (b)
		Sole proprietors and partnerships not employing others (No.)	Total other (b) (No.)	
ASIC code	Description			(No.)
21	Food, beverages and tobacco	153	5,405	6,021
23	Textiles	45	1,188	1,385
24	Clothing and footwear	44	388	331
25	Wood, wood products and furniture	238	2,543	3,320
26	Paper, paper products, printing and publishing	107	4,152	4,573
27	Chemical, petroleum and coal products	16	861	n.p.
28	Non-metallic mineral products	112	731	857
29	Basic metal products	37	2,090	n.p.
31	Fabricated metal products	72	1,275	1,536
32	Transport equipment	69	1,143	1,312
33	Other machinery and equipment	98	1,103	855
34	Miscellaneous manufacturing	104	452	487
..	Manufacturing undefined (c)	153	609	..
21-34	Total manufacturing	1,248	21,940	24,479

(a) Source: 1991 Census of Population and Housing. (b) Includes working proprietors with employees. For an explanation of the differences between 'Total other' and 'Manufacturing census employment at end of June 1991', see paragraphs 18, 19 and 31 to 34 of the Explanatory Notes. (c) Those persons who indicated that they were employed in the manufacturing industry but the description given was insufficient to enable them to be attributed to a specific industry subdivision.

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

Industry		Proportion of industry					
		Sex		Age group (years)			
		Males	Females	15-24	25-34	35-54	55 and over
ASIC code	Description						
	MANUFACTURING—						
21	Food, beverages and tobacco	62.6	37.4	23.7	27.8	41.5	7.0
23	Textiles	52.1	47.9	19.8	29.4	42.4	8.4
24	Clothing and footwear	31.8	68.2	38.7	25.5	31.9	3.9
25	Wood, wood products and furniture	88.1	11.9	20.8	30.1	39.8	9.2
26	Paper, paper products, printing and publishing	79.1	20.9	15.0	26.7	48.7	9.5
27	Chemical, petroleum and coal products	86.6	13.4	11.1	33.2	48.0	7.8
28	Non-metallic mineral products	87.9	12.2	15.3	26.0	47.6	11.2
29	Basic metal products	93.0	7.1	14.8	35.2	43.4	6.7
31	Fabricated metal products	87.7	12.4	27.5	29.0	35.9	7.6
32	Transport equipment	85.7	14.3	22.9	34.1	37.6	5.5
33	Other machinery and equipment	80.0	20.0	24.2	29.6	39.5	6.7
34	Miscellaneous manufacturing	74.7	25.3	21.2	29.3	43.7	5.8
..	Manufacturing undefined (a)	83.4	16.6	23.8	23.9	43.2	9.2
21-34	Total manufacturing	76.7	23.3	20.4	29.1	42.6	7.9
01-99	ALL INDUSTRIES	58.1	41.9	19.0	26.2	45.7	9.1

Source: 1991 Census of Population and Housing.

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

TABLE 4. MANUFACTURING ESTABLISHMENTS (a): NUMBER OF ESTABLISHMENTS
BY INDUSTRY CLASS, TASMANIA, 30 JUNE 1992

Industry class		Establishments at 30 June (b) (No.)	Industry class		Establishments at 30 June (b) (No.)
ASIC code	Description		ASIC code	Description	
FOOD, BEVERAGES AND TOBACCO—			CLOTHING AND FOOTWEAR—		
Meat products—			Knitting mills—		
2115	Meat (except smallgoods or poultry)	12	2441	Hosiery	—
2116	Poultry	2	2442	Cardigans and pullovers	1
2117	Bacon, ham and smallgoods n.e.c.	4	2443	Knitted goods n.e.c.	1
211	<i>Total</i>	18	244	<i>Total</i>	2
Milk products—			Clothing—		
2121	Liquid milk and cream	4	2451	Men's trousers and shorts; work clothing	—
2122	Butter	2	2452	Men's suits and coats; waterproof clothing	2
2123	Cheese	4	2453	Women's outerwear n.e.c.	1
2124	Ice cream and frozen confections	1	2454	Foundation garments	—
2125	Milk products n.e.c.	3	2455	Underwear and infants' clothing n.e.c.	1
212	<i>Total</i>	14	2456	Headwear and clothing n.e.c.	1
			245	<i>Total</i>	5
Fruit and vegetable products—			Footwear		
2131	Fruit products	4	246		3
2132	Vegetable products	5			
213	<i>Total</i>	9	24	Total clothing and footwear	10
214	<i>Margarine and oils and fats n.e.c.</i>	1			
Flour mill and cereal food products—			WOOD, WOOD PRODUCTS AND FURNITURE—		
			Wood and wood products—		
2151	Flour mill products	3	2531	Log sawmilling	57
2152	Starch, gluten and starch sugars	—	2532	Resawn and dressed timber	17
2153	Cereal foods and baking mixes	2	2533	Veneers and manufactured boards of wood	2
215	<i>Total</i>	5	2534	Wooden doors	—
			2535	Wooden structural fittings and joinery n.e.c.	49
Bread, cakes and biscuits—				2536	Wooden containers
2161	Bread	34	2537	Hardwood woodchips	7
2162	Cakes and pastries	18	2538	Wood products n.e.c.	15
2163	Biscuits	1	253	<i>Total</i>	152
216	<i>Total</i>	53			
Other food products—			Furniture and mattresses—		
2171	Raw sugar	—	2541	Furniture (except sheet metal)	53
2173	Confectionery and cocoa products	3	2542	Mattresses (except rubber)	2
2174	Processed seafoods	20	254	<i>Total</i>	55
2175	Prepared animal and bird foods	5			
2176	Food products n.e.c.	5	25	Total wood, wood products and furniture	207
217	<i>Total</i>	33			
Beverages and malt—			PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—		
2185	Soft drinks, cordials and syrups	4	Paper and paper products—		
2186	Beer	3	2631	Pulp, paper and paperboard	2
2187	Malt	1	2632	Paper bags (including textile bags)	2
2188	Wine and brandy	4	2633	Solid fibreboard containers	—
2189	Alcoholic beverages n.e.c.	—	2634	Corrugated fibreboard containers	1
218	<i>Total</i>	12	2635	Paper products n.e.c.	2
			263	<i>Total</i>	7
219	<i>Tobacco products</i>	—	Printing and allied industries—		
21	Total food, beverages and tobacco	145	2641	Publishing	9
			2642	Printing and publishing	13
			2643	Paper stationery	2
			2644	Printing and bookbinding	38
			2645	Printing trade services n.e.c.	10
			264	<i>Total</i>	72
			26	Total paper, paper products, printing and publishing	79
TEXTILES—			CHEMICAL, PETROLEUM AND COAL PRODUCTS—		
Textile fibres, yarns and woven fabrics—			Basic chemicals—		
2341	Cotton ginning	—	2751	Chemical fertilisers	1
2342	Wool scouring and top making	—	2752	Industrial gases	2
2343	Man-made fibres and yarns	1	2753	Synthetic resins and rubber	—
2344	Man-made fibre broadwoven fabrics	—	2754	Organic industrial chemicals n.e.c.	1
2345	Cotton yarns and broadwoven fabrics	4	2755	Inorganic industrial chemicals n.e.c.	4
2346	Worsted yarns and broadwoven fabrics	1	275	<i>Total</i>	8
2347	Woollen yarns and broadwoven fabrics	1			
2348	Narrow woven and elastic textiles	—	Other chemical products—		
2349	Textile finishing	1	2761	Ammunition, explosives and fireworks	1
234	<i>Total</i>	8	2762	Paints	1
			2763	Pharmaceutical and veterinary products	2
Other textile products—			2764	Pesticides	—
2351	Household textiles	1	2765	Soap and other detergents	1
2352	Textile floor coverings	2	2766	Cosmetics and toilet preparations	—
2353	Felt and felt products	—	2767	Inks	1
2354	Canvas and associated products n.e.c.	7	2768	Chemical products n.e.c.	2
2355	Rope, cordage and twine	—	276	<i>Total</i>	8
2356	Textile products n.e.c.	1			
235	<i>Total</i>	11			
23	Total textiles	19			

For footnotes see end of table.

TABLE 4. MANUFACTURING ESTABLISHMENTS (a): NUMBER OF ESTABLISHMENTS
BY INDUSTRY CLASS, TASMANIA, 30 JUNE 1992—continued

Industry class		Establishments at 30 June (b) (No.)	Industry class		Establishments at 30 June (b) (No.)
ASIC code	Description		ASIC code	Description	
CHEMICAL, PETROLEUM AND COAL PRODUCTS—continued			FABRICATED METAL PRODUCTS—continued		
277	Petroleum refining	—	3161	Other fabricated metal products—	—
278	Petroleum and coal products n.e.c.	—	3162	Cutlery and hand tools n.e.c.	2
27	Total chemical, petroleum and coal products	16	3163	Springs and wire products	4
NON-METALLIC MINERAL PRODUCTS—			3164	Nuts, bolts, screws and rivets	—
285	Glass and glass products	8	3165	Metal coating and finishing	7
Clay products and refractories—			3166	Non-ferrous steam, gas and water fittings	2
2861	Clay bricks	3	3167	Boiler and plate work	3
2862	Refractories	—	3168	Metal blinds and awnings	3
2863	Ceramic tiles and pipes	—	316	Fabricated metal products n.e.c.	23
2864	Ceramic goods n.e.c.	4	316	Total	44
286	Total	7	31	Total fabricated metal products	124
Cement and concrete products—			TRANSPORT EQUIPMENT—		
2871	Cement	1	3231	Motor vehicles and parts—	—
2872	Ready mixed concrete	15	3232	Motor vehicles	1
2873	Concrete pipes and box culverts	2	3233	Motor vehicle bodies, trailers, caravans	7
2874	Concrete products n.e.c.	7	3234	Motor vehicle instruments and electrical equipment n.e.c.	—
287	Total	25	323	Motor vehicle parts n.e.c.	12
Other non-metallic mineral products—			3241	Total	20
2881	Plaster products and expanded minerals	2	3242	Other transport equipment—	—
2882	Stone products	3	3243	Ships	3
2883	Glass wool and mineral wool products	2	3244	Boats	11
2884	Non-metallic mineral products n.e.c.	3	3245	Railway rolling stock and locomotives	—
288	Total	10	324	Aircraft	2
28	Total non-metallic mineral products	50	32	Transport equipment n.e.c.	—
BASIC METAL PRODUCTS—			324	Total	16
Basic iron and steel—			OTHER MACHINERY AND EQUIPMENT—		
2941	Iron and steel basic products	7	3341	Photographic, professional and scientific equipment—	—
2942	Iron casting	1	3342	Photographic and optical goods	1
2943	Steel casting	1	3343	Photographic film processing	19
2944	Iron and steel forging	—	334	Measuring, professional and scientific equipment n.e.c.	2
2945	Steel pipes and tubes	1	3351	Total	22
294	Total	10	3352	Appliances and electrical equipment—	—
Basic non-ferrous metals—			3353	Radio and TV receivers; audio equipment	2
2951	Copper smelting, refining	—	3354	Electronic equipment n.e.c.	9
2952	Silver, lead, zinc smelting, refining	1	3355	Refrigerators and household appliances	4
2953	Alumina	—	3356	Water heating systems	1
2954	Aluminium smelting	1	3357	Electric and telephone cable and wire	—
2955	Nickel smelting, refining	1	335	Batteries	—
2956	Non-ferrous metals n.e.c. smelting, refining	—	3361	Electrical machinery and equipment n.e.c.	7
2957	Secondary recovery and alloying of non-ferrous metals n.e.c.	—	3362	Total	23
295	Total	3	3363	Industrial machinery and equipment—	—
Non-ferrous metal basic products—			3364	Agricultural machinery	6
2961	Aluminium rolling, drawing, extruding	—	3365	Construction machinery	1
2962	Non-ferrous metals n.e.c. rolling, drawing, extruding	—	3366	Materials handling equipment	5
2963	Non-ferrous metal casting	2	3367	Wood and metal working machinery	4
296	Total	2	3368	Pumps and compressors	—
29	Total basic metal products	15	3369	Commercial space heating and cooling equipment	1
FABRICATED METAL PRODUCTS—			336	Dies, saw blades and machine tool accessories	1
Structural metal products—			33	Food processing machinery	2
3141	Fabricated structural steel	32	3369	Industrial machinery and equipment n.e.c.	26
3142	Architectural aluminium products	17	336	Total	46
3143	Architectural metal products n.e.c.	2	33	Total other machinery and equipment	91
314	Total	51	3451	MISCELLANEOUS MANUFACTURING—	—
Sheet metal products—			3452	Leather and leather products—	—
3151	Metal containers	4	345	Leather tanning and fur dressing	2
3152	Sheet metal furniture	1	345	Leather and leather substitute goods n.e.c.	—
3153	Sheet metal products n.e.c.	24	345	Total	2
315	Total	29			

For footnotes see end of table.

**TABLE 4. MANUFACTURING ESTABLISHMENTS (a): NUMBER OF ESTABLISHMENTS
BY INDUSTRY CLASS, TASMANIA, 30 JUNE 1992—continued**

<i>Industry class</i>		<i>Establishments at 30 June (b) (No.)</i>	<i>Industry class</i>		<i>Establishments at 30 June (b) (No.)</i>
<i>ASIC code</i>	<i>Description</i>		<i>ASIC code</i>	<i>Description</i>	
<i>MISCELLANEOUS MANUFACTURING—continued</i>			<i>MISCELLANEOUS MANUFACTURING—continued</i>		
<i>Rubber products—</i>			<i>Other manufacturing—</i>		
3461	Rubber tyres, tubes, belts, hose and sheets	6	3481	Ophthalmic articles	3
3462	Rubber products n.e.c.	2	3482	Jewellery and silverware	2
346	<i>Total</i>	8	3483	Brooms and brushes	—
<i>Plastic and related products—</i>			3484	Signs and advertising displays	21
3471	Flexible packaging and abrasive papers	—	3485	Sporting equipment	4
3472	Rigid plastic sheeting	1	3486	Writing and marking equipment	—
3473	Hard surface floor coverings n.e.c.	—	3487	Manufacturing n.e.c.	3
3474	Plastic products n.e.c.	21	348	<i>Total</i>	33
347	<i>Total</i>	22	34	<i>Total miscellaneous manufacturing</i>	65
			21-34	TOTAL MANUFACTURING	857

(a) See paragraph 29 of the Explanatory Notes. (b) See paragraphs 4 to 10 of the Explanatory Notes.

TABLE 5. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS
TASMANIA, 1991-92

Industry class		Employment at end of June (b) (No.)	Wages and salaries (c) (\$m)	Turnover (\$m)	Persons employed per establishment (No.)	Turnover per person employed (\$'000)
ASIC code	Description					
FOOD, BEVERAGES AND TOBACCO—						
Meat products—						
2117	Bacon, ham and smallgoods n.e.c.	169	3.7	25.1	42	148.6
211	<i>Total (d)</i>	1,124	24.2	184.1	62	163.8
Milk products—						
2123	Cheese	300	n.p.	n.p.	75	n.p.
2125	Milk products n.e.c.	189	n.p.	n.p.	63	n.p.
212	<i>Total (d)</i>	789	20.5	223.3	56	283.1
Fruit and vegetable products—						
2131	Fruit products	128	n.p.	n.p.	32	n.p.
2132	Vegetable products	1,190	n.p.	n.p.	238	n.p.
213	<i>Total</i>	1,318	n.p.	n.p.	146	n.p.
214	Margarine and oils and fats n.e.c.	n.p.	n.p.	n.p.	n.p.	n.p.
215	Flour mill and cereal food products	92	2.3	35.9	18	390.4
Bread, cakes and biscuits—						
2161	Bread	n.p.	12.4	48.9	n.p.	n.p.
2162	Cakes and pastries	247	4.0	14.9	14	60.5
216	<i>Total (d)</i>	917	n.p.	n.p.	17	n.p.
Other food products—						
2174	Processed seafoods	548	10.4	120.8	27	220.4
2176	Food products n.e.c.	66	n.p.	n.p.	13	n.p.
217	<i>Total (d)</i>	1,503	44.9	331.1	46	220.3
Beverages and malt—						
2185	Soft drinks, cordials and syrups	135	n.p.	n.p.	34	n.p.
2188	Wine and brandy	29	n.p.	n.p.	7	n.p.
218	<i>Total (d)</i>	n.p.	n.p.	n.p.	n.p.	n.p.
219	Tobacco products	—	—	—	—	—
21	Total food, beverages and tobacco	6,144	156.1	1,181.9	42	192.4
TEXTILES—						
Textile fibres, yarns and woven fabrics—						
2345	Cotton yarns and broadwoven fabrics	390	n.p.	n.p.	98	n.p.
234	<i>Total (d)</i>	892	n.p.	n.p.	112	n.p.
Other textile products—						
2354	Canvas and associated products n.e.c.	32	1.3	3.9	5	123.1
235	<i>Total (d)</i>	482	n.p.	n.p.	44	n.p.
23	Total textiles	1,374	33.1	140.1	72	102.0
CLOTHING AND FOOTWEAR—						
244	Knitting mills	n.p.	n.p.	n.p.	n.p.	n.p.
245	Clothing	n.p.	n.p.	n.p.	n.p.	n.p.
246	Footwear	288	n.p.	n.p.	96	n.p.
24	Total clothing and footwear	363	5.4	29.7	36	81.8

For footnotes see end of table.

TABLE 5. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS
TASMANIA, 1991-92—continued

Industry class		Employment at end of June (b) (No.)	Wages and salaries (c) (\$m)	Turnover (\$m)	Persons employed per establishment (No.)	Turnover per person employed (\$'000)
ASIC code	Description					
WOOD, WOOD PRODUCTS AND FURNITURE—						
Wood and wood products—						
2531	Log sawmilling	800	19.3	77.7	14	97.1
2535	Wooden structural fittings and joinery n.e.c.	317	6.4	24.7	6	78.0
2536	Wooden containers	62	1.2	5.0	12	79.9
2537	Hardwood woodchips	382	n.p.	n.p.	55	n.p.
2538	Wood products n.e.c.	57	0.7	2.9	4	50.7
253	<i>Total (d)</i>	2,309	69.3	399.3	15	172.9
254	Furniture and mattresses	535	10.7	40.5	10	75.7
25	Total wood, wood products and furniture	2,844	80.0	439.8	14	154.6
PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—						
263	Paper and paper products	n.p.	n.p.	n.p.	n.p.	n.p.
Printing and allied industries—						
2642	Printing and publishing	939	24.6	74.7	72	79.5
2644	Printing and bookbinding	631	15.1	46.0	17	72.9
2645	Printing trade services n.e.c.	76	1.3	4.1	8	53.6
264	<i>Total (d)</i>	n.p.	n.p.	n.p.	n.p.	n.p.
26	Total paper, paper products, printing and publishing	4,423	180.1	695.5	56	157.3
CHEMICAL, PETROLEUM AND COAL PRODUCTS—						
Basic chemicals—						
2755	Inorganic industrial chemicals n.e.c.	253	n.p.	n.p.	63	n.p.
275	<i>Total (d)</i>	342	17.3	127.9	43	374.0
276	Other chemical products	142	n.p.	n.p.	18	n.p.
277	Petroleum refining	—	—	—	—	—
278	Petroleum and coal products n.e.c.	—	—	—	—	—
27	Total chemical, petroleum and coal products	484	n.p.	n.p.	30	n.p.
NON-METALLIC MINERAL PRODUCTS—						
285	Glass and glass products	159	n.p.	n.p.	20	n.p.
Clay products and refractories—						
2861	Clay bricks	92	n.p.	n.p.	31	n.p.
2864	Ceramic goods n.e.c.	23	0.2	0.6	6	27.1
286	<i>Total (d)</i>	115	n.p.	n.p.	16	n.p.
Cement and concrete products—						
2872	Ready mixed concrete	98	3.0	33.2	7	339.2
2874	Concrete products n.e.c.	128	n.p.	n.p.	18	n.p.
287	<i>Total (d)</i>	492	16.4	110.0	20	223.7
Other non-metallic mineral products—						
2882	Stone products	38	n.p.	n.p.	13	n.p.
2884	Non-metallic mineral products n.e.c.	41	n.p.	n.p.	14	n.p.
288	<i>Total (d)</i>	109	2.8	18.3	11	167.5
28	Total non-metallic mineral products	875	26.6	159.6	18	182.4

For footnotes see end of table.

TABLE 5. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS
TASMANIA, 1991-92—continued

Industry class		Employment at end of June (b) (No.)	Wages and salaries (c) (\$m)	Turnover (\$m)	Persons employed per establishment (No.)	Turnover per person employed (\$'000)
ASIC code	Description					
BASIC METAL PRODUCTS—						
Basic iron and steel—						
2941	Iron and steel basic products	399	n.p.	n.p.	57	n.p.
294	Total (d)	n.p.	n.p.	n.p.	n.p.	n.p.
295	Basic non-ferrous metals	2,191	n.p.	n.p.	730	n.p.
296	Non-ferrous metal basic products	n.p.	n.p.	n.p.	n.p.	n.p.
29	Total basic metal products	2,986	n.p.	n.p.	199	n.p.
FABRICATED METAL PRODUCTS—						
Structural metal products—						
3141	Fabricated structural steel	477	13.1	52.0	15	109.1
314	Total (d)	682	17.8	73.8	13	108.2
Sheet metal products—						
3151	Metal containers	148	3.4	17.4	37	117.6
315	Total (d)	357	n.p.	n.p.	12	n.p.
Other fabricated metal products—						
3162	Springs and wire products	18	0.3	1.1	5	62.4
3168	Fabricated metal products n.e.c.	170	3.5	12.2	7	71.7
316	Total (d)	426	n.p.	n.p.	10	n.p.
31	Total fabricated metal products	1,465	35.4	146.9	12	100.3
TRANSPORT EQUIPMENT—						
Motor vehicles and parts—						
3232	Motor vehicle bodies, trailers, caravans	46	0.8	2.6	7	56.7
3234	Motor vehicle parts n.e.c.	528	13.2	43.7	44	82.8
323	Total (d)	n.p.	n.p.	n.p.	n.p.	n.p.
Other transport equipment—						
3241	Ships	308	n.p.	n.p.	103	n.p.
3242	Boats	34	0.5	2.0	3	57.7
324	Total (d)	n.p.	n.p.	n.p.	n.p.	n.p.
32	Total transport equipment	951	27.7	129.5	26	136.2
OTHER MACHINERY AND EQUIPMENT—						
Photographic, professional and scientific equipment—						
3342	Photographic film processing	116	2.0	10.1	6	86.7
334	Total (d)	123	2.1	10.3	6	83.7
335	Appliances and electrical equipment	217	4.5	17.3	9	79.6
Industrial machinery and equipment—						
3361	Agricultural machinery	32	0.6	2.6	5	82.4
3369	Industrial machinery and equipment n.e.c.	283	7.3	29.1	11	102.9
336	Total (d)	497	13.0	46.8	11	94.2
33	Total other machinery and equipment	837	19.6	74.4	9	88.9

For footnotes see end of table.

TABLE 5. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY INDUSTRY CLASS
TASMANIA, 1991-92—continued

Industry class		Employment at end of June (b) (No.)	Wages and salaries (c) (\$m)	Turnover (\$m)	Persons employed per establishment (No.)	Turnover per person employed (\$'000)
ASIC code	Description					
MISCELLANEOUS MANUFACTURING—						
345	Leather and leather products	n.p.	n.p.	n.p.	n.p.	n.p.
Rubber products—						
3461	Rubber tyres, tubes, belts, hose and sheets	39	0.9	4.8	7	122.9
346	Total (d)	n.p.	n.p.	n.p.	n.p.	n.p.
347	Plastic and related products	331	6.9	34.0	15	102.8
Other manufacturing—						
3484	Signs and advertising displays	93	1.8	6.0	4	64.6
3485	Sporting equipment	10	0.1	0.3	3	30.2
3487	Manufacturing n.e.c.	8	0.1	0.4	3	45.4
348	Total (d)	146	2.7	10.2	4	69.6
34	Total miscellaneous manufacturing	557	11.3	55.1	9	98.9
21-34	TOTAL MANUFACTURING	23,303	714.9	3,903.7	27	167.5

(a) See paragraph 29 of the Explanatory Notes. (b) Includes working proprietors. (c) Excludes the drawings of working proprietors. (d) The total shown is that for all ASIC classes within this industry group. Data for the other ASIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ASIC classes.

TABLE 6. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, TASMANIA, 1991-92

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	Number	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
FOOD, BEVERAGES AND TOBACCO								
0 - 3 persons	22	15.2	49	0.8	0.8	0.5	7.6	0.6
4 - 9 persons	45	31.0	262	4.3	3.8	2.4	35.8	3.0
10 - 19 persons	19	13.1	260	4.2	5.2	3.3	61.3	5.2
20 - 49 persons	28	19.3	938	15.3	18.7	12.0	207.6	17.6
50 - 99 persons	15	10.3	1,058	17.2	26.8	17.2	194.4	16.4
<i>Total less than 100 persons</i>	<i>129</i>	<i>89.0</i>	<i>2,567</i>	<i>41.8</i>	<i>55.2</i>	<i>35.4</i>	<i>506.7</i>	<i>42.9</i>
100 - 199 persons	11	7.6	1,499	24.4	34.7	22.2	262.8	22.2
200 - 499 persons	4	2.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	1	0.7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>16</i>	<i>11.0</i>	<i>3,577</i>	<i>58.2</i>	<i>100.9</i>	<i>64.6</i>	<i>675.1</i>	<i>57.1</i>
Total	145	100.0	6,144	100.0	156.1	100.0	1,181.9	100.0
TEXTILES								
0 - 3 persons	3	15.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
4 - 9 persons	8	42.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10 - 19 persons	—	—	—	—	—	—	—	—
20 - 49 persons	—	—	—	—	—	—	—	—
50 - 99 persons	3	15.8	250	18.2	5.5	17.0	23.0	16.6
<i>Total less than 100 persons</i>	<i>14</i>	<i>73.7</i>	<i>308</i>	<i>22.4</i>	<i>6.5</i>	<i>20.1</i>	<i>26.5</i>	<i>19.1</i>
100 - 199 persons	2	10.5	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200 - 499 persons	3	15.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>5</i>	<i>26.3</i>	<i>1,066</i>	<i>77.6</i>	<i>25.9</i>	<i>79.9</i>	<i>111.9</i>	<i>80.9</i>
Total	19	100.0	1,374	100.0	32.4	100.0	138.4	100.0
CLOTHING AND FOOTWEAR								
0 - 3 persons	2	20.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
4 - 9 persons	3	30.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10 - 19 persons	2	20.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20 - 49 persons	2	20.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50 - 99 persons	—	—	—	—	—	—	—	—
<i>Total less than 100 persons</i>	<i>9</i>	<i>90.0</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	1	10.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>1</i>	<i>10.0</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total	10	100.0	363	100.0	5.4	100.0	29.7	100.0
WOOD, WOOD PRODUCTS AND FURNITURE								
0 - 3 persons	69	33.3	154	5.4	1.9	2.4	9.3	2.2
4 - 9 persons	76	36.7	441	15.5	7.6	9.9	29.1	6.8
10 - 19 persons	31	15.0	430	15.1	10.3	13.4	53.6	12.6
20 - 49 persons	18	8.7	560	19.7	12.4	16.0	48.0	11.2
50 - 99 persons	5	2.4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total less than 100 persons</i>	<i>199</i>	<i>96.1</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
100 - 199 persons	8	3.9	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200 - 499 persons	—	—	—	—	—	—	—	—
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>8</i>	<i>3.9</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total	207	100.0	2,844	100.0	77.2	100.0	426.4	100.0

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, TASMANIA, 1991-92—continued

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	Number	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING								
0 - 3 persons	20	25.3	41	0.9	0.4	0.2	1.9	0.3
4 - 9 persons	28	35.4	169	3.8	3.0	1.7	12.0	1.7
10 - 19 persons	16	20.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20 - 49 persons	5	6.3	155	3.5	3.8	2.1	21.0	3.0
50 - 99 persons	2	2.5	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total less than 100 persons</i>	<i>71</i>	<i>89.9</i>	<i>691</i>	<i>15.6</i>	<i>14.0</i>	<i>7.8</i>	<i>56.1</i>	<i>8.1</i>
100 - 199 persons	3	3.8	390	8.8	11.6	6.4	52.1	7.5
200 - 499 persons	3	3.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	1	1.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	1	1.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total 100 or more persons</i>	<i>8</i>	<i>10.1</i>	<i>3,732</i>	<i>84.4</i>	<i>165.9</i>	<i>92.2</i>	<i>638.7</i>	<i>91.9</i>
Total	79	100.0	4,423	100.0	179.9	100.0	694.9	100.0
CHEMICAL, PETROLEUM AND COAL PRODUCTS								
0 - 3 persons	4	25.0	9	1.9	0.2	1.1	1.3	0.8
4 - 9 persons	4	25.0	20	4.1	0.6	2.8	9.7	6.0
10 - 19 persons	2	12.5	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20 - 49 persons	4	25.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50 - 99 persons	1	6.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total less than 100 persons</i>	<i>15</i>	<i>93.8</i>	<i>n.p.</i>	<i>n.p.</i>	<i>11.3</i>	<i>49.6</i>	<i>95.6</i>	<i>58.8</i>
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	1	6.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>1</i>	<i>6.3</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total	16	100.0	484	100.0	n.p.	n.p.	n.p.	n.p.
NON-METALLIC MINERAL PRODUCTS								
0 - 3 persons	20	40.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
4 - 9 persons	14	28.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10 - 19 persons	5	10.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20 - 49 persons	7	14.0	202	23.1	6.4	24.0	44.7	28.1
50 - 99 persons	2	4.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total less than 100 persons</i>	<i>48</i>	<i>96.0</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
100 - 199 persons	1	2.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200 - 499 persons	1	2.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
<i>Total 100 or more persons</i>	<i>2</i>	<i>4.0</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total	50	100.0	875	100.0	26.6	100.0	159.4	100.0
BASIC METAL PRODUCTS								
0 - 3 persons	3	20.0	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
4 - 9 persons	2	13.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
10 - 19 persons	4	26.7	61	2.0	1.9	1.7	17.1	2.5
20 - 49 persons	—	—	—	—	—	—	—	—
50 - 99 persons	2	13.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total less than 100 persons</i>	<i>11</i>	<i>73.3</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	2	13.3	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	1	6.7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	1	6.7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total 100 or more persons</i>	<i>4</i>	<i>26.7</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
Total	15	100.0	2,986	100.0	n.p.	n.p.	n.p.	n.p.

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, TASMANIA, 1991-92—continued

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	Number	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
FABRICATED METAL PRODUCTS								
0 - 3 persons	37	29.8	86	5.9	1.5	4.2	7.5	5.1
4 - 9 persons	49	39.5	293	20.0	6.2	17.7	24.0	16.4
10 - 19 persons	21	16.9	299	20.4	7.1	20.2	30.6	20.9
20 - 49 persons	12	9.7	356	24.3	8.5	24.0	41.6	28.4
50 - 99 persons	4	3.2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	123	99.2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100 - 199 persons	1	0.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
200 - 499 persons	—	—	—	—	—	—	—	—
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	1	0.8	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	124	100.0	1,465	100.0	35.3	100.0	146.6	100.0
TRANSPORT EQUIPMENT								
0 - 3 persons	15	41.7	35	3.7	0.6	2.2	2.4	1.9
4 - 9 persons	15	41.7	86	9.0	1.6	5.6	5.7	4.4
10 - 19 persons	2	5.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
20 - 49 persons	2	5.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50 - 99 persons	—	—	—	—	—	—	—	—
Total less than 100 persons	34	94.4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	2	5.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	2	5.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	36	100.0	951	100.0	27.7	100.0	129.5	100.0
OTHER MACHINERY AND EQUIPMENT								
0 - 3 persons	37	40.7	76	9.1	1.2	6.1	6.5	8.8
4 - 9 persons	27	29.7	171	20.4	3.2	16.4	13.4	18.0
10 - 19 persons	15	16.5	202	24.1	4.5	23.1	13.4	18.0
20 - 49 persons	11	12.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
50 - 99 persons	1	1.1	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total less than 100 persons	91	100.0	837	100.0	19.6	100.0	74.4	100.0
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	—	—	—	—	—	—	—	—
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	—	—	—	—	—	—	—	—
Total	91	100.0	837	100.0	19.6	100.0	74.4	100.0
MISCELLANEOUS MANUFACTURING								
0 - 3 persons	30	46.2	67	12.0	0.7	6.4	3.0	5.4
4 - 9 persons	18	27.7	109	19.6	1.9	16.5	6.9	12.5
10 - 19 persons	8	12.3	94	16.9	2.2	19.6	10.8	19.7
20 - 49 persons	9	13.8	287	51.5	6.5	57.5	34.4	62.4
50 - 99 persons	—	—	—	—	—	—	—	—
Total less than 100 persons	65	100.0	557	100.0	11.3	100.0	55.1	100.0
100 - 199 persons	—	—	—	—	—	—	—	—
200 - 499 persons	—	—	—	—	—	—	—	—
500 - 999 persons	—	—	—	—	—	—	—	—
1000 or more persons	—	—	—	—	—	—	—	—
Total 100 or more persons	—	—	—	—	—	—	—	—
Total	65	100.0	557	100.0	11.3	100.0	55.1	100.0

For footnotes see end of table.

TABLE 6. MANUFACTURING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS BY EMPLOYMENT SIZE AND INDUSTRY SUBDIVISION, TASMANIA, 1991-92—continued

Employment size group	Establishments at 30 June (b)		Employment at end of June (c)		Wages and salaries (d) (e)		Turnover (e)	
	Number	Proportion (Per cent)	Number	Proportion (Per cent)	(\$m)	Proportion (Per cent)	(\$m)	Proportion (Per cent)
TOTAL MANUFACTURING								
0 - 3 persons	262	30.6	571	2.5	8.4	1.2	51.6	1.3
4 - 9 persons	289	33.7	1,723	7.4	31.2	4.4	156.5	4.0
10 - 19 persons	125	14.6	1,729	7.4	39.2	5.5	218.3	5.6
20 - 49 persons	98	11.4	3,060	13.1	71.5	10.1	502.2	12.9
50 - 99 persons	35	4.1	2,527	10.8	67.0	9.4	360.4	9.3
<i>Total less than 100 persons</i>	<i>809</i>	<i>94.4</i>	<i>9,610</i>	<i>41.2</i>	<i>217.4</i>	<i>30.6</i>	<i>1,288.8</i>	<i>33.2</i>
100 - 199 persons	26	3.0	3,362	14.4	98.4	13.9	631.4	16.3
200 - 499 persons	17	2.0	4,919	21.1	143.8	20.3	775.1	20.0
500 - 999 persons	3	0.4	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1000 or more persons	2	0.2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
<i>Total 100 or more persons</i>	<i>48</i>	<i>5.6</i>	<i>13,693</i>	<i>58.8</i>	<i>492.8</i>	<i>69.4</i>	<i>2,593.5</i>	<i>66.8</i>
Total	857	100.0	23,303	100.0	710.2	100.0	3,882.3	100.0

(a) See paragraphs 29, 30 and 35 of the Explanatory Notes. (b) See paragraphs 4 to 10 of the Explanatory Notes. (c) Includes working proprietors. (d) Excludes the drawings of working proprietors. (e) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1991-92 but were not operating at 30 June 1992. See paragraph 35 of the Explanatory Notes.

TABLE 7. MANUFACTURING ESTABLISHMENTS (a): ENVIRONMENTAL PROTECTION ISSUES (b), SUMMARY STATISTICS BY INDUSTRY SUBDIVISION
TASMANIA, 1991-92

Industry subdivision (c) ASIC code	Description	Establishments that conducted environmental impact assessments or environmental audits			Establishments that encouraged the return of their own containers or packaging			Establishments engaged in the marketing or production of goods or services for monitoring, maintaining or improving the environment		
		Number	Proportion of total establishments (d) (Per cent)	Proportion of total turnover (e) (Per cent)	Number	Proportion of total establishments (d) (Per cent)	Proportion of total turnover (e) (Per cent)	Number	Proportion of total establishments (d) (Per cent)	Proportion of total turnover (e) (Per cent)
21	Food, beverages and tobacco	20	14	40	44	30	20	3	2	2
23	Textiles	4	19	47	2	10	n.p.	—	—	—
24	Clothing and footwear	—	—	—	2	20	n.p.	—	—	—
25	Wood, wood products and furniture	15	7	25	30	14	8	5	2	1
26	Paper, paper products, printing and publishing	5	6	8	22	27	40	6	7	2
27	Chemical, petroleum and coal products	2	11	n.p.	6	33	47	2	11	n.p.
28	Non-metallic mineral products	2	4	n.p.	11	22	28	5	10	5
29	Basic metal products	1	6	n.p.	2	13	n.p.	1	6	n.p.
31	Fabricated metal products	4	3	8	14	11	16	8	6	4
32	Transport equipment	1	3	n.p.	6	16	26	1	3	n.p.
33	Other machinery and equipment	2	2	n.p.	13	14	23	8	9	9
34	Miscellaneous manufacturing	2	3	n.p.	16	25	52	7	11	20
21-34	Total manufacturing	58	7	31	168	19	21	46	5	3

(a) See paragraph 29 of the Explanatory Notes. (b) See paragraph 36 of the Explanatory Notes. Establishments which did not respond to the environmental protection issues are treated as not participating in the relevant issue. (c) Some data are also available on request by ASIC class. (d) Proportion of total establishments which operated at any time during 1991-92. (e) See paragraph 24 of the Explanatory Notes.

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

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

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)
BY INDUSTRY CLASS, TASMANIA, 1991-92

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$'000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
FOOD, BEVERAGES AND TOBACCO—				
211	Meat products	369	0.2	n.p.
212	Milk products	294	0.1	351
213	Fruit and vegetable products	1,619	n.p.	n.p.
214	Margarine and oils and fats n.e.c.	n.p.	n.p.	n.p.
215	Flour mill and cereal food products	n.p.	n.p.	—
216	Bread, cakes and biscuits	17	n.p.	—
Other food products—				
217 ⁴	Processed seafoods	152	0.1	n.p.
217 ⁶	Food products n.e.c.	18	n.p.	—
217	Total (d)	471	0.1	2,106
218	Beverages and malt	n.p.	n.p.	n.p.
219	Tobacco products	—	—	—
21	Total food, beverages and tobacco	2,939	0.3	4,103
TEXTILES—				
234	Textile fibres, yarns and woven fabrics	n.p.	n.p.	n.p.
235	Other textile products	n.p.	n.p.	—
23	Total textiles	190	0.1	n.p.
CLOTHING AND FOOTWEAR—				
244	Knitting mills	n.p.	n.p.	n.p.
245	Clothing	n.p.	n.p.	n.p.
246	Footwear	n.p.	n.p.	—
24	Total clothing and footwear	n.p.	n.p.	n.p.
WOOD, WOOD PRODUCTS AND FURNITURE—				
Wood and wood products—				
2531	Log sawmilling	294	0.4	180
2535	Wooden structural fittings and joinery n.e.c.	23	0.1	6
2537	Hardwood woodchips	1,268	n.p.	n.p.
253	Total (d)	1,690	0.4	466
254	Furniture and mattresses	60	0.2	12
25	Total wood, wood products and furniture	1,750	0.4	478
PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING—				
263	Paper and paper products	n.p.	n.p.	n.p.
Printing and allied industries—				
2642	Printing and publishing	8	—	n.p.
2644	Printing and bookbinding	59	0.1	n.p.
264	Total (d)	n.p.	n.p.	n.p.
26	Total paper, paper products, printing and publishing	1,509	0.2	1,564

For footnotes see end of table.

**TABLE 8. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)
BY INDUSTRY CLASS, TASMANIA, 1991-92**

<i>Industry class</i>		<i>Current expenditure on environmental protection</i>		<i>Capital expenditure to abate pollution (\$ '000)</i>
		<i>(\$'000)</i>	<i>Proportion of total turnover (c) (Per cent)</i>	
<i>ASIC code</i>	<i>Description</i>			
CHEMICAL, PETROLEUM AND COAL PRODUCTS—				
Basic chemicals—				
2755	Inorganic industrial chemicals n.e.c.	1,058	n.p.	n.p.
275	<i>Total (d)</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
276	Other chemical products	n.p.	n.p.	n.p.
277	Petroleum refining	—	—	—
278	Petroleum and coal products n.e.c.	—	—	—
27	<i>Total chemical, petroleum and coal products</i>	<i>1,156</i>	<i>n.p.</i>	<i>10,135</i>
NON-METALLIC MINERAL PRODUCTS—				
285	Glass and glass products	n.p.	n.p.	—
286	Clay products and refractories	n.p.	n.p.	—
Cement and concrete products—				
2872	Ready mixed concrete	174	0.5	n.p.
287	<i>Total (d)</i>	<i>363</i>	<i>0.3</i>	<i>n.p.</i>
288	Other non-metallic mineral products	14	0.1	n.p.
28	<i>Total non-metallic mineral products</i>	<i>416</i>	<i>0.3</i>	<i>253</i>
BASIC METAL PRODUCTS—				
294	Basic iron and steel	n.p.	n.p.	n.p.
295	Basic non-ferrous metals	12,493	n.p.	n.p.
296	Non-ferrous metal basic products	n.p.	n.p.	n.p.
29	<i>Total basic metal products</i>	<i>13,012</i>	<i>n.p.</i>	<i>5,147</i>
FABRICATED METAL PRODUCTS—				
Structural metal products—				
3141	Fabricated structural steel	19	—	n.p.
314	<i>Total (d)</i>	<i>44</i>	<i>0.1</i>	<i>n.p.</i>
315	Sheet metal products	30	n.p.	—
Other fabricated metal products—				
3168	Fabricated metal products n.e.c.	21	0.2	—
316	<i>Total (d)</i>	<i>44</i>	<i>n.p.</i>	<i>n.p.</i>
31	<i>Total fabricated metal products</i>	<i>118</i>	<i>0.1</i>	<i>67</i>
TRANSPORT EQUIPMENT—				
Motor vehicles and parts—				
3234	Motor vehicle parts n.e.c.	7	—	—
323	<i>Total (d)</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
324	Other transport equipment	n.p.	n.p.	n.p.
32	<i>Total transport equipment</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>
OTHER MACHINERY AND EQUIPMENT—				
334	Photographic, professional and scientific equipment	—	—	—
335	Appliances and electrical equipment	22	0.1	—
Industrial machinery and equipment—				
3369	Industrial machinery and equipment n.e.c.	17	0.1	n.p.
336	<i>Total (d)</i>	<i>24</i>	<i>0.1</i>	<i>n.p.</i>
33	<i>Total other machinery and equipment</i>	<i>46</i>	<i>0.1</i>	<i>n.p.</i>

For footnotes see end of table.

TABLE 8. MANUFACTURING ESTABLISHMENTS (a): EXPENDITURE ON ENVIRONMENTAL PROTECTION (b)
BY INDUSTRY CLASS, TASMANIA, 1991-92

Industry class		Current expenditure on environmental protection		Capital expenditure to abate pollution (\$ '000)
		(\$'000)	Proportion of total turnover (c) (Per cent)	
ASIC code	Description			
	MISCELLANEOUS MANUFACTURING—			
345	Leather and leather products	n.p.	n.p.	n.p.
346	Rubber products	n.p.	n.p.	n.p.
347	Plastic and related products	44	0.1	—
	Other manufacturing—			
3484	Signs and advertising displays	8	0.2	—
348	Total (d)	n.p.	n.p.	n.p.
34	Total miscellaneous manufacturing	78	0.2	n.p.
21-34	TOTAL MANUFACTURING	21,239	0.6	21,760

(a) Data in this table exclude expenditure by single establishment businesses with less than four persons employed. (b) See paragraph 37 of the Explanatory Notes. Establishments which did not respond to the questions are treated as having nil expenditure. (c) See paragraph 24 of the Explanatory Notes. (d) The total shown is that for all ASIC classes within this industry group. Data for the other ASIC classes within the industry group are either not available for publication (due to confidentiality restrictions) or there are no units classified to those ASIC classes.

TABLE 9. MANUFACTURING LOCATIONS(a): SUMMARY OF OPERATIONS IN STATISTICAL DIVISIONS
BY INDUSTRY SUBDIVISION, TASMANIA, 1991-92

Industry subdivision		Locations at 30 June (a) (No.)	Employment at end of June (b) (No.)	Wages and salaries (c) (\$m)	Turnover (\$m)
ASIC Code	Description				
GREATER HOBART STATISTICAL DIVISION					
21	Food, beverages and tobacco	39	1,936	54.5	355.8
23	Textiles	7	349	n.p.	n.p.
24	Clothing and footwear	7	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	63	600	n.p.	n.p.
26	Paper, paper products, printing and publishing	42	1,636	69.1	275.1
27	Chemical, petroleum and coal products	9	116	5.2	54.4
28	Non-metallic mineral products	24	364	11.3	54.8
29	Basic metal products	7	n.p.	n.p.	n.p.
31	Fabricated metal products	56	581	13.3	57.9
32	Transport equipment	11	376	n.p.	n.p.
33	Other machinery and equipment	52	439	9.6	38.2
34	Miscellaneous manufacturing	24	194	3.5	16.5
21-34	Total manufacturing	341	8,104	256.6	1,395.1
SOUTHERN STATISTICAL DIVISION					
21	Food, beverages and tobacco	19	374	7.6	73.0
23	Textiles	—	—	—	—
24	Clothing and footwear	—	—	—	—
25	Wood, wood products and furniture	16	170	n.p.	n.p.
26	Paper, paper products, printing and publishing	2	n.p.	n.p.	n.p.
27	Chemical, petroleum and coal products	—	—	—	—
28	Non-metallic mineral products	3	14	0.1	0.5
29	Basic metal products	—	—	—	—
31	Fabricated metal products	3	n.p.	n.p.	n.p.
32	Transport equipment	6	19	n.p.	n.p.
33	Other machinery and equipment	1	n.p.	n.p.	n.p.
34	Miscellaneous manufacturing	5	34	n.p.	n.p.
21-34	Total manufacturing	55	629	14.6	142.0
NORTHERN STATISTICAL DIVISION					
21	Food, beverages and tobacco	44	1,336	30.0	235.9
23	Textiles	10	541	13.1	46.9
24	Clothing and footwear	2	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	85	1,473	39.6	252.6
26	Paper, paper products, printing and publishing	21	n.p.	n.p.	n.p.
27	Chemical, petroleum and coal products	6	107	n.p.	n.p.
28	Non-metallic mineral products	19	207	5.0	36.6
29	Basic metal products	8	1,788	64.9	353.0
31	Fabricated metal products	38	467	11.8	49.2
32	Transport equipment	11	509	n.p.	n.p.
33	Other machinery and equipment	19	n.p.	n.p.	n.p.
34	Miscellaneous manufacturing	23	195	4.4	23.9
21-34	Total manufacturing	286	7,535	207.7	1,163.4
MERSEY-LYELL STATISTICAL DIVISION					
21	Food, beverages and tobacco	48	2,432	62.1	503.5
23	Textiles	5	486	n.p.	n.p.
24	Clothing and footwear	1	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	53	596	22.1	72.8
26	Paper, paper products, printing and publishing	18	2,086	n.p.	n.p.
27	Chemical, petroleum and coal products	4	261	13.6	91.4
28	Non-metallic mineral products	18	284	10.0	67.7
29	Basic metal products	1	n.p.	n.p.	n.p.
31	Fabricated metal products	30	n.p.	n.p.	n.p.
32	Transport equipment	8	47	0.8	2.5
33	Other machinery and equipment	19	218	6.0	18.1
34	Miscellaneous manufacturing	13	131	n.p.	n.p.
21-34	Total manufacturing	218	6,955	233.8	1,188.9

For footnotes see end of table.

**TABLE 9. MANUFACTURING LOCATIONS(a): SUMMARY OF OPERATIONS IN STATISTICAL DIVISIONS
BY INDUSTRY SUBDIVISION, TASMANIA, 1991-92—continued**

<i>Industry subdivision</i>		<i>Locations at 30 June</i>	<i>Employment at end of June</i>	<i>Wages and salaries</i>	<i>Turnover</i>
<i>ASIC Code</i>	<i>Description</i>	<i>(a) (No.)</i>	<i>(b) (No.)</i>	<i>(c) (\$m)</i>	<i>(\$m)</i>
TASMANIA EXCLUDING GREATER HOBART STATISTICAL DIVISION					
21	Food, beverages and tobacco	111	4,142	99.7	812.4
23	Textiles	15	1,027	n.p.	n.p.
24	Clothing and footwear	3	n.p.	n.p.	n.p.
25	Wood, wood products and furniture	154	2,239	n.p.	n.p.
26	Paper, paper products, printing and publishing	41	2,787	111.0	420.4
27	Chemical, petroleum and coal products	10	368	n.p.	n.p.
28	Non-metallic mineral products	40	505	15.2	104.7
29	Basic metal products	9	n.p.	65.0	353.1
31	Fabricated metal products	71	884	22.1	89.0
32	Transport equipment	25	575	n.p.	n.p.
33	Other machinery and equipment	39	398	10.0	36.2
34	Miscellaneous manufacturing	41	360	7.8	38.4
21-34	Total manufacturing	559	15,119	456.0	2,494.2
TASMANIA					
21	Food, beverages and tobacco	150	6,078	154.2	1,168.3
23	Textiles	22	1,376	33.1	140.3
24	Clothing and footwear	10	361	5.4	29.6
25	Wood, wood products and furniture	217	2,839	79.9	439.3
26	Paper, paper products, printing and publishing	83	4,423	180.1	695.5
27	Chemical, petroleum and coal products	19	484	n.p.	n.p.
28	Non-metallic mineral products	64	869	26.4	159.5
29	Basic metal products	16	2,986	n.p.	n.p.
31	Fabricated metal products	127	1,465	35.4	146.9
32	Transport equipment	36	951	27.7	129.5
33	Other machinery and equipment	91	837	19.6	74.4
34	Miscellaneous manufacturing	65	554	11.2	54.9
21-34	Total manufacturing	900	23,223	712.5	3,889.3

(a) See paragraphs 10 and 38 to 40 of the Explanatory Notes. (b) Includes working proprietors. (c) Excludes the drawings of working proprietors.

INTRODUCTION OF THE ANZSIC INDUSTRY CLASSIFICATION INTO MANUFACTURING STATISTICS

The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both Australia and New Zealand for the production and analysis of industrial statistics. ANZSIC replaces the Australian Standard Industrial Classification (ASIC) previously used. The data in Table 10 present a concordance between the outgoing ASIC and the ANZSIC for data collected in respect of the 1991-92 reference year. Data presented in Tables 1 to 9 of this publication are ASIC-based.

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

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

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

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

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

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

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

TABLE 10. MANUFACTURING ESTABLISHMENTS (a): ASIC-ANZSIC CONCORDANCE (b) BY INDUSTRY SUBDIVISION, TASMANIA, 1991-92

Industry subdivision ASIC code	Description	ANZSIC subdivision description and code											Total manufacturing 21-29	Non- manufacturing (under ANZSIC)	Total ASIC		
		Food, beverages and tobacco	Textiles, clothing, footwear and leather products	Wood and paper products	Printing, publishing and recorded media	Petroleum, coal, chemicals and associated products	Non- metallic mineral products	Metal products	Machinery and equipment	Other manufacturing	29	28					
ESTABLISHMENTS AT 30 JUNE (c) (No.)																	
21	Food, beverages and tobacco	126	—	—	—	—	—	—	—	—	—	—	—	—	126	19	145
23	Textiles	—	19	—	—	—	—	—	—	—	—	—	—	—	19	—	19
24	Clothing and footwear	—	10	—	—	—	—	—	—	—	—	—	—	—	10	—	10
25	Wood, wood products and furniture	—	1	150	—	—	—	—	—	—	—	—	—	56	207	—	207
26	Paper, paper products, printing and publishing	—	—	7	72	—	—	—	—	—	—	—	—	—	79	—	79
27	Chemical, petroleum and coal products	—	—	—	16	—	—	—	—	—	—	—	—	—	16	—	16
28	Non-metallic mineral products	—	—	—	—	50	—	—	—	—	—	—	—	—	50	—	50
29	Basic metal products	—	—	—	—	—	—	15	—	—	—	—	—	—	15	—	15
31	Fabricated metal products	—	—	—	—	—	—	116	—	—	—	—	—	8	124	—	124
32	Transport equipment	—	—	—	—	—	—	—	—	36	—	—	—	—	36	—	36
33	Other machinery and equipment	—	—	—	—	—	—	—	—	72	—	—	—	—	72	19	91
34	Miscellaneous manufacturing	—	2	—	—	30	—	—	—	4	—	—	27	63	2	65	
21-34	Total manufacturing	126	32	157	72	46	72	131	112	112	18	130	91	817	40	857	
	Non-manufacturing (under ASIC)	2	—	—	—	—	—	—	—	—	—	—	—	20	—	—	
	Total ANZSIC	128	32	157	72	46	72	131	130	130	18	130	91	837	40	877	
EMPLOYMENT AT END OF JUNE (d) ('000)																	
21	Food, beverages and tobacco	5.9	—	—	—	—	—	—	—	—	—	—	—	—	5.9	0.3	6.1
23	Textiles	—	1.4	—	—	—	—	—	—	—	—	—	—	—	1.4	—	1.4
24	Clothing and footwear	—	0.4	—	—	—	—	—	—	—	—	—	—	—	0.4	—	0.4
25	Wood, wood products and furniture	—	—	2.3	—	—	—	—	—	—	—	—	0.5	2.8	—	—	2.8
26	Paper, paper products, printing and publishing	—	—	2.7	1.7	—	—	—	—	—	—	—	—	4.4	—	—	4.4
27	Chemical, petroleum and coal products	—	—	—	—	0.5	—	—	—	—	—	—	—	0.5	—	—	0.5
28	Non-metallic mineral products	—	—	—	—	—	—	0.9	—	—	—	—	—	0.9	—	—	0.9
29	Basic metal products	—	—	—	—	—	—	—	—	3.0	—	—	—	3.0	—	—	3.0
31	Fabricated metal products	—	—	—	—	—	—	—	—	1.3	—	—	0.1	1.5	—	—	1.5
32	Transport equipment	—	—	—	—	—	—	—	—	—	—	1.0	—	1.0	—	—	1.0
33	Other machinery and equipment	—	—	—	—	—	—	—	—	—	—	0.7	—	0.7	0.1	—	0.8
34	Miscellaneous manufacturing	—	—	—	—	0.4	—	—	—	—	—	—	0.1	0.5	—	—	0.6
21-34	Total manufacturing	5.9	1.8	5.0	1.7	0.9	1.7	4.3	1.7	1.7	0.8	1.8	0.8	22.9	0.4	23.3	
	Non-manufacturing (under ASIC)	0.2	—	—	—	—	—	—	—	—	—	—	—	0.2	—	—	
	Total ANZSIC	6.0	1.8	5.0	1.7	0.9	1.7	4.3	1.8	1.8	0.8	1.8	0.8	23.1	0.4	23.5	

For footnotes see end of table.

EXPLANATORY NOTES

Introduction

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

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

3. Manufacturing, as specified in Division C of the *Australian Standard Industrial Classification (ASIC)*, broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand.

Scope and coverage

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

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

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

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

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

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

Table 2 of this publication. As these data indicate, these businesses contribute only marginally to statistical aggregates (other than number of establishments). In addition, the ABS attempts to obtain data for employing businesses which either commenced or ceased operation during the year, but it is not possible to obtain data for all of them.

Unit definitions

10. The standard units now in use are:

(a) *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.

(b) *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.

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

Data item definitions

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

12. *Locations at 30 June.* The number of locations in operation at 30 June.

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

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

15. *Turnover* (see Note below). Sales (exclusive of excise and sales tax) of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same business, plus

bounties and subsidies on production, plus all other operating revenue from outside the business (such as commission revenue, repair and service revenue, and rent, leasing and hiring revenue), plus capital work done for own use, or for rental or lease. Receipts from interest, royalties, dividends and the sale of fixed tangible assets are excluded.

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

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

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

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

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

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

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

22. *Establishments that encouraged the return of their own containers or packaging.* Establishments

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

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

24. *Proportion of total turnover.* The percentage of total manufacturing industry turnover attributed to establishments that gave positive responses to questions on environmental protection issues (for Table 7). The percentage of total reported turnover (excluding single establishment businesses with less than four persons employed) of establishments that had current expenditure on environmental protection (for Table 8).

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

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

Comparability with previous statistics

27. As explained above, the standard units definitions were revised for the 1988-89 census and the new definitions have been implemented on the ABS central business register for units classified to the manufacturing industry.

28. For a detailed explanation of the various factors which affected the count of 'Number of manufacturing establishments' in the years to 1989-90, see the Appendix to the 1989-90 issue of this publication. Also, as indicated in paragraph 34 of the Explanatory Notes to that issue, there was a fairly constant level of undercoverage on the ABS central business register for the years from 1982. Coverage factors to convert previous years' data (with the exception of number of establishments) to a comparable basis with 1989-90 data are shown in Table 8 of the 1989-90 issue of this publication.

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

30. For users still interested in the dissection between establishments employing less than four persons and

establishments employing four or more persons, attention is drawn to Table 6 and the employment size category 0 - 3 persons. This new category includes all establishments employing less than four persons. In most cases, data in this new employment size category equates to the 'old' category of less than four persons employed (the major exception being Subdivision 28). A detailed break up of the differences can be made available on request.

Comparability of manufacturing and population census data

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

32. The manufacturing census estimates relate to employment in the last pay period ending in June 1991. The population census estimates relate to employment during the week ended 6 August 1991.

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

34. In the processing of the population census, there were cases where the industry of employment was not stated by the householder or where it could not be classified from the response provided. In these cases, a not classified code was allocated, which accounted for 9.0 per cent of total employment (across all industries). In the manufacturing census, all businesses (and, thereby, their total employment) were industry coded.

Employment size data

35. Summary of operations data at the industry subdivision level classified by employment size are presented in Table 6. These statistics relate to only those manufacturing establishments operating at 30 June 1992. As such, the figures presented in Table 6 may be slightly less than those presented in the other manufacturing census tables. These other tables include data for those manufacturing establishments which operated at any time during 1991-92.

Environmental statistics

36. A summary of environmental protection issues data at the industry subdivision level are presented in Table 7. All manufacturing establishments were asked to provide a 'yes' or 'no' answer as to whether they participated in the environment-related activities set out. The statistics presented relate to those establishments which responded 'yes' to the relevant issues. Establishments which did not respond were treated as if they had responded 'no'.

37. Data contained in Table 8 relate to current and capital expenditure on environmental protection in the year ended 30 June 1992. Data were not collected from those single establishment businesses with less

than four persons employed. Establishments which did not respond were treated as if they had no current or capital expenditure on environmental protection.

Statistical division data

38. The location data presented in Table 9 are based on additional data collected in the 1991-92 census. The extra data requested were the activity carried out at the location, the number of persons employed and the address of the location.

39. Employment data shown in this table are based on reported employment, but in the case of wages and salaries and turnover data they do not reflect reported data in all cases. This is because in those circumstances where an establishment operates at more than one location, the data have been synthesised to derive location-level wages and salaries and turnover data. (However, it should be noted that most establishments operate at only the one location.) The location-level synthesised data were derived by using the location data collected on activity and employment, and then pro-rating wages and salaries and turnover based on the reported employment.

40. As indicated in paragraph 7, a manufacturing establishment covers all activities of the establishment, including any non-manufacturing activities. In Table 9, the non-manufacturing locations of manufacturing establishments have been excluded. For this reason, the State totals (for location data, other than the number of locations) in Table 9 may be less than those shown in Tables 1, 5, 6 and 10 (for establishment data). However, it is also possible for the State totals in Table 9 to be greater than those shown in Tables 1, 5, 6 and 10, as a result of individual locations of establishments being allocated a different industry classification to that of the 'parent' establishment.

Introduction of ANZSIC

41. The Australian and New Zealand Standard Industrial Classification (ANZSIC) is to be fully introduced into the manufacturing statistics collection from the 1992-93 collection. This classification replaces the Australian Standard Industrial Classification currently in use. An ASIC/ANZSIC concordance of data from the 1991-92 census is presented in Table 10 as a forerunner to what users can expect in future collections. For a more detailed explanation, users attention is drawn to the introduction to Table 10 and to the *Australian and New Zealand Standard Industrial Classification, 1993* (1292.0).

Related publications

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

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

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

Quarterly Indexes of Industrial Production, Australia (8125.0).

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

Business Operations and Industry Performance, Australia, 1992-93 (8140.0), released on 22 June 1994.

Manufacturing Industry, Australia, 1992-93, Preliminary (8201.0), released on 25 August 1994.

Manufacturing Industry, Australia, 1991-92 (8221.0), released on 21 February 1994.

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

Monthly and quarterly commodity data

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

Back data and unpublished statistics

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

Symbols and other usages

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

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

Unpublished data from the Manufacturing Census

A considerable amount of data from the manufacturing census exists in unpublished form. More detailed information to satisfy individual user requirements may be available on request.

Some examples of the information available include:

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

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

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



Further details can be obtained by contacting the Manufacturing Publishing and Consultancy Area in ABS NSW on (02) 268 4245.

Business and Industry Profiles

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

Business Profiles also include industry concentration statistics and environmental data.

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

Industry Profiles are available now.



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







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