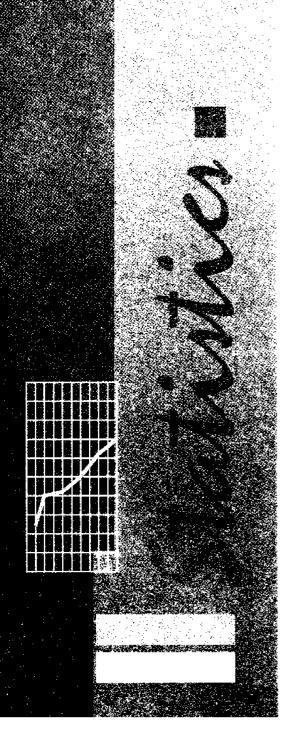


1994-95

EMBARGO: 11.30 AM (CANBERRA TIME) MON 7 APR 1997

Manufacturing Industry

South Australia



NOTES

ABOUT THIS ISSUE

The data item 'Number of establishments' has not been included in this publication and will be omitted from all 1994–95 and later years' publications relating to the annual manufacturing industry collection. In recent years, year to year movements in numbers of establishments have borne little relationship to the changes in economic performance of the industries involved. For this reason, the Australian Bureau of Statistics (ABS) does not encourage the use of the number of establishments as an analytical tool. However, the data can be made available on request, with notes on their limitations. For further information, see paragraph 21 of the Explanatory notes.

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

figure or series revised since previous issue

data subject to sampling variability of between 25% and 50%

at a subject to sampling variability of greater than 50%

— nil or rounded to zero

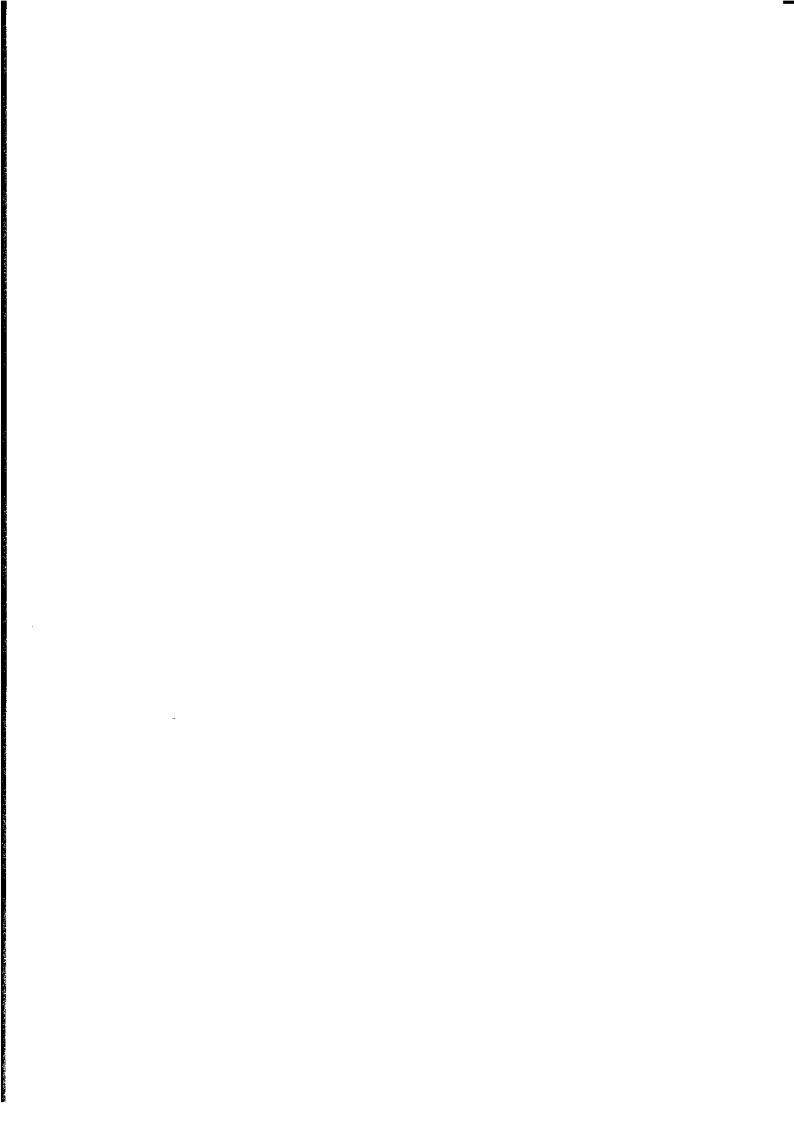
INQUIRIES

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

For further information about statistics in this publication and the availability of related unpublished statistics, contact John Ridley on (02) 9268 4541.

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BACKGROUND

This publication contains detailed industry statistics compiled from a survey of manufacturing establishments (see paragraphs 5 to 11 of the Explanatory notes) conducted in respect of 1994–95, with some comparative statistics for earlier years. It expands and updates the information which was published in *Manufacturing Industry*, *Australia*, *Preliminary*, *1994–95* (8201.0), which was released on 23 August 1996 and *Manufacturing Industry*, *Australia*, *1994–95* (8221.0), which was released on 31 January 1997.

For the 1994–95 manufacturing collection, a sample of approximately 20,000 manufacturing establishments, nationally, was approached to provide data on employment, wages and salaries, turnover and whether their products were exported. Information related to exports emanating from the manufacturing sector are shown in tables 5 and 6.

Guidelines to the quality of estimates from the sample surveys as measured by the standard (sampling) error are shown on page 38.

In addition to data for the above items, this publication contains additional data to provide a more complete picture of the manufacturing industry. The additional data include information on percentage change in gross product at factor cost (average 1989–90 prices) (table 3).

A sample of approximately 7,500 out of the establishments referred to above was also asked to supply value of sales for commodities produced. These commodity data will be published in *Manufacturing Production, Australia: Principal Commodities Produced, 1994*–95 (8365.0), expected to be released later in 1997.

AUSTRALIAN AND NEW ZEALAND STANDARD INDUSTRIAL CLASSIFICATION (ANZSIC)

This publication continues to use the Australian and New Zealand Standard Industrial Classification (ANZSIC), which replaced the Australian Standard Industrial Classification (ASIC) used prior to the 1992–93 reference year. Manufacturing collections dating back to the 1989–90 reference year have been coded to industry using ANZSIC and, therefore, all time series comparisons in this publication are made on a consistent ANZSIC basis. ASIC-based data are not available from 1992–93.

DATA AS CONTAINED IN THIS PUBLICATION

All manufacturing data in this publication have been adjusted to allow for lags in processing new businesses to the ABS business register, and omission of some businesses from the business register. More information on these adjustments can be found in paragraphs 13 and 14 of the Explanatory notes.

As explained above, about 7,500 establishments included in the 1994–95 collection were asked to supply value of sales for commodities produced. Similarly, 18,000 establishments included in the 1993–94 collection were asked to supply this information. This has meant that the industry code for the responding units included in either (or both) of these commodity samples has been able to be determined on an objective industry coding basis, compared to the more subjective industry coding which has occurred for non-responding units and for all units in each of the three prior

manufacturing collections. More information on this subject can be found in paragraph 18 of the Explanatory notes.

Because of the above reasons, comparison of industry class (especially) level data published in the 1993–94 and later issues of this publication with data published in the 1992–93 and earlier issues of this publication should be undertaken with caution.

UNPUBLISHED DATA

A considerable amount of data from the annual manufacturing collection is available in unpublished form. More detailed information to satisfy individual user requirements may be available on request. In general, unpublished data for 1994–95 consist of finer industry dissections of the data presented in tables 3 to 6. Further details can be obtained by referring to the *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (8205.0) or by contacting the NSW Office of the ABS — see page 2 for contact details.

P. M. Gardner Regional Director South Australia

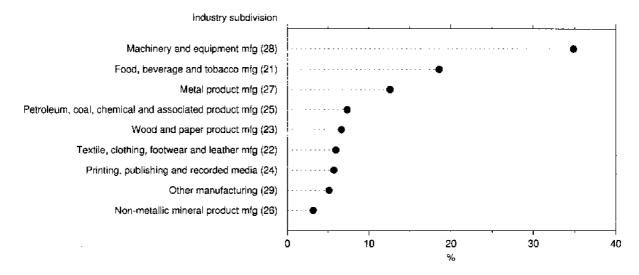
OVERVIEW

Turnover for the year 1994–95 by manufacturing establishments operating in South Australia was \$17,570m. This represents a 4.7% increase, in current price terms, from the \$16,779m turnover recorded for the year 1993–94. In constant price terms (1989–90 prices), manufacturing gross product at factor cost increased by 2.3% in 1994–95 from 1993–94. Manufacturing employment at the end of June 1995 was 87,100, some 1.0% higher than 12 months earlier. This is the first annual increase since the ANZSIC series was introduced (for the 1989–90 collection) and also the first rise since June 1989.

EMPLOYMENT (TABLES 1 AND 2)

The 1994–95 manufacturing survey estimated that 87,100 persons were employed at the end of June 1995. As in previous years, Machinery and equipment manufacturing (34.8%) was the major contributor to employment at the end of June 1995, with Food, beverage and tobacco manufacturing (18.6%) and Metal product manufacturing (12.6%) continuing to make significant contributions. Non-metallic mineral product manufacturing (3.2%) and Other manufacturing (5.1%) remain the smallest contributors.

Distribution of employment, June 1995



Manufacturing employment increased by 1.0% between June 1994 and June 1995. Two of the nine industry subdivisions recorded increases in the level of employment over this period. Machinery and equipment manufacturing (up 7.9% from 28,100 persons to 30,300 persons) and Food, beverage and tobacco manufacturing (up 1.3% from 16,000 persons to 16,200 persons) recorded the increases. Of the four industry subdivisions to record a decrease in employment, the largest in percentage terms was Printing, publishing and recorded media (down 9.6% from 5,500 persons to 5,000 persons). Employment in the remaining three industry subdivisions was unchanged — Petroleum, coal, chemical and associated product manufacturing (6,400 persons), Non-metallic mineral product manufacturing (2,800 persons) and Other manufacturing (4,500 persons).

The percentage contribution by South Australia to total Australian manufacturing employment at the end of June 1995 was 9.4%. This is marginally less than the 9.5% reported at the end of June 1994. The percentage contribution to total manufacturing employment by the other States and Territories at the end of June 1995 was: New South Wales 33.0%, Victoria 31.6%, Queensland 15.0%, Western Australia 7.7%, Tasmania 2.4%, the Australian Capital Territory 0.5% and the Northern Territory 0.3%.

The South Australian industry subdivision which made a significant contribution to national manufacturing employment at the end of June 1995 at the industry subdivision level was Machinery and equipment manufacturing (15.0%).

Longer term trends (June 1990 to June 1995)

Employment in the South Australian manufacturing industry decreased by 14,300 persons (down 14.1% from 101,400 persons to 87,100 persons) over the period June 1990 to June 1995. All industry subdivisions recorded decreases over this period, with Textile, clothing, footwear and leather manufacturing (down 31.3% from 7,600 persons to 5,200 persons), Metal product manufacturing (down 30.2% from 15,700 persons to 11,000 persons) and Non-metallic mineral product manufacturing (down 29.4% from 3,900 persons to 2,800 persons) recording the largest percentage decreases. The smallest percentage decrease was recorded by Food, beverage and tobacco manufacturing (down 0.9% from 16,300 persons to 16,200 persons). This can be attributed to steady annual employment growth from June 1992.

The decrease in South Australian employment over the period June 1990 to June 1995 was the third largest in percentage terms recorded by any State or Territory. Other large percentage decreases were recorded by Victoria (down 18.4% from 358,700 persons to 292,500 persons), Tasmania (down 18.2% from 27,000 persons to 22,100 persons) and New South Wales (down 14.0% from 354,900 persons to 305,400 persons). The Northern Territory recorded a marginal decrease (down 0.8%). During this period, the Australian Capital Territory (up 5.9% from 3,900 persons to 4,200 persons) recorded the highest percentage increase of any State or Territory. Employment increased marginally in Western Australia (up 0.4% from 71,200 persons to 71,500 persons) and Queensland (up 0.1% from 138,500 persons to 138,600 persons).

The percentage contribution by South Australia to Australian manufacturing employment has declined since June 1990 (decreasing by 0.2 percentage points to 9.4%), as did Victoria (down 2.2 percentage points to 31.6%), New South Wales (down 0.5 percentage points to 33.0%) and Tasmania (down 0.2 percentage points to 2.4%). Queensland increased its percentage share of employment over this period (up 1.9 percentage points to 15.0%), as did Western Australia (up 1.0 percentage points to 7.7%). Both Territories maintained their minor shares of Australian manufacturing employment over the period.

TURNOVER (TABLES 1 AND 2)

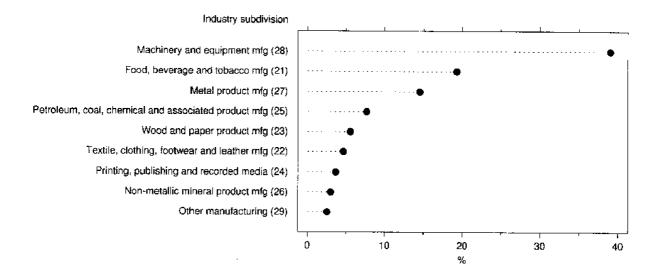
Turnover for the year 1994–95 by manufacturing establishments operating in South Australia was \$17,570m. This represents a 4.7% increase, in current price terms, from \$16,779m turnover recorded for the year 1993–94. Machinery and equipment manufacturing remains the industry subdivision with the largest contribution to turnover in the manufacturing industry.

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

- Machinery and equipment manufacturing (39.0%), where the industry groups Motor vehicle and part manufacturing (ANZSIC group 281 at 25.3%) and Electrical equipment and appliance manufacturing (ANZSIC group 285 at 5.8%) were the most substantial.
- Food, beverage and tobacco manufacturing (19.3%), where the industry groups Beverage and malt manufacturing (ANZSIC group 218 at 6.4%) and Meat and meat product manufacturing (ANZSIC group 211 at 3.8%) were the most substantial.
- Metal product manufacturing (14.5%), where the industry group Iron and steel manufacturing (ANZSIC group 271 at 6.0%) was the most substantial.

Industry groups (of those available for publication) making a notable contribution to total turnover and not included in the subdivisions listed above included Plastic product manufacturing (ANZSIC group 256 at 2.7%), Paper and paper product manufacturing (ANZSIC group 233 at 2.3%), and Cement, lime, plaster and concrete product manufacturing (ANZSIC group 263 at 2.0%).

Distribution of turnover



The percentage contribution by South Australia to total Australian manufacturing turnover in 1994–95 was 9.2%. In contrast to the decreased share with employment, this contribution to Australian turnover is marginally higher than the 9.1% contribution reported in 1993–94. The percentage contribution to turnover by the other States and Territories in 1994–95 was: New South Wales 33.9%, Victoria 31.8%, Queensland 14.5%, Western Australia 7.7%, Tasmania 2.3%, the Northern Territory 0.4% and the Australian Capital Territory 0.3%.

The South Australian industry subdivision which made a significant contribution to national manufacturing turnover in 1994–95 at the industry subdivision level was Machinery and equipment manufacturing (18.4%).

Longer term trends (1989-90 to 1994-95)

Turnover for the manufacturing industry in South Australia increased, in current price terms, by 16.1% over the period 1989–90 to 1994–95. Seven industry subdivisions recorded increases and two recorded decreases over the same period. The industry subdivisions with the largest percentage increases were Wood and paper product manufacturing (up 39.5% from \$700m to \$976m), Food, beverage and tobacco manufacturing (up 25.7% from \$2,699m to \$3,392m) and Machinery and equipment manufacturing (up 19.7% from \$5,730m to \$6,857m). The two industry subdivisions to show a decrease were Non-metallic mineral product manufacturing (down 13.6% from \$612m to \$529m) and Other manufacturing (down 7.8% from \$488m to \$450m).

Three of the States recorded an increase in their contribution to Australian tumover between 1989–90 and 1994–95. South Australia (up 0.3 percentage points to 9.2% of Australian turnover) was one of these States, whilst the other two were Queensland (up 0.7 percentage points to 14.5%) and New South Wales (up 0.5 percentage points to 33.9%). The decreases were recorded by Victoria (down 1.0 percentage points to 31.8%), followed by Western Australia (down 0.2 percentage points to 7.7%) and Tasmania (down 0.2 percentage points to 2.3%). The Northern Territory (at 0.4%) and the Australian Capital Territory (at 0.3%) maintained their share of Australian turnover over the period.

RATIO OF WAGES AND SALARIES TO TURNOVER (TABLES 1 AND 2)

In 1994–95, the ratio of wages and salaries to turnover for South Australia's manufacturing industry was 0.15; that is, on average, 15 cents in wages and salaries is paid for each \$1.00 of turnover. This value is the same as that measured in 1993–94, but a decrease on the 0.17 recorded in 1989–90.

The wages and salaries to turnover ratio decreased in eight of the nine industry subdivisions between 1989–90 and 1994–95, with the largest falls being recorded by Textile, clothing, footwear and leather manufacturing (0.21 to 0.17), Wood and paper product manufacturing (0.23 to 0.20), Printing, publishing and recorded media (0.26 to 0.23) and Metal product manufacturing (0.17 to 0.14). The only subdivision with a marginal increase was Machinery and equipment manufacturing (0.14 to 0.15).

Of the industries available for publication, the largest ratios of wages and salaries to turnover in 1994–95 were recorded in Ceramic product manufacturing n.e.c. (ANZSIC class 2629) (0.39), Hand tool and general hardware manufacturing (ANZSIC class 2761) (0.39), Textile finishing (ANZSIC class 2215) (0.36) and Machine tool and part manufacturing (ANZSIC class 2864) (0.35). Of the industries available for publication, the smallest ratios of wages and salaries to turnover were recorded in Prepared animal and bird feed manufacturing (ANZSIC class 2174) (0.06), Flour mill product manufacturing (ANZSIC class 2151) (0.07), Seafood processing (ANZSIC class 2173) (0.08) and Plastic blow moulded product manufacturing (ANZSIC class 2561) (0.08).

TURNOVER PER PERSON EMPLOYED (TABLES 1 AND 2)

Turnover per person employed for total manufacturing in South Australia for 1994–95 was \$201,700, which is 3.6% higher than the figure recorded 12 months earlier. The manufacturing industry subdivisions with the highest ratios of turnover per person employed in 1994–95 were Metal product manufacturing (\$233,000) and Machinery and equipment manufacturing (\$226,000). Other manufacturing recorded the lowest value for this ratio (\$100,300). Various factors affect the magnitude of turnover per person employed. In general, industries which are labour intensive will record lower values of turnover per person employed than will those industries which are capital intensive.

GROSS PRODUCT AT FACTOR COST (AVERAGE 1989-90 PRICES) (TABLE 3)

Constant price estimates of gross product at factor cost are the most accurate measure of the relative growth or decline of the manufacturing industry, as they discount the impact of price changes. In constant price terms, manufacturing gross product at factor cost increased by 2.3% from \$5,916m in 1993–94 to \$6,049m in 1994–95.

Four of the nine industry subdivisions recorded an increase in constant price estimates of gross product at factor cost over the period 1993–94 to 1994–95. The largest percentage increases were recorded by Machinery and equipment manufacturing (up 6.2%), Wood and paper product manufacturing (up 3.2%) and Other manufacturing (up 2.5%). Non-metallic mineral product manufacturing (down 6.4%) and Printing, publishing and recorded media (down 2.3%) recorded the largest percentage decreases.

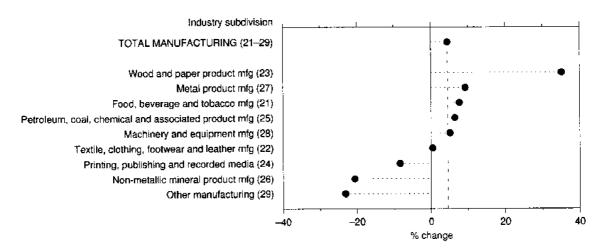
Longer term trends (1989-90 to 1994-95)

Over the period 1989–90 to 1994–95, manufacturing gross product at factor cost in constant price terms increased by 4.5%. Although there was this overall increase in constant price estimates of gross product at factor cost over this period, only six of the industry subdivisions recorded an increase with the other three industry subdivisions recording decreases.

The largest percentage increase was recorded by Wood and paper product manufacturing (up 35.2%), followed by Metal product manufacturing (up 9.3%) and Food, beverage and tobacco manufacturing (up 7.6%). The largest percentage decreases were recorded by Other manufacturing (down 23.1%) and Non-metallic mineral product manufacturing (down 20.6%).

Over the period 1989–90 to 1994–95, there was an increase in gross product per person employed (average 1989–90 prices) of 21.6%. All industry subdivisions recorded an increase over this period. The largest percentage increases were recorded by Metal product manufacturing (up 56.5%), Textile, clothing, footwear and leather manufacturing (up 46.1%) and Wood and paper product manufacturing (up 43.6%). The smallest percentage increase over this period was recorded by Other manufacturing (up 1.4%).

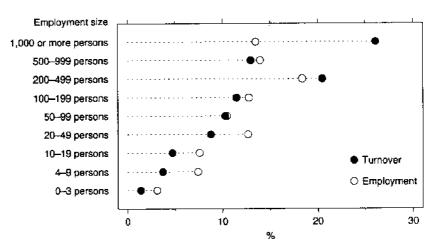
Gross product at factor cost (1989-90 prices), 1989-90 to 1994-95



EMPLOYMENT SIZE (TABLE 4)

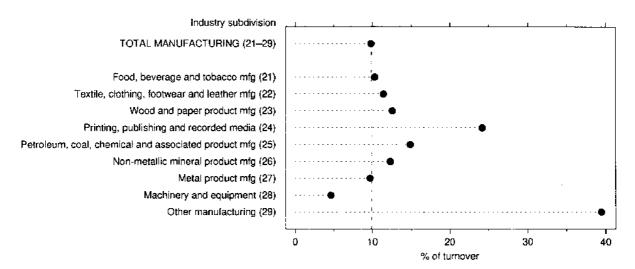
Large establishments (i.e. those employing 100 or more persons) accounted for 58.7% of employment at the end of June 1995 and 71.1% of manufacturing turnover for 1994–95. Establishments employing 20–99 persons accounted for 23.2% of employment and 19.1% of turnover. Small establishments (i.e. those employing 0–19 persons) accounted for 18.1% of employment and 9.9% of turnover. Manufacturing establishments employing 1,000 or more persons at the end of June 1995 employed 13.5% of all persons working in the manufacturing industry in South Australia and contributed 26.1% of all manufacturing turnover.

Distribution of manufacturing turnover and employment

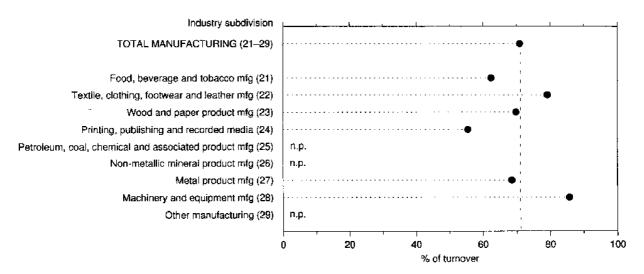


For all of the six industry subdivisions available for publication, more than 50% of turnover was contributed by large establishments (employing 100 or more persons). The industries where large establishments contributed most to turnover were Machinery and equipment manufacturing (85.8%) and Textile, clothing, footwear and leather manufacturing (79.3%). Small establishments (employing 0–19 persons) made relatively significant contributions to turnover for Other manufacturing (39.5%) and Printing, publishing and recorded media (24.2%).

Distribution of turnover by employment size, 0-19 persons

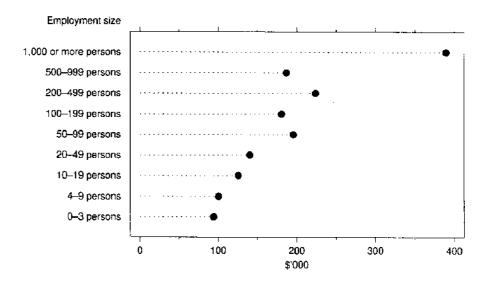


Distribution of turnover by employment size, 100 or more persons



Small establishments (employing 0–19 persons) displayed a much lower ratio of turnover per person employed at the end of June 1995 (\$109,900) than establishments in the larger size categories. Large establishments (employing 100 or more persons) recorded an average turnover per person employed of \$244,000, with establishments employing 1,000 or more persons having a ratio of \$389,400.

Turnover per person employed



EXPORTS BY MANUFACTURERS (TABLES 5 AND 6)

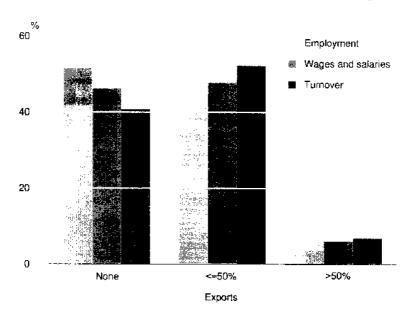
It should be noted that tables 5 and 6 do not include all exports of goods manufactured in South Australia. Rather, they show the extent to which South Australian manufacturers are directly involved in the export process. Further information about the data in tables 5 and 6 is contained in paragraphs 26 to 29 of the Explanatory notes.

For 1994–95, the percentage of the sales of goods produced in the manufacturing industry which were subsequently exported was 12.0%. The Textile, clothing, footwear and leather manufacturing industry subdivision recorded the highest percentage contribution with 34.6%, followed by Metal product manufacturing (19.3%). The industry subdivisions to record the smallest percentage contribution were Printing, publishing and recorded media (1.1%) and Wood and paper product manufacturing (1.7%).

The percentage of the sales of goods produced in the manufacturing industry which were subsequently exported varied according to employment size. Establishments employing 100 or more persons recorded the highest contribution with 14.0%. The percentage decreased the smaller the employment size range, with establishments employing 50–99 persons recording 8.4% and establishments employing 0–49 persons 6.4%.

Establishments that export made up a significant proportion of employment (48.5%), wages and salaries (53.8%) and turnover (59.2%) in the manufacturing industry. Establishments that export more than 50% of their sales of goods produced accounted for 5.5% of employment and 6.9% of turnover in the manufacturing industry.

Distribution of selected variables by proportion of goods exported



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	and industry subdivision
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וחטו וכאו	RY SUBDIVISION		Employment at end of June(c)	Wages and salaries(d)(e)	Tumover(e)	Ratio of wages and salaries to turnover(e)	Tumover per person employed(e)(f)
			Or June(u)	32107723(0)(0)	10///040/10/	turnover(e)	employed(e)(I)
ANZSIC code	Description		000	\$m	\$m	Ratio	\$'000
	• • • • • • • • • • • • • • • • • • • •						
21	Food, beverage and tobacco mfg	1994-95	16.2	435.7	3 392.0	0.13	209.5
		1993-94	16.0	429.2	3 294.6	0.13	206.0
		1992–93	15.6	405.6	2 939.3	0.14	r188.7
		1991–92	15.4	387.2	2 798.8	0.14	182.2
		1990–91	16.6	387,6	2 789.8	0.14	167.8
		1989–90	16.3	382.2	2 698.5	0.14	165.2
22	Textile, clothing, footwear and leather mfg	1994-95	5.2	140.9	816.8	0.17	157.1
		1993–94 г	5.3	136.9	788.7	0.17	148.3
		1992–93	5.8	145.8	824.6	0.18	141,4
		1991–92	6.0	157.7	822.7	0.19	136.7
		1990–91	6.8	154.6	786.3	0.20	116.1
		198990	7.6	153.6	732.2	0.21	96.8
23	Wood and paper product mfg	1994-95	5.8	196.5	976.1	0.20	168.9
		1993–94	6.1	184.7	r950.2	0.19	r155.2
		1992–93	5.6	170.0	861.0	0.20	154.1
		199192	5.8	161.1	774.1	0.21	133.8
		1990–91	5.6	157.4	757.7	0.21	135.2
		198990	6.1	158.0	699.9	0.23	114 .0
24	Printing, publishing and recorded media	1994–95	5.0	149.8	650.1	0.23	130.4
		1993-94	5.5	154.9	643.7	0.24	116.7
		1992–93	5.5	15 7.5	652.3	0.24	118 .6
		1991–92	5.5	158.1	629.2	0.25	115.4
		1990–91	5.9	158.7	583.6	0.27	99.5
		1989-90	6.0	152.8	594.4	0.26	98.4
25	Petroleum, coal, chemical and associated	1994-95	6.4	215.9	1 347.1	0.16	210.6
	product mfg	1993–94 r	6.4	206.4	1 421.2	0.15	223.2
		1992-93	6.8	216.2	1 422.8	0.15	207.8
		1991-92	7.0	216.8	1 427.1	0.15	204.2
		1990-91	8.0	229.6	1 480.0	0.16	185.7
		1989-90	7,7	202.8	1 222.0	0.17	158.5
26	Non-metallic mineral product mfg	1994-95	2.8	89.6	529.0	0.17	189.7
		1993- 9 4	2.8	91.5	550.2	0.17	198.5
		1992-93	2.8	96.6	536.9	0.18	191.7
		1991-92	2.9	87.1	506.5	0.17	173.7
		1990–91	3.2	101.6	562.9	0.18	173.2
		1989–90	3.9	112.8	612.0	0.18	155.0

			Employment at end	Wages and		Ratio of wages and salaries to	Tumover per person
INDUST	RY SUBDIVISION		of June(c)	salaries(d)(e)	Turnover(e)	turnover(e)	employed(e)(f)
ANZSIC							
code	Description		'000	\$m	\$m	Ratio	\$'000
				• • • • • • • • • •	• • • • • • • • •		*******
27	Metal product mfg	1994–95	11.0	350.9	2 552.2	0.14	233.0
		1993-94	11.5	350.7	2 339.1	0.15	202.8
		1992-93	12.4	387.4	2 395.9	0.16	193.1
		1991-92	12.8	417.8	2 300.0	0.18	179.0
		1990–91	14.7	425.6	2 300.5	0.19	156.6
		1989–90	15.7	410.1	2 354.8	0.17	150.2
28	Machinery and equipment mfg	1994–95	30.3	1 026.9	6 857.2	0.15	226.0
	, , , , , ,	199 3–94	28.1	903.5	6 361.6	0.14	226.2
		1992-93	27.8	830.5	5 144.3	0.16	185.3
		1991-92	28.6	831.2	5 508.6	0.15	192.6
		1990-91	29.7	842.0	5 694.0	0.15	191.6
		1989-90	32.1	823.6	5 729.6	0.14	178.5
29	Other manufacturing	1994-95	4.5	95.9	449.8	0.21	100.3
	3	1993-94	4.5	95. 6	430.2	0.22	95.8
		1992-93	4.3	90.0	394.8	0.23	90.9
		1991-92	4.3	88.2	392.5	0.22	91.3
		1990-91	5.1	112.9	465.8	0.24	92.1
		1989-90	5.9	111.8	487.7	0.23	82.5
21-29	Total manufacturing	1994–95	87.1	2 702.2	17 570.2	0.15	201.7
	· · · · · · · · · · · · · · · · · · ·	1993-94	86.2	2 553.4	r16 779.4	0.15	r194.6
		1992-93	86.6	2 499.7	15 171.9	0.16	175.1
		1991-92	88.3	2 505.1	15 159.4	0.17	171.7
		1990-91	95.6	2 570.0	15 420.7	0.17	161.4
		1989-90	101.4	2 507.6	15 131.2	0.17	149.2

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) For factors affecting comparability of data over the time periods shown, see paragraphs 15 to 18 of the Explanatory notes.

⁽c) Includes working proprietors.

⁽d) Excludes the drawings of working proprietors.

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

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

		Employment at end	Wages and		Ratio of wages and salaries to	Turnover per person
INDUST	RY CLASS	of June(b)	salarles(c)	Turnover	turnover	employed(d)
ANZSIC code	Description	No.	\$m	\$m	Ratio	\$'000
	· • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •	> • • > • • • • • • •	****		•
	FOOD, BEVERAGE AND TOBACCO MFG Meat and meat product mfg					
2111	Meat processing	3 115	78.3	463.9	0.17	148.9
2112	Poultry processing	623	n.p.	n,p,	n.p.	n.p.
2113	Bacon, ham and smallgood mfg	562	n.p.	ń,p.	n.p.	п.р.
211	Total	4 300	108.0	661.6	0.16	153.9
	Dairy product mfg					
2121	Milk and cream processing	n.p.	n.p.	n.p.	n.p.	n.p.
2122	Ice cream mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2129	Dairy product mfg n.e.c.	342	n.p.	n.p.	n.p.	n.p.
212	Total	804	23.6	355.0	0.07	441.4
213	Fruit and vegetable processing	1 028	29.5	255.2	0.12	248.3
214	Oil and fat mfg	n.p.	n.p.	n.p.	n.p.	n.p.
	Flour mill and cereal food mfg					
2151	Flour mill product mfg	156	4.9	69.5	0.07	445.6
2152	Cereal food and baking mix mfg	n.p.	n.p.	n.p.	n.p.	n.p.
215	Total	n.p.	n.p.	n.p.	n.p.	n.p.
	Bakery product mfg					
2161	Bread mfg	1 502	34.7	121.8	0.28	81.1
2162	Cake and pastry mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2163	Biscuit mfg	n.p.	n.p.	n.p.	n.p.	n.p.
216	Total	3 230	78.4	287.5	0.27	89.0
	Other food mfg					
2171	Sugar mfg	_	_	_	_	_
2172	Confectionery mfg	234	5.5	30.1	0.18	128.7
2173	Seafood processing	732	13.3	174.9	0.08	238.9
2174	Prepared animal and bird feed mfg	244	7.0	123.2	0.06	505.9
2179	Food mfg n.e.c.	1 016	32.5	251.4	0.13	247.5
217	Total	2 226	58. <i>4</i>	579.7	0.10	260.5
	Beverage and malt mfg					
2181	Soft drink, cordial and syrup mfg	n. p.	n.p.	n.p.	n.p.	n.p.
2182	Beer and malt mfg	353	n.p.	n.p.	n.p.	n.p.
2183	Wine mfg	3 101	84.0	753.0	0.11	242.8
2184	Spirit mfg	n.p.	n.p.	n.p.	n.p.	n.p.
218	Total	4 115	126.3	1 122.4	0.11	272.8
219	Tobacco product mfg		_	_		-
21	Total food, beverage and tobacco mfg	16 193	435.7	3 392.0	0.13	209.5
	TEXTILE, CLOTHING, FOOTWEAR AND LEATHER	R MFG				
2211	Wool scouring	n,p.	n.p.	n.p.	n.p.	n.p.
2212	Synthetic fibre textile mfg	n.p.	n.p.	n.p.	n.μ. n.p.	n.p.
2213	Cotton textile mfg	194	п.р.	n.p.	n.p.	n.p.
2214	Wool textile mfg		п.р.	——————————————————————————————————————		——————————————————————————————————————
2215	Textile finishing	*92	*2.7	*7.4	*0.36	*80.5
221	Total	1 289	n.p.	n.p.	n.p.	n.p.
	Textile product mfg					
2221	Made-up textile product mfg	421	8.3	44.5	0.19	105.7
2222	Textile floor covering mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2223	Rope, cordage and twine mfg	_	-	_	_	_
2229	Textile product mfg n.e.c.	161	3.8	14.8	0.26	91.9
222	Total	n.p.	n.p.	n.p.	n.p.	n.p.
* * 4 *						

		•			Ratio of	
		Employment			wages and	Turnover
		at end	Wages and		salaries to	per person
INDUST	RY CLASS	of June(b)	salaries(c)	Turnover	turnover	employed(d)
ANZSIC						
code	Description	No.	\$m	\$m	Ratio	\$'000
COGC	Description	140.	ФШ	φili	Rauu	\$ 000
****	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * *	* * * * * * * * * *		* * * * * * * * * *	*****
	Knitting mills					
2231	Hosiery mfg	_	_			_
2232 2239	Cardigan and pullover mfg	n.p.	n.p.	n.p.	n.p.	n.p,
2239	Knitting mill product mfg n.e.c. Total	n.p.	n.p.	n.p.	n. p .	п.р.
223	70(8)	109	2.2	8.6	0.26	79.0
	Clothing mfg					
2241	Men's and boys' wear mfg	1 134	28.4	113.2	0.25	99.8
2242	Women's and girls' wear mfg	593	13.1	56.2	0.23	94.8
2243	Sleepwear, underwear and infant clothing mfg	**9	**0.2	**0.9	**0.17	**106.4
2249	Clothing mfg n.e.c.	410	6.2	20.7	0.30	50.5
224	Total	2 145	47.9	191.0	0.25	89.0
:		•	17.0	131.0	0.20	05.0
225	Footwear mfg	701	17.9	82.7	0.22	118.1
	•					
	Leather and leather product mfg					
2261	Leather tanning and fur dressing	n.p.	n.p.	n.p.	n.p.	n.p.
2262	Leather and leather substitute product mfg	26	0.5	1.7	0.28	65.5
226	Total	n.p.	n.p.	n.p.	n.p.	n.p.
22	Total textile, clothing, footwear and leather mfg	5 201	140.9	816.8	0.17	157.1
	1446 6 1415 6 1415 6 1415 6 1415					
	WOOD AND PAPER PRODUCT MFG					
0011	Log sawmilling and timber dressing	_				
2311	Log sawmilling	n.p.	n.p.	n.p.	n.p.	n.p.
2312 2313	Wood chipping	n.p.	n.p.	n.p.	n.p.	n.p.
2313	Timber resawing and dressing Total	1 161	38.1	220.1	0.17	189.6
231	rotar	1 686	55.3	302.0	0.18	179.1
	Other wood product mfg					
2321	Plywood and veneer mfg	n,p,	n.p.	n.p.	n.p.	ń.p.
2322	Fabricated wood mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2323	Wooden structural component mfg	1 059	25.5	114.2	0.22	107.8
2329	Wood product mfg n.e.c.	763	12.5	60.2	0.21	79.0
232	Total	2 450	61.0	269.0	0.23	109.8
	Paper and paper product mfg					
2331	Pulp, paper and paperboard mfg	n.p.	n.p.	n.p.	n.p.	п.р.
2332	Solid paperboard container mfg	n.p.	n.p.	n.p.	n.p.	п,р.
2333	Corrugated paperboard container mfg	627	n.p.	n.p.	n.p.	п.р.
2334	Paper bag and sack mfg	179	n.p.	n.p.	n.p.	n.p.
2339	Paper product mfg n.e.c.	n. p .	n.p.	n.p.	n.p.	n.p.
233	Total	1 644	80.3	405.0	0.20	246.3
00	T-4-2					
23	Total wood and paper product mfg	5 780	196.5	976.1	0.20	168.9
	PRINTING, PUBLISHING AND RECORDED MEDIA					
	Printing and services to printing					
2411	Paper stationery mfg	780	22.3	104.7	0.21	134.1
2412	Printing	1 693	48.1	206.5	0.23	122.0
2413	Services to printing	323	40.1 n.p.	z.ve.s n.p.	n.p.	n.p.
241	Total	2 796	n.p.	n.p.	п.р.	n.p.
				··· - ·		
	Publishing					
2421	Newspaper printing or publishing	1 763	58.5	269.1	0.22	152.6
2422	Other periodical publishing	n.p.	n.p.	ń.p.	n.p.	n.p.
2423	Book and other publishing	п.р.	n.p.	n.p.	n.p.	n.p.
242	Total	2 148	69.0	309.4	0.22	144.0
_						
243	Recorded media manufacturing and publishing	41	n.p.	n.p.	n.p.	n.p.
24		4.005	140.0			400
24	Total printing, publishing and recorded media	4 985	149.8	650.1	0.23	130.4
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		Employment at end	Wages and		Ratio of wages and salaries to	Turnover per person
INDUST	RY CLASS	of June(b)	salaries(c)	Turnover	turnover	employed(d)
ANZSIÇ code	Description	No.	\$m	\$m	Ratio	\$'000
• • • •	PETROLEUM, COAL, CHEMICAL AND ASSOCIATED	DDODUOT MEO			* 4 2 4 > + + • 4	h + * * * * * * *
251	Petroleum refining	n.p.	n.p.	n.p.	n.p.	n.p.
252	Petroleum and coal product mfg n.e.c.	n.p.	n.p.	n.p.	n.p.	n.p.
	Basic chemical mfg					
2531	Fertiliser mfg	104	2.8	13.8	0.21	132 .5
2532	Industrial gas mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2533	Synthetic resin mfg	182	3.3	20.4	0.16	111.7
2534	Organic industrial chemical mfg n.e.c.	*52	*1.4	*13.8	*0.10	*265.7
2535	Inorganic industrial chemical mfg n.e.c.	n.p.	n.p.	n.p.	n.p.	n.p.
253	Total	823	n.p.	n.p.	n.p.	n.p.
	Other chemical product mfg					
2541	Explosive mfg	n.p.	ń.p.	n.p.	n.p.	n. p.
2542	Paint mfg	441	14.9	88.8	0.17	201.3
2543	Medicinal and pharmaceutical product mfg	396	16.8	82.6	0.20	208.4
2544	Pesticide mfg	n.p.	n.p.	n.p.	п.р.	n.p.
2545	Soap and other detergent mfg	n,p,	n.p.	n.p.	п,р,	n.p.
2546	Cosmetic and toiletry preparation mfg	n,p.	n.p.	n.p.	n.p.	n.p.
2547	lnk mfg	ń,p,	n.p.	n.p.	n.p.	n.p.
2549	Chemical product mfg n.e.c.	43	1.1	10.6	0.10	245.6
254	Total	1 130	40.9	243.5	0.17	215.5
	Rubber product mfg					
2551	Rubber tyre mfg	906	n.p.	n.p.	n.p.	n.p.
2559	Rubber product mfg n.e.c.	107	n.p.	n.p.	n.p.	n.p.
255	Total	1 013	39. 5	193.2	0.20	190.7
	Plastic product mfg					
2561	Plastic blow moulded product mfg	59	2.0	24.7	0.08	417.3
2562	Plastic extruded product mfg	*331	*8.9	59.9	*0.15	*180.9
2563	Plastic bag and film mfg	664	18.3	102.1	0.18	153.8
2564	Plastic product, rigid fibre reinforced, mfg	132	3.1	21.0	0.15	158.6
2565	Plastic foam product mfg	147	4.6	26.6	0.17	180.7
2566	Plastic injection moulded product mfg	1 786	50.4	245.2	0.21	137.3
256	Total	3 120	87.3	479.4	0.18	153.7
25	Total petroleum, coal, chemical and associated					
	product mfg	6 397	215.9	1 347.1	0.16	210.6
	NON-METALLIC MINERAL PRODUCT MFG					
261	Glass and glass product mfg	583	n.p.	n.p.	n.p.	n.p.
	Ceramic mfg					
2621	Clay brick mfg	245	9.5	55.0	0.17	224.2
2622	Ceramic product mfg	88	n.p.	n.p.	n.p.	n.p.
2623	Ceramic tile and pipe mfg	9	0.1	0.4	0.31	47.3
2629	Ceramic product mfg n.e.c.	79	1.3	3.3	0.39	41.2
262	Total	422	n.p.	n.p.	n.p.	n.p.
	Coment, lime, plaster and concrete product mfg					
2631	Cement and lime mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2632	Plaster product mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2633	Concrete slurry mfg	335	11.7	101.8	0.11	303.8
2634	Concrete pipe and box culvert mfg	75 540	1.7	6.8	0.25	91.6
2635	Concrete product mfg n.e.c.	512	13.4	73.0	0.18	142.7
263	Total	1 506	52.1	350.0	0.15	232.4
264	Non-metallic mineral product mfg n.e.c.	279	6.7	37.0	0.18	132.8
26	Total non-metallic mineral product mfg	2 789	89.6	529.0	0.17	189.7
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		Employment at end	Wages and		Ratio of wages and salaries to	Turnover per person
	RY CLASS	of June(b)	salaries(c)	Turnover	tumover	employed(d)
ANZSIC code	Description	No.	\$m	\$ m	Ratio	\$'000
						* * * * * * * *
	METAL PRODUCT MFG					
	Iron and steel mfg		448.8			
2711	Basic iron and steel mfg	2 675	119.2	948.1	0.13	354,5
2712 2713	Iron and steel casting and forging	n.p.	n.p.	п.р.	п.р.	n.p.
2713	Steel pipe and tube mfg Total	n.p. 3 269	п.р. 137.9	п.р. 1 061.2	n.p. 0.13	n.p. 324.6
211	1000	3 209	3.51.5	1 001.2	0.13	324.0
	Basic non-ferrous metal mfg					
2721	Alumina production	_	_	_	_	_
2722	Aluminium smelting	23	n.p.	n.p.	n,p.	п.р.
2723	Copper, silver, lead and zinc					
	smelting, refining	976	n.p.	n.p.	n.p.	n.p.
2729	Basic non-ferrous metal mfg n.e.c.	78	n.p.	n. p .	n.p.	n.p.
272	Total	1 077	n.p.	n.p.	n.p.	n.p.
	Non-ferrous basic metal product mfg					
2731	Aluminium rolling, drawing, extruding	_	_	_	_	_
2732	Non-ferrous metal rolling, drawing, extruding n.e.c.		- ·	-	_	_
2733	Non-ferrous metal casting	133	3.3	13.4	0.24	100.4
273	Total	133	3.3	13.4	0.24	100.4
	Structural metal product mfg					
2741	Structural steel fabricating	1 377	33.8	201.4	0.17	146.2
2742	Architectural aluminium product mfg	807	20.4	131.6	0.15	163.1
2749	Structural metal product mfg n.e.c.	331	7.5	43.5	0.17	131.4
274	Total	2 516	61.7	376.6	0.16	149.7
	Sheet metal product mfg					
2751	Metal container mfg	51	n.p.	n.p.	п.р.	n.p.
2759	Sheet metal product mfg n.e.c.	757	17.2	6 5.7	0.26	86.9
275	Total	808	n.p.	n.p.	n.p.	n.p.
	Fabricated metal product mfg					
2761	Hand tool and general hardware mfg	100	2.6	6.6	0.39	66.1
2762	Spring and wire product mfg	n.p.	п.р.	n,p,	n.p.	n.p.
2763	Nut, bolt, screw and rivet mfg	223	5.6	21.8	0.26	98.1
2764	Metal coating and finishing	676	17.7	64.3	0.27	95.1
2765	Non-ferrous pipe fitting mfg	n.p.	n.p.	n.p.	n.p.	ń.p.
2769 276	Fabricated metal product mfg n.e.c. Total	1 686 3 148	44.4 80.6	177.4 313.3	0.25 0.26	105.2 99.5
270	rutar	3 146	00.0	313.5	Ų.ZŲ	33.3
27	Total metal product mfg	10 952	350.9	2 552.2	0.14	233.0
	MACHINERY AND EQUIPMENT MFG					
	Motor vehicle and part mfg					
2811	Motor vehicle mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2812	Motor vehicle body mfg	768	21.7	79.0	0.28	102.9
2813	Automotive electrical and instrument mfg	259	6.5	41.8	0.16	161.1
2819	Automotive component mfg n.e.c.	n.p.	n.p.	n.p.	n.p.	n.p.
281	Total	13 946	508.2	4 450.7	0.11	319.1
	Other transport equipment mfg					
2821	Shipbuilding	1 045	n.p.	n.p.	n.p.	n.p.
2822	Boatbuilding	n.p.	n,p.	n.p.	n.p.	n.p.
2823	Railway equipment mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2824	Aircraft mfg	65	1.9	19.5	0.10	299.0
2829	Transport equipment mfg n.e.c.	48	1.2	6.8	0.17	142.6
282	Total	1 711	72.4	374.1	0.19	218.6
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		Employment at end	Wages and		Ratio of wages and salaries to	Turnover per person
	RY CLASS	of June(b)	salaries(c)	Turnover	turnover	employed(d)
ANZSIC code	Description	No.	\$ m	\$ m	Ratio	\$'000
		• • • • • • • • •	* * * * * * * * * * * * *			A H D C " A D S
2831	Photographic and scientific equipment mfg Photographic and optical good mfg	996	26.8	83.6	0.32	94.0
2832	Medical and surgical equipment mfg	n.p.	n,p,	n.p.	n.p.	84.0 n.p.
2839	Professional and scientific equipment mfg n.e.c.	n.p.	п,р,	n.p.	n.p.	n,p.
283	Total	2 795	101.9	291.2	0.35	104.2
	Electronic equipment mfg					
2841	Computer and business machine mfg	548	n.p.	n.p.	n.p.	п,р,
2842	Telecommunication, broadcasting and transceiving	0,0	, i.p.	11.0	11.52	1140
	equipment mfg	305	n,p.	n.p.	n.p.	n.p.
2849	Electronic equipment mfg n.e.c.	582	17.2	65.0	0.26	111.6
284	Total	1 436	44.8	198.8	0.23	138.5
	Electrical equipment and appliance mfg					
2851	Household appliance mfg	2 027	n.p.	n.p.	n.p.	n.p.
2852	Electric cable and wire mfg	_	<u>, </u>	<u>.</u>		_
2853	Battery mfg	369	n.p.	n.p.	n.p.	ութ.
2854	Electric light and sign mfg	376	8.3	38.4	0.22	102.1
2859	Electrical equipment mfg n.e.c.	2 948	88.8	407.1	0.22	138.1
285	Total	5 720	170.7	1 010.3	0.17	176.6
	Industrial machinery and equipment mfg					
2861	Agricultural machinery mfg	651	15.7	53.0	0.30	81.3
2862	Mining and construction machinery mfg	722	21.1	102.4	0.21	141.7
2863	Food processing machinery mfg	n.p.	п.р.	n.p.	n.p.	n.p.
2864	Machine tool and part mfg	1 112	27.6	78.6	0.35	70. 6
2865	Lifting and material handling equipment mfg	453	12.5	55.6	0.23	122.7
2866	Pump and compressor mfg	n.p.	n.p.	n.p.	n.p.	n.p.
2867	Commercial space heating and					
	cooling equipment mfg	n.p.	n.p.	n.p.	n.p.	n,p,
2869	Industrial machinery and equipment mfg n.e.c.	1 267	36.4	134.2	0.27	105.9
286	Total	4 730	128.8	532.1	0.24	112.5
28	Total machinery and equipment mfg	30 338	1 026.9	6 857.2	0.15	226.0
	OTHER MANUFACTURING					
	Prefabricated building mfg					
2911	Prefabricated metal building mfg	191	n.p.	n.p.	n.p.	n.p.
2919	Prefabricated building mfg n.e.c.	201	n.p.	n.p.	n.p.	n.p.
291	Total	392	9.1	58.1	0.16	148.1
	Furniture mfg					
2921	Wooden furniture and upholstered seat mfg	2 635	55.9	245.2	0.23	93.1
2922	Sheet metal furniture mfg	n.p.	n.p.	n.p.	п.р.	n.p.
2923	Mattress mfg (except rubber)	n.p.	n.p.	n.p.	n.p.	n.p.
2929	Furniture mfg n.e.c.	343	6.3	26.1	0.24	76.1
292	Total	3 295	70.1	312.0	0.22	94.7
	Miscellaneous manufacturing					
2941	Jewellery and silverware mfg	149	2.6	12.2	0.22	81.9
2942	Toy and sporting good mfg	176	3.5	16.8	0.21	95.5
2949	Manufacturing n.e.c.	472	10.6	50.7	0.21	107.5
294	Total	796	16.8	79.7	0.21	100.1
29	Total other manufacturing	4 484	95.9	449.8	0.21	100.3
21-29	TOTAL MANUFACTURING	87 120	2 702.2	17 570.2	0.15	201.7

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) Includes working proprietors.

⁽c) Excludes the drawings of working proprietors.

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

1989-90 TO 1994-95

INDUSTI	RY SUBDIVISION							Change in
		1989-90	1990–91	1991–92	1992-93	1993–94		gross product
ANZSIC		to	to	to	to	to	Percentage	per person
code	Description	1990-91	1991-92	1992-93	1993-94	1994–95	movement	employed(d)(e)
			, , , ,					
21	Food, beverage and tobacco mfg	1.9	-5.8	2.7	10.9	-1.4	7.6	8.6
22	Textile, clothing, footwear and leather mfg	11.8	1.4	-4.3	r-8.6	1.2	0.4	46.1
23	Wood and paper product mfg	7.5	7.1	7.9	r5.5	3.2	35.2	43.6
24	Printing, publishing and recorded media	-6.9	2.1	1.4	-2.5	-2.3	-8.3	1 1.1
25	Petroleum, coal, chemical							
	and associated product mfg	13.6	-7.6	8.0	r0.8	-0.2	6.5	28.3
26	Non-metallic mineral product mfg	-15.6	-8.7	6.6	3.4	-6.4	-20.6	12.4
27	Metal product mfg	2.9	7.5	2.9	-2.7	-1.4	9.3	56.5
28	Machinery and equipment mfg	-3.7	-5.9	-9.7	r20.8	6.2	5.1	11.2
29	Other manufacturing	-10.8	-20.2	-0.4	5.9	2.5	-23.1	1.4
21-29	Total manufacturing	-0.4	-3.8	-2.9	г9.8	2.3	4.5	21.6

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) For information on gross product at factor cost, see paragraphs 22 to 24 of the Explanatory notes.

⁽c) For factors affecting comparability of data over the time periods shown, see paragraphs 15 to 18 of the Explanatory notes.

⁽d) Based on employment at the end of June of the reference year. Includes working proprietors.

⁽e) The basis for the calculation of this data item in this (and the 1993–94) issue of the publication differs from that used in the 1992–93 issue of the publication. See paragraph 19 of the Explanatory notes.

	EMPLO' AT END		WAGES AND					
	JUNE(b)	SALARI	ES(c)(d)	TURNOV	ER(d)	Ratio of wages and	Turnover
							salaries to	per person
	Number	Proportion	Amount	Proportion	Amount	Proportion	turnover(d)	employed(d)(e)
Employment size group	No.	%	\$m	%	\$m	%	Ratio	\$'000
• * * * * * * * * * * * * * * * * * * *	******							,
		FOOI	D, BEVERAGE	AND TOBACC	O MFG			
0–3 persons	176	1.1	1.8	0.4	20 .3	0.6	0.09	115.7
4–9 persons	769	4.7	13.4	3.1	14 5.4	4.3	0.09	189.2
10–19 persons	935	5.8	20.5	4.7	182.4	5.4	0.11	19 5.0
20–49 persons	2 009	12.4	46.3	10.7	443.4	13.1	0.10	220.7
50–99 persons	1 903	11.8	54.7	12.6	475.7	14.1	0.11	250.0
Total less than 100 persons	5 792	35.8	136.6	31.5	1 267. 3	37.5	0.11	218.8
100-199 persons	2 951	18.2	79.1	18.2	673.5	19.9	0.12	228.2
200-499 persons	5 273	32.6	156.0	35.9	1 116.9	33.0	0.14	211.8
500-999 persons	2 178	13.5	62.3	14.4	323.7	9.6	0.19	148.6
1 000 or more persons	_	_		_		_	_	
Total 100 or more persons	10 402	64.2	297.4	68.5	2 114.1	62.5	0.14	203.2
Total	16 193	100.0	434.0	100.0	3 381.4	100.0	0.13	208.8
* * * * * * * * * * * * * * * * * * *							4 4	
		TEXTILE, CL	OTHING, FOO	TWEAR AND L	EATHER MFG			
0-3 persons	261	5.0	4.9	3.5	21.1	2.6	0.23	80.8
4–9 persons	436	8.4	6.7	4.8	26.4	3.2	0.25	60.5
10-19 persons	578	11.1	11.5	8.1	46.1	5.6	0.25	79.8
20-49 persons	487	9.4	9.3	6.6	24.6	3.0	0.38	50.4
50-99 persons	506	9.7	12.4	8.8	51.4	6.3	0.24	101.4
Total less than 100 persons	2 268	43.6	44.8	31.8	169.5	20.7	0.26	74.7
100–199 persons	1 025	19.7	27.0	19.2	135.1	16.5	0.20	131.9
200–499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500–999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	•
1 000 or more persons		——————————————————————————————————————		—	—		——————————————————————————————————————	n.p.
Total 100 or more persons	2 933	56.4	96.2	68.2	647.3	79.3	0.15	22 0.7
Total	5 201	100.0	140.9	100.0	816.8	100.0	0.17	157.1
		********			*******	********	* * * * * * * * * * * * *	
		Wo	OOD AND PAP	ER PRODUCT I	MFG			
0–3 persons	273	4.7	3.9	2.0	23.1	2.4	0.17	84.4
4-9 persons	536	9.3	10.8	5.5	45.1	4.6	0.24	84.1
10-19 persons	442	7.6	10.5	5.3	54.5	5.6	0.19	123.4
20-49 persons	615	10.6	18.5	9.4	113.6	11.6	0.16	184.7
50-99 persons	339	5.9	10.2	5.2	58.1	5.9	0.18	171.0
Total less than 100 persons	2 206	38.2	53.8	27.4	294.3	30.2	0.18	133.4
100-199 persons	739	12.8	24.8	12.6	112.6	11.5	0.22	152 .3
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
500–999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	_		_	_	_	_	_	-
Total 100 or more persons	3 575	61.9	142.7	72.6	681.8	69.8	0.21	190.7
Total	5 780	100.0	196 .5	100.0	976.1	100.0	0.20	168.9
			****					*******

	EMPLOY							
	AT END		WAGES				D	
	JUNE(b)		SALARIE	ES(c)(d)	TURNOV	/ER(d)	Ratio of wages and	Turnoune
							salaries to	Turnover per person
	Number	Proportion	Amount	Proportion	Amount	Proportion	tumover(d)	employed(d)(e)
Employment size group	No.	%	\$m	%	\$m	%	Ratio	\$1000
****************			*	******				/ T > - (. + n »)
		PRINTING,	PUBLISHING	AND RECORE	DED MEDIA	•		
0-3 persons	282	5.7	4.8	3.2	44.6	6.9	0.11	158.0
4-9 persons	587	11.8	13.0	8.7	58.0	8.9	0.22	98.8
10–19 persons	584	11.7	14.1	9.4	54.3	8.4	0.26	93.0
20–49 persons	1 003	20.1	29.0	19.4	94.4	14.5	0.31	94.1
50-99 persons	420	8.4	9.9	6.6	37.5	5.8	0.26	89.3
Total less than 100 persons	2 876	57.7	70.8	47.3	288.8	44.5	0.25	100.4
100-199 persons	п.р.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	ń.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n,p.	n.p.
500-999 persons	n.p.	n.p.	л.р.	n.p.	n.p.	n.p.	n.p.	n.p.
1 000 or more persons	<u>, </u>	_	_		—	_	_	
Total 100 or more persons	2 109	42.3	78.8	52.7	360 .6	55.5	0.22	171.0
Total	4 985	100.0	149.7	100.0	649.4	100.0	0.23	130.3
		• > • • • • • • • •						****
	PETR	OLEUM, COAL						
0–3 persons	86	1.3	1.4	0.6	9.6	0.7	0.14	112.0
4–9 persons	392	6.1	10.0	4.6	65.4	4.9	0.15	167.0
10–19 persons	553	8.6	15.1	7.0	125.8	9.3	0.12	227.3
20–49 persons	860	13.4	24.7	11.5	146.0	10.8	0.12	169.8
50–99 persons	n.p.	л.р.						
Total less than 100 persons			n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
rotariess triair 100 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100-199 persons	n.p.	n.p.	n.p.	n.p.	n.p.	п.р.	n.p.	n.p.
200-499 persons	1 374	21.5	54. 6	25.3	307.4	22.8	0.18	223.8
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	п.р.	n.p.	n.p.
1 000 or more persons	_	-	_	_	_	<u>.</u>	_	· _
Total 100 or more persons	п.р.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
Total	6 397	100.0	215.8	100.0	1 346.9	100.0	0.16	210.6
		r • • • • • • • • •		· · · · · · · · · · · · · · ·	• • • • • • • • • • • •			6 - 5 - 7 - 5 -
		NON-M	ETALLIC MIN	ERAL PRODUC	CT MFG			
0–3 persons	135	4.8	1.8	2.0	10.1	1.9	0.17	74.8
4–9 persons	340	12.2	5.9	6.6	33.6	6.4	0.18	99.1
10-19 persons	245	8.8	5.5	6.1	21.4	4.0	0.25	87.3
20-49 persons	655	23.5	18.0	20.1	126.2	23.9	0.14	192.6
50-99 persons	n.p.	n.p.	n.p.	n.p.	ū	n.p.	n.p.	ń.p.
Total less than 100 persons	n.p.	n .p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
100–199 persons	n.p.	n.p.	n,p.	n₁p,	n.p.	n.p.	n.p.	n.p.
200-499 persons	n.p.	n.p.	n.p.	n.p.	п.р.	n.p.	n.p.	n.p.
500-999 persons	_	_	_		_	_	_	
1 000 or more persons		_	_	_	_	_	_	_
Total 100 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n. p.	n.p.
Total	2 789	100.0	89.6	100.0	529.0	100.0	0.17	189.7
			••••					

	EMPLOY AT END			WAGES AND					
	JUNE(b)		SALARIE	(S(c)(d)	TURNOV	ER(d)	Ratio of wages and	Tumover	
	Number	Proportion	Amount	Proportion	Amount	Proportion	salaries to turnover(d)	per person employed(d)(e)	
Employment size group	No.	%	\$m	%	\$m	%	Ratio	\$'000	
* * * * * * * * * * * * * * * * * * *			*****		*******			* * * * * * * * * * *	
			METAL PR	ODUCT MFG					
0–3 persons	419	3.8	7.0	2.0	34.2	1.3	0.21	81.8	
4–9 persons	1 062	9.7	22.3	6.3	83.9	3.3	0.27	79.0	
10–19 persons	1 107	10.1	27.5	7.8	129.6	5.1	0.21	117.1	
20–49 persons	1 755	16.0	45.7	13.0	204.1	8.0	0.22	116.3	
50-99 persons	1 418	12.9	42.9	12.2	346.8	13.6	0.12	244.5	
Total less than 100 persons	5 760	52.6	145.4	41.4	798.5	31.3	0.18	138.6	
100-199 persons	1 135	10.4	35.7	10.2	322.9	12 .7	0.11	284.5	
200-499 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	
1 000 or more persons	n. p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	п.р.	
Total 100 or more persons	5 192	47.4	205.5	58.6	1 753.7	68.7	0.12	337.8	
Total	10 952	100.0	350.9	100.0	2 552.2	100.0	0.14	233.0	
·		· « » • • • • • • •						•••••	
		M	ACHINERY AND	EQUIPMENT	MFG				
0–3 persons	555	1.8	10.5	1.0	59.0	0.9	0.18	106.2	
4–9 persons	1 412	4.7	29.1	2.8	112.8	1.6	0.26	79.9	
10–19 persons	1 449	4.8	37.3	3.6	146.4	2.1	0.25	101.0	
20–49 persons	2 530	8.3	68.2	6.6	276.1	4.0	0.25	109.1	
50–99 persons	2 663	8.8	76.5	7.5	380.9	5.6	0.20	143.1	
Total less than 100 persons	8 610	28.4	221.5	21.6	975.1	14.2	0.23	113.3	
100-199 persons	2 089	6.9	59.7	5.8	264,0	3.9	0.23	126.4	
200-499 persons	4 283	14.1	147.5	14.4	788.1	11.5	0.19	184.0	
500-999 persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	
1 000 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	
Total 100 or more persons	21 729	71.6	804.6	78.4	5 880.9	85.8	0.14	270.7	
Totai	30 338	100.0	1 026.1	100.0	6 856.0	100.0	0.15	226.0	
************			* * * * * * * * * * * *	* * * * * * * * * *		< * < * * * * * * * * * * * * * * * * *		* * * * * * * * *	
			OTHER MAI	NUFACTURING					
0–3 persons	487	10.9	6.4	6.7	29.8	6.6	0.22	61.2	
4–9 persons	943	21.0	16.1	16.9	80.7	18.0	0.20	85.6	
10–19 persons	694	15.5	15.4	16.1	66.7	14.8	0.23	96.1	
20-49 persons	1 144	25.5	26.5	27.7	123.2	27.4	0.22		
50-99 persons	n, p ,	n.p.	n.p.	n.p.	n.p.	n.p.	n,p.	n,p.	
Total less than 100 persons	n.p.	n.p.	n.p.	n.p.	n,p.	n.p.	п.р.	n.p.	
100-199 persons	n.p.	n.p.	n.p.	n,p.	n.p.	n.p.	n.p.	n.p.	
200-499 persons	_		_	_	_	_		_	
500-999 persons	_	_	_	_	_	_	_	_	
1 000 or more persons	_	_	_	_	_	_		_	
Total 100 or more persons	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	
Total	4 484	100.0	95.6	100.0	449.2	100.0	0.21	100.2	
						• • • • • • • • •		*****	

	EMPLO AT END JUNE(b			WAGES AND SALARIES(c)(d)		TURNOVER(d)		Tumover per person
	Number	Proportion	Amount	Proportion	Amount	Proportion	salaries to turnover(d)	employed(d)(e)
Employment size group	No.	%	\$m	%	\$m	%	Ratio	\$'000
***			TOTAL MAN	IUFACTURIN			* * * * * * * * * * * * * * * * * * * *	5 5 5 6 6 6 6 9
0–3 persons	2 674	3.1	42.5	1.6	251.8	1.4	0.17	94.2
4-9 persons	6 477	7.4	127.3	4.7	651.3	3.7	0.20	100.6
10-19 persons	6 586	7.6	157.3	5.8	827.1	4.7	0.19	125.6
20-49 persons	11 058	12.7	286.2	10.6	1 551.4	8.8	0.18	140.3
50-99 persons	9 185	10.5	266.9	9.9	1 799.6	10.3	0.15	195.9
Total less than 100 persons	35 980	41.3	880.2	32.6	5 081.2	28.9	0.17	141.2
100-199 persons	11 169	12.8	329.8	12.2	2 022.8	11.5	0.16	181.1
200–499 persons	16 040	18.4	553.2	20.5	3 593.2	20.5	0.15	224.0
500-999 persons	12 160	14.0	461.5	17.1	2 276.3	13.0	0.20	187.2
1 000 or more persons	11 771	13.5	474.4	17.6	4 583.4	26.1	0.10	389.4
Total 100 or more persons	51 139	58.7	1 819.0	67.4	12 475.7	71.1	0.15	244.0
TOTAL	87 120	100.0	2 699.2	100.0	17 556.9	100.0	0.15	201.5

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) includes working proprietors.

⁽c) Excludes the drawings of working proprietors.

⁽d) Figures may differ slightly from those presented in other tables, because they exclude those manufacturing establishments which operated during 1994–95 but were not operating at 30 June 1995. See paragraph 25 of the Explanatory notes.

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

		0-49 PERSONS		50-99 PERSONS		
INDUSTRY SUBDIVISION		Amount exported by this business or its agent	Exports as a proportion of sales of goods produced	Amount exported by this business or its agent	Exports as a proportion of sales of goods produced	
ANZSIC	Described	_				
code	Description	\$m	%	\$m	%	
21	Food, beverage and tobacco mfg	115.6	15.0	75.5	16.2	
22	Textile, clothing, footwear and leather mfg	7.6	7.7	0.5	1.0	
23	Wood and paper product mfg	n.p.	n.p.	n.p.	n.p.	
24	Printing, publishing and recorded media	n.p.	n.p.		<u>.</u>	
25	Petroleum, coal, chemical and associated product mfg	n.p.	n.p.	4.5	1.6	
26	Non-metallic mineral product mfg	1.7	1.0	n.p.	n.p.	
27	Metal product mfg	11.0	2.6	6.3	1.9	
28	Machinery and equipment mfg	36.8	7.1	44.8	12.2	
29	Other manufacturing	2.9	1.1	n.p.	n.p.	
21-29	Total manufacturing	191.5	6.4	145.4	8.4	

		100 OR MO	RE PERSONS	TOTAL		
INDUSTR	Y SUBDIVISION	Amount exported by this business or its agent	Exports as a proportion of sales of goods produced	Amount exported by this business or its agent	Exports as a proportion of sales of goods produced	
ANZSIC						
code	Description	\$m	%	\$m	%	
21	Food, beverage and tobacco mfg	280.4	13.7	471.5	14.4	
22	Textile, clothing, footwear and leather mfg	264.6	41.3	272.7	34.6	
23	Wood and paper product mfg	12.7	1.9	16.1	1.7	
24	Printing, publishing and recorded media	n.p.	n.p.	4.8	1.1	
25	Petroleum, coal, chemical and associated product mfg	n.p.	n.p.	73.4	5.9	
26	Non-metallic mineral product mfg	n.p.	n.p.	15.8	3.2	
27	Metal product mfg	456.1	26.7	473.5	19.3	
28	Machinery and equipment mfg	575.6	10.1	657.2	10.0	
29	Other manufacturing	n.p.	n.p.	14.9	3.6	
21-29	Total manufacturing	1 663.0	14.0	1 999.8	12.0	

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) See paragraphs 26 to 29 of the Explanatory notes.

⁽c) This table excludes those manufacturing establishments which operated during 1994–95 but were not operating at 30 June 1995. See paragraph 25 of the Explanatory notes.

ESTABLISHMENTS THAT D	0
NOT EYDODT	

ESTABLISHMENTS WITH EXPORTS UP TO AND INCLUDING 50% OF SALES OF GOODS THAT THEY PRODUCED.....

ESTABLISHMENTS WITH EXPORTS OF MORE THAN 50% OF SALES OF GOODS THAT THEY PRODUCED.......

INDUST	RY SUBDIVISION	Employment at end of June(c)	Wages and salaries(d)	Turnover	Employment at end of June(c)	Wages and salaries(d)	Tumover	Employment at end of June(c)	Wages and salaries(d)	Turnover
ANZS/C										
code	Description	%	%	%	%	%	%	%	%	%
x * .						* * * * * * * *	******			
21	Food, beverage and tobacco mfg	57.8	52.1	51.2	31.7	36.5	38.7	10.5	11.5	10.1
22	Textile, clothing, footwear									
	and leather mfg	57.3	46.8	34.5	27.6	30.0	28.1	15.1	23.2	37.4
23	Wood and paper product mfg	79.6	80.3	80.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
24	Printing, publishing and									
	recorded media	94.0	95.4	95.5	n,p,	n.p.	n.p.	n.p.	n.p.	n.p.
25	Petroleum, coal, chemical and									
	associated product mfg	48.5	46.7	52.2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
26	Non-metallic mineral product mfg	71.8	63.4	65.8	25.5	35.1	33.3	2.7	1.5	0.8
27	Metal product mfg	53.8	43.7	48.6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
28	Machinery and equipment mfg	27.8	25.9	15.9	67.9	70.2	81.4	4.2	3.9	2.7
29	Other manufacturing	84.0	81.3	80.6	13.9	16.6	17.5	2.1	2.1	1.8
21-29	Total manufacturing	51.5	46.2	40.8	43.0	47.8	52.3	5.5	6.1	6.9

⁽a) See paragraph 8 of the Explanatory notes.

⁽b) See paragraphs 26 to 29 of the Explanatory notes.

⁽c) Includes working proprietors.

⁽d) Excludes the drawings of working proprietors.

EXPLANATORY NOTES

INTRODUCTION

- **1** This publication presents final statistics for South Australia compiled from a survey of manufacturing establishments for 1994–95, with some comparative statistics relating to preceding years.
- **2** The manufacturing collection is conducted on an annual basis. For the 1994–95 collection, a variety of samples was selected to produce data on a range of variables.
- **3** A sample of approximately 20,000 manufacturing establishments, nationally, was requested to provide data on employment, wages and salaries, turnover and whether their products were exported. Approximately 7,500 of these establishments were asked to supply value of sales for commodities produced. (These commodity data will be released in the publication *Manufacturing Production, Australia: Principal Commodities Produced, 1994–95* (8365.0).)
- **4** Manufacturing, as specified in Division C of the *Australian and New Zealand Standard Industrial Classification* (ANZSIC), broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand.

SCOPE AND COVERAGE

- **5** The main unit for which statistics are reported in the 1994–95 manufacturing collection 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.
- **6** 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.
- 7 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 fully implemented on the ABS central business register in time for the 1990–91 census for those units classified to the manufacturing industry.
- **8** 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.
- **9** A small number of manufacturing establishments engage, in a significant way, in a variety of activities which are normally carried out by different industries. For example, a predominantly manufacturing establishment may also undertake significant amounts of wholesaling. Similarly, a manufacturing establishment may produce significant volumes of a variety of goods which are normally produced in different manufacturing industries. In such cases, the original establishment is 'split' into a separate establishment for each significant activity which belongs to a separate industry. For the 1994–95 manufacturing collection, 'significant' was defined as \$7.0 million or more.

EXPLANATORY NOTES continued

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

STANDARD UNITS

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

RELIABILITY OF ESTIMATES

12 For information on this subject, see the sections Technical notes and Standard errors.

DATA ADJUSTED

- **13** As was done for the 1993–94 issue of this publication, data have been adjusted to allow for lags in processing new businesses to the ABS business register, and the omission of some businesses from the business register. First, adjustments have been made to allow for new businesses which had commenced operations but for which details had not been processed on to the ABS business register in time for inclusion in the annual manufacturing industry survey. Adjustments of this type will continue to be applied in future periods. Second, adjustments have been made for businesses which had been in existence for several years, but, for various reasons, were not previously added to the ABS business register. The ABS is remedying these omissions.
- **14** The majority of businesses affected by these lags and omissions and to which both types of adjustments apply are small in size. The effect of these adjustments on 1994–95 turnover for South Australia is a marginal increase of less than 1% while the effect on employment is an increase of less than 2%. Most industries were affected to a similar degree.

COMPARABILITY WITH PREVIOUS STATISTICS

- **15** As explained above, the standard units definitions were revised for the 1988–89 census and the new definitions were fully implemented on the ABS central business register in time for the 1990–91 census for units classified to the manufacturing industry.
- **16** Commencing with the 1993–94 manufacturing collection, included are data relating to those manufacturers not employing staff at 30 June of the reference year (such as sole proprietorships or family partnerships) which had registered as group employers with the Australian Taxation Office. Data in respect of these 'non-employers' were excluded from the scope of the manufacturing collection for the 1988–89 to 1992–93 (inclusive) reference years. However, the inclusion of these types of businesses has only had a marginal affect on statistical aggregates.

- 17 Commencing with the 1994–95 manufacturing collection, multi-establishment management units have been 'collapsed' into single establishment management units, unless they had significant activity in more than one industry and/or State or Territory. The effect of this process is that most manufacturing businesses which previously reported for more than one establishment were asked to combine operations by those establishments into a single reporting unit. The effect of this on manufacturing statistics as contained in this publication has been minimal. (Across Australia, approximately 1,500 manufacturing establishments were no longer separately identified and counted as a result of this process.)
- collection were asked to supply value of sales for commodities produced. Also, as explained in the previous issue of this publication, this procedure was similarly followed in respect of the 18,000 establishments included in the commodity sample as part of the 1993–94 collection. The availability of this fine level commodity/activity data for these units has enabled ABS survey processing staff to better identify those establishments which were actually in the scope of the manufacturing collection and those which should not be included in the manufacturing collection, because (for example) they were actually wholesalers or retailers. These fine level commodity/activity data have also enabled an objective industry code to be determined for the responding units in the samples, compared to the more subjective industry coding which occurred for all units in each of the 1990–91 to 1992–93 (inclusive) manufacturing collections. The industry code for the units not responding or not included in either of these commodity samples has continued to be a subjectively determined code.
- 19 The basis for the calculation of the data used in table 3 of this publication for the data item 'Percentage change in gross product per person employed' is different to that used in the 1992–93 issue of this publication. The employment data now used are 'Employment at the end of June', whereas in the 1992–93 issue the conceptually more precise data item 'Average employment over the year' was used. For some industries, the values obtained by using these different methods may differ significantly and, therefore, care should be exercised when making inter-year comparisons. (The reason for making this change is that the detailed data necessary to calculate 'Average employment over the year' are no longer obtained.)

COUNTS OF THE NUMBER OF ESTABLISHMENTS

20 The data item 'Number of establishments' has not been included in this publication and will be omitted from all 1994–95 and later years' publications relating to the annual manufacturing industry collection. In recent years, year to year movements in numbers of establishments have borne little relationship to the changes in economic performance of the industries involved. For this reason, the ABS does not encourage the use of the number of establishments as an analytical tool. However, the data can be made available on request, with notes on their limitations.

21 As explained in more detail in those notes, the decision to cease publication of this data item was primarily made because the 'establishment' is only a statistical data collection unit and does not necessarily represent a separate physical location. These reporting arrangements may also change over time with no actual change in activity. There are also the effects of 'splitting' by the ABS (see paragraph 9), of the adjustments for lags to and omissions from the ABS business register (see paragraphs 13 and 14) and for which the effect on the count of number of establishments is significant, and of the 'collapsing' of multi-establishment management units to form a single reporting unit (see paragraph 17).

GROSS PRODUCT AT FACTOR COST

- **22** Table 3 presents data by industry subdivision for the period 1989–90 to 1994–95 (inclusive) related to constant price estimates of gross product at factor cost. The meaning and measurement of production at constant prices and the limitations and qualifications of the estimates are discussed in detail in *Australian National Accounts: Concepts, Sources and Methods* (5216.0).
- 23 In association with the change of the base year for the data in table 3 to 1989–90 (introduced with the 1991–92 issue of this publication), the methodology used to derive these estimates also changed. This came about because only turnover data are now available from the manufacturing collection on an annual basis. The basic approach in compiling these data involves extrapolating a base year estimate of gross product (described below) by a measure of output at constant prices. Constant price turnover is now used as the output indicator with which to extrapolate the base year gross product. To obtain constant price estimates of turnover, current price estimates at the ANZSIC class level are deflated by components of the price indices contained in *Price Indexes of Articles Produced by Manufacturing Industry*, *Australia* (6412.0).
- 24 The base year gross product is estimated for each ANZSIC class using 1989-90 manufacturing census data for value added and adjusted value added. Value added is calculated using turnover, plus the increase (or less the decrease) in the value of stocks, less purchases, transfers in and selected expenses. Adjusted value added is defined as value added less land tax, rates and payroll tax, insurance premiums (other than for workers' compensation) and other business expenses. To conform to the national accounting concept of gross product at factor cost, further adjustments would be necessary using information from other than manufacturing census sources e.g. by the addition of workers' compensation paid less premiums received. However, due to data limitations, these further adjustments can only be made at the ANZSIC subdivision level and are not taken into account in this publication. (This is because the ANZSIC subdivision data contained in this publication are derived from the data calculated at the ANZSIC class level.) The base year gross product values used in this publication are derived by taking establishment based estimates of adjusted value added and applying a stock valuation adjustment. (See Section 8 of Australian National Accounts: Concepts, Sources and Methods (5216.0) for an explanation of how this adjustment is undertaken.)

EMPLOYMENT SIZE DATA

25 Summary of operations data at the industry subdivision level classified by employment size are presented in table 4. Similarly, exports of goods produced data at the industry subdivision level classified by broad employment size are presented in table 5. The statistics in these two tables relate only to those manufacturing establishments operating at 30 June 1995. As such, the figures presented may differ slightly from those presented in the other tables from the manufacturing collection. These other tables include data for those manufacturing establishments which operated at any time during 1994–95.

EXPORTS BY MANUFACTURERS

- **26** Data relating to the amount of sales and transfers out of goods produced which were subsequently exported by the manufacturer or its agent are presented in tables 5 and 6. This is the second time that these data have been obtained by the annual manufacturing collection, the first occasion being the 1992–93 collection.
- 27 All establishments selected in the manufacturing survey were asked whether they exported and, if so, what percentage of their sales of goods produced plus transfers out of goods produced by the establishment for sale were exported by their business or an agent on their behalf. The data presented in table 5 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. The data in table 5 exclude those manufacturing establishments which operated during 1994–95 but were not operating at 30 June 1995.
- **28** The statistics presented in table 5 for the value of exports by manufacturers or their agents are not intended to be the same as the value of exports classified by manufacturing industry of origin as published by the ABS in international trade statistics. These latter statistics are intended to measure total exports regardless of which business or organisation does the exporting (and to identify the probable industry from which the goods originated), whereas the statistics in tables 5 and 6 only include exports directly undertaken by the manufacturer or by its agent.
- 29 The data in table 5 showing exports by manufacturers or their agents can be expected to show a much lower value than the exports data from the international trade series. The main reason is that for many exports of goods manufactured in Australia, the actual exporting activity is undertaken by a business other than the manufacturer. Also, the value of goods produced on a commission or fee basis for non-manufacturing businesses and which are then exported is not included in the data in tables 5 and 6. Examples of relevant commission work are the 'slaughtering fee' charged by an abattoir for processing livestock owned by a meat exporter and the 'tolling fee' charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from tables 5 and 6 are any exports by manufacturers of goods which were not produced by that manufacturer. These and other goods exported (e.g. re-exports) are included in the international trade data. Finally, differences in valuation of exports arise because the value of exports in the international trade series would include the value to the manufacturer plus profit margins for the exporter and for any intermediaries between the manufacturer and the exporter.

USE OF ANZSIC

30 The 1992–93 manufacturing survey introduced the Australian and New Zealand Standard Industrial Classification (ANZSIC) into the annual manufacturing collection. This classification replaced the Australian Standard Industrial Classification (ASIC) previously used. All time series statistics contained in this publication are ANZSIC-based. Corresponding ANZSIC-based data for years prior to 1989–90 are not available, except for constant prices data (see paragraph 36). Similarly, ASIC-based data are not available from 1992–93.

INFORMATION PAPER

31 The *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (8205.0) outlines the vast amount of data available about the manufacturing industry in both published and unpublished form available from the annual manufacturing collection and other ABS collections.

RELATED PUBLICATIONS

- **32** A series of publications (8221.1 to 8221.6) will be produced for each State. The publication for New South Wales (8221.1) also contains selected data for the Australian Capital Territory. These publications are being progressively released.
- **33** Users may also wish to refer to the following publications:
- Environment Protection Expenditure, Australia, 1992-93 and 1993-94 (4603.0), released on 20 March 1997.
- Labour Force, Australia (6203.0).
- Indexes of Industrial Production, Australia (8125.0).
- Business Operations and Industry Performance, Australia, 1994–95 (8140.0), released on 4 October 1996.
- Manufacturing Industry, Australia, Preliminary, 1995–96 (8201.0), to be released in April 1997.
- Information Paper: Availability of Statistics Related to Manufacturing, 1996 (8205.0), released on 21 March 1996.
- Manufacturing Industry, Australia, 1994–95 (8221.0), released on 31 January 1997.
- Manufacturing Production, Australia: Principal Commodities Produced, 1993–94 (8365.0), to be released in April 1997.
- Manufacturing Production, Australia: Principal Commodities Produced, 1994–95 (8365.0), expected to be released later in 1997.

MONTHLY OR QUARTERLY COMMODITY DATA

34 The monthly publication *Manufacturing Production*, *Australia* (8301.0) includes data for 61 major commodities.

BACK DATA AND UNPUBLISHED STATISTICS

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

36 In particular, constant prices data on an ANZSIC basis are available back to 1984–85. However, constant price estimates on a true ANZSIC basis are only available from 1989–90. Nevertheless, an exercise has been undertaken to convert estimates for earlier years onto an ANZSIC basis using the relationships that applied between ASIC and ANZSIC in the years 1990–91 and 1991–92. These estimates are available at both the Australian and State and Territory levels back to 1984–85. It should be noted that the relationships that applied in 1990–91 and 1991–92 are less likely to apply the earlier the reference year. Also, annual constant price estimates of gross product at factor cost for the period 1989–90 to 1994–95 (inclusive) by ANZSIC class are available as unpublished data. All of these data can be purchased from the ABS in Canberra by contacting Paul Curran on (06) 252 6801.

ROUNDING

- **37** Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS business register and the omission of some businesses from the business register (see paragraph 13), this 'rounding rule' also applies to employment counts.
- **38** Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

TECHNICAL NOTES DATA RELIABILITY

SAMPLE ERROR

The 1994–95 manufacturing survey was primarily designed to deliver industry class estimates for Australia and States for the data items employment, wages and salaries and turnover. For the two Territories, the sample was designed to deliver industry subdivision data only.

All 1994–95 (and 1992–93) data contained in this publication have, therefore, been obtained from samples of manufacturers. As such, these data are subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all manufacturers in the population. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.

The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error. The relative standard errors for the 1994–95 employment, wages and salaries and turnover data presented in this publication are all 4% or less for industry subdivisions and most are 5% or less for industry classes.

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

NON-SAMPLE ERROR

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

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

STANDARD ERRORS SELECTED DATA ITEMS

		Employment at end of	Wages and					
INDUŞTRY SUBDIVISION		June(a)	salaries(b)	Turnover				
ANZSIC								
code	Description	%	%	%				
21	Food, beverage and tobacco mfg	1.0	0.6	0.5				
22	Textile, clothing, footwear and							
	leather mfg	1.5	1.2	0.6				
23	Wood and paper product mfg	1.3	0.7	0.6				
24	Printing, publishing and recorded media	3.4	2.5	4.0				
25	Petroleum, coal, chemical							
	and associated product mfg	0.9	8.0	0.6				
26	Non-metallic mineral product mfg	1.3	0.6	0.3				
27	Metal product mfg	1.3	0.8	0.4				
28	Machinery and equipment mfg	0.6	0.4	0.2				
29	Other manufacturing	2.7	2.4	2.3				
21-29	Total manufacturing	0.4	0.3	0.2				

⁽a) includes working proprietors.

⁽b) Excludes the drawings of working proprietors.

ABS Australian Bureau of Statistics

Adjusted value added

Value added less land tax, rates and payroll tax, insurance premiums (other than for workers' compensation) and other business expenses (e.g. cleaning, legal, office supplies and accounting). Referred to as 'Industry gross product' in some related publications.

Amount of goods produced by this establishment (or for it on commission) that are exported by this business or its agent This represents the sales value of goods produced by an establishment (or for it on commission), including the value of manufactured goods transferred to other establishments of the business, that are exported (outside Australia) by the business or its agent.

ANZSIC

Australian and New Zealand Standard Industrial Classification

ASIC

Australian Standard Industrial Classification

Capital work done for own use

The value of work done by the employees or proprietors of an establishment for the business' own use, or for rental or lease. This item includes the capitalised value of the cost of the materials and the wages and salaries involved.

Change in stocks

The value of total closing stocks minus total opening stocks.

Closing stocks

The value of all stocks of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the end of the financial year.

Employment at end of June

The number of working proprietors, working partners, permanent, part-time, temporary and casual employees, and managerial and executive employees working for an establishment during the last pay period ending in June each year. Employees absent on paid or prepaid leave are included, as are employees on workers' compensation who continue to be paid through the payroll system. Non-salaried directors, self-employed persons such as consultants, contractors and persons paid solely by commission without a retainer, and volunteer workers are excluded.

Enterprise group

A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the Corporations Legislation Amendment Act 1991). These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised.

Establishment

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

Establishments that do not export

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

Establishments with exports of more than 50% of sales

Establishments that reported exports (either by their business or for them by an agent) of more than 50% of sales and transfers out of goods that they produced.

Establishments with exports up to and including 50% of

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

Exports as a proportion of sales of goods produced

(Table 5)

For an individual establishment, this represents the percentage of the total sales and transfers out of goods produced by the establishment (or for it on commission) which are exported (outside Australia) by the business or its agent. In Table 5, the ratio is calculated by dividing the total value of goods exported by the total value of sales and transfers out of goods produced by all establishments, not just the aggregated value for those units which exported.

Gross Domestic Product (GDP)

Gross domestic product (also referred to as gross domestic product at market prices) is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services used up in the process of production, but before deducting allowances for the consumption of fixed capital. Thus, gross domestic product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services.

Gross product at factor cost

Gross product at factor cost is that part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less indirect taxes plus subsidies.

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

Industry class

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

Industry group

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

Industry subdivision

This is the broadest level category within the manufacturing industry division of ANZSIC and is recognised by a two digit code e.g. industry subdivision 23 for Wood and paper product manufacturing. Industry subdivisions are built up from industry groups which, in turn, are built up from industry classes. The following list gives the manufacturing industry subdivision codes and their descriptions:

- 21 Food, beverage and tobacco mfg
- 22 Textile, clothing, footwear and leather mfg
- 23 Wood and paper product mfg
- 24 Printing, publishing and recorded media
- 25 Petroleum, coal, chemical and associated product mfg
- 26 Non-metallic mineral product mfg
- 27 Metal product mfg
- 28 Machinery and equipment mfg
- 29 Other manufacturing

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.

Management unit

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

Manufacturing establishment

An establishment predominantly engaged in manufacturing activities. The data collected for such establishments cover all activities of the establishment (including non-manufacturing activities). Conversely, there are some establishments predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities and which are excluded.

Opening stocks

The value of all stocks of finished goods, work-in-progress, raw materials, fuels, containers and packaging as at the beginning of the financial year.

Own account capital work

The value of work done by the employees or proprietors of an establishment for the business' own use, or for rental or lease. This item includes the capitalised value of the cost of the materials and the wages and salaries involved.

Purchases, transfers in and selected expenses

Purchases of materials, components, containers, packaging, fuels, electricity and water, and of goods for resale, plus transfers in of goods from other establishments of the same business for further processing, assembly, installation or resale, plus commission expenses (including sales commission expenses), repair and maintenance expenses, outward freight and cartage expenses, motor vehicle running expenses, and rent, leasing and hiring expenses. Transfers in are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership i.e. at commercial selling price.

Rent, leasing and hiring income

Includes royalties from mineral leases and income from operating leases, but excludes income from finance leases and payments received under hire purchase arrangements.

Sales and transfers out of goods produced by the establishment Includes sales of goods produced by the establishment (or for it on commission), sales or transfers to related businesses, progress payments billed for long-term contracts, and delivery and/or installation charges not separately invoiced to customers. Also included are transfers out to other establishments of the same business. Transfers out are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership i.e. at commercial selling price. Excluded are export freight charges, sales of fixed tangible assets, and sales tax, excise and duties received (on behalf of the Government).

Sales of goods and transfers out

Includes sales of goods produced by the establishment (or for it on commission) and of goods not produced by the establishment, sales or transfers to related businesses, progress payments billed for long-term contracts, and delivery and/or installation charges not separately invoiced to customers. Also included are transfers out to other establishments of the same business. Transfers out are valued, for statistical purposes, at prices commensurate with the prices which would have been paid if the establishments concerned had been under separate ownership i.e. at commercial selling price. Excluded are export freight charges, sales of fixed tangible assets, and sales tax, excise and duties received (on behalf of the Government).

Total government subsidies

Includes revenue received from government bodies in the form of bounties, subsidies and export grants. It also includes payments for Jobstart and subsidies for apprenticeship schemes. Excludes capital grants payments.

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 income from outside the establishment (such as commission income, repair and service income, and rent, leasing and hiring income), plus capital work done by an establishment's own employees for the business' own use, or for rental or lease. Receipts from interest, royalties, dividends and the sale of fixed tangible assets are excluded.

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.

Turnover per person employed

Turnover of manufacturing establishments which operated during the year ended 30 June divided by employment at the end of June in the same year.

Value added

Turnover, plus the increase (or less the decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Wages and salaries

The gross wages and salaries of all employees of the establishment. The item includes severance, termination and redundancy payments, but excludes reimbursements or allowances to employees for travel, entertainment, etc. The drawings of working proprietors are also excluded.

Wages and salaries to turnover ratio

The wages and salaries paid by manufacturing establishments which operated during the year ended 30 June as a proportion of the turnover of manufacturing establishments which operated during the same year.







For more information . . .

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the ABS Catalogue of Publications and Products available from all ABS Offices.

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