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MANUFACTURING INDUSTRY, AUSTRALIA, 1992-93, PRELIMINARY

NOTES

1. This publication introduces the new industry classification to annual manufacturing statistics. This new classification is the Australian and New Zealand Standard Industrial Classification (ANZSIC), which replaces the Australian Standard Industrial Classification (ASIC) previously used. Manufacturing collections dating back to the 1989-90 reference year have been coded using both industry classifications. All time series comparisons in this publication are made on a consistent ANZSIC basis. More information on this industry classification change can be found in the publication *Manufacturing Industry, Australia, 1991-92* (8221.0), which was released on 21 February 1994.
2. For the 1992-93 manufacturing collection, a sample of approximately 21,000 manufacturing businesses was approached to provide the required information. All previous manufacturing collections were conducted on a census basis.

IAN CASTLES
Australian Statistician

MAIN FEATURES

There were 37,861 manufacturing establishments operating in Australia at 30 June 1993. These establishments employed 866,900 persons (at the end of June 1993), paid \$26,866 million in wages and salaries in 1992-93, and recorded \$170,214 million in turnover and \$67,890 million in value added in the year to 30 June 1993.

Turnover at current prices has risen by \$4,803 million or 3 per cent from the total turnover figure of \$165,411 million in 1991-92. This represents a return to annual growth, following a decrease of 2 per cent in 1991-92.

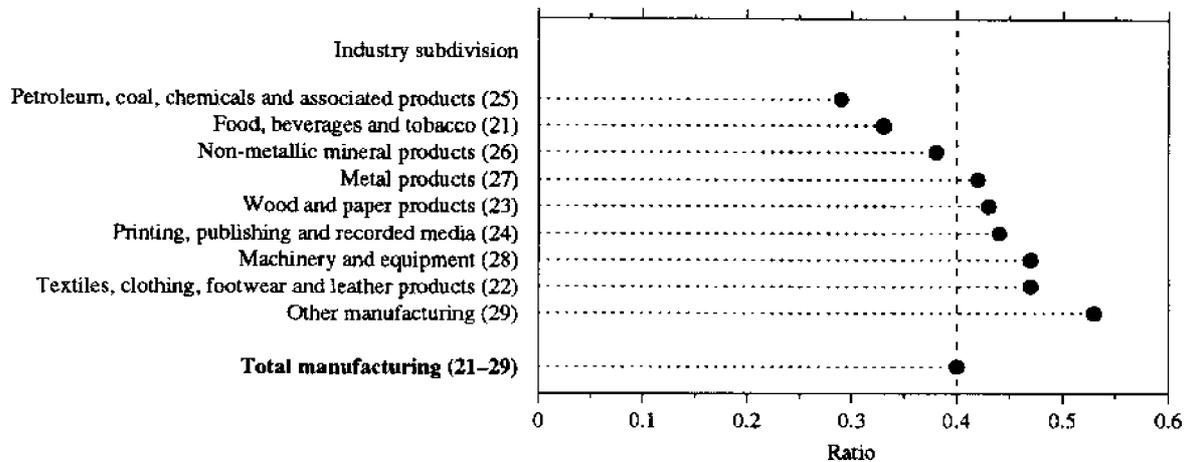
Between June 1992 and June 1993, manufacturing employment fell by 25,900 persons (3%) to 866,900 persons, continuing the decline in manufacturing employment evident since June 1989. This 3 per cent decline in employment follows falls of 6 and 7 per cent (respectively) in the two preceding years; in total, employment has fallen by 153,900 persons in the three year period. In the last 12 months, employment fell in Tasmania (down 9%), Victoria (down 5%), New South Wales (down 4%), SA (down 3%), the ACT (down 2%) and the NT (down 1%), but increased in Queensland (up 4%) and WA (up 1%).

The fall in employment between June 1992 and 1993 occurred in eight of the nine industry subdivisions. The industry subdivision with the largest percentage decrease was Textiles, clothing, footwear and leather products (down 7%). Printing, publishing and recorded media (up 1%) was the only industry subdivision to record an increase in employment.

Between 1991-92 and 1992-93, turnover of manufacturing establishments in constant price terms increased by 1 per cent. Three States recorded an increase in turnover, while the remaining States and both Territories recorded a decrease. WA (up 4%) showed the largest increase in percentage terms, followed by Victoria (up 3%) and Queensland (up 2%). The NT (down 10%) recorded the largest percentage decrease in turnover, followed by SA (down 3%), Tasmania (down 2%) and the ACT (down 2%). NSW recorded the smallest percentage decrease (down 1%) but, by far, the largest decrease in absolute terms.

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RATIO OF WAGES AND SALARIES TO VALUE ADDED, AUSTRALIA, 1992-93



Nationally, five industry subdivisions recorded an increase in turnover at constant prices, with Wood and paper products (up 7%) and Printing, publishing and recorded media (up 5%) recording the largest percentage increases. Of the four industry subdivisions to record a decrease in turnover at constant prices, Textiles, clothing, footwear and leather products (down 5%) and Petroleum, coal, chemicals and associated products (down 2%) showed the largest percentage falls.

The wages and salaries to value added ratio recorded for the total manufacturing industry in 1992-93 was 0.40. This means that it took 40 cents paid in wages and salaries to earn one dollar of value added. In 1992-93, the lowest ratio was recorded in ANZSIC subdivision Petroleum, coal, chemicals and associated products (0.29), whereas Other manufacturing (0.53) (including ANZSIC groups Prefabricated building manufacturing and Furniture manufacturing) recorded the highest ratio of wages and salaries to value added.

In 1989-90, the ratio recorded for the total manufacturing industry was 0.39 ie. about the same as in 1992-93. At the industry subdivision level, the largest improvement in the ratio of wages and salaries to value added was achieved by Textiles, clothing, footwear and leather products (from 0.51 to 0.47), while for the Metal products sector, it took an additional 6 cents of wages and salaries to earn one dollar of value added in 1992-93 (0.42) over 1989-90 (0.36).

TABLE 1. MANUFACTURING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION
AUSTRALIA, STATES AND TERRITORIES, 1992-93

Industry subdivision		Establishments at 30 June (a) (No.)	Employment at end of June (b) ('000)	Wages and salaries (c) (\$m)	Turnover (\$m)	Value added (\$m)
ANZSIC code	Description					
AUSTRALIA						
21	Food, beverages and tobacco	3,217	154.8	4,713	36,920	14,393
22	Textiles, clothing, footwear and leather products	3,595	74.0	1,830	9,029	3,903
23	Wood and paper products	3,331	56.4	1,710	10,029	4,015
24	Printing, publishing and recorded media	4,273	82.5	2,616	10,705	5,978
25	Petroleum, coal, chemicals and associated products	2,611	87.1	3,107	28,927	10,555
26	Non-metallic mineral products	1,563	36.9	1,221	7,554	3,212
27	Metal products	6,756	140.6	4,629	31,181	11,010
28	Machinery and equipment	7,396	187.4	5,947	31,124	12,745
29	Other manufacturing	5,119	47.2	1,092	4,745	2,081
21-29	Total manufacturing	37,861	866.9	26,866	170,214	67,890
NEW SOUTH WALES						
21	Food, beverages and tobacco	928	46.7	1,485	11,105	4,551
22	Textiles, clothing, footwear and leather products	1,222	22.6	572	2,906	1,243
23	Wood and paper products	1,112	17.4	510	3,152	1,249
24	Printing, publishing and recorded media	1,662	33.4	1,098	4,650	2,572
25	Petroleum, coal, chemicals and associated products	896	32.7	1,165	10,831	4,019
26	Non-metallic mineral products	495	11.7	410	2,487	1,142
27	Metal products	2,563	54.9	1,888	11,872	4,651
28	Machinery and equipment	2,486	57.8	1,943	8,735	4,138
29	Other manufacturing	1,479	14.2	367	1,640	733
21-29	Total manufacturing	12,842	291.4	9,437	57,378	24,297
VICTORIA						
21	Food, beverages and tobacco	873	42.6	1,380	11,520	4,776
22	Textiles, clothing, footwear and leather products	1,547	35.0	878	4,308	1,870
23	Wood and paper products	853	14.7	472	2,820	1,096
24	Printing, publishing and recorded media	1,336	25.6	836	3,447	1,918
25	Petroleum, coal, chemicals and associated products	913	34.0	1,275	9,768	3,919
26	Non-metallic mineral products	402	9.0	318	1,808	714
27	Metal products	1,767	33.2	1,055	7,038	2,752
28	Machinery and equipment	2,284	70.9	2,317	13,371	5,096
29	Other manufacturing	1,621	13.9	315	1,338	595
21-29	Total manufacturing	11,595	278.8	8,846	55,418	22,736
QUEENSLAND						
21	Food, beverages and tobacco	554	32.2	906	7,372	2,478
22	Textiles, clothing, footwear and leather products	444	5.8	125	546	238
23	Wood and paper products	660	10.1	267	1,606	686
24	Printing, publishing and recorded media	530	10.1	296	1,134	648
25	Petroleum, coal, chemicals and associated products	363	7.9	250	3,454	936
26	Non-metallic mineral products	287	7.8	233	1,586	663
27	Metal products	1,141	21.7	626	4,810	1,312
28	Machinery and equipment	1,058	19.3	537	2,306	973
29	Other manufacturing	1,032	9.4	194	828	359
21-29	Total manufacturing	6,068	124.3	3,435	23,642	8,292

For footnotes see end of table.

TABLE 1. MANUFACTURING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION
AUSTRALIA, STATES AND TERRITORIES, 1992-93—continued

Industry subdivision		Establishments at 30 June (a) (No.)	Employment at end of June (b) ('000)	Wages and salaries (c) (\$m)	Turnover (\$m)	Value added (\$m)
ANZSIC code	Description					
SOUTH AUSTRALIA						
21	Food, beverages and tobacco	367	15.0	399	2,854	1,097
22	Textiles, clothing, footwear and leather products	177	5.6	142	802	334
23	Wood and paper products	229	5.3	164	839	348
24	Printing, publishing and recorded media	263	5.2	152	630	346
25	Petroleum, coal, chemicals and associated products	195	6.7	213	1,894	569
26	Non-metallic mineral products	116	2.7	90	497	193
27	Metal products	464	11.7	372	2,336	775
28	Machinery and equipment	629	26.7	807	5,117	1,822
29	Other manufacturing	362	3.8	81	365	167
21-29	Total manufacturing	2,803	82.7	2,420	15,334	5,649
WESTERN AUSTRALIA						
21	Food, beverages and tobacco	336	11.6	344	2,673	968
22	Textiles, clothing, footwear and leather products	163	3.0	68	261	118
23	Wood and paper products	283	4.3	112	639	234
24	Printing, publishing and recorded media	336	5.1	146	576	325
25	Petroleum, coal, chemicals and associated products	195	4.8	172	2,755	1,022
26	Non-metallic mineral products	190	4.6	134	875	390
27	Metal products	629	14.0	493	3,920	1,140
28	Machinery and equipment	756	10.1	274	1,340	590
29	Other manufacturing	496	4.8	109	436	183
21-29	Total manufacturing	3,384	62.3	1,852	13,477	4,970
TASMANIA						
21	Food, beverages and tobacco	118	5.6	167	1,214	460
22	Textiles, clothing, footwear and leather products	31	1.8	42	193	95
23	Wood and paper products	145	4.1	171	916	375
24	Printing, publishing and recorded media	58	1.5	42	123	78
25	Petroleum, coal, chemicals and associated products	39	0.8	29	214	87
26	Non-metallic mineral products	43	0.8	25	181	75
27	Metal products	129	3.9	144	828	247
28	Machinery and equipment	120	1.9	46	181	86
29	Other manufacturing	80	0.7	14	53	22
21-29	Total manufacturing	763	21.2	680	3,903	1,524
NORTHERN TERRITORY						
21	Food, beverages and tobacco	17	0.5	16	108	34
22	Textiles, clothing, footwear and leather products	6	0.1	n.p.	n.p.	n.p.
23	Wood and paper products	18	0.1	3	13	5
24	Printing, publishing and recorded media	22	0.3	9	29	18
25	Petroleum, coal, chemicals and associated products	7	—	2	9	3
26	Non-metallic mineral products	13	0.1	5	43	13
27	Metal products	39	1.1	n.p.	n.p.	n.p.
28	Machinery and equipment	27	0.3	8	27	15
29	Other manufacturing	16	0.1	1	5	2
21-29	Total manufacturing	164	2.7	92	597	219

For footnotes see end of table.

TABLE 1. MANUFACTURING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY SUBDIVISION
AUSTRALIA, STATES AND TERRITORIES, 1992-93—continued

Industry subdivision		Establishments at 30 June (a) (No.)	Employment at end of June (b) ('000)	Wages and salaries (c) (\$m)	Turnover (\$m)	Value added (\$m)
ANZSIC code	Description					
AUSTRALIAN CAPITAL TERRITORY						
21	Food, beverages and tobacco	25	0.6	16	75	29
22	Textiles, clothing, footwear and leather products	5	0.1	n.p.	n.p.	n.p.
23	Wood and paper products	31	0.4	11	44	21
24	Printing, publishing and recorded media	65	1.2	38	116	74
25	Petroleum, coal, chemicals and associated products	4	—	—	2	1
26	Non-metallic mineral products	19	0.2	7	75	21
27	Metal products	22	0.1	n.p.	n.p.	n.p.
28	Machinery and equipment	36	0.4	15	47	25
29	Other manufacturing	35	0.4	10	81	21
21-29	Total manufacturing	242	3.5	104	466	202

(a) See paragraphs 6 to 9 of the Explanatory Notes. (b) Includes working proprietors. (c) Excludes the drawings of working proprietors.

TABLE 2. MANUFACTURING ESTABLISHMENTS: PERCENTAGE CHANGE IN EMPLOYMENT AND TURNOVER (AT
AVERAGE 1989-90 PRICES) BY INDUSTRY SUBDIVISION AND STATE, 1991-92 TO 1992-93
(per cent)

Industry subdivision											
ANZSIC code	Description	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.	
EMPLOYMENT AT END OF JUNE											
21	Food, beverages and tobacco	-1	-5	3	5	2	-7	3	-2	-1	
22	Textiles, clothing, footwear and leather products	-8	-9	-3	-4	—	1	-7	38	-7	
23	Wood and paper products	-7	—	-1	-5	6	-17	47	-11	-4	
24	Printing, publishing and recorded media	2	2	2	—	-8	-12	8	-4	1	
25	Petroleum, coal, chemicals and associated products	-3	-1	3	-2	-11	-6	-25	-10	-2	
26	Non-metallic mineral products	-2	-10	3	-9	1	-9	-10	9	-3	
27	Metal products	-5	-6	—	-6	7	-9	—	-23	-4	
28	Machinery and equipment	-6	-6	16	-5	2	6	-11	30	-3	
29	Other manufacturing	-10	-3	6	-3	-1	-12	-33	-13	-3	
21-29	Total manufacturing	-4	-5	4	-3	1	-9	-1	-2	-3	
TURNOVER											
21	Food, beverages and tobacco	-3	6	5	3	-1	-1	4	2	2	
22	Textiles, clothing, footwear and leather products	-4	-7	2	-1	4	7	n.p.	n.p.	-5	
23	Wood and paper products	6	13	9	9	8	-6	-13	-8	7	
24	Printing, publishing and recorded media	3	7	13	—	-3	-8	3	-5	5	
25	Petroleum, coal, chemicals and associated products	-2	-1	-2	—	-5	4	2	5	-2	
26	Non-metallic mineral products	-3	5	-2	-3	14	13	-9	22	1	
27	Metal products	-1	-5	-2	1	8	—	n.p.	n.p.	-1	
28	Machinery and equipment	-2	11	—	-11	12	-13	-6	-12	2	
29	Other manufacturing	-5	-3	10	-1	2	-10	-13	-9	-1	
21-29	Total manufacturing	-1	3	2	-3	4	-2	-10	-2	1	

EXPLANATORY NOTES

Introduction

This publication presents preliminary statistics compiled from a survey of manufacturing establishments for 1992-93, with some comparative statistics relating to the preceding year.

2. For the 1992-93 collection, a sample of approximately 21,000 manufacturing businesses was approached to provide information. All previous manufacturing collections were conducted by approaching all known manufacturing businesses.

3. The manufacturing collection is conducted on an annual basis and businesses are requested to provide data on employment, wages and salaries paid and turnover. For the 1992-93 collection, additional information related to detailed structural and performance data, such as value added, stocks, purchases and capital expenditure, and manufacturing exports was collected. Information in respect of all of these data items will be available in the publication *Manufacturing Industry, Australia, 1992-93* (8221.0).

4. To complement the environmental protection data collected in both the 1990-91 and 1991-92 censuses, the 1992-93 survey also collected some data on issues related to environmental protection. Summary statistics will be included in the publication *Manufacturing Industry, Australia, 1992-93* (8221.0).

5. Manufacturing, as specified in Division C of the *Australian and New Zealand Standard Industrial Classification* (ANZSIC) (1292.0), 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

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

7. Some of those establishments predominantly engaged in one activity are 'split' into two or more establishments when the secondary activity exceeds a specific value. For 1992-93, this value was \$6.5 million in terms of sales and transfers out of goods and services.

8. Data contained in this publication relate to all manufacturing establishments which operated in Australia during the year ended 30 June 1993, except for single establishment management units not employing staff at 30 June 1993 (such as sole proprietorships or family partnerships). These types of businesses contribute only

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

Unit definitions

9. The standard units in use are:

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

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

Data item definitions

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

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

12. *Wages and salaries.* The gross wages and salaries paid to all employees of the establishment during the financial year. The drawings of working proprietors are excluded.

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

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

Reliability of estimates

15. Data presented in this publication are based on information obtained from a sample of manufacturers and are, therefore, 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 collection. 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 nineteen chances in twenty that the difference will be less than two standard errors.

16. 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 data as presented in this publication are two per cent or less for all Australian estimates. Relative standard errors across all States and the Australian Capital Territory are generally four per cent or less, with the maximum relative standard error being nine per cent. The relative standard errors for the Northern Territory estimates tend to be higher than those for the rest of Australia, although none are higher than seven per cent. Detailed relative standard errors can be made available on request.

17. The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and errors made in collection and processing of the data. Inaccuracies of this kind are referred to as non-sampling error and they may occur in any collection, whether it be a full count or only a sample. Every effort is made to reduce non-sampling error to a minimum by careful design of forms, editing of data and efficient operating procedures.

Comparability with previous statistics

18. Comparison of 1992-93 estimates of turnover with 1991-92 estimates are made at average 1989-90 prices.

This attempts to eliminate the effect of price movements. Previous issues of this publication made this comparison in current price terms, which did not eliminate the effect of price movements.

19. The data presented in this publication are now based on the new industry classification, the Australian and New Zealand Standard Industrial Classification (ANZSIC), which replaces the Australian Standard Industrial Classification (ASIC) previously used. Manufacturing collections dating back to the 1989-90 reference year have been coded using both the ASIC and the ANZSIC classifications. As a consequence, ANZSIC data back to 1989-90 can be made available on request. Detailed estimates for all years back to the 1989-90 reference year will be released in the publication *Manufacturing Industry, Australia, 1992-93* (8221.0).

20. Value added data recorded in the 1989-90 census exclude single establishment businesses with less than four persons employed. Therefore, these data are not strictly comparable with the data collected for 1992-93.

Related publications

21. More detailed manufacturing industry statistics will be released in the publication *Manufacturing Industry, Australia, 1992-93* (8221.0), which will be released later this year.

Symbols and other usages

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

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



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