



**Manufacturing Production
Australia**

**Household Appliances and
Electrical Equipment**

November 1992

Catalogue No. 8357.0

A thick, black, horizontal bar with a slight 3D effect and a grey shadow underneath, located at the bottom of the page.

EMBARGOED UNTIL 11:30 A.M. 20 JANUARY 1993

MANUFACTURING PRODUCTION, AUSTRALIA
HOUSEHOLD APPLIANCES
AND ELECTRICAL EQUIPMENT
NOVEMBER 1992

IAN CASTLES
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

CATALOGUE NO. 8357.0

© Commonwealth of Australia 1993

CONTENTS

<i>Table</i>		<i>Page</i>
1.	Clothes washing and drying machines	1
2.	Refrigerators and freezers	1
3.	Cooking stoves, ovens and ranges	2
4.	Colour television sets	2
5.	Electric kettles, fans and air conditioners	3
6.	Water heaters	3
7.	Space heaters and solar collectors	4
8.	Lawn mowers	4
9.	Electric and telephone cable, wire and strip	5
10.	Electrical power transformers for transmission and distribution of power	5
11.	Electric motors	6
12.	Other electrical appliances and equipment	7
..	Explanatory Notes	8

INQUIRIES

- *for further information about statistics in this publication and the availability of related unpublished statistics, contact Robert Hart on Melbourne (03) 615 7635 or any ABS office.*
 - *for information about other ABS statistics and services please refer to the back page of this publication.*
-

TABLE 1. CLOTHES WASHING AND DRYING MACHINES
(number)

Period	Household or laundry type clothes washing machines			Clothes drying machines (775 12)
	Original (775 11)	Seasonally adjusted (a)	Trend (b)	
1989-90	330,451	..	..	226,985
1990-91	325,558	..	..	157,912
1991-92	295,778	..	..	150,134
1991 —				
September	30,657	29,887	25,292	6,356
October	26,929	23,524	25,595	3,530
November	26,583	24,358	25,740	5,488
December	19,301	21,841	25,666	5,587
1992 —				
January	16,063	32,040	25,363	5,869
February	23,466	22,661	25,087	14,555
March	27,138	25,395	24,943	23,902
April	23,288	24,656	24,812	18,660
May	24,067	23,421	r 24,652	24,978
June	22,903	22,880	r 24,622	21,690
July	31,166	27,909	r 24,708	16,228
August	28,928	25,769	r 24,631	7,330
September	26,329	22,995	r 24,391	4,333
October	24,200	22,358	r 24,137	6,660
November	25,884	24,929	23,944	8,682
1991-92: July to Nov.	140,452	..	..	34,893
1992-93: July to Nov.	136,507	..	..	43,233

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes. (c) Each of a dry line capacity not exceeding 10 kg.

TABLE 2. REFRIGERATORS AND FREEZERS
(number)

Period	Refrigerators-domestic					Freezers-domestic (upright and chest) (775 22)	
	Twin door			Total			
	Single door (775 23)	Frost free (775 24)	Other (775 25)	Original	Seasonally adjusted(a)		Trend(b)
1989-90	105,488	84,697	156,173	346,358	..	..	98,699
1990-91	105,703	84,956	172,440	363,099	..	..	94,087
1991-92	91,842	98,254	182,356	372,452	..	..	95,229
1991 —							
September	8,715	8,081	15,430	32,226	30,363	31,141	8,092
October	9,981	8,989	17,943	36,913	33,074	33,247	10,223
November	11,043	10,490	16,836	38,369	35,169	34,668	9,880
December	8,935	7,779	14,557	31,271	36,195	35,102	8,989
1992 —							
January	6,484	8,665	14,057	29,206	39,260	34,468	7,676
February	7,081	7,907	13,829	28,817	27,522	33,031	7,472
March	7,399	7,732	14,993	30,124	33,136	31,088	6,349
April	5,162	6,278	13,526	24,966	27,291	28,926	5,588
May	5,891	8,005	16,205	30,101	28,640	r 27,106	7,548
June	5,663	8,053	12,281	25,997	25,969	r 26,265	7,273
July	6,034	8,566	10,184	29,749	26,761	r 26,558	6,346
August	5,460	9,446	15,149	25,090	23,993	r 27,626	6,799
September	8,211	8,090	12,906	29,207	26,584	29,284	8,223
October	10,296	10,775	18,064	39,135	36,808	n.y.a.	8,130
November	9,427	11,984	16,766	38,177	34,623	n.y.a.	8,775
1991-92: July to Nov.	45,227	43,835	82,908	171,970	..	..	44,334
1992-93: July to Nov.	39,428	48,861	73,069	161,358	..	..	38,273

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 3. COOKING STOVES, OVENS AND RANGES
(number)

Period	Domestic types						Natural (697.38)	Total
	Electric			Gas				
	Ranges(a) fixed and other (775.95)	Wall ovens (775.96)	Cooking tops (775.97)	Standard town (697.36)	LP and TLP (697.37)			
1989-90	118,486	104,106	72,465	24,591	n.p.	67,310	n.p.	
1990-91	102,733	90,335	58,888	24,220	23,569	60,080	107,869	
1991-92	110,637	103,180	64,905	n.p.	35,011	n.p.	167,852	
1991 —								
September	10,585	8,485	5,564	3,027	2,230	n.p.	n.p.	
October	9,995	9,553	6,286	1,497	6,905	n.p.	n.p.	
November	9,071	9,835	7,084	1,480	2,784	n.p.	n.p.	
December	6,728	8,675	3,165	2,957	2,000	n.p.	n.p.	
1992 —								
January	3,271	4,416	2,117	783	1,267	n.p.	n.p.	
February	9,382	8,536	5,977	3,518	3,139	n.p.	n.p.	
March	9,535	10,539	6,290	4,069	3,187	9,246	16,502	
April	8,444	8,349	6,052	4,147	1,784	n.p.	n.p.	
May	8,580	9,351	5,296	3,577	3,206	n.p.	n.p.	
June	13,690	8,940	5,565	n.p.	3,161	n.p.	16,472	
July	10,736	9,124	6,667	3,055	n.p.	11,365	14,420	
August	10,257	9,061	5,319	n.p.	n.p.	11,168	n.p.	
September	10,313	10,779	6,387	n.p.	n.p.	14,624	n.p.	
October	8,789	10,674	6,316	n.p.	n.p.	13,944	n.p.	
November	10,248	11,229	6,292	3,764	n.p.	14,353	18,117	
1991-92: July to Nov.	51,007	44,374	30,443	13,367	17,267	n.p.	n.p.	
1992-93: July to Nov.	50,343	50,867	30,981	n.p.	n.p.	65,454	n.p.	

(a) Having at least one hotplate and one oven separately heated. Total rating not exceeding 15kW.

TABLE 4. COLOUR TELEVISION SETS
(number)

Period	less than 53cm (761.11)	53cm but less than 62cm (761.14)	62cm and over (761.15,16)	Total		
	12,13(a)			Original	Seasonally adjusted(b)	Trend(c)
1989-90	86,449	5,429	n.p.	158,087	..	..
1990-91	102,326	650	64,198	167,174	..	..
1991-92	94,232	4,358	81,221	176,811	..	..
1991 —						
September	9,513	—	7,443	16,956	17,333	14,544
October	11,116	—	7,187	18,303	14,789	14,429
November	n.p.	n.p.	7,048	16,092	13,759	14,304
December	n.p.	n.p.	5,724	11,685	13,823	14,273
1992 —						
January	n.p.	n.p.	1,769	4,186	11,963	14,435
February	n.p.	n.p.	7,684	15,749	15,450	14,800
March	n.p.	n.p.	6,419	18,425	17,873	15,225
April	n.p.	n.p.	n.p.	13,539	14,847	15,477
May	n.p.	n.p.	10,450	16,349	15,102	15,379
June	7,009	n.p.	n.p.	14,500	14,800	14,979
July	7,861	—	9,058	16,388	14,041	14,436
August	8,588	270	7,134	15,992	14,062	13,965
September	6,890	n.p.	n.p.	15,211	14,637	13,560
October	7,310	n.p.	n.p.	15,152	12,308	13,184
November	7,559	n.p.	n.p.	13,815	12,495	12,784
1991-92: July to Nov.	n.p.	n.p.	34,644	82,378	..	..
1992-93: July to Nov.	37,707	n.p.	n.p.	76,558	..	..

(a) 1989-90 data excludes Colour Television sets under 48cm. (b) See paragraph 5, Explanatory Notes. (c) See paragraph 7 to 9, Explanatory Notes.

TABLE 5. ELECTRIC KETTLES, FANS AND AIR CONDITIONERS
(number)

Period	Electric kettles (775 99)	Electric fans (743 42 44)	Air conditioning machines(a) other than self-contained window or wall type	
			Domestic (741 52)	Other (741 54)
1989-90	534,619	767,719	79,861	14,602
1990-91	575,810	489,877	83,125	10,813
1991-92	n.p.	489,771	59,696	8,658
1991 —				
September	54,414	43,419	6,433	725
October	73,428	38,995	8,189	712
November	53,665	43,854	9,143	835
December	48,923	39,383	6,648	713
1992 —				
January	21,566	25,554	2,262	502
February	34,290	45,047	3,134	700
March	34,833	43,921	4,031	771
April	29,247	40,255	3,302	613
May	17,998	48,920	2,190	812
June	n.p.	42,487	1,473	809
July	n.p.	65,864	1,772	777
August	n.p.	45,090	2,167	669
September	35,461	54,233	6,185	771
October	45,570	65,467	8,431	683
November	n.p.	55,013	7,844	930
1991-92: July to Nov	276,259	204,204	36,656	3,738
1992-93: July to Nov	n.p.	285,667	26,399	3,830

(a) Comprises a motor driven fan and elements for changing the temperature and humidity. Excludes automotive types.

TABLE 6. WATER HEATERS(a)
(number)

Period	Electric				
	Storage and immersion				Solar(b) (741 77)
	Instantaneous (775 75)	Full mains pressure (775 93)	Other (775 94)	Gas (741 76.81)	
1989-90	15,602	331,565	19,955	187,957	31,058
1990-91	11,960	263,830	25,316	176,728	26,284
1991-92	9,629	291,958	27,685	185,252	25,090
1991 —					
September	727	25,021	2,363	16,208	2,151
October	636	27,766	3,362	16,503	2,698
November	902	25,501	2,328	17,027	2,480
December	771	24,177	2,238	12,083	2,273
1992 —					
January	n.p.	9,127	1,143	4,505	1,073
February	938	26,752	2,231	15,106	1,995
March	508	29,588	2,247	21,772	2,141
April	702	16,815	2,256	11,091	2,576
May	1,084	27,374	2,058	17,811	2,080
June	n.p.	28,098	1,844	19,492	1,886
July	1,039	33,418	3,140	20,634	2,815
August	664	27,317	1,975	16,921	2,675
September	905	26,818	2,467	18,505	2,931
October	872	25,224	2,274	17,362	2,651
November	999	24,445	1,857	16,424	2,606
1991-92: July to Nov	4,401	130,027	13,668	83,392	11,066
1992-93: July to Nov	4,479	137,222	11,713	89,846	13,678

(a) Both domestic and non-domestic. (b) Includes systems which also have a conventional backup energy source.

TABLE 7. SPACE HEATERS AND SOLAR COLLECTORS

Period	Non-electric domestic space heaters				Solar collectors(a) (775.52)
	Electric space heating and soil heating apparatus (775.82)	Solid fuel space heaters (697.61)	Warm air furnaces (697.63)	Gas fires and gas space heaters (697.62)	
	number	number	number	number	
1989-90	419,375	30,670	31,508	61,403	105,516
1990-91	562,903	26,835	n.p.	64,525	91,364
1991-92	429,445	18,960	n.p.	51,633	93,847
1991 —					
September	13,306	n.p.	n.p.	2,375	7,846
October	14,334	134	n.p.	2,870	9,749
November	11,887	106	n.p.	2,228	12,331
December	20,844	n.p.	n.p.	1,777	5,920
1992 —					
January	34,428	178	n.p.	n.p.	5,747
February	56,462	577	n.p.	4,270	8,428
March	69,567	2,857	n.p.	n.p.	9,395
April	46,376	4,329	n.p.	6,246	10,256
May	62,223	3,889	n.p.	5,435	7,208
June	43,930	4,175	n.p.	n.p.	5,532
July	28,237	1,506	n.p.	5,516	10,114
August	15,410	366	n.p.	3,432	9,434
September	11,308	273	n.p.	1,718	10,470
October	12,773	195	n.p.	1,934	12,708
November	8,734	228	n.p.	1,733	10,112
1991-92: July to Nov.	95,622	n.p.	n.p.	19,182	41,361
1992-93: July to Nov.	76,462	2,568	n.p.	14,333	52,838

(a) For household or industrial water heating purposes (e.g. hot water systems, swimming pool heating). Production figures relate to effective area of aperture.

TABLE 8. LAWN MOWERS
(number)

Period	Lawn mowers with engine (undercut rotary petrol type) 2 stroke or 4 stroke type (721.33)		
	Original	Seasonally adjusted(a)	Trend(b)
1989-90	263,236	..	..
1990-91	222,113	..	..
1991-92	213,683	..	..
1991 —			
September	21,634	15,352	14,875
October	32,406	17,574	16,390
November	24,912	16,763	18,013
December	18,421	17,054	19,589
1992 —			
January	16,647	23,003	20,804
February	24,710	22,851	21,349
March	18,933	21,599	20,976
April	11,689	20,256	19,970
May	9,045	18,886	r 18,640
June	7,765	15,237	r 17,701
July	13,138	16,133	r 17,748
August	21,352	20,105	r 18,697
September	31,772	20,086	n.y.a.
October	34,200	19,573	n.y.a.
November	38,272	27,372	n.y.a.
1991-92: July to Nov.	106,473	..	..
1992-93: July to Nov.	138,734	..	..

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 9, Explanatory Notes.

TABLE 9. ELECTRIC AND TELEPHONE CABLE, WIRE AND STRIP (tonnes)

Period	Uninsulated		Insulated			Other (e.g. for communications, electronics and appliances) (c)
	Stranded wire, cables cordage ropes, plated bands, strings and the like, of aluminium (693.13)	Power transmission and distribution(a)			Other (773.33)	
		Copper(b)				
		Paper insulated (773.19)	Otherwise insulated (773.31)	Other (773.32)		
1989-90	7,951	2,613	45,580	6,013	12,680	
1990-91	9,897	2,456	36,445	4,032	9,278	
1991-92	8,488	1,942	30,200	5,427	8,494	
1991 —						
September	1,132	157	2,585	398	766	
October	1,083	184	2,424	440	902	
November	981	255	2,783	516	763	
December	784	108	1,808	399	580	
1992 —						
January	111	80	1,435	200	295	
February	337	148	2,665	540	750	
March	280	250	2,913	589	713	
April	366	147	2,557	477	712	
May	381	91	2,957	516	743	
June	297	104	2,526	640	792	
July	432	174	3,663	798	809	
August	266	143	2,977	651	702	
September	456	196	2,797	757	764	
October	414	209	2,954	1,040	697	
November	453	148	2,811	915	709	
1991-92: July to Nov	5,932	1,014	13,339	2,066	3,909	
1992-93: July to Nov	2,021	870	15,202	4,161	3,681	

(a) Includes household and building wiring. Excludes co-axial cable and other co-axial conductors from July 1989. (b) Weight of copper content only. (c) Excludes automotive low voltage. Excludes winding wire, co-axial cable and other co-axial conductors from July 1989.

TABLE 10. ELECTRICAL POWER TRANSFORMERS FOR TRANSMISSION AND DISTRIBUTION OF POWER(a)
(Total kVA capacity)

Period	Up to and including 63 kVA		Over 63kVA up to and including 500kVA	Over 500kVA up to and including 1,000 kVA	Over 1,000 kVA up to and including 10,000 kVA	Over 10,000 kVA	Total
	Single phase (771.13)	Multi phase (771.15)	including 500kVA (771.17)	including 1,000 kVA (771.19)	including 10,000 kVA (771.32)	including 10,000 kVA (771.34)	
	1989-90	183,346	115,075	1,475,496	870,705	1,051,921		3,557,197	7,253,740
1990-91	174,142	149,954	1,334,339	787,795	1,164,613	2,700,762	6,311,605
1991-92	113,200	112,053	1,016,356	581,714	1,085,060	3,407,000	6,315,383
1991 —							
September	9,633	14,144	82,096	60,020	127,918	55,000	348,781
October	12,247	10,031	110,301	82,750	81,438	696,000	902,767
November	10,020	10,477	100,372	65,640	78,408	865,000	1,199,877
December	7,852	7,423	80,400	39,800	99,158	105,000	339,633
1992 —							
January	5,597	5,599	46,879	23,360	24,700	160,000	267,135
February	9,840	11,823	75,597	54,470	79,608	108,000	339,338
March	9,703	9,476	83,624	39,020	168,752	742,000	1,052,575
April	9,107	5,699	81,716	31,950	78,008	25,000	231,480
May	9,486	9,223	84,649	32,950	52,554	95,000	283,862
June	8,696	7,694	70,707	38,100	64,454	153,000	342,651
July	9,855	13,357	77,200	27,230	61,908	508,800	698,350
August	11,976	10,859	66,973	27,200	51,004	425,500	593,512
September	12,382	13,001	54,470	21,850	52,708	626,000	780,411
October	10,970	13,467	48,257	38,854	103,406	192,500	407,454
November	14,499	12,550	56,168	32,804	59,856	131,657	307,534
1991-92: July to Nov	52,919	55,116	492,784	321,064	517,826	2,019,000	3,458,709
1992-93: July to Nov	59,682	63,234	303,068	147,938	328,882	1,884,457	2,787,261

(a) Includes those made for incorporation by manufacturers in own products. Dual rating transformers are classified according to the maximum capacity at which they can operate at the time of manufacture.

TABLE II. ELECTRIC MOTORS (a)
(number)

Period	DC motors and generators (b)	Single phase AC motors					Over 746W (716.68, 69.70)
		Up to and including 37.5W (716.61)	Up to and including 190W (716.62,63)	Over 37.5W up to and including 190W (716.64,65)	Over 190W up to and including 380W (716.66,67)	Over 380W up to and including 746W (716.66,67)	
1989-90	1,281	369,270	958,364	327,577	387,470		
1990-91	1,464	n.p.	892,011	220,311	293,164		n.p.
1991-92	1,092	793,055	791,497	181,371	240,205		n.p.
1991 —							
September	79	71,896	76,671	15,272	24,490		n.p.
October	98	73,101	79,145	17,139	26,564		n.p.
November	84	71,565	76,928	13,968	30,092		n.p.
December	60	56,481	57,433	9,820	19,758		n.p.
1992 —							
January	24	59,848	46,471	9,070	13,235		n.p.
February	60	61,116	70,618	14,455	16,963		n.p.
March	131	78,544	72,264	17,802	18,231		n.p.
April	53	48,888	63,536	11,978	16,944		n.p.
May	133	71,473	59,784	13,740	13,900		n.p.
June	56	82,926	61,745	14,531	18,116		n.p.
July	80	110,645	69,754	17,867		48,518	
August	24	82,908	63,395	14,088		46,722	
September	84	84,763	73,971	14,454		45,187	
October	56	86,143	77,701	16,813		59,787	
November	78	82,276	77,747	17,260		45,273	
1991-92: July to Nov.	575	333,779	359,646	89,975	123,058		n.p.
1992-93: July to Nov.	322	446,735	362,568	80,482	245,487		n.p.

(a) Includes those made and incorporated in manufacturers own products. (b) Excludes those for aircraft, motor vehicles, off-highway trucks, materials handling trucks and tractors. (c) Also includes flameproof AC electric motors and universal AC/DC motors (Australian Standard Commodity Classification Items 716.82, 83, 84, 85 and 86). (d) See paragraph 5, Explanatory Notes. (e) See paragraph 6 to 9, Explanatory Notes.

TABLE II. ELECTRIC MOTORS (a)—continued
(number)

Period	Multiphase AC Motors					Total electric motors(c)		
	Up to and including 0.194kW (716.71)	Over 0.194kW up to and including 1.94W (716.72,73)	Over 1.94W up to and including 7.54W (716.74,75)	Over 7.54W up to and including 45kW (716.76,77)	Over 45kW (716.78, 79.81)	Original	Seasonally adjusted (d)	Trend (e)
1989-90	1,851	36,365	n.p.	6,825	n.p.	2,528,344	..	..
1990-91	n.p.	n.p.	9,637	2,769	n.p.	2,479,735	..	..
1991-92	n.p.	n.p.	1,298	1,378	n.p.	2,420,850	..	..
1991 —								
September	n.p.	n.p.	129	106	72	229,292	210,240	197,268
October	n.p.	n.p.	155	142	n.p.	242,092	202,696	203,783
November	n.p.	n.p.	85	109	n.p.	237,341	212,084	208,778
December	n.p.	n.p.	57	68	n.p.	182,829	207,310	210,101
1992 —								
January	n.p.	n.p.	136	52	n.p.	147,723	267,328	207,298
February	n.p.	n.p.	142	97	n.p.	191,909	199,300	202,786
March	n.p.	n.p.	83	140	n.p.	218,881	205,625	199,419
April	n.p.	n.p.	109	105	57	169,686	195,122	198,508
May	n.p.	n.p.	107	78	n.p.	188,137	183,670	r 199,806
June	n.p.	n.p.	70	118	28	210,393	195,090	r 203,045
July	n.p.	n.p.	414	127	25	257,286	235,086	r 206,920
August	n.p.	n.p.	210	132	n.p.	216,820	217,533	r 210,107
September	n.p.	n.p.	98	136	n.p.	225,914	187,951	r 212,204
October	n.p.	n.p.	79	137	n.p.	248,914	218,076	r 213,698
November	—	n.p.	296	194	n.p.	231,022	217,153	214,974
1991-92: July to Nov.	n.p.	n.p.	n.p.	720	n.p.	1,111,292	..	..
1992-93: July to Nov.	n.p.	n.p.	1,097	726	n.p.	1,179,956	..	..

(a) Includes those made and incorporated in manufacturers own products. (b) Excludes those for aircraft, motor vehicles, off-highway trucks, materials handling trucks and tractors. (c) Also includes flameproof AC electric motors and universal AC/DC motors (Australian Standard Commodity Classification Items 716.82, 83, 84, 85 and 86). (d) See paragraph 5, Explanatory Notes. (e) See paragraph 6 to 9, Explanatory Notes.

TABLE 12. OTHER ELECTRICAL APPLIANCES AND EQUIPMENT

Period	Audio cassette tapes: pre-recorded		Liquid supply or production meters, including calibration meters therefore (excluding reconditioned) (873 13) number
	Singles (898 64) '000	Other (898 66) '000	
1989-90		30,592	402,173
1990-91		37,017	329,224
1991-92		36,272	419,544
1989—			
December qtr		8,777	107,656
1990—			
March qtr		6,169	108,000
June qtr		6,350	107,242
September qtr		9,617	87,852
December qtr		11,417	69,272
1991—			
March qtr		7,525	80,959
June qtr		8,458	91,141
September qtr		10,189	100,801
December qtr		10,523	95,357
1992—			
March qtr		7,314	102,875
June qtr		8,246	120,511
September qtr	1,387		105,946

EXPLANATORY NOTES

Introduction

This publication is one of a series of ten containing monthly and quarterly production statistics. The titles of the other publications of this series are shown in paragraph 10.

Classification

2. Data contained in these publications are mostly based on monthly or quarterly collections conducted by the Australian Bureau of Statistics (ABS). Most items are identified by the commodity codes used in the Australian Standard Commodity Classification (ASCC), which was developed by the ABS to facilitate greater comparability of manufacturing production commodity statistics with import and export commodity statistics.

Scope and coverage

3. Manufacturing commodity statistics collected by the ABS exclude details relating to single establishment manufacturing enterprises with fewer than four persons employed and production of establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. However, except for a few commodities, the effect on production levels and movements is marginal.

4. Annual figures shown in this publication are derived by aggregating monthly/quarterly production and relate to production during the year ended 30 June. They may differ from annual manufacturing census data which relate to the census year and, in the case of businesses unable to report on a June year basis, include details in respect of substitute accounting periods.

Seasonal adjustment and trend estimates

5. This publication contains seasonally adjusted statistics of several items. In the seasonal adjustment, account has been taken not only of normal seasonal factors, but also, where appropriate, of 'working-day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. However, care should be exercised in interpreting the figures for those months in which Christmas/New Year and Easter holidays fall as some manufacturers vary holiday shutdowns in the light of prevailing demand for their products. Details of the methods used in seasonally adjusting these and other series are available on request.

6. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates have been derived by applying a 13-term Henderson weighted moving average to the seasonally adjusted series.

7. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

8. Because of the highly irregular nature of some production series it is not possible to discern with

reasonable confidence the current direction of the trend at the end of these series. For such highly irregular series the ABS does not provide the last two trend estimates.

9. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend'* (1316.0) and *Time Series Decomposition — An Overview* (1317.0) for more detailed information on smoothing of seasonally adjusted time series data.

Related publications

10. Other ABS publications which may be of interest are:

Manufacturing Production, Australia, Preliminary (8301.0) — issued monthly

Manufacturing Production, Australia, Clothing and Footwear (8358.0) — issued monthly

Manufacturing Production, Australia, Food, Drink, Tobacco, Stock and Poultry Food (8359.0) — issued monthly

Manufacturing Production, Australia, Fibres, Yarns, Fabrics, Bedding and Floor Coverings (8360.0) — issued monthly

Manufacturing Production, Australia, Building Materials and Fittings (8361.0) — issued monthly

Manufacturing Production, Australia, Plastics, Rubber, Paints, Detergents and Industrial Chemicals (8362.0) — issued monthly

Manufacturing Production, Australia, Transport Equipment (8363.0) — issued monthly

Manufacturing Production, Australia, Metal Products (8367.0) — issued monthly

Manufacturing Production, Australia, Energy Products (8368.0) — issued monthly

Manufacturing Production, Australia, Wood and Wood Products (8369.0) — issued monthly

Manufacturing Commodities: Selected Principal Articles Produced, Australia 1986-87, Preliminary (8365.0)

Manufacturing Commodities: Principal Articles Produced Australia 1986-87 (8303.0)

11. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The *Catalogue and Publications Advice* are available for any ABS office.

Symbols and other usages

- n.y.a. not yet available
- n.p. not available for separate publication (but included in totals where applicable)
- n.a. not available.
- .. not applicable
- r revised since previous issue
- nil or rounded to zero
- break in continuity of series (where a line is shown between consecutive figures in the same column)



For more information ...

The ABS publishes a wide range of information on Australia's economic and social conditions. A catalogue of publications and products is available from any of our Offices (see below for contact details).

Information Consultancy Service

Special tables or in-depth data investigations are provided by the ABS Information Consultancy Service in each of our Offices (see below for contact details).

Electronic Data Services

A growing range of our data is available on electronic media. Selections of the most frequently requested data are available, updated daily, on DISCOVERY (Key *656#). Our PC TELESTATS service delivers major economic indicator publications ready to download into your computer on the day of release. Our PC AUSSTATS service enables on-line access to a data base of thousands of up-to-date time series. Selected datasets are also available on diskette or CD-ROM. For more details on our electronic data services, contact Information Services in any of our Offices on the numbers below.

Bookshops and Subscriptions

There are over 500 titles available from the ABS Bookshops in each of our Offices. You can also receive any of our publications on a regular basis. Join our subscription mailing service and have your publications mailed to you in Australia at no additional cost. Telephone our Publications Subscription Service toll free on 008 02 06 08 Australia wide.

Sales and Inquiries



SYDNEY (02) 268 4611
MELBOURNE (03) 615 7000
BRISBANE (07) 222 6351
PERTH (09) 323 5140

ADELAIDE (08) 237 7100
HOBART (002) 20 5800
DARWIN (089) 43 2111
CANNBERRA (06) 252 6627



Information Services, ABS, PO Box 10, Belconnen ACT 2616
or any ABS State office

Recommended retail price: \$8.00



2083570011926

ISSN 1035-9346