

COUNTS OF AUSTRALIAN BUSINESS OPERATORS

AUSTRALIA

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INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Ashley Bartlett on Canberra (02) 6252 5402.

NOTES

INTRODUCTION

This publication presents selected counts of Australian business operators as sourced from the 2007 Forms of Employment Survey and the 2006 Census of Population and Housing.

This publication replaces business operator counts previously published in regard to the *Characteristics of Small Business Survey (cat. no. 8127.0)*. The counts presented in this publication are not directly comparable with those presented in previous releases.

STRUCTURE OF THE PUBLICATION

This publication has two Sections.

Section One includes data sourced from the 2007 Forms of Employment Survey. The data presented describe Australian business operators across a range of characteristics, using counts and proportions. These characteristics provide an indication of the distribution of Australia's business operators and also provide further insight into the characteristics of the businesses operated in the Australian economy. For example, data on industry, geography, and employment are relevant to individuals (i.e. business operators) and the businesses they operate. Where possible, data have also been included for "non-business operators".

Section Two includes data sourced from the 2006 Census of Population and Housing. The data presented describe the distribution of Australian business operators (including small business operators) across a range of characteristics, in terms of proportions. The distribution of these characteristics has also been compared with "non-business operators" where possible.

Together, these two sections provide, on a similar conceptual basis, a comprehensive picture of Australia's business operators. For the purposes of this publication, business operators essentially comprise owner managers of incorporated and unincorporated Australian enterprises, while non-business operators mainly comprise all other employed persons (please refer to the Glossary for further information). Further, the data sources used in Sections One and Two collect information in regard to individuals and their "main job", which further enhances the consistency and complementary nature of the data.

Additional information is presented towards the end of the publication, including Explanatory and Technical Notes, an Appendix pertaining to the history of ABS business operator counts, and a Glossary of terms used in the publication.

CHANGES FROM PREVIOUS RELEASES

Data pertaining to Australian business operators were last published in a Main Features Article released in August 2008 entitled *Australian Small Business Operators - Findings from the 2005 and 2006 Characteristics of Small Business Surveys (cat. no. 8127.0)*. This Article also foreshadowed the pending release of Counts of Australian Business Operators.

While Counts of Australian Business Operators continues to provide users with access to data pertaining to those persons in the Australian economy who operate businesses, this publication differs from the previous release in that it references data pertaining to Australia's business operators using two new data sources.

Specifically, the 2007 Forms of Employment Survey has been used to provide a more recent snapshot of the counts and proportions of Australia's business operators across a number of other selected characteristics.

In addition, the 2006 Census of Population and Housing included questions which allowed ABS to collect data on those Australians who operated businesses (including small businesses). Due to the significant range of topics covered in the 2006 Census, this allows ABS to produce data on business operators by a range of characteristics.

It should be noted that the previous release, *Australian Small Business Operators* - *Findings from the 2005 and 2006 Characteristics of Small Business Surveys (cat. no. 8127.0)*, excluded the operators of Agricultural businesses. Counts of Australian Business Operators differs in that it provides a comprehensive, industry-wide view of Australia's business operators.

FUTURE RELEASES

It is planned to continue releasing updated counts every five years, following the Census of Population and Housing. For further information regarding ABS' plans for future releases, please refer to Appendix 1.

ROUNDING

Where figures have been rounded discrepancies may occur between the sum of component items and the total.

FEEDBACK

The ABS welcomes feedback from users of these business operator counts.

To provide feedback or for further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, e-mail <cli>client.services@abs.gov.au> or Ashley Bartlett on Canberra (02) 6252 5402, e-mail <integration.nsc/bsc.wdb@abs.gov.au>

Susan Linacre
Acting Australian Statistician

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SECTION 1

COUNTS OF AUSTRALIAN BUSINESS OPERATORS BY SELECTED CHARACTERISTICS, 2007

OVERVIEW

The data presented in Section One of this publication were sourced from the 2007 Forms of Employment Survey. These data were collected in November 2007 by ABS interviewers from approximately 32,000 Australian households. For further information (including how Forms of Employment Survey data differs from the 2006 Census data presented in Section Two), please refer to the Explanatory Notes.

TOTAL BUSINESS OPERATORS The Forms of Employment Survey estimated there to be 1.9 million business operators in Australia in 2007. Of these, 1.3 million were male (68%) and 0.6 million (32%) were female.

CONTINUOUS DURATION
WITH BUSINESS

In 2007, 833,000 business operators (44%) had been operating their business continuously for up to five years, 244,000 (13%) for between five to less than ten years, and 825,000 (43%) for ten years or more. Of the 825,000 business operators who had been operating their business continuously for ten years or more, almost half (405,000) had been with their business for twenty years or more.

A significantly larger proportion of males (24%) had been with their business for twenty years or more compared to 16% of females.

Half of all non-business operators (50%) indicated they had been with their employer for less than three years, compared with one quarter of business operators (25%) who had been with their business for less than three years. In addition, 20% of non-business operators had been with their employer for ten years or more, compared with 41% of business operators who had been with their business for ten years or more.

INDUSTRY

Construction had the highest number of business operators (384,000), followed by Agriculture Forestry and Fishing 212,000 (11%) and Professional, Scientific and Technical Services 199,000 (10%).

Male business operators were distributed in a similar way across these three industries, while female business operators were evenly distributed across five industry groups: Retail Trade (13%); Agriculture Forestry and Fishing (11%); Professional, Scientific and Technical Services (11%); Health Care and Social Assistance (10%); and Other Services (10%).

There were higher concentrations of business operators in the Agriculture, Forestry and Fishing (62%) and Construction (41%) industries. Conversely, there were lower concentrations of business operators across the Public Administration and Safety (1%) and Mining (2%) industries. These concentrations represent the business operator population as a proportion of the total business and non-business operator populations, for each industry.

OCCUPATION

The largest occupational group for business operators was Managers and Administrators 374,000 (20%), followed by Tradespersons and Related Workers 362,000 (19%), Associate Professionals 332,000 (17%) and Professionals 308,000 (16%).

Male and female business operators were distributed quite differently across occupations. The main differences were in Tradespersons and Related Workers (25% of males compared to 5% of females), Managers and Administrators (22% compared to 14%), Advanced Clerical and Service Workers (15% of females compared to less than 1% for males) and Intermediate Clerical, Sales and Service Workers (14% of females compared to 3% males).

Non-business operators (who were working for an employer) were distributed quite differently compared to business operators. There was a higher proportion of business operators classified as Managers and Administrators (20% compared to 6% of non-business operators) as well as Tradespersons and Related Workers (19% compared to 11% non-business operators).

In contrast, there was a higher proportion of non-business operators classified as Intermediate Clerical, Sales and Service Workers (18% compared to 6% of business operators) as well as Elementary Clerical, Sales and Service Workers (11% compared to 3% of business operators).

PROPORTION OF BUSINESS OPERATORS, BY SEX AND OCCUPATION—2007



HOURS WORKED

Hours worked information has been defined as the number of hours usually worked in a week.

Most business operators (72%) reported that they usually worked full-time hours compared with 28% who reported working part-time hours. In addition, 64% of business operators reported that they usually worked 40 hours per week or more. 36% of business operators usually worked 49 hours per week or more.

There was a significant difference between the sexes in regard to hours usually worked: 83% of male business operators reported that they usually worked full-time hours compared with 46% of females.

In relation to full-time and part-time hours usually worked, business operators and non-business operators were generally distributed evenly. However, there were

HOURS WORKED

continued

significant differences in relation to those persons who reported working between 36 and 44 hours per week (23% of business operators compared to 47% of non-business operators). There was also a difference in relation to those persons who reported working 49 hours per week or more (36% of business operators compared to 12% of non-business operators).

CONTRACT WORK STATUS

In 2007, 379,000 (20%) of business operators worked on a contract basis compared with 1.2m of non-business operators.

A greater proportion of males (23%) compared to females (13%) worked on a contract basis.

EMPLOYING STATUS

In 2007, 722,000 (38%) of business operators indicated that had employees while 1.2m (62%) indicated they did not.

EXPECTED FUTURE DURATION WITH BUSINESS

Nearly all business operators (96% or 1.8m) expected to be with their current business in 12 months time.

In comparison, 89% of non-business operators expected to be with their current employer in 12 months time.

REASONS FOR NOT EXPECTING TO BE WITH BUSINESS

Of those business operators that did not expect to be with their current business in 12 months time, 37% reported that they expected to be changing jobs or seeking other employment. This was followed by 28% who indicated they would be retiring, 13% who expected their business would be downsizing or closing, 8% who were anticipating to return to study, travel and/or were departing the business for family reasons and 2% who had seasonal or temporary jobs. The remaining 12% reported other reasons.

A greater proportion of males (30%) than females (24%) indicated they were retiring, whereas a greater proportion of females (16%) than males (12%) expected their business would be downsizing or closing. In addition, a greater proportion of females (11%) than males (7%) were returning to study, travel or were departing for family reasons.

There was a higher proportion of non-business operators who expected to be changing jobs or seeking other employment (57%) compared to business operators (37%). There was also a higher proportion of non-business operators expecting to be returning to study, travel and/or would be departing for family reasons (16% compared with 8%). In addition, 9% who were expecting that seasonal or temporary work arrangements would require them to leave their current employment.

A lower proportion of non-business operators anticipated departure due to retirement (7% compared with 28%) or because their employer would be downsizing or closing (3% compared with 13%).

AGE OF OPERATORS

More than two-thirds, (69%) of business operators were aged between 25-54 years (1.4m), 28% were 55 and over (526,000) and just 3% were in the younger age group of 15-24 years (56,000).

In contrast, two-thirds (67%) of non-business operators were aged between 25-54 years, 12% were over 55 years old and 21% were in the younger age group of 15-24.

STATE OR TERRITORY OF USUAL RESIDENCE

The distribution of business operators across States and Territories was broadly aligned with the distribution of Australia's population by State.

RELATIONSHIP IN HOUSEHOLD In 2007, most business operators (87% or 1.7m) indicated they were a member of a family.

Over three quarters (79%) of business operators identified as being a husband, wife or partner, and just over half (54%) indicated they had dependents.

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1.1	BUSINESS OP	ERATOR S	STATU	JS, by	sex:	2007				
		Male business operators		Female business operators		Total business operators		Non business operators		
		no.	%	no.	%	no.	%	no	%	
	• • • • • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • •	• • • • •	
	Business operators	1 300 912	68.4	601 330	31.6	1 902 241	100.0	8 520 809	100.0	



1.2 BUSINESS OPERATOR STATUS, by sex and duration with business: **2007**

	Male		Female		Total		Non	
	business		business		business		business	
	operators		operators		operators		operators	
	no	%	no	%	no	%	no	%
• • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •
Under 12 months	123 668	9.5	71 228	11.8	194 897	10.2	2 215 516	26.0
Under 3 months	26 177	2.0	15 766	2.6	41 943	2.2	650 073	7.6
3 and under 6 months	36 700	2.8	20 555	3.4	57 255	3.0	603 448	7.1
6 and under 12 months	60 791	4.7	34 908	5.8	95 699	5.0	961 995	11.3
1 to less than 3 years	174 991	13.5	98 400	16.4	273 392	14.4	2 005 109	23.5
3 to less than 5 years	239 600	18.4	125 513	20.9	365 114	19.2	1 640 061	19.2
5 to less than 10 years	163 373	12.6	80 921	13.5	244 293	12.8	961 339	11.3
10 to less than 20 years	292 662	22.5	126 838	21.1	419 500	22.1	1 114 419	13.1
20 years and over	306 618	23.6	98 429	16.4	405 046	21.3	584 366	6.9
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0



1.3 BUSINESS OPERATOR STATUS, by sex and industry: 2007

	Male business operators		Female business operators		Total business operators		Non business operators	
	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •
Agriculture, Forestry and Fishing	148 180	11.4	63 656	10.6	211 835	11.1	129 506	1.5
Mining	*2 661	*0.2	*367	**0.1	*3 028	*0.2	132 509	1.6
Manufacturing	92 208	7.1	36 137	6.0	128 346	6.7	916 680	10.8
Electricity, Gas, Water and Waste Services	5 854	0.4	**649	**0.1	6 503	0.3	101 367	1.2
Construction	332 433	25.6	51 396	8.5	383 829	20.2	560 795	6.6
Wholesale Trade	42 491	3.3	23 366	3.9	65 857	3.5	301 438	3.5
Retail Trade	88 718	6.8	75 950	12.6	164 668	8.7	1 078 736	12.7
Accommodation and Food Services	48 665	3.7	40 451	6.7	*89 116	4.7	587 406	6.9
Transport, Postal and Warehousing	89 847	6.9	17 339	2.9	107 186	5.6	425 654	5.0
Information Media and Telecommunications	18 911	1.5	6 370	1.1	25 281	1.3	209 920	2.5
Financial and Insurance Services	33 598	2.6	10 658	1.8	44 256	2.3	340 406	4.0
Rental, Hiring and Real Estate Services	33 614	2.6	19 951	3.3	53 565	2.8	136 069	1.6
Professional, Scientific and Technical Services	135 187	10.4	63 645	10.6	198 832	10.5	551 282	6.5
Administrative and Support Services	50 348	3.9	36 632	6.1	86 980	4.6	244 343	2.9
Public Administration and Safety	5 832	0.4	**712	**0.1	6 544	0.3	611 343	7.2
Education and Training	20 299	1.6	19 987	3.3	40 286	2.1	748 814	8.8
Health Care and Social Assistance	39 657	3.0	59 129	9.8	98 786	5.2	975 324	11.4
Arts and Recreation Services	25 981	2.0	17 247	2.9	43 228	2.3	152 651	1.8
Other Services	86 428	6.6	57 690	9.6	144 118	7.6	316 565	3.7
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0

^{*} estimate has a relative standard error of 25% to 50% and should be ** estimate has a relative standard error greater than 50% and is used with caution



BUSINESS OPERATOR STATUS, by sex and occupation: 2007

	Male		Female		Total		Non	
	business		business		business		business	
	operators		operators		operators		operators	
	no.	%	no.	%	no.	%	no.	%
		• • • • • •	• • • • • • • •	• • • • • •	• • • • • • • • •		• • • • • • • • •	
Managers and administrators	288 415	22.2	85 231	14.2	373 647	19.6	509 183	6.0
Professionals	203 087	15.6	105 065	17.5	308 151	16.2	1 772 039	20.8
Associate professionals	200 228	15.4	131 693	21.9	331 921	17.4	987 612	11.6
Tradespersons and related workers	329 197	25.3	32 494	5.4	361 691	19.0	948 362	11.1
Advanced clerical and service workers	6 213	0.5	89 222	14.8	95 435	5.0	280 912	3.3
Intermediate clerical, sales and service workers	35 817	2.8	83 580	13.9	119 397	6.3	1 572 668	18.5
Intermediate production and transport workers	123 505	9.5	9 825	1.6	133 330	7.0	809 076	9.5
Elementary clerical, sales and service workers	26 468	2.0	31 843	5.3	58 311	3.1	912 617	10.7
Labourers and related workers	87 984	6.8	32 376	5.4	120 360	6.3	728 339	8.5
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0

considered too unreliable for general use

BUSINESS OPERATOR STATUS(a), by sex and hours usually worked in business:

	Male business operators		Female business operators		Total business operators		Non business operators	
	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • • •	• • • • • • • • •	• • • • •
1 to 14	47 679	3.7	122 660	20.5	170 339	9.0	775 550	9.1
15 to 19	26 165	2.0	53 476	8.9	79 641	4.2	453 973	5.3
20 to 24	49 051	3.8	60 539	10.1	109 591	5.8	581 471	6.8
25 to 29	29 797	2.3	33 081	5.5	62 879	3.3	294 956	3.5
30 to 34	65 913	5.1	53 494	8.9	119 406	6.3	483 814	5.7
Total part-time	218 605	16.8	323 250	53.9	541 856	28.5	2 589 764	30.5
35	52 498	4.0	32 026	5.3	84 524	4.5	270 726	3.2
36 to 39	42 894	3.3	18 838	3.1	61 731	3.3	1 786 782	21.0
40	255 834	19.7	69 546	11.6	325 380	17.1	1 916 605	22.5
41 to 44	29 895	2.3	10 328	1.7	40 222	2.1	292 441	3.4
45 to 48	127 664	9.8	27 107	4.5	154 770	8.2	623 078	7.3
49 or more	571 683	44.0	118 687	19.8	690 370	36.4	1 020 577	12.0
Total full-time	1 080 468	83.2	276 530	46.1	1 356 998	71.5	5 910 209	69.5
Total	1 299 073	100.0	599 780	100.0	1 898 854	100.0	8 499 973	100.0

⁽a) Excludes persons who usually worked zero hours.



1.6 BUSINESS OPERATOR STATUS, by sex and contract work status: 2007

	Male business operators	Female business operators		Total business operators		Non business operators		5	
	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • •		• • • • •	• • • • • • • •	• • • • • •	• • • • • • • •	• • • • •	
Worked on a contract basis	302 239	23.2	77 123	12.8	379 361	19.9	1 160 559	13.6	
Did not work on a contract basis	998 673	76.8	524 207	87.2	1 522 880	80.1	7 360 250	86.4	
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0	



1.7 BUSINESS OPERATORS, by sex and employing status: 2007

	Male business operators		Female business operators		Total business operators	
	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •
Had employees	489 173	37.6	232 711	38.7	721 885	37.9
Did not have employees	811 739	62.4	368 618	61.3	1 180 357	62.1
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0



BUSINESS OPERATOR STATUS, by sex and expected duration in business: 2007 .

,	•		•					
	Male		Female		Total		Non	
	business		business		business		business	
	operators		operators		operators		operators	
	no.	%	no.	%	no.	%	no.	%
••••••	• • • • • • •	• • • • • •	• • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •
Expected to be with current employer or business in 12								
months	1 245 786	95.8	576 514	95.9	1 822 300	95.8	7 562 865	88.8
Did not expect to be with current employer or business in 12								
months	55 126	4.2	24 816	4.1	79 942	4.2	957 944	11.2
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0



BUSINESS OPERATOR STATUS, by sex and reasons for expected duration in business less than 12 months: 2007

	Male business operators		Female business operators		Total business operators		Non business operators	
	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • • • •	
Changing jobs/seeking other employment	20 793	37.7	8 908	35.9	29 700	37.2	543 324	56.7
Retiring	16 731	30.4	5 906	23.8	22 637	28.3	64 660	6.7
Employer/business closing down/downsizing	6 722	12.2	*3 901	*15.7	10 623	13.3	25 252	2.6
Return to study/travel/family reasons	*3 586	*6.5	*2 673	*10.8	6 259	7.8	155 524	16.2
Seasonal/temporary job/fixed contract	**1 064	**1.9	**197	**0.8	**1 261	**1.6	89 541	9.3
Other	6 230	11.3	*3 232	*13.0	9 463	11.8	79 643	8.3
Total	55 126	100.0	24 816	100.0	79 942	100.0	957 944	100.0

should be used with caution



1.10 BUSINESS OPERATOR STATUS, by sex and age: 2007

	Male		Female		Total		Non	
	business		business		business		business	
	operators		operators		operators		operators	
	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • •	• • • • • • • • •	• • • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •
15 to 19 years	6 932	0.5	*3 054	*0.5	9 986	0.5	688 445	8.1
20 to 24 years	41 161	3.2	*5 492	*0.9	46 653	2.5	1 066 590	12.5
25 to 34 years	191 555	14.7	81 300	13.5	272 855	14.3	1 985 139	23.3
35 to 44 years	329 726	25.3	180 259	30.0	509 985	26.8	1 926 893	22.6
45 to 54 years	362 066	27.8	174 654	29.0	536 720	28.2	1 790 447	21.0
55 to 59 years	154 206	11.9	75 075	12.5	229 281	12.1	624 536	7.3
60 to 64 years	121 625	9.3	48 380	8.0	170 005	8.9	312 688	3.7
65 years and over	93 643	7.2	33 116	5.5	126 759	6.7	126 071	1.5
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0

estimate has a relative standard error of 25% to 50% and should be used with caution

estimate has a relative standard error of 25% to 50% and

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

BUSINESS OPERATOR STATUS, by sex and State or Territory of usual

BUSINE	SS OPER	ATOR	STATUS,	by se	ex and S	tate o	r Territor	y of us	ual	
1.11 residend	ce: 2007									
	Male business operators		Female business operators		Total business operators		Non business operators			
	no.	%	no.	%	no.	%	no.	%		
• • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •		
New South Wales	416 463	32.0	186 363	31.0	602 826	31.7	2 748 579	32.3		
Victoria	314 619	24.2	150 243	25.0	464 862	24.4	2 132 781	25.0		
Queensland	270 785	20.8	137 604	22.9	408 389	21.5	1 722 596	20.2		
South Australia	96 714	7.4	41 176	6.8	137 890	7.2	622 913	7.3		
Western Australia	152 718	11.7	62 157	10.3	214 876	11.3	868 616	10.2		
Tasmania	26 489	2.0	13 294	2.2	39 783	2.1	189 276	2.2		
Northern Territory	8 928	0.7	^3 183	^ 0.5	12 111	0.6	71 105	0.8		
Australian Capital Territory	14 197	1.1	7 308	1.2	21 505	1.1	164 943	1.9		
Australia	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0		

[^] estimate has a relative standard error of 10% to less than 25% and should be used with caution

1.12 BUSINESS OPERATOR STATUS, by sex and relationship in household: 2007 ...

	business business business business		Non business operators					
	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • •	• • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •
Family member	1 120 555	86.1	539 032	89.6	1 659 587	87.2	6 981 629	81.9
Husband, wife or partner	1 017 051	78.2	486 518	80.9	1 503 569	79.0	4 939 459	58.0
With dependants	558 869	43.0	256 271	42.6	815 140	42.9	2 542 794	29.8
Without dependants	458 183	35.2	230 246	38.3	688 429	36.2	2 396 665	28.1
Lone parent	30 465	2.3	37 011	6.2	67 476	3.5	433 784	5.1
With dependants	18 532	1.4	27 858	4.6	46 390	2.4	327 703	3.8
Without dependants	11 933	0.9	9 154	1.5	21 087	1.1	106 082	1.2
Dependent student	*4 154	*0.3	*2 415	*0.4	6 569	0.3	471 056	5.5
Non-dependent child	57 317	4.4	9 492	1.6	66 809	3.5	961 727	11.3
Other family person	11 567	0.9	*3 596	*0.6	15 164	0.8	175 602	2.1
Non-family member	147 585	11.3	46 540	7.7	194 126	10.2	1 282 454	15.1
Lone person	118 327	9.1	37 273	6.2	155 600	8.2	807 277	9.5
Not living alone	29 259	2.2	9 267	1.5	38 526	2.0	475 177	5.6
Relationship not determined	32 772	2.5	15 758	2.6	48 529	2.6	256 726	3.0
Total	1 300 912	100.0	601 330	100.0	1 902 241	100.0	8 520 809	100.0

 $^{^{\}star}$ estimate has a relative standard error of 25% to 50% and should be used with caution

SECTION 2

COUNTS OF AUSTRALIAN BUSINESS OPERATORS BY SELECTED CHARACTERISTICS, 2006

OVERVIEW

The data presented in Section Two of this publication were sourced from the 2006 Census of Population and Housing. These data were collected on August 8, 2006 (Census Night) when Australian households self-reported information on their Census Forms. For further information (including how Census data differs from Forms of Employment Survey data presented in Section One), please refer to the Explanatory Notes.

SEX

In 2006, 69% of business operators were male and 31% were female.

SECTOR

In 2006, 58% of business operators indicated they operated unincorporated businesses with the remaining 42% operating incorporated businesses.

A higher proportion of female business operators operated unincorporated businesses (60% of females operated unincorporated businesses compared with 57% of males).

NUMBER OF EMPLOYEES

A majority of business operators (55%) employed between 1-19 staff (including operators of incorporated businesses, who are themselves regarded as employees). This was followed by 41% of operators who did not employ staff and 4% who employed 20 or more employees.

Only 3% of business operators operated incorporated businesses and employed 20 or more staff. This compared with less than 1% of business operators who operated unincorporated businesses and employed 20 or more staff.

HIGHEST YEAR OF SCHOOL COMPLETED Approximately half (49%) of business operators indicated they had completed Year 12. This was followed by 29% who had completed Year 10 or equivalent, 12% who had completed Year 11 or equivalent and 10% who had completed Year 9 or below.

A greater proportion of females (52%) than males (48%) indicated they had completed Year 12 or equivalent.

There was a higher proportion of non-business operators who indicated they had completed Year 12 or equivalent (57%) and a lower proportion who indicated they completed Year 10 or equivalent (24%).

HIGHEST NON-SCHOOL QUALIFICATION

For those operators who had pursued non-school qualifications, 46% had achieved a certificate level of education, 23% possessed a bachelor degree, and 15% who possessed an advanced diploma and/or diploma level award.

A greater proportion of males (54%) had achieved a certificate level of education compared to females (26%). In contrast, 29% of females possessed a bachelor degree compared with 21% of males.

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HIGHEST NON-SCHOOL
QUALIFICATION
continued

A relatively small proportion of business operators (8%) possessed postgraduate qualifications.

In addition, there was a lower proportion of business operators who indicated they had achieved a bachelor degree level of education or above (31%) compared with the non-business operator population (40%). Conversely, there was a higher proportion of business operators who had achieved a certificate level of education (46%) compared with the non-business operator population (35%).

FIELD OF STUDY

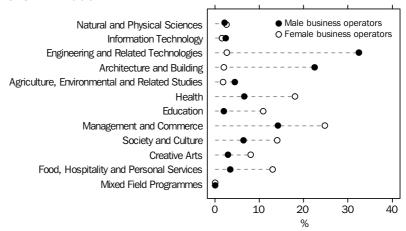
The most common field of study indicated by business operators was Engineering and Related Technologies (24%). This was followed by those who had engaged in studies relating to Architecture and Building or Management and Commerce (17% each).

Fields of study varied significantly between the sexes. Male business operators were most likely to study Engineering and Related Technologies (33%), followed by 23% in Architecture and Building and 14% in Management and Commerce.

In comparison, female business operators were most likely to study Management and Commerce (25%), followed by 18% in Health and 14% in Society and Culture.

In general, the non-business operator population was more evenly distributed across the various fields of study compared with the distribution of business operators. The most common fields studied for the non-business operators were Management and Commerce (22%), followed by Engineering and Related Technologies (20%).

PROPORTION OF BUSINESS OPERATORS, BY SEX AND FIELD OF STUDY—2006



INDIVIDUAL INCOME

Individual income has been defined as the gross income (including pensions and allowances) that the person usually receives each week.

In 2006, 19% of business operators indicated their weekly individual income was below \$400, 19% earned between \$400 and \$599, 15% earned \$600-\$799 per week, 12% earned \$800-\$999 and another 12% earned \$1000-\$1299 per week.

Female business operators were more likely to earn less than \$400 per week (29% compared with 14% of males). Conversely, male business operators were more likely to earn more than \$2000 per week (12% compared to 6% of females).

INDIVIDUAL INCOME continued

In general, the non-business operator population was distributed in a similar way to the business operator population, although there was a greater proportion of business operators who were earning \$2000 or more per week (10%, compared to 5% of non-business operators).

FAMILY INCOME

Family weekly income has been defined as the sum of the individual incomes reported by all family members aged 15 years and over.

One quarter (25%) of the families of business operators indicated their weekly family income was between \$1000 and \$1399, followed by 20% earning \$1400-\$1999 and 17% earning \$500-\$999 per week.

The proportion of families reporting \$4000 per week or more in income was small, at 5%.

In general, families comprising non-business operators only were distributed in a similar way to those families where a business operator was present, although there was a greater proportion of households of business operators earning \$1399 per week or less (46% compared with 41% for non-business operators). There was also a greater proportions earning \$3500 per week or more (10% compared with 6%).

CHILDCARE PROVISION STATUS In 2006, 39% of business operators indicated they had spent time caring for a child or children (without being paid). This included persons who were caring for their own child or children, another person's child or children, or a combination of both. This can include business operators who were in an extended family situation and/or were caring for a child or children on an ad hoc basis. The remaining 61% of business operators did not care for a child.

There was a higher proportion of females who indicated they were operating businesses and also caring for a child and/or children (47%) compared to males (36%).

In addition, there was a higher proportion of business operators who indicated they were caring for a child and/or children (39%) compared with non-business operators (32%).

PLACE OF WORK

The proportion of business operators by place of work (at the State level), was broadly aligned with the proportion of Australia's people and business counts by State.

In nearly all States, a majority of business operators indicated their place of work was located in their State's capital city. This trend was consistent except in Queensland and Tasmania where there were greater proportions of business operators working outside Brisbane (12%) and Hobart (1%).

REMOTENESS AREA

The distribution of business operators across remoteness areas resulted in the highest concentrations being recorded in the major cities of Australia (65%). This was followed by Inner Regional Australia (21%), Outer Regional Australia (11%), Remote Australia (2%) and Very Remote Australia (with less than 1%).

There was a higher proportion of non-business operators residing in major cities (71%) compared with business operators (65%).

WORKED AT HOME STATUS In 2006, 21% of business operators indicated they worked at home with the remaining 79% indicating they travelled to work. A greater proportion of females indicated that they worked at home (36%) compared to males (14%).

In comparison, only 2% of non-business operators indicated they worked at home.

TYPE OF INTERNET
CONNECTION (AT HOME)

Of those business operators who indicated they worked at home, a majority (61%) indicated they had a broadband connection, one quarter (25%) indicated a dial-up connection and 14% said they had no Internet connection.

REGION OF BIRTH

Approximately (27%) of business operators were born overseas, while the remaining 73% were born in Australia. Of those business operators who were born overseas, one-third indicated their region of birth was North-West Europe (34%), followed by Southern and Eastern Europe (17%) and Oceania and Antarctica (11%).

The distribution relating to region of birth was generally similar for males and females. The main exceptions related to the higher proportion of female business operators born in South-East Asia (13% compared to 8% for males) or North East Asia (11% compared to 8% for males).

One quarter (25%) of non-business operators were born overseas, while the remaining 75% were born in Australia.

The distribution of the business operators differed to the distribution of non-business operators for some regions. South East Asia accounted for 9% of business operators and 15% of non-business operators. In contrast, Southern and Central Europe accounted for 17% of business operators compared to 11% of non-business operators.

INDIGENOUS STATUS

The proportion of Indigenous business operators who were male was 69% and the remaining 31% were female.

This distribution was identical to the overall business operator distribution for Australia.

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2.1	BUSINESS OPE	ERATORS	S(a), by	sex: 2 0	006			
		Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	
		%	%	%	%	%	%	
	• • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	
	Business operators	68.6	31.4	100.0	68.5	31.5	100.0	
	• • • • • • • • • • • •	• • • • • • •				• • • • • •		

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential

BUSINESS OPERATORS(a), by sex, sector and number of employees: 2006

				Male	Female	Total
	Male	Female	Total	small	small	small
	business	business	business	business	business	business
	operators	operators	operators	operators	operators	operators
	%	%	%	%	%	%
	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Owner managers of unincorporated enterprises						
Nil employees	40.7	42.2	41.1	42.5	43.7	42.9
1–19 employees	15.9	17.1	16.3	16.6	17.7	17.0
20 or more employees	0.9	0.6	0.8	_	_	_
Total	57.4	59.8	58.2	59.1	61.4	59.8
Owner managers of incorporated enterprises						
Nil employees	_	_	_	_	_	_
1–19 employees	39.2	37.2	38.6	40.9	38.6	40.2
20 or more employees	3.4	3.0	3.3	_	_	_
Total	42.6	40.2	41.8	40.9	38.6	40.2
Total						
Nil employees	40.7	42.2	41.1	42.5	43.7	42.9
1–19 employees	55.1	54.3	54.8	57.5	56.3	57.1
20 or more employees	4.3	3.5	4.0	_	_	_
Total	100.0	100.0	100.0	100.0	100.0	100.0

 [—] nil or rounded to zero (including null cells)

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

BUSINESS OPERATOR STATUS(a), by sex and highest year of school completed:

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • •
Year 12 or equivalent	47.8	51.8	49.1	47.0	51.7	48.5	57.0
Year 11 or equivalent	11.7	11.7	11.7	11.9	11.7	11.8	11.8
Year 10 or equivalent	29.0	27.6	28.5	29.4	27.7	28.9	23.6
Year 9 or equivalent	6.6	5.3	6.2	6.8	5.3	6.3	4.8
Year 8 or below	4.5	3.2	4.1	4.6	3.3	4.2	2.5
Did not go to school	0.4	0.3	0.4	0.4	0.3	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

BUSINESS OPERATOR STATUS(a), by sex and highest non school qualification: 2006

				Male	Female	Total	
	Male	Female	Total	small	small	small	Non
	business	business	business	business	business	business	business
	operators	operators	operators	operators	operators	operators	operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Postgraduate Degree Level	5.4	6.2	5.6	5.3	6.2	5.5	6.7
Graduate Diploma and Graduate Certificate Level	1.6	3.8	2.2	1.6	3.8	2.2	3.9
Bachelor Degree Level	21.0	29.1	23.2	20.0	28.8	22.5	29.2
Advanced Diploma and Diploma Level	11.6	22.8	14.7	11.6	22.9	14.7	15.7
Certificate Level	53.2	25.6	45.6	54.3	25.9	46.4	35.3
Other Education	7.2	12.5	8.6	7.2	12.5	8.7	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Certificate Level Other Education	53.2 7.2	25.6 12.5	45.6 8.6	54.3 7.2	25.9 12.5	46.4 8.7	35.3 9.2

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

2.5 BUSINESS OPERATOR STATUS(a), by sex and field of study: **2006**

				Male	Female	Total	
	Male	Female	Total	small	small	small	Non
	business	business	business	business	business	business	business
	operators	operators	operators	operators	operators	operators	operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Natural and Physical Sciences	2.2	2.6	2.3	2.2	2.6	2.3	3.8
Information Technology	2.5	1.6	2.3	2.6	1.6	2.3	4.1
Engineering and Related Technologies	32.5	2.7	24.3	32.8	2.7	24.5	19.7
Architecture and Building	22.5	2.0	16.9	23.1	2.0	17.3	5.0
Agriculture, Environmental and Related Studies	4.5	1.9	3.8	4.6	1.9	3.9	2.5
Health	6.6	18.1	9.8	6.6	18.1	9.8	11.0
Education	2.0	10.9	4.5	2.0	10.9	4.5	10.3
Management and Commerce	14.2	24.8	17.1	13.5	24.6	16.5	22.1
Society and Culture	6.5	14.1	8.6	6.0	14.0	8.2	12.2
Creative Arts	3.0	8.1	4.4	3.1	8.3	4.5	3.6
Food, Hospitality and Personal Services	3.5	13.0	6.1	3.5	13.2	6.1	5.6
Mixed Field Programmes	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

2.6 BUSINESS OPERATOR STATUS(a), by sex and individual income: **2006**

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • •	• • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • •
\$1-\$149	1.8	5.3	2.9	1.8	5.4	3.0	5.4
\$150-\$249	3.6	8.1	5.0	3.8	8.4	5.2	5.4
\$250-\$399	8.7	15.4	10.8	9.0	15.8	11.2	9.9
\$400-\$599	17.1	22.1	18.7	17.7	22.5	19.2	18.3
\$600-\$799	15.2	14.2	14.9	15.7	14.3	15.2	17.3
\$800-\$999	13.2	10.0	12.2	13.5	9.9	12.4	13.2
\$1,000-\$1,299	13.9	9.3	12.4	13.9	9.1	12.4	13.1
\$1,300-\$1,599	7.8	4.8	6.9	7.8	4.6	6.8	7.3
\$1,600-\$1,999	5.0	3.0	4.4	4.9	2.9	4.2	4.2
\$2,000 or more	12.1	6.2	10.3	10.4	5.5	8.8	4.9
Negative or Nil income	1.4	1.6	1.5	1.5	1.6	1.5	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.



2.7 BUSINESS OPERATOR STATUS(a), by sex and family income: 2006

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • •
\$1-\$249	0.9	1.1	0.9	0.9	1.1	1.0	0.6
\$250-\$499	2.8	3.4	3.0	2.9	3.5	3.1	1.9
\$500-\$999	17.5	15.7	17.0	18.2	16.2	17.5	15.1
\$1,000-\$1,399	25.0	25.9	25.3	25.7	26.4	25.9	23.2
\$1,400-\$1,999	20.1	18.9	19.7	20.4	19.1	20.0	24.2
\$2,000-\$2,499	11.4	11.6	11.4	11.4	11.5	11.4	14.1
\$2,500-\$2,999	8.4	8.0	8.3	8.0	7.8	7.9	9.7
\$3,000-\$3,499	4.9	4.6	4.8	4.6	4.5	4.5	4.9
\$3,500-\$3,999	3.8	4.0	3.9	3.4	3.8	3.6	3.2
\$4,000 or more	4.8	6.1	5.2	4.0	5.4	4.5	2.9
Negative or Nil income	0.6	0.7	0.6	0.6	0.7	0.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.



2.8 BUSINESS OPERATOR STATUS(a), by sex and childcare provision status: **2006** ...

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Provided childcare (unpaid)	36.0	46.6	39.4	35.8	46.5	39.2	32.0
Did not provide childcare	64.0	53.4	60.6	64.2	53.5	60.8	68.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.



2.9 BUSINESS OPERATOR STATUS(a), by sex and place of work: **2006**

				Male	Female		
	Male	Female	Total	small	small	Total small	Non
	business	business	business	business	business	business	business
	operators	operators	operators	operators	operators	operators	operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Sydney	20.5	19.8	20.3	20.5	19.8	20.3	20.9
Other New South Wales	12.0	12.7	12.2	12.2	12.8	12.4	10.8
New South Wales	32.6	32.5	32.5	32.7	32.6	32.6	31.7
Melbourne	18.0	16.8	17.6	17.9	16.8	17.5	18.6
Other Victoria	7.5	7.6	7.5	7.6	7.7	7.6	6.2
Victoria	25.5	24.5	25.2	25.4	24.4	25.1	24.8
Brisbane	8.2	8.6	8.3	8.1	8.5	8.2	9.7
Other Queensland	11.7	13.1	12.1	11.8	13.1	12.2	10.5
Queensland	19.9	21.6	20.5	19.9	21.6	20.4	20.2
Adelaide	4.9	4.7	4.8	4.9	4.7	4.8	5.7
Other South Australia	2.4	2.6	2.5	2.5	2.6	2.5	1.9
South Australia	7.3	7.2	7.3	7.3	7.2	7.3	7.6
Perth	7.6	7.1	7.5	7.6	7.1	7.4	7.7
Other Western Australia	3.0	3.1	3.0	3.1	3.1	3.1	2.6
Western Australia	10.6	10.2	10.5	10.6	10.2	10.5	10.3
Greater Hobart	0.8	0.8	0.8	0.8	0.8	0.8	1.0
Other Tasmania	1.2	1.3	1.3	1.3	1.3	1.3	1.3
Tasmania	2.1	2.1	2.1	2.1	2.1	2.1	2.3
Darwin	0.5	0.5	0.5	0.5	0.5	0.5	0.7
Other Northern Territory	0.2	0.3	0.2	0.2	0.3	0.2	0.4
Northern Territory	0.7	0.7	0.7	0.7	0.7	0.7	1.1
Canberra	1.3	1.2	1.2	1.2	1.2	1.2	2.1
Other Australian Capital Territory	_	_	_	_	_	_	_
Australian Capital Territory	1.3	1.2	1.2	1.2	1.2	1.2	2.1
Australia	100.0	100.0	100.0	100.0	100.0	100.0	100.0

nil or rounded to zero (including null cells)

2.10 BUSINESS OPERATOR STATUS(a), by sex and remote areas: 2006

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Major Cities of Australia	65.7	63.8	65.1	65.4	63.6	64.8	70.7
Inner Regional Australia	20.4	21.7	20.8	20.6	21.8	20.9	17.8
Outer Regional Australia	11.2	11.8	11.4	11.3	11.9	11.5	9.0
Remote Australia	2.0	2.0	2.0	2.0	2.1	2.0	1.6
Very Remote Australia	0.7	0.7	0.7	0.7	0.7	0.7	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

 $[\]hbox{(a)} \quad \hbox{Cells in this table have been subject to minor adjustments to avoid the release of confidential data.}$

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

BUSINESS OPERATOR STATUS(a), by sex, method of travel to work by Internet connection: 2006

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators	Non business operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •
Worked at home	14.3	35.9	20.8	14.8	36.7	21.4	2.1
Type of Internet connection at home							
Broadband - Other connection	59.3	62.1	60.7	59.1	61.9	60.6	57.1
Dial-up conection	25.5	25.1	25.3	25.6	25.2	25.4	25.2
No Internet connection	15.3	12.8	14.0	15.3	12.8	14.0	17.7
Other methods of travel to work	85.7	64.1	79.2	85.2	63.3	78.6	97.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

2.12 BUSINESS OPERATOR STATUS(a), by sex and region of birth: 2006

				Male	Female	Total	
	Male	Female	Total	small	small	small	Non
	business	business	business	business	business	business	business
	operator	operators	operators	operators	operators	operators	operators
	%	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • •
Oceania and Antarctica	11.3	11.4	11.3	11.3	11.4	11.3	14.4
North-West Europe	34.8	33.5	34.4	34.7	33.4	34.3	30.8
Southern and Eastern Europe	17.8	14.0	16.6	17.8	13.9	16.6	11.2
North Africa and the Middle East	7.2	4.2	6.3	7.3	4.2	6.3	3.7
South-East Asia	8.1	12.5	9.4	8.1	12.6	9.5	14.5
North-East Asia	8.2	11.4	9.2	8.3	11.5	9.3	7.9
Southern and Central Asia	4.5	3.7	4.2	4.5	3.7	4.2	7.5
Americas	3.6	4.7	4.0	3.6	4.7	4.0	4.9
Sub-Saharan Africa	4.6	4.8	4.7	4.5	4.7	4.6	5.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

 $[\]hbox{(a)} \quad \hbox{Cells in this table have been subject to minor adjustments to avoid the release of confidential data.}$



2.13 BUSINESS OPERATORS(a), by sex and Indigenous status: 2006

	Male business operators	Female business operators	Total business operators	Male small business operators	Female small business operators	Total small business operators
	%	%	%	%	%	%
• • • • • • • • • • • • • • • • • • • •		• • • • • • • •		• • • • • • •	• • • • • • •	• • • • • •
Aboriginal and/or Torres Strait Islander	68.6	31.4	100.0	68.8	31.2	100.0

⁽a) Cells in this table have been subject to minor adjustments to avoid the release of confidential data.

EXPLANATORY NOTES

OVERVIEW

PART A:

INTRODUCTION

- **1** This publication presents counts of Australian business operators sourced from the 2007 Forms of Employment Survey and the 2006 Census of Population and Housing..
- **2** The Census and the Forms of Employment Survey are fundamentally different statistical collections (i.e. one is a census and the other is a survey). The Census relies on Australian households to self-report information on Census Night, whereas data collected through the Forms of Employment Survey are directly collected by trained ABS interviewers. In addition, there are a range of concepts and methodologies particular to each collection. It is therefore important to separately discuss these and other issues, with specific reference to their use in Counts of Australian Business Operators.
- **3** The Explanatory Notes which follow have therefore been separated into two parts. Part A describes data sourced from the 2007 Forms of Employment Survey. Part B describes data sourced from the 2006 Census of Population and Housing.
- 4 Data Sourced from the 2007 Forms of Employment Survey
- **5** The statistics presented in Section One of this publication were compiled using data collected from the 2007 Forms of Employment Survey. The Forms of Employment Survey was conducted throughout Australia in November 2007 as a supplement to the Monthly Labour Force Survey. Respondents to the Monthly Labour Force Survey who fell within the scope of the supplementary survey were asked further questions.
- **6** In addition to the information presented in these Explanatory Notes, the publication *Labour Force, Australia (cat. no. 6202.0)* contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly Labour Force Survey, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing which are relevant to both the monthly Labour Force Survey and supplementary surveys.

CONCEPTS, SOURCES AND

- **7** The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in *Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001)* which is available on the ABS web site http://www.abs.gov.au (Methods, Classifications, Concepts and Standards).
- **8** In addition to the LFS conceptual framework outlined above, the Forms of Employment Survey uses an employment type conceptual framework, which classifies jobholders to an employment type category on the basis of their main job, that is, the job in which the most hours are usually worked. This framework also allows data presented in Counts of Australian Business Operators to be split between business operators and non-business operators.
- **9** The Monthly Labour Force Survey is restricted to people aged fifteen years and over and excludes the following people:
 - members of the permanent defence forces;

SCOPE

27

SCOPE continued

- certain diplomatic personnel of overseas governments, customarily excluded from the census and estimated populations;
- overseas residents in Australia; and
- members of non-Australian defence forces (and their dependants).
- Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons are excluded from all supplementary surveys.
- 10 The Forms of Employment Supplementary Survey is used to further refine this population. The Forms of Employment Supplementary Survey was conducted in both urban and rural areas in all states and territories, but excluded approximately 120,000 people living in very remote parts of Australia which would otherwise have been within the scope of the survey. The exclusion of these people will have only a minor impact on any aggregate estimates produced for individual states and territories, except the Northern Territory where such people account for approximately 23% of the population.
- **11** This survey was restricted to employed people aged fifteen years and over who were not contributing family workers in their main job. Questions were asked about employment arrangements in the main job of all employed people.
- **12** For the purposes of the data included in Section One of this publication, the business operator population comprises all owner managers of incorporated and unincorporated businesses. It excludes persons who are classified to other types of employment status categories [e.g. persons such as employees who do not own businesses (excluding owner managers of incorporated enterprises) and contributing family workers].
- **13** Non-business operators comprise employed persons not owning their own business and contributing family workers. It excludes business operators as well as those persons who are also excluded from the scope of the Monthly Labour Force Survey and/or Forms of Employment Survey (as described above).
- **14** The estimates in this publication relate to people covered by the Forms of Employment Survey in November 2007. In the Monthly Labour Force Survey, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey: See *Labour Force*, *Australia (cat. no. 6202.0)* for more details.
- **15** The statistics included in Section One of Counts of Australian Business Operators and sourced from the Forms of Employment Survey were collected throughout Australia in November 2007 as a supplementary to the Monthly Labour Force Survey.
- **16** The Forms of Employment Survey has been collected since August 1998, approximately every three years.
- **17** Please refer to the sections below entitled "Previous Surveys" and "Next Surveys" for further information about previous and future releases and how these will impact on future releases of Counts of Australian Business Operators.
- **18** Users should note the issues associated with sample size which impact on the estimates in Section One of Australian Business Operators and sourced from the 2007 Forms of Employment Survey.
- **19** Supplementary surveys (such as the Forms of Employment Survey) are not always conducted on the full Monthly Labour Force Survey sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the Monthly Labour Force Survey sample.

COVERAGE

REFERENCE PERIOD

COLLECTION FREQUENCY

SAMPLE SIZE

SAMPLE SIZE continued

20 The initial sample for the November 2007 Monthly Labour Force Survey consisted of 41,091 private dwelling households and special dwelling units. Of the 33,521 private dwelling households and special dwelling units that remained in the survey after sample loss (i.e. one-eighths of the households included in the Monthly LFS sample and those households selected in the survey which had no residents in scope for the Monthly Labour Force Survey, vacant or derelict dwellings and dwellings under construction), approximately 31,934 or 95% were fully responding the Forms of Employment Survey. The number of completed interviews obtained from these private dwelling households and special dwelling units (after taking into account scope, coverage and sub sampling exclusions) was 33,932.

RELIABILITY OF THE ESTIMATES

- **21** Estimates in this publication are subject to sampling and non-sampling errors:
- **22** Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information please refer to the Technical Note.
- **23** Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and effective processing procedures.

SEASONAL FACTORS

24 The estimates in Section One of Counts of Australian Business Operators are based on information collected in the November 2007 Forms of Employment Survey, and, due to seasonal factors, may not be representative of other months of the year.

CLASSIFICATIONS

- **25** Counts of Australian Business Operators utilises a range of classifications which are also used in the Forms of Employment Survey. The Forms of Employment Survey uses Australian Standard Classifications where available and appropriate.
- **26** For example, country of birth data are classified according to the *Standard Australian Classification of Countries (SACC)*, 1998 (cat. no. 1269.0). Occupation data are classified according to the ANZSCO *Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 (cat. no. 1220.0).* Industry data are classified according to the ANZSIC *Australian and New Zealand Standard Industrial Classification, 2006 (cat. no. 1292.0).*

NOTES ON ESTIMATES

27 In 2007, only owner managers of incorporated enterprises (OMIEs) and owner managers of unincorporated enterprises (OMUEs), were asked if they worked on a contract basis. Employees (excluding OMIEs) were asked if they worked on a fixed-term contract. In 2006, all employed people including OMIEs and OMUEs, were asked if they worked on a contract basis. Users, therefore, need to exercise care when comparing the number of people who worked on a contract basis with previous releases of data in the Forms of Employment Survey.

CONFIDENTIALITY

28 The data presented in Section One have been confidentialised to ensure no single individual can be identified. The confidentialising process applied maximises the availability of data without introducing bias to the estimates.

COMPARABILITY OF TIME SERIES

29 This is the first release of Counts of Australian Business Operators. As such, time-series analysis is not possible and users should exercise caution making comparisons with previous sources of ABS business operators data. However, data pertaining to owner managers of incorporated and unincorporated businesses are available through the Forms of Employment and other ABS Labour Force Surveys.

COMPARABILITY OF TIME SERIES continued

- **30** The degree of comparability between data presented in Section One of Counts of Australian Business Operators and the 2007 Forms of Employment Survey is high. This is mainly due to the way in which the business operator population has been defined (i.e. these data are primarily an aggregation of owner managers of incorporated and unincorporated business data, as sourced from the 2007 Forms of Employment Survey). Please refer to the section of the Explanatory Notes entitled "Scope" for further information. As such, users may refer to the 2007 Forms of Employment Survey for additional information regarding the business operators or owner managers of Australian businesses.
- **31** Whilst Forms of Employment Survey data are considered a suitable source from which to derive counts of Australian business operators, it should be noted that the Forms of Employment Survey forms part of the suite of ABS' Monthly Labour Force Supplementary (sample) Surveys, and as such, is subject to sampling and non-sampling error.
- **32** It is also important to note that the main function of ABS' Monthly Labour Force Surveys (including the Forms of Employment Survey) is not to collect information on business operators, but is instead focussed on developing high quality estimates of employment and unemployment.
- **33** Given these conceptual and methodological limitations of Forms of Employment Survey data, care has been taken to present the data at relatively broad levels so as to minimise the potential impact of the conceptual and methodological influences described above.

COMPARABILITY WITH
MONTHLY LABOUR FORCE
STATISTICS

34 Due to difference in the scope and sample size of the Forms of Employment Survey (which impacts on estimates included in this publication) and that of the Monthly Labour Force Survey, the estimation procedure may lead to some small variations between estimates provided in Section One of Counts of Australian Business Operators and those from the Monthly Labour Force Survey.

COMPARABILITY WITH THE
CENSUS OF POPULATION AND
HOUSING

35 When comparing ABS Labour Force data (including the data presented in Counts of Australian Business Operators) with Census data, users should be aware of the issue of Census undercount. For further information, please refer to the paper entitled *Census of Population and Housing - Undercount, 2006 (cat. no. 2940.0).*

PREVIOUS SURVEYS

- **36** This is the first release of Counts of Australian Business Operators, as such, there are no previous surveys.
- **37** The Forms of Employment Survey was first conducted in August 1998 then in November 2001, November 2004 and November 2006. Results of previous surveys on employment arrangement have been published in: *Forms of Employment, Australia (cat. no. 6359.0) Employment Arrangements and Superannuation, Australia (cat. no. 6361.0)*

NEXT SURVEY

- **38** The ABS plans to conduct the Forms of Employment Survey again in November 2008 and annually thereafter.
- **39** The next release of Counts of Australian Business Operators is currently scheduled for release during the 2012/13 financial year. These data are expected to source data from the latest available Forms of Employment Survey data.

PART B:

40 Data Sourced from the 2006 Census of Population and Housing

INTRODUCTION

41 The statistics presented in Section Two of this publication were compiled using data collected from the 2006 Census of Population and Housing. The Census is conducted every five years and collects a range of demographic, social and economic

information from all people and dwellings (excluding diplomatic personnel and dwellings) in Australia on Census Night.

CONCEPTUAL FRAMEWORK

- **42** The concepts, sources and methods underpinning the data presented in Section One of this publication are guided by the conceptual framework used to collect the Census.
- **43** The Census is the largest statistical collection undertaken by the ABS. The Census has two broad objectives. The first of these is to accurately measure the number and key characteristics of people in Australia on Census Night and the dwellings in which they live. The second is to provide timely, high quality and relevant data for small geographic areas and small population groups, to complement the rich but broad level data provided by ABS surveys.
- 44 The 2006 Census Form included questions which allowed ABS to collect data on those Australians who operated businesses, including small businesses. When matched with data derived from other questions on the 2006 Census Form, this allows ABS to produce business operators data for a range of characteristics.
- 45 The conceptual basis of the Census topics included in Section Two of this publication are discussed in further detail in The Census Dictionary (cat. no. 2901.0). The Dictionary is a comprehensive reference guide designed to assist users of 2006 Census data to determine and specify their data requirements and to understand the concepts underlying Census data. The Dictionary also provides background information about classifications, a topic index, mnemonic index and data release index for ease of reference, as well as a section on Census data quality.
- The Census is restricted to all persons and dwellings in Australia and the external Territories of Christmas Island and Cocos (Keeling) islands on Census Night excluding diplomats, their families and diplomatic dwellings, and visitors from overseas who are not required to undergo migration formalities, such as foreign crews on ships. For the purpose of this analysis, we have excluded persons under the age of fifteen, overseas visitors and those persons who provided insufficient information on their Census Form to be included in the business operator population.
- **47** The business operator population is a subset of this population. Specifically, the business operator population comprises all owner managers of incorporated and unincorporated businesses. It excludes persons who are classified to other types of employment status categories [e.g. persons such as employees who do not own businesses (excluding owner managers of incorporated enterprises), contributing family workers, persons not in the labour force, and the unemployed].
- **48** Non-business operators comprise employees who do not own businesses and contributing family workers. It excludes business operators as well as persons who were not in the labour force or who were unemployed.
- **49** In order to produce data on the respective business operator and non-business operator populations, the Census Form was structured such that persons aged fifteen years or more were asked if they had a full or part-time job at any time in the week leading up to the Census. Those persons indicating they did, were then asked if they worked for an employer or in their own business in the "main job held last week" (i.e. the job where the person usually works the most hours).
- **50** Persons indicating they worked in their own business were then asked if the business was incorporated or unincorporated. These people were also asked whether the business employed people. Responses were classified according to how many people were employed by the business. It is this question about employee numbers which allows ABS to produce data about small business operators.

SCOPE

SCOPE continued

51 Persons aged fifteen years or more were also asked a series of other questions pertaining to their individual characteristics, such as their occupation, industry, income, place of usual residence and Indigenous status on the Census Form. This allows ABS to match individual business operator and non-business operator records so that data across a wide range of these characteristics can be included in Counts of Australian Business Operators.

52 Persons who provided insufficient information on their Census Form were excluded from the business operator population. Analysis revealed that this adjustment caused minimal change to the proportions being derived from the Census.

53 Counts of Australian Business Operators utilises a range of classifications which are also used in the Census. Specifically, Australian Standard Classifications are used where available and appropriate. Examples of these are the Australian Standard Classification of Occupations (ASCO) and the Standard Australian Classification of Countries (SACC). These classifications are used as the basis on which to build Census-specific classifications such as Birthplace of Individual (which uses SACC).

54 Classifications such as these are reviewed on an irregular basis to reflect changes in the Australian social environment. Where an Australian Standard Classification is not available, classifications specific to Census variables have been developed.

55 The Census was conducted on the night of 8 August, 2006.

56 The Census is collected every five years. This practice became mandatory following the 1961 Census, which saw the amendment to the Census and Statistics Act, 1977 (Cth) requiring that "the census shall be taken in the year 1981 and in every fifth year thereafter, and at such other times as prescribed".

57 Please refer to the sections below entitled "Previous Census" and "Next Census" for further information about previous and future releases and how these will impact on future releases of Counts of Australian Business Operators.

58 The Australian Census is self-enumerated. This means that householders are required to complete the Census form themselves, rather than having the help of a Census Collector. The Census form may be completed by one household member on behalf of others. Error can be introduced if the respondent does not understand the question, or does not know the correct information about other household members. Self-enumeration carries the risk that wrong answers could be given, either intentionally or unintentionally.

59 The data presented in Section Two of this publication may be subject to non-sampling error.

60 These data are not subject to sampling error as the data represents a complete enumeration of those persons who identified themselves as a business operator. However, users should be aware of the issue of undercount which impacts on Census (estimated at approximately 2.5%).

- **61** It should be noted that the issue of undercount in the 2006 Census is not an issue particular to the production of business operator counts. It is an issue which relates to Census data per se, and can be associated with the scope, coverage, timing, measurement of underlying concepts and methodologies used in the 2006 Census. ABS has published an article which examines these issues in more detail.
- **62** For further information, please refer to the paper entitled Census of Population and Housing Undercount, 2006 (cat. no. 2940.0).

63 The data presented in Counts of Australian Business Operators have been confidentialised to ensure no single individual can be identified. The confidentialising

CLASSIFICATIONS

REFERENCE PERIOD

COLLECTION FREQUENCY

RELIABILITY OF THE ESTIMATES

CONFIDENTIALITY

process applied maximises the availability of data without introducing any bias to the estimates.

COMPARABILITY OF TIME SERIES

- **64** This is the first release of Counts of Australian Business Operators. As such, time-series analysis is not possible and users should exercise caution when making comparisons with previous ABS business operators data.
- **65** Data are however available for a wide range of topics from current and previous Census, much of which may be accessed directly from the ABS website <www.abs.gov.au>. Users are advised to investigate the comparability of data items over time. A useful resource for these purposes is the Census Dictionary (cat. no. 2901.0).

COMPARABILITY WITH
MONTHLY LABOUR FORCE
STATISTICS

- data from a range of Monthly Labour Force Surveys. In most cases, the proportions presented in this publication are broadly comparable with data derived from these surveys. However, users are advised to exercise caution when making data comparisons, and in particular, should consider the scope of each survey before making any comparisons.
- **67** Users are also reminded of the issue of undercount which impacts on Census estimates. For further information, please refer to the paper entitled Census of Population and Housing Undercount, 2006 (cat. no. 2940.0).

PREVIOUS CENSUS

68 Information regarding previous Census may be accessed through the ABS website <www.abs.gov.au>.

NEXT CENSUS

- **69** The next Census of Population and Housing will be conducted in 2011.
- **70** The next release of Counts of Australian Business Operators is currently scheduled for release during the 2012/13 financial year. This publication is expected to source data from the 2011 Census.

ABBREVIATIONS

- '000 thousand
- ABS Australian Bureau of Statistics
- ANZSCO Australian and New Zealand Standard Classification of Occupations
- ANZSIC Australian and New Zealand Standard Industrial Classification
- ASCO Australian Standard Classification of Occupations
- cat. no. Catalogue number
- CABO Counts of Australian Business Operators
 - LFS Labour Force Survey (Australia)
 - m million
- OMIE owner manager of incorporated enterprise
- OMUE owner manager of unincorporated enterprise
 - RSE relative standard error
- SACC Standard Australian Classification of Countries
 - SE standard error

APPENDIX 1

ABS BUSINESS OPERATORS COUNTS

The following Appendix provides a brief history of ABS business operator counts and discusses planned future developments.

INTRODUCTION

The ABS has been producing business operator counts for many years. These counts have been presented in the form of business demography products, most recently, through this publication, Counts of Australian Business Operators (CABO).

In addition, ABS has been producing data pertaining to owner managers of incorporated and unincorporated enterprises (each being a subset of the Australian business operator population) across a range of other statistical products.

Over time, ABS has been working to improve the quality of business operator counts and has been developing new sources of business operator data.

COUNTS FROM THIS RELEASE

The business operator data presented in this release have been derived from two data sources: the 2007 Forms of Employment Survey and the 2006 Census of Population and Housing.

These data are relevant for users interested in understanding the characteristics of those persons engaged in one or more businesses currently operating within the Australian economy.

The 2007 Forms of Employment Survey was used to derive counts (as well as proportions) of business operators in Australia, while the 2006 Census of Population and Housing has been used as a data source to produce a range of proportions relating to Australian business operators (including small business operators).

The decision to use Forms of Employment Survey data to produce count data was taken following detailed analysis which confirmed that the overall counts derived from the Forms of Employment Survey provided for a more reliable and accurate series of estimates compared with data derived from other sources (including from other Monthly Labour Force Supplementary Surveys and the 2006 Census). Specifically, data confrontation exercises confirmed Forms of Employment Survey data compared well with data derived from a range of administrative and survey sources.

This approach is expected to provide a more stable platform upon which users will be able to access data pertaining to the changing demographics of Australia's business operators over time.

COUNTS INCLUDED IN
CHARACTERISTICS OF SMALL
BUSINESS

The ABS first released *Characteristics of Small Business (cat no 8127.0)* in 1995. This compendium release included a range of statistics about small business, including small business operators.

As discussed in a Main Features Article released in August 2008, entitled Australian Small Business Operators - Findings from the 2005 and 2006 Characteristics of Small Business Surveys, the ABS has discontinued the Characteristics of Small Business Survey. The Article marked the final release of data from the Characteristics of Small Business Survey.

This decision was driven by the development of superior data sources, and the findings of a methodological review of the 2005 and 2006 Characteristics of Small Business Surveys. The review compared data from the 2005 and 2006 Characteristics of Small Business Surveys with data from the 2006 Census of Population and Housing and a range of Monthly Labour Force Supplementary Surveys. It concluded that, while some data

COUNTS INCLUDED IN
CHARACTERISTICS OF SMALL
BUSINESS continued

items collected continue to provide an ongoing and accurate picture of the changing nature of the Australian small business and small business operator populations, a more consistent picture was provided by the alternate data sources.

Specifically, it was determined that proportions of small business operators derived from the 2005 and 2006 Characteristics of Small Business Surveys closely aligned with proportions from the alternate data sources in respect of: sex of operators; age of operators; (usual) hours worked by operators; birthplace; and number of business operations conducted. These proportions were reproduced in the aforementioned Main Features Article.

While the discontinuation of the Characteristics of Small Business Survey would normally represent a gap in ABS' small business and small business operator statistics, a range of other outputs relating to both of these statistical fields have been, or are currently being, developed. Preliminary analysis of these newer sources suggests that they generally contain more robust data compared to data released from the Characteristics of Small Business Survey.

COUNTS INCLUDED IN OTHER RELEASES

ABS has been producing data pertaining to owner managers of incorporated and unincorporated enterprises (subsets of the business operator population) across a range of statistical products.

Most notably, numerous publications using Monthly Labour Force Survey data (including the Forms of Employment Survey) have included estimates relating to the owner manager populations, disaggregated by a wide variety of characteristics. Many of these characteristics have also been included in Counts of Australian Business Operators.

FUTURE DIRECTIONS

The ABS plans to next release Counts of Australian Business Operators during the 2012/13 financial year. It is planned to source data from the 2011 Census of Population and Housing as well as from relevant Monthly Labour Force Supplementary Surveys (including the Forms of Employment Survey).

APPENDIX 2

SUPPLEMENTARY INFORMATION

ABS publications which may be of interest to users of Counts of Australian Business Operators are listed below.

BUSINESS DEMOGRAPHY
PUBLICATIONS:

Counts of Australian Businesses, including Entries and Exits (cat. no. 8165.0)

Discussion paper: The first iteration of the Business Longitudinal Database, 2004-05

(cat. no. 8164.0)

Selected Characteristics of Australian Business, 2005-06 (cat. no. 8167.0)

INFORMATION TECHNOLOGY PUBLICATIONS:

Summary of IT Use and Innovation in Australian Business, 2006-07 (cat. no. 8166.0)

Business Use of Information Technology, 2005-06 (cat. no. 8129.0)

Innovation in Australian Business, 2006-07 (cat. no. 8158.0) (expected to be released August 2008)

LABOUR PUBLICATIONS:

Labour Force, Australia (cat. no. 6202.0)

Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001)

Australian Labour Market Statistics (cat. no. 6105.0)

Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0)

Employee Earnings and Hours, Australia (cat. no. 6306.0)

Locations of Work, Australia (cat. no. 6275.0)

Labour Force Experience, Australia (cat. no. 6206.0)

Labour Mobility, Australia (cat. no. 6209.0)

Working Time Arrangements, Australia (cat. no. 6342.0)

In addition, the 2007 release of the Forms of Employment Survey includes an historical list of supplementary surveys collected through the Monthly Population Survey program and Multi-Purpose Household Survey program. Data from these surveys are available on request and can be obtained by contacting the ABS.

Current publications and other products released by the ABS are available from the Statistics Page on the ABS website. The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

ADDITIONAL DATA

Users may also be interested in accessing data for other collections. Please refer to the section below entitled "ABS Data Available on Request" for further information.

ABS DATA AVAILABLE ON REQUEST

As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquires should be made to the ABS National Information and Referral Service on 1300 135 070. Information is also available on-line via the ABS website < www.abs.gov.au>.

The ABS has a range of data available on request from the Forms of Employment Survey. The latest release of the survey includes a section which lists the data items and populations which relate to the survey. More detailed breakdowns of some data items may also be available on request.

ABS DATA AVAILABLE ON REQUEST continued

For more information about Forms of Employment Survey data available on request, contact Bjorn Jarvis on Canberra (02) 6252 6552, or by facsimile on (02) 6252 5066, or by email to

contact-bjorn.jarvis@abs.gov.au.

ACKNOWLEDGEMENT

ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

TECHNICAL NOTE

SAMPLING ERROR FROM THE 2007 FORMS OF EMPLOYMENT SURVEY

INTRODUCTION

- **1** Since the estimates in Section One of this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.
- **2** Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate from the size of that estimate (see table T1). The SE table is derived from a mathematical model, referred to as the 'SE model', which is created using data from a number of past Labour Force Surveys. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation between SEs for different estimates of the same size.

CALCULATION OF STANDARD ERRORS

3 An example of the calculation and the use of SEs in relation to estimates of people is as follows. Table 1.1 shows that the estimated number of people in Australia who were business operators was 1,902,241. Since this estimate is between 1,000,000 and 2,000,000, table T1 shows the SE for Australia will be between 10,550 and 15,300 and can be approximated by interpolation using the following general formula:

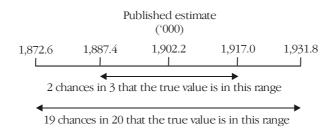
SE of estimate

= lower SE +
$$\left(\left(\frac{\text{size of estimate - lower estimate}}{\text{upper estimate - lower estimate}} \right) \times (\text{upper SE - lower SE}) \right)$$

= 10,550 + $\left(\left(\frac{1,902,241-1,000,000}{2,000,000-1,000,000} \right) \times (15,300-10,550) \right)$
= 14.800 (rounded to the nearest 100)

4 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall in the range 1,887,441 to 1,917,041, and about 19 chances in 20 that the value will fall within the range

1,872,641 to 1,931,841. This example is illustrated in the diagram below.



5 In general, the size of the SE increases as the size of the estimate increases. Another measure of the likely difference is the relative standard error (RSE), which is obtained by

CALCULATION OF STANDARD ERRORS continued

expressing the SE as a percentage of the estimate. Therefore, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to such high RSEs that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g.*3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g.**0.3), are considered too unreliable for general use and should only be used to aggregate with other estimates to provide derived estimates with RSEs of 25% or less.

PROPORTIONS AND PERCENTAGES

6 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y:

$$RSE\left(\frac{x}{y}\right) = \sqrt{\left[RSE(x)\right]^2 - \left[RSE(y)\right]^2}$$

7 Considering the example above, of the 1,902,241 people who were business operators, 601,330 or 31.6% were women. The SE of 601,330 may be calculated by interpolation as 8,108. To convert this to an RSE we express the SE as a percentage of the estimate, or 8,108/601,330=1.3%. The SE for 1,902,241 was calculated previously as 14,800 which converted to an RSE is 14,800/1,902,241=0.8%. Applying the above formula, the RSE of the proportion is:

$$RSE = \sqrt{(1.3)^2 - (0.8)^2} = 1.0\%$$

- **8** Therefore, the SE for the proportion of women who were business operators, is 0.4 percentage points (=(31.6/100)x1.3). Therefore, there are about two chances in three that the proportion of women who were business operators is between 31.2% and 32.0% and 19 chances in 20 that the proportion is within the range 30.8% to 32.4%.
- **9** All other estimates produced from population estimates smaller than the values in T2 have RSEs larger than 25% and should be used with caution. T2 also indicates the size of the population estimates that would produce all other estimates with RSEs greater than 50% are considered too unreliable for general use.

10 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

11 While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

DIFFERENCES

STANDARD ERRORS T1 STANDARD ERROR OF ESTIMATES(a)

Size of estimate	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.	
(persons)	no.	no.	no.	no.	no.	no.	no.	no.	no.	%
100	270	260	190	160	180	100	110	90	100	100.0
200	360	340	280	210	240	150	170	140	170	85.0
300	430	400	340	250	280	180	210	180	240	80.0
500	530	490	440	310	340	220	270	230	340	68.0
700	610	550	510	350	390	250	320	260	430	61.4
1,000	700	640	590	400	450	290	370	290	550	55.0
1,500	830	740	700	470	520	340	430	310	700	46.7
2,000	930	830	790	530	580	370	480	330	830	41.5
2,500	1 000	900	850	550	650	400	500	350	950	38.0
3,000	1 100	950	900	600	700	400	550	350	1 050	35.0
3,500	1 150	1 050	1 000	650	700	450	550	400	1 100	31.4
4,000	1 200	1 100	1 050	700	750	450	600	400	1 200	30.0
5,000	1 300	1 150	1 100	750	800	500	650	450	1 350	27.0
7,000	1 500	1 350	1 250	850	950	550	800	500	1 550	22.1
10,000	1 700	1 500	1 400	950	1 050	650	1 000	600	1 800	18.0
15,000	2 000	1 750	1 550	1 100	1 200	800	1 400	700	2 100	14.0
20,000	2 200	1 950	1 700	1 200	1 350	900	1 750	850	2 300	11.5
30,000	2 550	2 250	1 950	1 400	1 550	1 150	2 450	1 050	2 600	8.7
40,000	2 850	2 500	2 200	1 600	1 700	1 400	3 100	1 250	2 850	7.1
50,000	3 100	2 750	2 400	1 800	1 900	1 600	3 750	1 450	3 050	6.1
100,000	3 950	3 550	3 250	2 700	2 750	2 250	6 450	1 900	3 850	3.9
150,000	4 600	4 350	4 000	3 450	3 650	2 700		2 150	4 500	3.0
200,000	5 300	5 050	4 700	4 050	4 400	3 000		2 300	5 050	2.5
300,000	6 700	6 500	5 950	5 000	5 500	3 450			5 950	2.0
500,000	9 350	9 000	8 050	6 250	7 000				7 500	1.5
1,000,000	13 900	13 700	11 500		8 950				10 550	1.1
2,000,000	18 750	20 250	15 450						15 300	0.8
5,000,000	23 900	32 400							25 550	0.5
10,000,000									34 100	0.3
15,000,000									38 500	0.3

(a) .. not applicable

T2 RELATIVE STANDARD ERRORS OF ESTIMATES(a)

NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
no.	no.	no.	no.	no.	no.	no.	no.	no.
	4 500 1 500		2 200 700		1 300 400	1 900 600	1 200 400	5 600 1 300

(a) Refers to the number of people contributing to the estimate.

GLOSSARY

Business operator

For data in Section One, the business operator population comprises all owner managers of incorporated and unincorporated businesses. It excludes persons who are classified to other types of employment status categories [e.g. persons such as employees who do not own businesses (excluding owner managers of incorporated enterprises) and contributing family workers]. It also excludes persons who are under the age of fifteen and overseas visitors.

For data in Section Two, the business operator population comprises all owner managers of incorporated and unincorporated businesses. It excludes persons who are classified to other types of employment status categories [e.g. persons such as employees who do not own businesses (excluding owner managers of incorporated enterprises), contributing family workers, persons not in the labour force, and the unemployed]. It also excludes persons who are under the age of fifteen, overseas visitors and those persons who provided insufficient information on their Census Form to be included in the business operator population.

Business size ranges

For the purposes of this publication, business operators are classified according to the size of the main business they operate. The specific business size ranges used are based on the number of persons employed in the business. Small business operators are defined as those operators who employ fewer than 20 persons (including non-employing businesses). This treatment concords with ABS' standard (employment-based) definition of "small business".

Continuous duration with current employer or business

The length of the current period of employment people had with their employer or in their own business. The length of time includes periods of paid leave, unpaid leave or strike.

Childcare provision status

Childcare provision status refers to the various methods persons may organise care for a child or children. This includes instances where persons were caring for their own child/children, another person's child or children, or a combination of both.

Family income

The sum of the individual incomes reported by all family members aged fifteen years and over.

Full-time workers in main job

Employed people who usually worked 35 hours or more a week (in main job).

Hours usually worked

The number of hours usually worked in a week.

Individual income

The gross income (including pensions and allowances) that the person usually receives each week.

Industry (ANZSIC)

Individuals have been classified according to their description of activities undertaken by their employer/business at the place where they work. Businesses are coded to industries in the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC06) which is a classification system for grouping producing businesses (of both goods and services) in Australia and New Zealand to permit comparability of data. Within ANZSIC, there is a structure comprising four levels ranging from industry division (broadest level) to the industry class (finest level). For more information, users should refer to the *Australian and New Zealand Standard Industrial Classification 2006 (cat. no. 1292.0)*.

Industry division The main purpose of the industry division level is to provide a limited number of

categories which give a broad overall picture of the economy. There are nineteen divisions within ANZSIC06 each identified by an alphabetical letter, that is, 'A' for

Agriculture, Forestry and Fishing, $^{\prime}B^{\prime}$ for Mining, $^{\prime}C^{\prime}$ for Manufacturing, etc.

Industry of main job An industry is a group of businesses or organisations that undertake similar economic activities to produce goods and services. In this publication, industry of main job refers

to ANZSIC Division as classified according to the Australian and New Zealand Standard

Industrial Classification (ANZSIC), 2006 (cat. no. 1292.0).

Main job The business or job in which the most hours were usually worked.

Non-business operator For data in Section One, non-business operators comprise employed persons not owning their own business and contributing family workers. It excludes business operators and persons who were excluded from the scope of the Monthly Labour Force

Survey and/or Forms of Employment Survey. It also excludes persons who are under the

age of fifteen and overseas visitors.

For data in Section Two, non-business operators comprise employees who do not own businesses and contributing family workers. It excludes business operators as well as persons who were not in the labour force or unemployed. It also excludes persons who were under the age of fifteen, overseas visitors and those persons who provided insufficient information on the Census Form to be included in the non-business operator

population.

Occupation of main job An occupation is a collection of jobs that are sufficiently similar in their title and tasks,

skill level and skill specialisation which are grouped together for the purposes of classification. In this publication, occupation refers to Major Group as defined by the ANZSCO - *Australian and New Zealand Standard Classification of Occupations, First*

Edition, 2006 (cat. no. 1220.0).

Part-time workers in main job Employed people who usually worked less than 35 hours a week (in main job).

Reference week The week preceding the week in which the interview was conducted.

Worked on a contract basis Owner managers of incorporated/unincorporated enterprises who were engaged by an

organisation to provide a particular service or undertake a particular task at an agreed

price or rate, and generally for a specified period.

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