



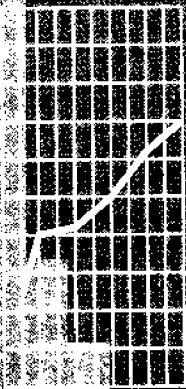
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# Household Use of Information Technology

## Australia



ABS Catalogue No. 8146.0

## NOTES

### ABOUT THIS PUBLICATION

This publication is the third of its type focusing on the use of information technology (IT) by private households. It also contains information on the home use of IT by persons. The other two issues related to surveys conducted in February 1994 and February 1996.

This publication contains a selection of averaged results based on the four quarterly surveys conducted in 1996. The main reason for conducting four quarterly surveys was to increase the effective sample size to a total of approximately 12,000 households taken over the 12 month period. Analysis based on the 12,000 observations has produced much more reliable results than any of the individual surveys especially where analysis is focused on small target groups. In particular, this publication contains statistics classified by State, occupation, ethnicity and highest educational qualification. The effect of the combination of the surveys is a 50% reduction in relative standard errors compared to each of the individual quarterly survey estimates.

### ESTIMATES IN THIS PUBLICATION

The combined estimates should be viewed as averages over all of 1996. They do not relate to any point in time during that year. It is particularly important to remember this when interpreting results for data items which might have changed significantly over the year, e.g., use of the Internet.

### ADDITIONAL ITEMS

The range of information sought in the February, May, August and November 1996 surveys has increased from the survey conducted in February 1994. Additional IT items covered in the 1996 surveys included mobile phones, car phones, cordless phones, answering machines, pagers, voice mail, and pay TV. The 1996 surveys also collected a range of information about individual users within households and about computer competency and use of computers outside the home. Information was also sought on the use of on-line services (e.g. accessing the Internet, utilisation of electronic mail facilities) and willingness to use on-line services such as home shopping, banking and gambling.

### INQUIRIES

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

For further information about statistics in this publication and the availability of related unpublished statistics, contact Joseph Di Gregorio on Canberra (02) 6252 5609 or any ABS State office.

W. McLennan  
Australian Statistician

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## MAIN FINDINGS

### COMPUTER USE BY HOUSEHOLDS

Two million households frequently used a computer in their homes in 1996 which represented 31% of all households in Australia. The ACT and the Northern Territory had the highest proportion of households frequently using a computer, 51% and 35% respectively. Of the larger States, Victoria had the greatest penetration, 34%. The proportions of households in the remaining States were, New South Wales 30%; Queensland 28%; South Australia and Western Australia 29% each; and Tasmania 25%.

A further 3% of households (nearly 190,000 households) had a computer but did not use it frequently.

There were 2.6 million computers used in the 2 million households which frequently used a computer. Nearly 1.6 million of these households used 1 computer and 0.4 million households used 2 or more computers. Over 0.5 million households which frequently used a computer also used a modem which allowed access to on-line facilities outside the home. Nearly 1 million households which frequently used a computer also used CD-ROM equipment.

These 2.6 million computers were mostly owned by members of the household (81%); the remainder were largely owned by a home-based business or an employer (15%). The majority of computers in households were desktop or personal computers (81%) and a further 14% were portable computers.

Of the households which owned or paid for a computer, over half reported their most powerful computer as having an IBM compatible 486 processing capacity or greater. About one in five households which owned or paid for a computer reported their most powerful computer having more than 16 megabytes of RAM.

### INTERNATIONAL COMPARISON

It is difficult to compare 1996 Australian household computer usage with other countries as there is very little data available for a comparable reference period and what is available has been obtained from a variety of different sources. Statistics on household computer usage for Canada, Finland and the Netherlands were obtained from each country's official statistical agency. For the United States, a survey was undertaken by the Software Publishers Association of the United States and for the United Kingdom data was taken from the 1997 European Computer Literacy Report. Considering the time difference for some of the statistics presented, it can be said that household computer penetration for all the countries identified, with the exclusion of the Netherlands, was fairly similar. Household computer usage in the Netherlands was considerably higher at 43%. Australia compared favourably with other countries.

## MAIN FINDINGS *continued*

### INTERNATIONAL COMPARISON *continued*

#### COMPUTER USAGE

<i>Country/Period</i>	<i>Proportion of households</i>
	<i>%</i>
Australia (1996)	31.0
Canada (1995)	29.0
Finland (1995)(a)	25.0
United States (1996)	34.0
United Kingdom(1997)(a)	33.0
Netherlands (1996)	43.0

(a) Relates to households owning computers only.

#### BARRIERS TO COMPUTER OWNERSHIP

Of the 4.4 million households which did not have computing facilities, 40% gave 'no use for one' as the main reason for not having a computer, 30% said 'costs are too high' and 14% said 'no one in household interested in computer'.

#### COMMUNICATION EQUIPMENT OWNED OR PAID FOR BY HOUSEHOLDS

Nearly 97% of households had a fixed telephone connected. A further 1% of households only had a mobile phone. The remaining 2% of households did not have any form of telephone service.

In total, 30% of households had a mobile phone. Just over 26% of households had an answering machine and 10% of households had a facsimile machine.

#### COMPUTER USE BY PERSONS

A total of 4 million persons aged 5 years and over used a computer at home, 24% of Australia's estimated population aged 5 years and over. As with household use, the Australian Capital Territory and the Northern Territory had the highest proportions (40% and 30% respectively) of home computer users aged 5 years and over. Of the States, Victoria had the greatest proportion of computer users, 26% and Tasmania had the lowest, 21%.

Young people tended to use computers at home more than older people. About 41% of 5-17 year olds used a computer in the household. This percentage dropped to 29% for 18-24 year olds, 23% of 25-39 year olds and 25% of 40-54 year olds. Only 7% of persons aged 55 years and over used a computer at home.

## MAIN FINDINGS *continued*

### COMPUTER USE BY PERSONS *continued*

Of employed persons 18 years and over, Professionals (48%) were more likely to use a computer in the home than other occupations. Other occupations with significant home computer usage were, Managers and administrators (32%), Clerks (26%) and Sales/personal service workers (25%).

Of the employed home computer users who were 18 years and over, 64% had 5 or more years experience in the use of computer; 24% had between 2 and 5 years and only 5% had less than 1 year experience.

Of the 4 million home computer users in 1996, the most often reported use was 'playing computer games' (2.3 million), followed by 'work relevant to studies' (1.8 million) and 'using mainly educational products' (1.0 million).

### ON-LINE ACTIVITIES

Only a small proportion of home computer users used on-line services. Approximately 300,000 persons used the home computer to access the Internet, 200,000 used the home computer to send electronic mail and 100,000 used the home computer to access other on-line services/databases.

# HOUSEHOLD COMPUTER USAGE

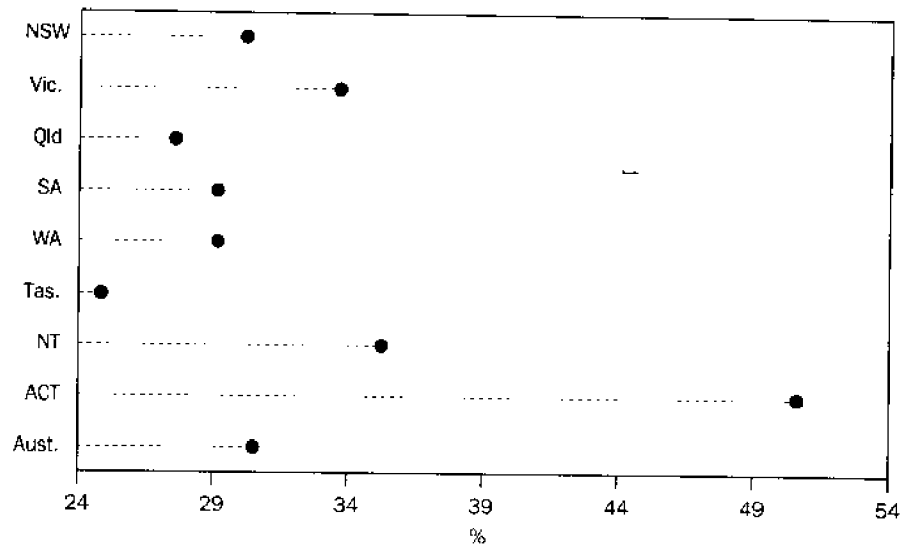
## BY STATE AND REGION

In 1996 just over 2 million households, 31% of all households in Australia, frequently used a computer. A further 3% of households had a computer but infrequently used it.

The Australian Capital Territory had the highest proportion of households frequently using a computer (51% or 53,000 households), Tasmania had the lowest (25% or 45,000 households).

Victoria had a greater penetration rate than New South Wales, with 34% compared to 30%. However, New South Wales had the greater number of households frequently using a computer, 669,000 compared to 548,000 for Victoria.

PENETRATION OF COMPUTERS



In all States and Territories, capital cities had a greater proportion of households frequently using a computer than other regions. In total, 34% of households in capital cities frequently used a computer compared with 25% in other regions.



# HOUSEHOLD COMPUTER USAGE *continued*

## 1

### HOUSEHOLDS FREQUENTLY USING COMPUTERS/DEDICATED GAMES MACHINES

	<i>Capital cities</i>		<i>Rest of State</i>		<i>Total</i>	
	<i>Household computer</i>	<i>Dedicated games machine</i>	<i>Household computer</i>	<i>Dedicated games machine</i>	<i>Household computer</i>	<i>Dedicated games machine</i>
	HOUSEHOLDS (%)					
New South Wales	32.8	15.5	26.3	16.0	30.2	15.7
Victoria	37.7	16.3	24.3	14.8	33.7	15.9
Queensland	32.0	14.6	24.0	14.2	27.6	14.4
South Australia	31.9	17.1	21.4	12.1	29.2	15.8
Western Australia	31.4	14.8	22.4	18.8	29.2	15.8
Tasmania	29.0	*14.3	22.2	*15.1	24.9	14.8
Northern Territory	*36.2	*19.3	*33.8	*19.6	*35.3	*19.4
Australian Capital Territory	50.7	*15.6	0.0	0.0	50.7	*15.6
<b>Australia</b>	<b>34.2</b>	<b>15.7</b>	<b>24.6</b>	<b>15.2</b>	<b>30.6</b>	<b>15.5</b>
	HOUSEHOLDS ('000)					
New South Wales	439	207	230	140	669	348
Victoria	429	186	118	72	548	258
Queensland	177	81	160	95	337	176
South Australia	135	72	31	17	166	90
Western Australia	153	72	36	30	189	102
Tasmania	21	*10	24	*16	45	27
Northern Territory	*10	*5	*7	*4	17	*9
Australian Capital Territory	53	*16	0	0	53	*16
<b>Australia</b>	<b>1 418</b>	<b>651</b>	<b>606</b>	<b>374</b>	<b>2 024</b>	<b>1 025</b>

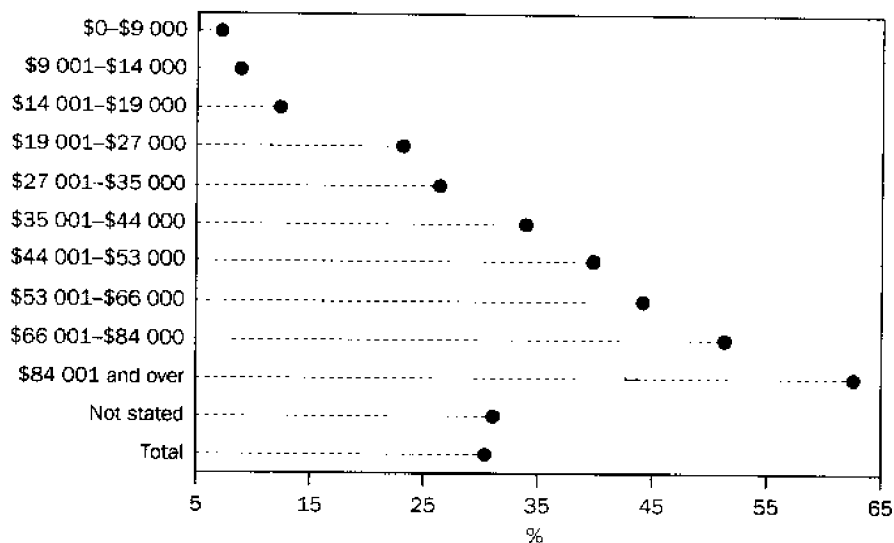
## HOUSEHOLD COMPUTER USAGE *continued*

### HOUSEHOLD INCOME

The proportion of households with a computer increases in line with household income.

Only 7% of households with income of \$9,000 or less frequently used a computer, compared with 63% of households with incomes of more than \$84,000.

HOUSEHOLDS USING COMPUTERS BY HOUSEHOLD INCOME, 1996



### FAMILY TYPE

Households with the family type 'Married couple with children' were the major users of computers.

About 47%, or 1.1 million, of these households frequently used a computer.

# HOUSEHOLD COMPUTER USAGE *continued*

## 2

### HOUSEHOLDS FREQUENTLY USING COMPUTERS, BY HOUSEHOLD INCOME AND FAMILY TYPE

Household income	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
HOUSEHOLDS (%)									
<b>Income range</b>									
\$0-\$9 000	*6.5	*7.6	*7.5	*7.3	*9.3	*5.7	—	—	7.3
\$9 001-\$14 000	*7.2	*8.7	*9.0	*7.6	*16.0	*8.0	*5.9	*18.1	9.0
\$14 001-\$19 000	*6.9	21.2	*10.0	*11.6	*12.0	*14.5	*13.3	*29.6	12.5
\$19 001-\$27 000	22.3	25.5	21.6	27.9	*20.0	*22.2	*20.6	*30.1	23.3
\$27 001-\$35 000	29.0	26.9	24.8	*24.0	*25.5	*20.4	*18.5	*28.2	26.5
\$35 001-\$44 000	30.8	38.2	35.4	*31.5	30.3	*30.2	*26.1	*51.0	34.1
\$44 001-\$53 000	38.9	43.8	34.1	44.9	40.6	*33.6	*31.0	*47.6	40.0
\$53 001-\$66 000	41.3	50.1	46.5	49.6	31.2	*40.7	*43.4	*57.1	44.4
\$66 001-\$84 000	50.3	47.6	52.0	66.7	51.0	*44.8	*45.2	*69.0	51.5
\$84 001 and over	67.1	66.7	53.3	60.0	50.8	*53.9	*58.3	*75.1	62.8
Not stated	30.4	35.1	27.5	26.7	34.8	*27.7	*40.1	*48.5	31.3
<b>Total</b>	<b>30.2</b>	<b>33.7</b>	<b>27.6</b>	<b>29.2</b>	<b>29.2</b>	<b>24.9</b>	<b>35.3</b>	<b>50.7</b>	<b>30.6</b>
HOUSEHOLDS ('000)									
<b>Income range</b>									
\$0-\$9 000	*10	*8	*6	*4	*5	*1	—	—	33
\$9 001-\$14 000	*12	*12	*11	*4	*9	*2	—	*1	50
\$14 001-\$19 000	*15	36	*12	*7	*7	*3	—	*2	83
\$19 001-\$27 000	45	38	27	17	*13	*4	*1	*2	147
\$27 001-\$35 000	49	37	34	*11	*12	*3	*1	*2	149
\$35 001-\$44 000	50	60	41	*16	17	*5	*1	*5	196
\$44 001-\$53 000	68	62	32	22	22	*5	*1	*5	218
\$53 001-\$66 000	71	66	42	22	17	*6	*3	*7	233
\$66 001-\$84 000	93	59	39	25	25	*5	*3	*9	258
\$84 001 and over	133	80	42	15	27	*8	*4	*14	319
Not stated	124	90	52	23	35	*6	*3	*5	337
<b>Total</b>	<b>669</b>	<b>548</b>	<b>337</b>	<b>166</b>	<b>189</b>	<b>45</b>	<b>17</b>	<b>53</b>	<b>2 024</b>
PERCENTAGE OF TOTAL NUMBER OF HOUSEHOLDS (%)									
<b>Family type</b>									
Married couple no children	20.2	27.2	18.4	22.2	21.3	*18.1	*34.9	*44.8	22.3
Married couple with children	45.3	50.3	43.8	49.3	46.1	42.7	*53.5	69.2	47.1
Single parent with children	26.5	32.8	24.6	*30.5	27.4	*23.9	*22.8	*44.9	28.1
Single person	11.7	13.1	9.3	*9.7	*13.0	*9.0	*8.8	*25.3	11.7
Other	37.1	32.7	32.3	*27.3	26.5	*25.0	*29.5	*49.1	33.5
<b>Total</b>	<b>30.2</b>	<b>33.7</b>	<b>27.6</b>	<b>29.2</b>	<b>29.2</b>	<b>24.9</b>	<b>35.3</b>	<b>50.7</b>	<b>30.6</b>
TOTAL NUMBER OF HOUSEHOLDS ('000)									
<b>Family type</b>									
Married couple no children	96	100	51	32	32	*9	*4	*10	334
Married couple with children	364	301	189	94	104	25	*9	27	1 114
Single parent with children	59	43	28	*15	*15	*4	*1	*4	169
Single person	52	46	24	*14	19	*4	*1	*5	166
Other	98	58	45	*11	18	*3	*2	*7	241
<b>Total</b>	<b>669</b>	<b>548</b>	<b>337</b>	<b>166</b>	<b>189</b>	<b>45</b>	<b>17</b>	<b>53</b>	<b>2 024</b>

## NUMBERS, TYPES AND OWNERSHIP OF COMPUTERS

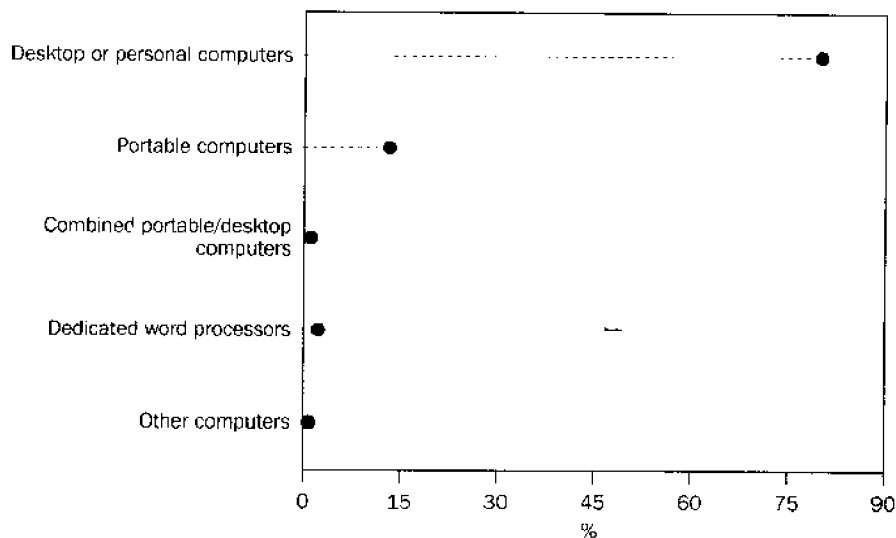
### NUMBERS AND TYPES

Nearly 2.6 million computers were used in households frequently using a computer.

Of these:

- 81% (just over 2 million) were desktop or personal computers; and
- 14% (350,000) were portable computers.

USE OF COMPUTERS IN HOUSEHOLDS, BY TYPE OF COMPUTER



### OWNERSHIP

Of the 2.6 million computers in households which frequently used a computer:

- 81% were owned by a member of the household;
- 8% by a registered home business; and
- 7% of computers were owned by an employer.

**NUMBERS, TYPES AND OWNERSHIP OF COMPUTERS** *continued*

**3**

USE OF COMPUTERS IN HOUSEHOLDS, BY TYPE OF COMPUTER AND OWNERSHIP

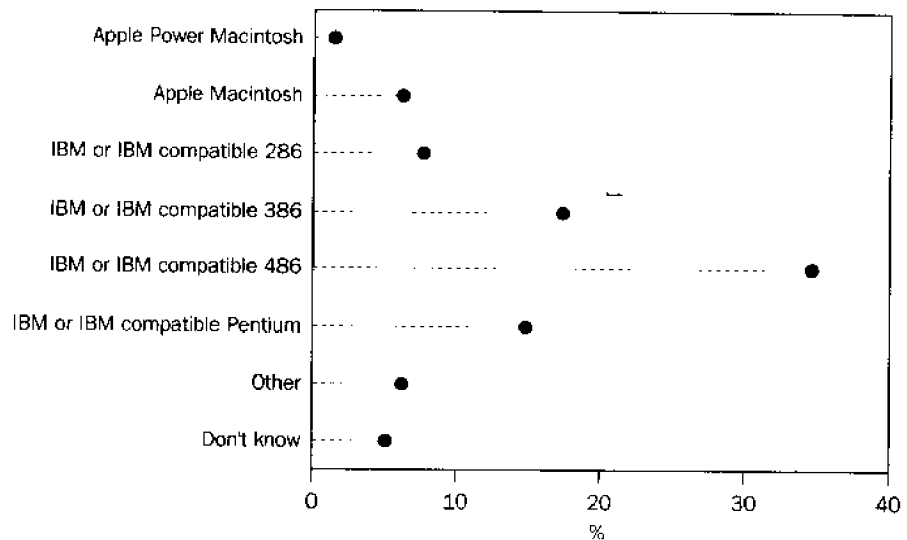
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
TYPE OF COMPUTER (%)									
Portable computers	15.6	12.2	12.2	13.7	11.5	*14.5	*18.7	*16.9	13.6
Desktop or personal computers	78.0	83.4	81.5	80.6	83.3	80.4	*75.7	78.0	80.7
Combined desktop/portable computers	*1.7	*0.8	*2.1	*1.8	*1.3	*1.2	*2.1	*1.4	1.5
Dedicated word processors	*3.2	*2.4	*3.2	*2.7	*2.0	*2.7	*2.2	*2.6	2.8
Other computers	*1.6	*1.2	*1.0	*1.2	*1.9	*1.2	*1.3	*1.1	1.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
TYPE OF COMPUTER ('000)									
Portable computers	136	85	51	29	27	*8	*4	*13	353
Desktop or personal computers	681	581	341	168	198	46	*16	60	2 090
Combined desktop/portable computers	*15	*5	*9	*4	*3	*1	—	*1	38
Dedicated word processors	28	17	*13	*6	*5	*2	—	*2	72
Other computers	*14	*8	*4	*3	*4	*1	—	*1	35
TYPE OF OWNERSHIP (%)									
Member of household	82.5	77.8	80.7	80.3	83.9	82.2	81.8	80.6	80.8
A registered home business	6.2	10.3	9.1	*7.1	7.3	*8.6	*4.9	*6.3	8.0
A commercial rental business	—	*0.1	*0.2	*0.6	*0.5	—	—	*0.3	*0.2
Relative or friend living elsewhere	*0.8	2.9	*1.2	*1.7	*0.7	*1.5	—	*0.9	1.5
An employer	8.8	6.4	6.7	*7.8	*5.5	*5.9	*10.9	*11.0	7.4
Other	*1.2	*1.2	*1.7	*1.9	*2.0	*1.8	—	*0.5	1.4
Don't know	*0.6	*0.4	*0.4	*0.7	—	—	—	*0.4	0.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
TYPE OF OWNERSHIP ('000)									
Member of household	721	542	337	167	200	47	17	62	2 093
A registered home business	54	72	38	*15	17	*5	*1	*5	207
A commercial rental business	—	*1	*1	*1	*1	—	—	—	*5
Relative or friend living elsewhere	*7	20	*5	*3	*2	*1	—	*1	39
An employer	77	44	28	*16	*13	*3	*2	*8	192
Other	*11	*7	*7	*4	*5	*1	—	—	35
Don't know	*5	*10	*2	*1	—	—	—	—	18
<b>Total number of computers</b>	<b>874</b>	<b>696</b>	<b>418</b>	<b>208</b>	<b>238</b>	<b>57</b>	<b>21</b>	<b>77</b>	<b>2 589</b>

## COMPUTER CAPACITY

The most powerful computer owned or paid for by households was described in terms of the processor type:

- 37% had an IBM or IBM compatible 486;
- 19% had a 386;
- 16% had a Pentium;
- 8% had a 286;
- 7% had an Apple Macintosh;
- 2% had an Apple Power Macintosh; and
- 12% had some other type of computer or did not know the type.

CAPACITY OF MOST POWERFUL COMPUTER



The memory capacity of the most powerful computer owned or paid for by a household was as follows:

- 5% had 64 megabytes or more;
- 5% had 32 to 64 megabytes;
- 12% had 16 to 32 megabytes;
- 26% had 8 to 16 megabytes;
- 21% had between 4 and 8 megabytes;
- 9% had less than 4 megabytes of memory; and
- 24% did not state or did not know the memory capacity of their most powerful computer.

**COMPUTER CAPACITY** *continued*

**4**

**CAPACITY OF MOST POWERFUL COMPUTER OWNED OR PAID FOR BY HOUSEHOLDS(a)**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
<b>PROCESSOR CAPACITY (%)</b>									
Apple Power Macintosh	*2.2	*1.4	*0.5	*2.1	*2.2	*2.0	*2.2	*2.0	1.7
Apple Macintosh	8.6	5.0	*4.0	*8.8	*4.6	*9.5	*17.4	*12.0	6.7
IBM or IBM compatible 286	7.3	9.1	7.9	*8.2	*8.5	*12.2	*9.9	*6.9	8.2
IBM or IBM compatible 386	19.1	22.1	15.4	16.3	16.0	*15.3	*11.7	*14.8	18.5
IBM or IBM compatible 486	35.2	37.1	41.3	31.7	40.3	*28.1	*35.1	*39.3	36.9
IBM or IBM compatible Pentium	15.5	15.4	17.7	15.1	14.7	*16.3	*15.3	*17.2	15.8
Other	5.6	5.9	7.3	11.4	*7.6	*10.8	*2.3	*5.2	6.8
Don't know	6.3	4.1	6.0	6.4	*6.3	*6.0	*6.2	*2.7	5.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>PROCESSOR CAPACITY ('000)</b>									
Apple Power Macintosh	*14	*7	*2	*3	*4	*1	—	*1	32
Apple Macintosh	55	26	*13	*14	*8	*4	*3	*6	128
IBM or IBM compatible 286	47	47	25	*13	*15	*5	*1	*3	157
IBM or IBM compatible 386	122	115	49	25	28	*7	*2	*7	354
IBM or IBM compatible 486	224	193	130	49	72	*12	*5	19	705
IBM or IBM compatible Pentium	98	80	56	23	26	*7	*2	*8	302
Other	37	31	23	18	*13	*5	—	*3	129
Don't know	40	21	19	*10	*11	*3	*1	*1	106
<b>Total</b>	<b>635</b>	<b>521</b>	<b>316</b>	<b>155</b>	<b>178</b>	<b>43</b>	<b>*15</b>	<b>49</b>	<b>1 912</b>
<b>MEMORY CAPACITY (%)</b>									
Less than 4 Mb	8.7	8.7	8.4	12.7	*7.6	*7.7	*6.8	*7.2	8.8
4 to less than 8 Mb	23.0	22.3	21.7	18.3	14.7	*19.4	*16.7	*21.8	21.3
8 to less than 16 Mb	23.7	28.0	27.3	20.4	26.8	*20.5	*26.8	*28.6	25.6
16 to less than 32 Mb	11.3	11.4	11.7	13.7	10.9	*10.6	*13.9	*15.4	11.7
32 to less than 64 Mb	3.7	4.8	*5	*4.3	*5.6	*4.3	*6.6	*4.7	4.5
64 Mb or more	5.0	4.0	*4.5	*3.4	*5.3	*7.2	5.8	*4.3	4.6
Don't know	24.6	20.8	21.5	27.3	29.1	*30.3	*23.3	*18	23.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>MEMORY CAPACITY ('000)</b>									
Less than 4 Mb	55	45	26	20	*14	*3	*1	*4	168
4 to less than 8 Mb	146	116	68	28	26	*8	*3	*11	407
8 to less than 16 Mb	151	146	86	32	48	*9	*4	*14	489
16 to less than 32 Mb	72	59	37	21	20	*5	*2	*8	223
32 to less than 64 Mb	24	25	*16	*7	*10	*2	*1	*2	86
64 Mb or more	32	21	*14	*5	*9	*3	*1	*2	87
Don't know	156	108	68	42	52	*13	*3	*9	452
<b>Total</b>	<b>635</b>	<b>521</b>	<b>316</b>	<b>155</b>	<b>178</b>	<b>43</b>	<b>*15</b>	<b>49</b>	<b>1 912</b>

(a) Estimates in this table do not identify the market share of each computer but the capacity of the most powerful computer owned or paid for in each household.

## USE OF PERIPHERAL EQUIPMENT AND SOFTWARE

### PERIPHERAL EQUIPMENT

Of the estimated 2 million households frequently using a computer:

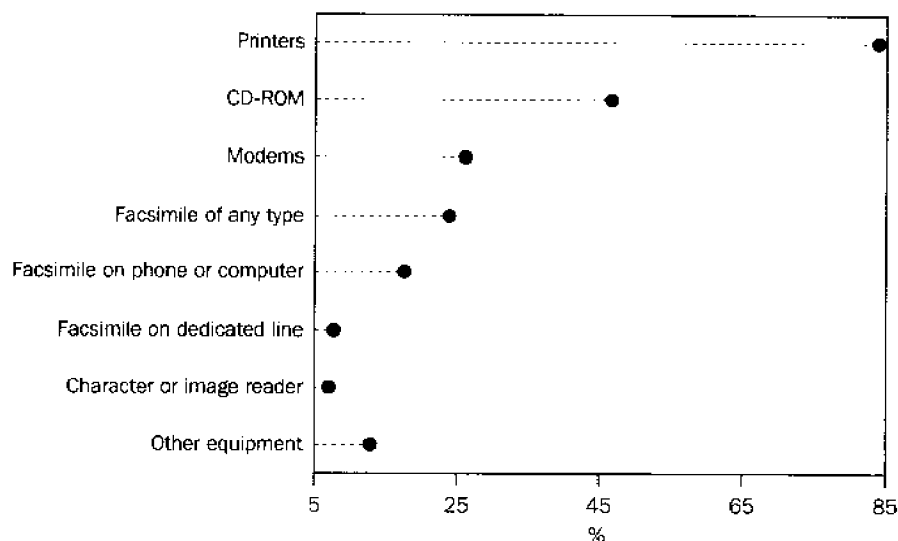
- 84% (1.7 million households) used a printer;
- 47% (nearly 950,000 households) used CD-ROM equipment; and
- 26% (530,000 households) used a modem.

The highest proportional use of CD-ROM drives occurred in Western Australia, with over 53% of households frequently using a computer also using a CD-ROM drive.

The highest proportional use of modems occurred in the Australian Capital Territory, with nearly 32% of households frequently using a computer also using a modem.

In addition to peripheral technologies, an estimated 24% of households frequently using a computer also used a facsimile machine.

USE OF PERIPHERALS IN HOUSEHOLDS WHICH FREQUENTLY USED A COMPUTER



### TYPE OF SOFTWARE USED

Word processing packages were the most popular software packages used in households frequently using a computer (73%). Other popular software packages included:

- computer games software (60%);
- integrated software e.g., Microsoft Office, Open Access, Symphony, (46%); and
- educational software packages (37%).



# USE OF PERIPHERAL EQUIPMENT AND SOFTWARE *continued*

## 5

### USE OF PERIPHERALS AND SOFTWARE BY HOUSEHOLDS WHICH FREQUENTLY USED A COMPUTER

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
PERIPHERAL EQUIPMENT (%)									
Printers	83.6	85.3	86.1	81.0	83.0	79.8	*81.9	83.1	84.1
Character or image reader	7.7	6.1	9.2	*7.1	*5.8	6.4	*5.2	*6.2	7.2
CD-ROM	45.2	46.0	49.5	42.4	53.3	42.0	*50.8	48.5	46.7
Modems	29.2	23.4	25.6	21.8	29.2	18.6	*28.3	31.8	26.3
Facsimile machine									
Dedicated line	8.6	7.4	8.5	*4.4	10.9	5.4	*7.4	*6.1	8.0
Phone or computer	18.8	15.7	18.6	14.8	21.3	14.2	*17.3	*21.1	17.8
Facsimile machine of any type	25.3	22.2	24.7	18.4	30.1	17.6	*22.6	*25.5	24.1
Other equipment	13.9	12.3	13.8	11.9	13.9	*8.6	*13.3	*14.7	13.2
PERIPHERAL EQUIPMENT ('000)									
Printers	559	467	290	134	157	36	*14	44	1 702
Character or image reader	51	34	31	*12	*11	*3	*1	*3	146
CD-ROM	302	252	167	70	101	19	*8	26	945
Modems	196	128	86	36	55	*8	*5	17	532
Facsimile machine									
Dedicated line	57	40	29	*7	21	*2	*1	*3	161
Phone or computer	126	86	63	24	40	*6	*3	*11	360
Facsimile machine of any type	169	122	83	31	57	*8	*4	*14	486
Other equipment	93	67	46	20	26	*4	*2	*8	266
TYPE OF SOFTWARE PACKAGE (%)									
Integrated software packages	44.5	48.4	46.3	45.7	46.0	46.2	*51.3	52.7	46.4
Word processor software	71.9	76.2	73.9	67.4	72.0	62.5	*79.3	79.0	73.1
Business software packages	18.5	15.0	19.5	16.9	24.0	*17.2	*16.3	*16.6	18.0
General purpose spreadsheet	38.2	36.3	32.5	32.0	34.6	*29.8	*37.8	43.0	35.8
General purpose database management	14.8	16.2	15.6	12.9	16.5	*13.2	*16	*17.2	15.3
Programing language software	10.3	8.0	7.9	*7	9.6	*5.3	*5.2	*12.2	8.8
Industry specific packages	10.3	6.3	7.9	*8.3	9.1	*8	*8.7	*11	8.5
Communications software	9.3	7.3	7.1	*6.4	9.0	*5.7	*9.9	*12.4	8.1
Educational software	40.2	30.8	42.9	33.9	34.7	*34	*34.5	33.1	36.7
Games software	58.3	58.4	59.2	59.1	65.6	65.4	*57	62.7	59.5
Other software	6.5	7.0	*4.2	*5.1	*5.1	*5.8	*5.5	*7	6.0
TYPE OF SOFTWARE PACKAGE ('000)									
Integrated software packages	297	265	156	76	87	21	*8	28	939
Word processor software	482	417	249	112	136	28	*13	42	1 479
Business software packages	124	82	66	28	45	*8	*3	*9	364
General purpose spreadsheet	256	199	110	53	65	*13	*6	23	725
General purpose database management	99	88	52	21	31	*6	*3	*9	310
Programing language software	69	44	27	*12	18	*2	*1	*6	178
Industry specific packages	69	35	27	*14	17	*4	*1	*6	172
Communications software	62	40	25	*11	17	*3	*2	*6	164
Educational software	269	169	145	56	65	*15	*6	18	742
Games software	390	320	200	98	124	29	*9	33	1 203
Other software	44	38	*14	*8	*10	*3	*1	*4	121

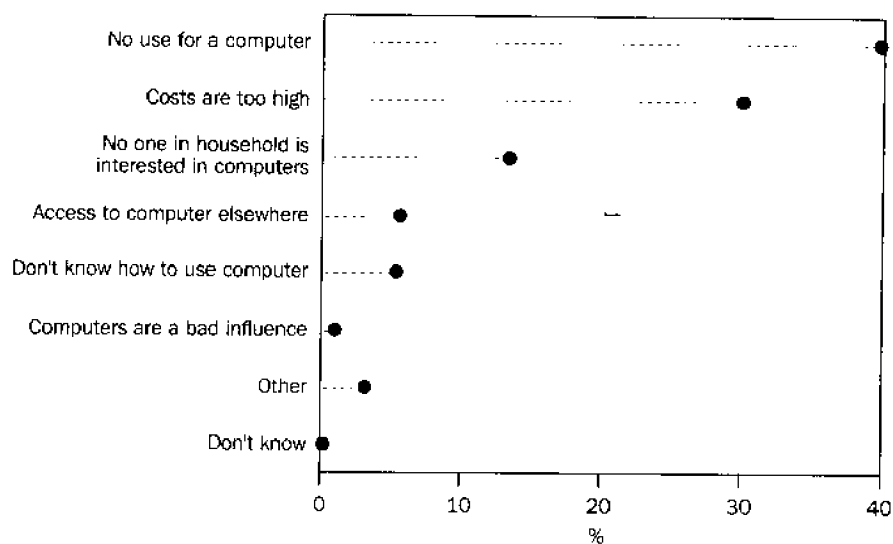
## BARRIERS TO COMPUTER AND MODEM USE

### BARRIERS TO COMPUTER USE

Of the 4.4 million households in 1996 which did not have computing facilities, the main reasons given for not having a computer were:

- 40% had 'no use for a computer';
- 30% reported 'costs too high';
- 14% reported 'no one in household is interested in computer';
- 6% reported 'access to computer elsewhere'; and
- a further 6% reported 'don't know how to use computer'.

MAIN REASON FOR HOUSEHOLDS NOT HAVING COMPUTING FACILITIES



### BARRIERS TO MODEM USE

Of the 1.5 million households which frequently used a computer but did not have a modem:

- 41% were 'not interested/wouldn't use it';
- 29% reported 'costs too high'; and
- 7% reported 'prefer not to have one'.

# BARRIERS TO COMPUTER AND MODEM USE *continued*

## 6

### MAIN REASON FOR HOUSEHOLDS NOT HAVING COMPUTER OR MODEM

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MAIN REASON FOR NOT HAVING A COMPUTER (%)									
No use for a computer	39.0	42.9	37.3	38.0	43.7	37.3	*31.0	35.5	39.8
Costs too high	29.6	28.5	32.4	29.3	31.5	29.7	*32.0	*33.2	30.1
No one in household is interested in computer	14.9	11.5	14.7	16.1	9.8	15.1	*13.4	*8.7	13.6
Computers are bad influence	1.3	*1.3	*1.3	*1.5	*0.8	*1.6	—	*1.4	1.3
Access to computer elsewhere	5.6	6.5	5.2	5.2	4.9	*5.5	*14.3	*13.8	5.8
Don't know how to use computer	6.1	5.0	5.8	5.7	5.0	*6.1	*3.9	*3.0	5.6
Other	3.2	3.4	3.1	*3.6	4.0	*3.7	*3.5	*4.2	3.4
Don't know	*0.2	*0.9	*0.3	*0.7	*0.4	*1.0	—	—	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
MAIN REASON FOR NOT HAVING A COMPUTER ('000)									
No use for a computer	577	442	320	148	189	49	*9	17	1 751
Costs too high	438	294	278	114	137	39	*9	*16	1 324
No one in household is interested in computer	220	118	126	63	42	20	*4	*4	597
Computers are bad influence	20	*13	*11	*6	*3	*2	—	*1	56
Access to computer elsewhere	83	67	44	20	21	*7	*4	*6	253
Don't know how to use computer	91	53	50	22	22	*8	*1	*1	248
Other	46	35	27	*14	17	*5	*1	*2	148
Don't know	*4	*9	*2	*3	*2	*1	—	—	21
<b>Total</b>	<b>1 479</b>	<b>1 031</b>	<b>858</b>	<b>390</b>	<b>434</b>	<b>131</b>	<b>28</b>	<b>47</b>	<b>4 398</b>
MAIN REASON FOR HOUSEHOLDS WITH COMPUTERS NOT HAVING A MODEM (%)									
Not interested/wouldn't use it	39.4	45.5	34.2	43.4	43.7	*34.2	*35.5	*39.7	40.8
Costs too high	28.2	25.1	35.8	29.2	23.3	*34.4	*31.2	*30.9	28.5
Current computer does not have capacity	4.5	4.5	*4.0	*6.9	*2.3	*3.6	—	*2.8	4.3
Wouldn't know how to use it	3.7	*3.0	*2.9	*4.4	*4.6	*4.4	*3.0	*2.5	3.5
Have access elsewhere	*3.4	4.3	*5.4	*4.0	*1.9	*4.3	*9.9	*5.5	4.0
Prefer not to have one	7.5	5.5	9.6	*2.6	*7.9	*8.0	*6.4	*3.9	6.8
Other	8.5	8.3	*6.0	*7.4	12.8	*8.1	*10.7	*12.8	8.4
Don't know	*4.8	*3.9	*2.3	*2.2	*3.5	*3.1	*0.9	*1.9	3.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
MAIN REASON FOR HOUSEHOLDS WITH COMPUTERS NOT HAVING A MODEM ('000)									
Not interested/wouldn't use it	187	191	86	56	58	*13	*4	*14	609
Costs too high	134	105	90	38	31	*13	*4	*11	425
Current computer does not have capacity	21	19	*10	*9	*3	*1	—	*1	65
Wouldn't know how to use it	18	*13	*7	*6	*6	*2	—	*1	52
Have access elsewhere	*16	18	*13	*5	*3	*2	*1	*2	60
Prefer not to have one	36	23	24	*3	*11	*3	*1	*1	102
Other	40	35	*15	*10	17	*3	*1	*5	126
Don't know	23	*16	*6	*3	*5	*1	—	*1	54
<b>Total</b>	<b>474</b>	<b>419</b>	<b>251</b>	<b>130</b>	<b>134</b>	<b>37</b>	<b>*12</b>	<b>36</b>	<b>1 492</b>

## BARRIERS TO COMPUTER USE BY HOUSEHOLD INCOME

As shown earlier, 'no use for one' and 'costs are too high' were the predominant reasons given for households not to have computing facilities. This also generally applies at each level of household income.

The reason which was considered most often to be the main reason varied with size of household income:

- For households with incomes of less than \$19,000, 'no use for one' was given as the main reason by between 40% and 50% of households. For the same households, 'costs are too high' was quoted by between 16% and 31% of households.
- For households with incomes of more the \$53,000, a similar situation occurred. 'No use for one' was quoted as the main reason by between 38% and 43% of households while 'costs are too high' was quoted by between 16% and 30% of households.
- For households with incomes between \$19,000 and \$53,000 the order is reversed. 'Costs are too high' was reported to be the main reason by between 37% and 40% of households, while 'no use for one' was reported on 34% or 35% of occasions.

'No one in household interested in computers' was the other factor which was reported as the main reason on a large number of occasions. This response was more prevalent in the lower income ranges.

'Have access to a computer elsewhere (e.g. at work)' was also reported on a large number of occasions in higher income households.

# BARRIERS TO COMPUTER USE BY HOUSEHOLD INCOME *continued*

## 7

### MAIN REASON FOR HOUSEHOLDS NOT HAVING COMPUTER

	Costs too high	Bad influence	Not interested	Don't know how to use computer	No use for computer	Access to computer elsewhere	Other	Don't know	Total
INCOME (%)									
\$0-\$9 000	15.8	*0.8	20.6	11.4	47.8	*1.2	*2.4	—	100.0
\$9 001-\$14 000	25.5	*1.0	18.3	7.5	44.3	*1.1	*2.2	—	100.0
\$14 001-\$19 000	30.5	*2.0	16.1	6.3	41.5	*0.9	*2.3	*0.4	100.0
\$19 001-\$27 000	39.6	*0.7	14.2	5.0	35.4	*2.2	*2.5	*0.5	100.0
\$27 001-\$35 000	39.2	*1.0	9.8	4.3	35.4	6.1	*3.8	*0.4	100.0
\$35 001-\$44 000	38.6	*1.5	10.6	*3.2	34.1	8.1	*3.9	*0.2	100.0
\$44 001-\$53 000	36.9	*1.4	6.7	5.6	34.0	10.7	*4.0	*0.8	100.0
\$53 001-\$66 000	30.4	*1.0	9.1	*2.6	38.1	14.0	*4.8	—	100.0
\$66 001-\$84 000	28.8	*0.9	10.6	*1.9	40.2	12.7	*4.8	—	100.0
\$84 001+	15.7	*2.6	*6.8	*4.1	42.7	21.3	*6.0	*0.9	100.0
Not stated	26.6	*1.4	14.6	5.6	41.3	5.4	3.7	*1.3	100.0
<b>Total</b>	<b>30.1</b>	<b>1.3</b>	<b>13.6</b>	<b>5.6</b>	<b>39.8</b>	<b>5.8</b>	<b>3.4</b>	<b>0.5</b>	<b>100.0</b>
INCOME ('000)									
\$0-\$9 000	66	*3	86	48	200	*5	*10	—	419
\$9 001-\$14 000	127	*5	91	37	221	*6	*11	—	500
\$14 001-\$19 000	175	*11	92	36	238	*5	*13	*3	574
\$19 001-\$27 000	188	*3	67	24	168	*10	*12	*2	475
\$27 001-\$35 000	154	*4	38	17	139	24	*15	*2	393
\$35 001-\$44 000	140	*5	38	*11	123	29	*14	*1	362
\$44 001-\$53 000	113	*4	20	17	104	33	*12	*2	306
\$53 001-\$66 000	81	*3	24	*7	102	37	*13	—	267
\$66 001-\$84 000	64	*2	24	*4	90	28	*11	—	223
\$84 001+	27	*5	*12	*7	75	37	*10	*2	175
Not stated	187	*10	103	40	291	38	26	*9	704
<b>Total</b>	<b>1 324</b>	<b>56</b>	<b>597</b>	<b>248</b>	<b>1 751</b>	<b>253</b>	<b>148</b>	<b>21</b>	<b>4 398</b>

# COMMUNICATION TECHNOLOGIES AND PAY TV SERVICES

## COMMUNICATION TECHNOLOGIES

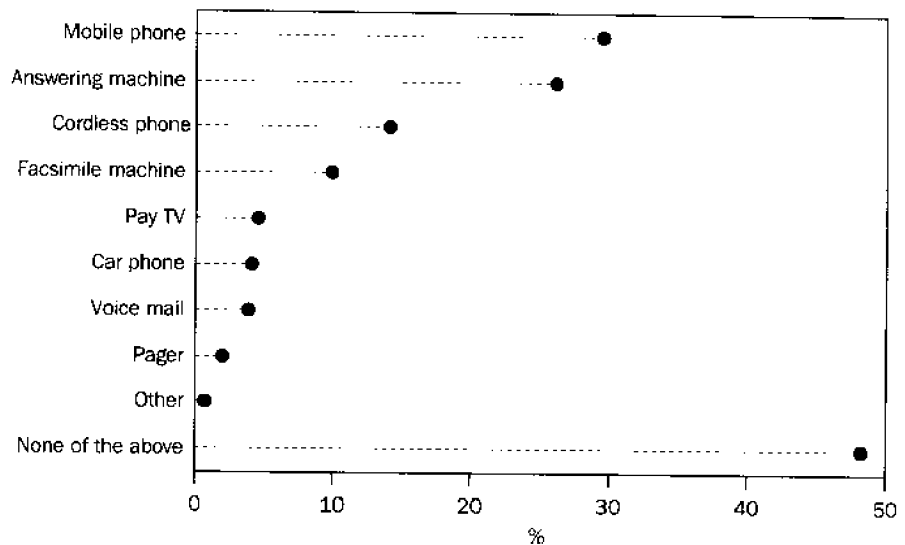
Of the 6.6 million households in Australia in 1996:

- nearly 97% had a fixed premise telephone connected;
- 30% had a mobile phone;
- 26% had an answering machine;
- 14% had a cordless phone; and
- 10% had a facsimile machine.

Over 48% of households did not have any of the selected communication technologies other than a fixed premise telephone.

Of the 210,000 households which did not have a fixed premise telephone, 21% or 44,000 households, had a mobile phone, leaving 166,000 households without any form of telephone service.

HOUSEHOLDS OWNING/PAYING FOR SELECTED COMMUNICATIONS TECHNOLOGIES



## PAY TV SERVICES

The eastern States had a greater proportion of households paying for pay TV services than other States:

- 6% in Victoria;
- 5% in New South Wales and Queensland;
- 4% in the Australian Capital Territory;
- 2% for South Australia and Western Australia; and
- less than 1% for Tasmania and the Northern Territory.

# COMMUNICATION TECHNOLOGIES AND PAY TV SERVICES *continued*

## 8

### HOUSEHOLDS OWNING/PAYING FOR SELECTED COMMUNICATIONS TECHNOLOGIES

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
HOUSEHOLDS OWNING/PAYING FOR COMMUNICATIONS TECHNOLOGIES (%)									
Facsimile machine									
Dedicated line	3.9	3.1	3.4	1.8	4.5	*2.1	*3.9	*3.8	3.5
Other connection	7.5	6.6	7.3	5.7	8.3	*4.5	*8.3	*11.3	7.1
Facsimile machine	10.7	9.4	9.9	7.3	12.2	*6.0	*11.4	*14.1	10.0
Mobile phone	30.6	30.9	33.0	21.9	26.3	19.9	*28.1	32.3	29.7
Car phone	5.5	3.4	5.5	*2.1	*2.5	*1.7	*1.7	*3.3	4.2
Cordless phone	14.5	14.8	11.6	15.2	15.5	13.1	*12.8	18.2	14.2
Answering machine	27.7	30.2	20.6	23.7	25.8	17.8	*23.0	34.2	26.3
Pager	2.6	*2.2	*1.2	*2.0	*2.4	*1.9	*2.3	*1.9	2.1
Voice mail	4.0	4.9	4.2	*2.6	3.8	*1.3	*3.5	*5.3	4.0
Pay TV(a)	5.3	6.0	5.2	*2.1	*2.2	*0.7	—	*4.2	4.7
Other	0.9	*0.7	*1.0	*0.5	*0.7	*0.9	—	*1.0	0.8
None of the above	45.1	46.6	51.4	55.1	50.2	61.4	50.2	41.3	48.4
Don't know	*0.6	*0.7	*0.3	*0.6	*0.5	*0.3	—	—	0.5
Telephone connected	97.2	97.5	95.3	97.6	96.4	94.7	93.7	98.3	96.8

### HOUSEHOLDS OWNING/PAYING FOR COMMUNICATIONS TECHNOLOGIES ('000)

Facsimile machine									
Dedicated line	86	51	41	10	29	*4	*2	*4	228
Other connection	165	107	89	32	54	*8	*4	*12	471
Facsimile machine of any type	237	153	121	41	79	*11	*5	*15	663
Mobile phone	677	503	403	124	170	36	*13	34	1 960
Car phone	121	56	68	*12	*16	*3	*1	*3	280
Cordless phone	321	241	142	86	100	24	*6	19	940
Answering machine	614	491	252	134	167	32	*11	36	1 737
Pager	57	36	*14	*11	*15	*3	*1	*2	141
Voice mail	87	80	51	*15	24	*2	*2	*6	267
Pay TV(a)	118	98	64	*12	*14	*1	—	*4	312
Other	20	*11	*13	*3	*4	*2	—	*1	54
None of the above	998	758	629	312	325	111	24	43	3 199
Don't know	*13	*12	*3	*4	*3	*1	—	—	36
Telephone connected	2 153	1 586	1 165	553	624	171	44	103	6 398
<b>Total number of households in each State</b>	<b>2 214</b>	<b>1 626</b>	<b>1 222</b>	<b>567</b>	<b>647</b>	<b>181</b>	<b>47</b>	<b>105</b>	<b>6 608</b>

(a) Pay TV services are not widely available in all areas of Australia.

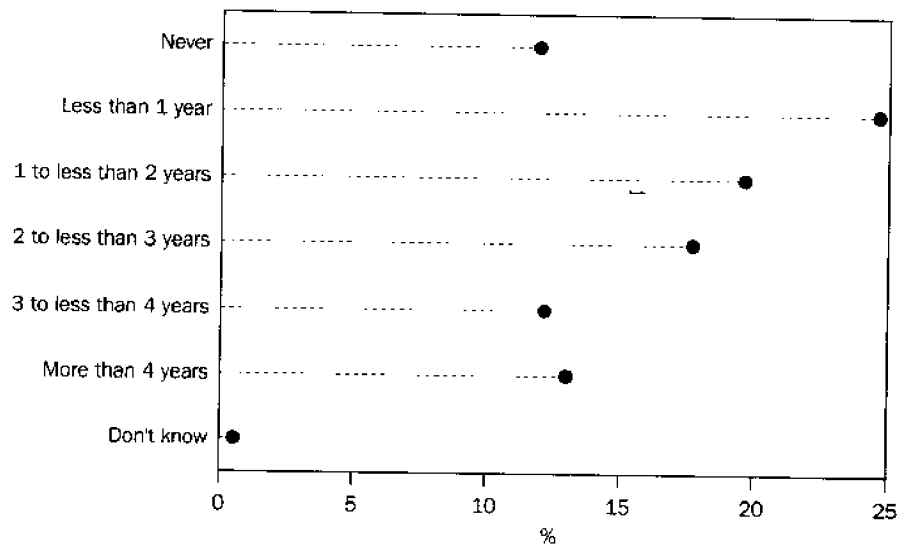
## INTERVAL SINCE LAST COMPUTER PURCHASED

Of the 2 million households frequently using a computer in 1996:

- 25% had purchased a computer less than 1 year ago;
- 20% had purchased a computer between 1 and 2 years ago;
- 18% had purchased a computer between 2 and 3 years ago;
- 25% had purchased a computer 3 years or more ago; and
- 12% had never purchased a computer.

The majority of computers used by households which had never purchased a computer were owned by an employer or a home-based business.

YEARS SINCE LAST COMPUTER PURCHASED OR LEASED





**INTERVAL SINCE LAST COMPUTER PURCHASED** *continued*

**9**

**YEARS SINCE LAST COMPUTER PURCHASED OR LEASED**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED (%)									
Never	9.8	13.0	12.5	15.0	11.4	*17.9	*13.1	13.8	12.0
Less than 1 year	23.6	23.8	28.3	23.5	25.6	*24.3	*23.5	25.5	24.7
1 to less than 2 years	20.8	19.8	18.0	19.4	19.1	*20.9	*20.8	17.4	19.7
2 to less than 3 years	17.9	20.1	17.4	13.3	16.9	*12.3	*18.3	16.3	17.8
3 years to less than 4 years	12.3	11.8	13.0	11.7	12.2	*11.5	*9.4	11.2	12.2
More than 4 years	15.1	10.8	10.3	17.1	14.4	*12.4	*13.9	15.3	13.1
Don't know	*0.6	*0.7	*0.5	*0.2	*0.5	*0.8	*1.1	*0.5	*0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED ('000)									
Never	65	71	42	25	22	*8	*2	*7	243
Less than 1 year	158	131	96	39	48	*11	*4	*14	500
1 to less than 2 years	139	109	61	32	36	*9	*3	*9	398
2 to less than 3 years	120	110	59	22	32	*6	*3	*9	360
3 years to less than 4 years	82	65	44	19	23	*5	*2	*6	246
More than 4 years	101	59	35	28	27	*6	*2	*8	266
Don't know	*4	*4	*2	—	*1	—	—	—	*11
<b>Total</b>	<b>669</b>	<b>548</b>	<b>337</b>	<b>166</b>	<b>189</b>	<b>45</b>	<b>17</b>	<b>53</b>	<b>2 024</b>

## **EXPENDITURE ON INFORMATION TECHNOLOGY**

### **EXPENDITURE ON COMPUTERS**

In total, nearly 1.5 million (75%) households frequently using a computer spent some money on computer equipment, software and services in 1996.

Of the 1.7 million households frequently using a desktop or personal computer 57% had spent no amount of money in the last 12 months and 19% had spent more than \$1,000.

Of the 318,000 households frequently using a portable computer in 1996:

- 77% had spent no money in the last 12 months; and
- 10% had spent more than \$1,000.

Of the 170,000 households that originally purchased a computer as part of a computer package deal (non-itemised purchase of a number of components including software):

- 31% had spent \$1,001-3,000 in the last 12 months;
- 34% had spent \$3,001-5,000; and
- 4% had spent over \$5,000.

### **INTENTION TO SPEND**

Approximately 1.2 million households indicated an intention to undertake a computer-related purchase in the next 12 months. Of these, nearly 40%, or 479,000 households, did not already have computing facilities.

Of the 1.2 million households indicating some expenditure intention in the next 12 months:

- 37% intended to spend \$1,001-3,000;
- 36% intended to spend \$1-1,000;
- 18% intended to spend \$3,001-5,000;
- 3% intended to spend over \$5,000; and
- 7% could not specify the amount they intended to spend.

# EXPENDITURE ON INFORMATION TECHNOLOGY *continued*

## 10

### HOUSEHOLD EXPENDITURE AND EXPECTED EXPENDITURE ON COMPUTER EQUIPMENT AND SERVICES

Type of computer equipment/service	Nil	\$1- \$1 000	\$1 001- \$3 000	\$3 001- \$5 000	Over \$5 000	Don't know
EXPENDITURE IN THE LAST 12 MONTHS (%)						
Portable computer	77.3	10.7	*3.6	*4.0	*2.5	2.0
Desktop or personal computer	57.2	22.0	11.7	5.9	*0.9	2.3
Combined portable and desktop computer	58.6	*14.3	*9.6	*9.0	*3.9	*4.6
Dedicated word processor	65.2	24.5	*3.5	—	—	*6.9
Other computers	88.0	*4.4	*7.4	—	—	*0.2
Computer packages	19.4	10.0	30.7	33.5	*3.6	*2.8
Computer peripherals (including printers, character or image readers or scanners, CD-ROM, modems)	50.4	32.2	5.0	2.0	*0.8	9.5
Software	47.2	43.7	2.8	*0.2	—	6.2
Computer training	88.9	8.6	*0.2	*0.1	—	2.2
Computer repairs/maintenance	81.2	16.0	*0.5	—	—	2.2
EXPENDITURE IN THE LAST 12 MONTHS ('000)						
Portable computer	246	34	*11	*13	*8	6
Desktop or personal computer	970	372	199	101	*16	38
Combined portable and desktop computer	19	*5	*3	*3	*1	*2
Dedicated word processor	44	17	*2	—	—	*5
Other computers	26	*1	*2	—	—	—
Computer packages	33	17	52	57	*6	*5
Computer peripherals (including printers, character or image readers or scanners, CD-ROM, modems)	921	589	91	37	*15	174
Software	955	884	56	*4	—	125
Computer training	1 799	174	*5	*2	—	45
Computer repairs/maintenance	1 644	324	*10	—	—	45
EXPECTED EXPENDITURE (%)						
In the next 12 months	n.a.	35.9	36.9	17.5	2.7	7.1
In the next 2 years (excluding the next 12 months)	n.a.	20.9	44.0	18.7	*1.3	15.1
EXPECTED EXPENDITURE ('000)						
In the next 12 months	n.a.	447	460	218	33	88
In the next 2 years (excluding the next 12 months)	n.a.	146	308	131	*9	106

## MODEM AND ONLINE ACCESS FEES

Of the 532,000 households with a modem:

- 47% had spent no money in the last 12 months on telephone line fees and charges and 53% had spent no money on access fees for on-line facilities;
- 33% had spent no money on either telephone line fees and charges or access fees for on-line facilities;
- 28% spent up to \$100 on telephone line fees and charges and 20% had spent up to \$100 on access fees for on-line facilities; and
- 10% had spent between \$101 and \$250 for both categories of modem expenses.

Some possible explanations for more than half of the modem households paying no access or modem fees included:

- persons or organisations outside the household incurring the 'access' expenses on behalf of the household computer user (e.g. employers);
- households purchasing package deals which provided for a limited period of free access to the Internet with every purchase of a modem; or
- households with modems not using the modem during the survey reference period.

**MODEM AND ONLINE ACCESS FEES** *continued*

**11**

EXPENDITURE ON MODEM CONNECTION FEES

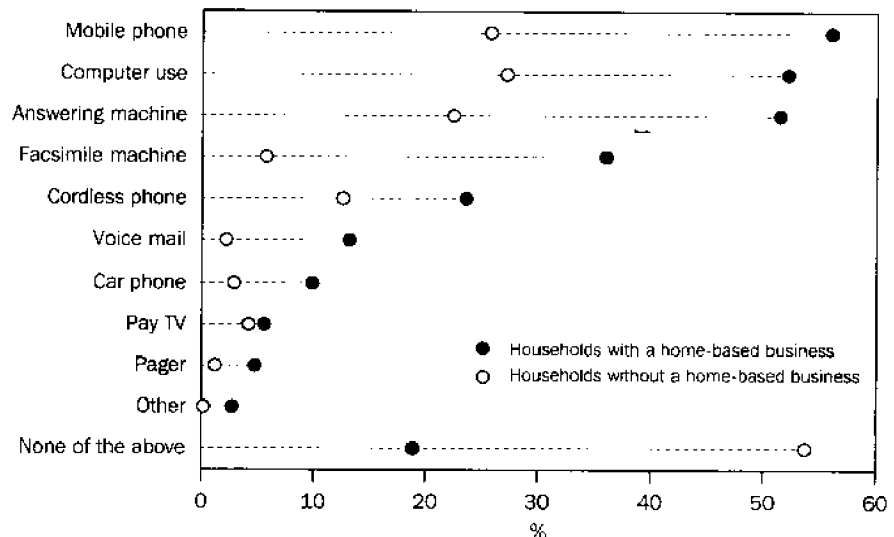
	<i>Nil</i>	<i>\$1-\$100</i>	<i>\$101-\$250</i>	<i>\$251-\$500</i>	<i>\$501-\$1 000</i>	<i>Over \$1 000</i>	<i>Don't know</i>	<i>Total households using a modem</i>
	EXPENDITURE (%)							
Telephone line fees and charges	47.3	28.0	9.6	3.8	*1.1	*0.3	9.9	100.0
Access fees for on-line facilities	52.5	20.1	10.4	6.1	*1.7	*1.3	7.8	100.0
	EXPENDITURE ('000)							
Telephone line fees and charges	252	149	51	20	*6	*1	53	532
Access fees for on-line facilities	279	107	56	33	*9	*7	41	532

## HOME-BASED BUSINESSES

Households with home-based businesses on average were more likely to utilise the technologies identified in the survey than households without home-based businesses:

- 55% of households with a home-based business owned or paid for a mobile phone, compared to 25% for households without a home-based business;
- over 51% frequently used a computer, compared to 27% for households without a home-based business;
- 51% owned or paid for an answering machine, compared to 23% for households without a home-based business; and
- 36% owned or paid for a facsimile machine, compared to 6% for households without a home-based business.

HOUSEHOLDS USING COMPUTERS OR OWNING/PAYING FOR SELECTED COMMUNICATIONS TECHNOLOGIES



Of the 455,000 households with a home-based business which frequently used a computer in 1996:

- 91% used a printer;
- 50% used a facsimile machine;
- 47% used a CD-ROM drive;
- 31% used a modem; and
- 10% used a character or image readers.

# HOME-BASED BUSINESSES *continued*

## 12

### HOUSEHOLDS WITH HOME-BASED BUSINESS USING OR OWNING/PAYING FOR COMMUNICATIONS TECHNOLOGIES

	NSW	Vic.	Qld.	SA	WA	Tas.	NT	ACT	Aust.
Households (%)									
Frequently use a computer (%)	50.0	58.6	45.3	52.1	49.2	*43.4	*54.1	*71.0	51.4
Frequently use a computer ('000)	147	120	78	36	50	*10	*3	*12	455
Owning or paying for communication equipment (%)									
Facsimile machine	33.9	36.4	36.6	26.5	43.8	*25.8	*39.7	*43.6	35.6
Mobile phone	53.4	56.7	65.1	49.3	46.5	*44.5	*55.8	*56.5	55.1
Car phone	14.1	*6.8	11.1	*6.1	*7.6	*6.3	*4.6	*6.3	10.1
Cordless phone	21.0	29.7	20.4	*23.6	23.4	*19.9	*17.2	*24.1	23.4
Answering machine	48.2	59.7	46.5	44.7	50.2	*45.8	*46	*57.2	50.6
Pager	6.2	*3.9	*4.6	*2.6	*5.9	*5.9	*5.8	*2.7	5.0
Voice mail	11.6	15.8	16.6	*10.9	*10.6	*6.3	*8.5	*14.7	13.3
Pay TV	5.9	*7.8	*7.1	*3.1	*3.0	*0.5	—	*5.7	5.8
Other	*4.0	*2.5	*4.1	*1.1	*0.8	*3.2	*0.7	*1.8	3.0
None of the above	18.9	16.2	20.2	*21.6	19.8	26.3	*19.1	*17.2	19.0
Standard telephone	99.4	99.6	99.1	99.5	98.8	98.8	*99.3	*98.7	99.3
Households ('000)									
Owning or paying for communication equipment ('000)									
Facsimile machine	100	75	63	18	44	*6	*2	*7	315
Mobile phone	157	116	112	34	47	*10	*3	*9	488
Car phone	41	*14	19	*4	*8	*1	—	*1	89
Cordless phone	62	61	35	*16	24	—*4	*1	*4	207
Answering machine	142	123	80	31	51	*10	*2	*9	448
Pager	18	*8	*8	*2	*6	*1	—	—	44
Voice mail	34	32	28	*8	*11	*1	—	*2	118
Pay TV	17	*16	*12	*2	*3	—	—	*1	52
Other	*12	*5	*7	*1	*1	*1	—	—	26
None of the above	56	33	35	*15	20	*6	*1	*3	168
Standard telephone	292	204	171	69	100	22	*5	*16	879
Total number of households with a home based business	294	205	172	70	101	22	*5	*16	886
Households with home-based business and computer									
Use of peripherals (%)									
Printer	87.7	94.6	94.0	90.7	90.4	*91.2	*96.2	*91.9	91.3
Character or image readers	*6.6	14.1	*12.1	*11.1	*7.6	*3.6	*3.1	*9.0	10.0
CD-ROM equipment	45.3	46.1	50.0	49.5	48.6	*48	*53.7	*53.2	47.3
Modem	30.2	26.7	32.9	*31.4	36.0	*29.3	*31.4	*40.6	30.7
Facsimile machine	45.1	49.7	59.4	*37.3	62.5	*43.3	*53.9	*55.1	50.3
Other equipment	20.5	18.8	*13.3	*20.2	*18.5	*8.6	*15.4	*17.3	18.2
Use of peripherals ('000)									
Printer	129	114	73	33	45	*9	*3	*11	416
Character or image readers	*10	17	*9	*4	*4	—	—	*1	45
CD-ROM equipment	67	55	39	18	24	*5	*2	*6	215
Modem	44	32	26	*11	18	*3	*1	*5	140
Facsimile machine	66	60	46	*14	31	*4	*2	*6	229
Other equipment	30	23	*10	*7	*9	*1	—	*2	83

## HOME COMPUTER USERS

In 1996, 4 million persons aged 5 years and over (24% of Australia's total population 5 years and over) used a computer at home. By State, these percentages were:

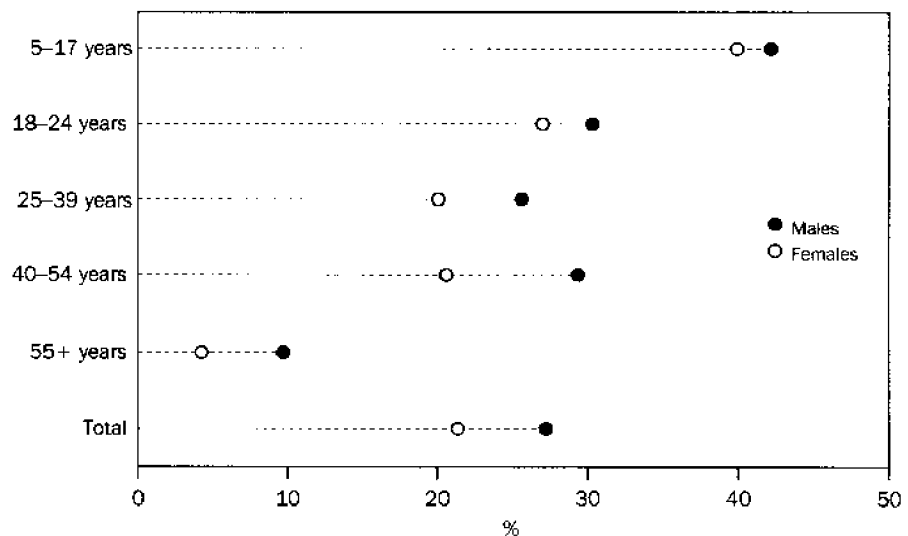
- 40% for the Australian Capital Territory;
- 30% for the Northern Territory;
- 26% for Victoria;
- 24% for South Australia;
- 24% for Western Australia;
- 23% for New South Wales;
- 23% for Queensland; and
- 21% for Tasmania.

Within age groups the proportions of the Australian population who were home computer users were:

- 41% of 5–17 year olds;
- 29% of 18–24 year olds;
- 23% of 25–39 year olds;
- 25% of 40–54 year olds; and
- 7% of person aged 55 years and over.

Over 2.2 million males used a home computer compared with 1.8 million females. The following graph shows that for each of the specified age groups, a higher proportion of males used a home computer than females.

COMPUTER USAGE, BY AGE AND SEX





# HOME COMPUTER USERS *continued*

## 13

### PERSONS 5 YEARS AND OVER USING A COMPUTER AT HOME

Age group (years)	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MALES (%)									
5-17	41.6	45.0	37.2	47.3	42.4	36.1	*44.3	*56.1	42.3
18-24	28.3	37.2	25.1	33.0	27.3	*29.6	*18.2	*47.6	30.5
25-39	25.1	27.3	23.4	27.0	24.5	*24.2	*28.7	*43.8	25.8
40-54	27.8	32.4	29.6	29.8	27.2	*22.9	*29.7	*45.4	29.5
55+	9.4	11.7	7.9	8.6	9.8	*7.0	*15.5	*24.0	9.8
<b>Total</b>	<b>26.1</b>	<b>30.1</b>	<b>24.8</b>	<b>28.4</b>	<b>26.5</b>	<b>23.6</b>	<b>30.8</b>	<b>44.7</b>	<b>27.3</b>
MALES ('000)									
5-17	229	188	114	63	69	17	*8	*16	705
18-24	89	88	45	23	24	*7	*1	*9	286
25-39	174	142	86	44	50	*13	*5	*15	527
40-54	172	143	100	46	48	*11	*4	*14	538
55+	54	48	23	12	14	*3	*1	*4	159
<b>Total</b>	<b>717</b>	<b>608</b>	<b>368</b>	<b>187</b>	<b>206</b>	<b>50</b>	<b>20</b>	<b>58</b>	<b>2 215</b>
FEMALES (%)									
5-17	35.7	45.4	41.2	41.0	37.0	*36.6	*41.7	61.5	40.1
18-24	26.7	34.2	25.4	*23.2	*16.6	*17.9	*16.5	*39.2	27.1
25-39	19.7	19.0	21.2	19.2	22.6	17.4	*24.7	*30.0	20.2
40-54	19.9	22.3	20.2	20.5	19.6	15.1	*30.3	*30.3	20.7
55+	5.2	4.0	3.2	*3.9	*4.5	*4.1	*12.6	*11.5	4.4
<b>Total</b>	<b>20.3</b>	<b>22.9</b>	<b>21.9</b>	<b>20.2</b>	<b>20.8</b>	<b>17.7</b>	<b>28.7</b>	<b>34.7</b>	<b>21.5</b>
FEMALES ('000)									
5-17	191	169	127	50	62	*16	*8	17	639
18-24	82	79	45	*16	15	*4	*1	*7	249
25-39	139	100	81	31	44	*9	*5	*10	420
40-54	122	100	66	32	35	*7	*4	*10	376
55+	33	18	*10	*6	*7	*2	*1	*2	80
<b>Total</b>	<b>567</b>	<b>466</b>	<b>328</b>	<b>135</b>	<b>164</b>	<b>38</b>	<b>19</b>	<b>47</b>	<b>1 763</b>
PERSONS (%)									
5-17	38.7	45.2	39.2	44.3	39.6	36.3	*43.0	58.7	41.2
18-24	27.5	35.7	25.2	28.2	22.0	*23.9	*17.4	*43.4	28.8
25-39	22.4	23.1	22.3	23.1	23.6	20.8	*26.5	36.8	23.0
40-54	23.8	27.3	25.0	25.2	23.4	19.0	*30.0	37.6	25.1
55+	7.2	7.6	5.5	6.1	7.0	*5.5	*14.1	*17.3	7.0
<b>Total</b>	<b>23.2</b>	<b>26.4</b>	<b>23.4</b>	<b>24.3</b>	<b>23.6</b>	<b>20.7</b>	<b>29.7</b>	<b>39.6</b>	<b>24.4</b>
PERSONS ('000)									
5-17	420	357	241	113	131	33	*16	33	1 344
18-24	171	166	89	39	39	*11	*2	*16	535
25-39	313	242	167	75	94	22	*10	25	947
40-54	293	243	166	77	84	18	*9	24	913
55+	86	66	33	18	21	*5	*2	*7	238
<b>Total</b>	<b>1 284</b>	<b>1 075</b>	<b>696</b>	<b>323</b>	<b>370</b>	<b>88</b>	<b>38</b>	<b>105</b>	<b>3 977</b>

## HOME COMPUTER USERS WHO ARE 18 YEARS AND OVER

### HIGHEST EDUCATIONAL QUALIFICATION

There were an estimated 2.7 million persons 18 years and over who used a computer at home. Of these:

- 945,000 had a secondary school certificate as their highest qualification (14% of all persons 18 years and over with a secondary school certificate as their highest qualification);
- 750,000 had a Bachelors degree (44% of all persons 18 years and over with a Bachelors degree as their highest educational qualification);
- 288,000 had an Associate undergraduate diploma (32% of all persons 18 years and over with an Associate undergraduate diploma as their highest educational qualification); and
- 248,000 had a Trade certificate/apprenticeship (16% of all persons 18 years and over with this award as their highest educational qualification).

### ETHNICITY

There was no difference between the proportion of Australian born and overseas born home computer users. For both groups 21% of persons 18 years and over used a computer at home.

### OCCUPATION

Of the 2.1 million employed persons 18 years and over who used a computer at home in 1996:

- 570,000 were Professionals (48% of all professionals);
- 362,000 were Managers and administrators (32% of all Managers and administrators);
- 326,000 were Clerks (26% of all clerks);
- 304,000 were Sales/personal service workers (25% of all Sales/personal service workers);
- 160,000 were Trade persons (15% of Trade persons); and
- 159,000 were Para professionals (33% of all Para professionals).

Plant/machinery operators and drivers along with Labourers and related workers, had the lowest participation rates; less than 14% used a computer at home.

# HOME COMPUTER USERS WHO ARE 18 YEARS AND OVER *continued*

## 14

### PERSONS 18 YEARS AND OVER USING A COMPUTER AT HOME

	Males	Females	Persons
HIGHEST EDUCATION QUALIFICATION (%)			
Still attending school	52.2	*71.2	55.7
Secondary school certificate	17.2	11.6	14.0
Trade certificate/apprenticeship	17.4	9.8	16.3
Other certificate	25.1	17.6	20.7
Associate undergraduate diploma	39.8	26.1	31.9
Bachelors degree	49.6	37.6	44.2
Other	*43.3	*4.8	*17.4
<b>Total</b>	<b>24.6</b>	<b>16.9</b>	<b>20.7</b>
HIGHEST EDUCATION QUALIFICATION ('000)			
Still attending school	24	*7	31
Secondary school certificate	499	445	945
Trade certificate/apprenticeship	226	22	248
Other certificate	214	213	427
Associate undergraduate diploma	152	135	288
Bachelors degree	460	291	750
Other	*10	*2	*12
<b>Total</b>	<b>1 585</b>	<b>1 116</b>	<b>2 701</b>
PLACE OF BIRTH (%)			
Born in Australia	24.7	16.9	20.7
Born outside Australia	24.6	16.8	20.9
<b>Total</b>	<b>24.6</b>	<b>16.9</b>	<b>20.7</b>
PLACE OF BIRTH ('000)			
Born in Australia	1 128	827	1 955
Born outside Australia	457	290	746
<b>Total</b>	<b>1 585</b>	<b>1 116</b>	<b>2 701</b>
OCCUPATION STATUS (%)			
Managers and administrators	32.8	30.3	32.2
Professionals	53.1	41.6	47.9
Para professionals	40.6	22.7	32.8
Trade persons	15.6	*9.1	15.0
Clerks	33.6	23.9	26.2
Sales/personal service workers	32.5	20.9	25.0
Plant/machinery operators and drivers	14.7	*8.9	13.6
Labourers and related workers	14.2	11.5	13.2
Not stated	10.7	10.1	10.4
<b>Total</b>	<b>28.2</b>	<b>24.2</b>	<b>26.5</b>
OCCUPATION STATUS ('000)			
Managers and administrators	275	86	362
Professionals	341	224	565
Para professionals	111	48	159
Trade persons	151	*9	160
Clerks	99	227	326
Sales/personal service workers	142	163	304
Plant/machinery operators and drivers	64	*9	73
Labourers and related workers	87	45	132
Not stated	—	—	—
<b>Total</b>	<b>1 270</b>	<b>811</b>	<b>2 081</b>

## USE OF COMPUTERS OUTSIDE THE HOME

Of the 2.1 million employed persons 18 years and over who used a computer at home:

- 62% (1.3 million persons) also used a computer at work;
- 15% (319,000 persons) also used a computer at an educational institution; and
- 3% (52,000 persons) also used a computer at a community/volunteer organisation.

Approximately 30% of employed persons 18 years and over who used a computer at home did not use a computer outside the home.

## 15

### USE OF COMPUTERS OUTSIDE THE HOME BY ADULT HOME COMPUTER USERS

	Work	Educational Institution	Community/volunteer organisation
MALES (%)			
Managers and administrators	76.8	*4.8	*2.6
Professionals	80.8	16.0	*2.7
Para professionals	87.6	*6.0	*1.5
Trade persons	44.3	*9.7	—
Clerks	76.6	23.1	*4.4
Sales/personal service workers	34.8	32.3	*2.3
Plant/machinery operators and drivers	*21.0	*1.7	—
Labourers and related workers	29.5	*17.9	*4.5
<i>Total</i>	64.2	13.7	*2.3
MALES ('000)			
Managers and administrators	211	*13	*7
Professionals	275	54	*9
Para professionals	97	*7	*2
Trade persons	67	*15	—
Clerks	76	23	*4
Sales/personal service workers	49	46	*3
Plant/machinery operators and drivers	*13	*1	—
Labourers and related workers	26	*15	*4
<i>Total</i>	816	174	30

... continued

**USE OF COMPUTERS OUTSIDE THE HOME** *continued*

**15**

USE OF COMPUTERS OUTSIDE THE HOME BY ADULT HOME COMPUTER USERS — *continued*

	Work	Educational Institution	Community/volunteer organisation
FEMALES (%)			
Managers and administrators	67.0	*5.9	*1.8
Professionals	70.4	*23.2	*1.5
Para professionals	70.9	*19.0	*6.9
Trade persons	3.2	*9.8	—
Clerks	71.0	12.3	*4.0
Sales/personal service workers	35.6	24.5	*2.4
Plant/machinery operators and drivers	*70.0	—	—
Labourers and related workers	*10.3	*23.5	*3.7
<b>Total</b>	<b>59.1</b>	<b>17.9</b>	<b>*2.8</b>
FEMALES ('000)			
Managers and administrators	58	*5	*2
Professionals	158	*5	*3
Para professionals	34	*9	*3
Trade persons	—	*1	—
Clerks	161	28	*9
Sales/personal service workers	58	40	*4
Plant/machinery operators and drivers	*6	—	—
Labourers and related workers	*5	*11	*2
<b>Total</b>	<b>480</b>	<b>145</b>	<b>23</b>
PERSONS (%)			
Managers and administrators	74.4	5.0	*2.4
Professionals	76.7	18.8	*2.2
Para professionals	82.6	*9.9	*3.2
Trade persons	42.0	*9.7	—
Clerks	72.7	15.6	*4.1
Sales/personal service workers	35.3	28.2	*2.4
Plant/machinery operators and drivers	27.0	*1.5	—
Labourers and related workers	22.9	19.8	*4.2
<b>Total</b>	<b>62.2</b>	<b>15.4</b>	<b>2.5</b>
PERSONS ('000)			
Managers and administrators	269	18	*9
Professionals	433	106	*12
Para professionals	131	*16	*5
Trade persons	67	*15	—
Clerks	237	51	*13
Sales/personal service workers	107	86	*7
Plant/machinery operators and drivers	20	*1	—
Labourers and related workers	30	26	*6
<b>Total</b>	<b>1 295</b>	<b>319</b>	<b>52</b>

## COMPUTER COMPETENCY

Of the 2.1 million employed persons 18 years and over who used a computer at home:

- 39% described themselves as competent computer users;
- 39% described their computer skills as adequate; and
- 22% rated their computer skills as elementary.

Persons in occupations such as 'Managers and administrators' and 'Professionals' were more likely to describe their computer skills as 'competent' than persons in other occupations. Nearly 48% of 'Managers and administrators' and 'Professionals' using a computer at home described their computer skills as 'competent.' Much smaller proportions of persons in these occupations described their computer skills as 'elementary or 'adequate'.

For other occupations, the proportion of persons considering themselves to have 'competent' computer skills was always less than the proportion considering their skills to be 'adequate'.

Employed males 18 years and over who used a computer at home, were more likely to describe their computer skills as 'competent' than females (i.e. 45% of males compared to 31% of females):

- 51% of males 18 years and over in the occupational category 'Managers and administrators' who used a computer at home described their computer skills as competent compared with 40% of females;
- 60% of male 'Professionals' compared with 31% of females; and
- 40% of male 'Para professionals' compared with 23% of females.

**COMPUTER COMPETENCY** *continued*

**16**

**EMPLOYED PERSONS 18 YEARS & OVER USING A COMPUTER AT HOME, LEVEL OF COMPETENCY**

	Elementary	Adequate	Competent	Don't know	Total
MALES (%)					
Managers and administrators	20.8	28.3	51.0	—	100.0
Professionals	7.1	33.1	59.7	—	100.0
Para professionals	17.5	43.0	39.6	—	100.0
Trade persons	26.7	39.8	33.5	—	100.0
Clerks	22.2	42.0	35.8	—	100.0
Sales/personal service workers	23.1	31.8	43.2	*1.9	100.0
Plant/machinery operators and drivers	33.4	51.3	*15.3	—	100.0
Labourers and related workers	23.5	49.6	26.9	—	100.0
Not stated	—	100.0	—	—	100.0
<i>Total</i>	18.7	36.3	44.7	*0.2	100.0
MALES ('000)					
Managers and administrators	57	78	140	—	275
Professionals	24	113	203	—	341
Para professionals	19	48	44	—	111
Trade persons	40	60	51	—	151
Clerks	22	42	36	—	99
Sales/personal service workers	33	45	61	*3	142
Plant/machinery operators and drivers	21	33	*10	—	64
Labourers and related workers	20	43	23	—	87
Not stated	—	—	—	—	—
<i>Total</i>	238	461	568	*3	1 270
FEMALES (%)					
Managers and administrators	16.0	43.7	40.3	—	100.0
Professionals	30.6	38.3	31.1	—	100.0
Para professionals	27.1	50.4	*22.6	—	100.0
Trade persons	0.7	*93.4	*5.9	—	100.0
Clerks	23.9	39.2	36.9	—	100.0
Sales/personal service workers	30.1	44.5	25.4	—	100.0
Plant/machinery operators and drivers	27.8	*70.8	0.0	—	100.0
Labourers and related workers	43.6	41.6	*14.8	—	100.0
Not stated	100.0	—	—	—	100.0
<i>Total</i>	27.3	42.2	30.5	—	100.0
FEMALES ('000)					
Managers and administrators	*14	38	35	—	86
Professionals	69	86	70	—	224
Para professionals	*13	24	*11	—	48
Trade persons	—	*8	*1	—	*9
Clerks	54	89	84	—	227
Sales/personal service workers	49	72	41	—	163
Plant/machinery operators and drivers	*2	*6	—	—	*9
Labourers and related workers	20	19	*7	—	45
Not stated	—	—	—	—	—
<i>Total</i>	221	342	248	—	811

...continued

## COMPUTER COMPETENCY *continued*

### 16 EMPLOYED PERSONS 18 YEARS & OVER USING A COMPUTER AT HOME, LEVEL OF COMPETENCY — *continued*

	<i>Elementary</i>	<i>Adequate</i>	<i>Competent</i>	<i>Don't know</i>	<i>Total</i>
	PERSONS (%)				
Managers and administrators	19.7	32.0	48.4	—	100.0
Professionals	16.4	35.2	48.3	0.1	100.0
Para professionals	20.4	45.2	34.5	—	100.0
Trade persons	25.2	42.8	32.0	—	100.0
Clerks	23.4	40.1	36.6	—	100.0
Sales/personal service workers	26.9	38.6	33.7	*0.9	100.0
Plant/machinery operators and drivers	32.7	53.7	*13.6	—	100.0
Labourers and related workers	30.4	46.8	22.8	—	100.0
Not stated	47.7	52.4	—	—	100.0
<b>Total</b>	<b>22.0</b>	<b>38.6</b>	<b>39.2</b>	<b>*0.2</b>	<b>100.0</b>
	PERSONS ('000)				
Managers and administrators	71	116	175	—	362
Professionals	93	199	273	—	565
Para professionals	32	72	55	—	159
Trade persons	40	69	51	—	160
Clerks	76	131	119	—	326
Sales/personal service workers	82	117	103	*3	304
Plant/machinery operators and drivers	24	39	*10	—	73
Labourers and related workers	40	62	30	—	132
Not stated	—	—	—	—	—
<b>Total</b>	<b>459</b>	<b>804</b>	<b>816</b>	<b>*3</b>	<b>2 081</b>



## YEARS OF USE

The majority of the 2.1 million employed persons 18 years and over who used a computer at home had considerable experience in the use of computers:

- 64% had used computers for 5 years or more;
- 24% had used computers for 2 to less than 5 years;
- 7% for 1 to less than 2 years; and
- 5% for less than 1 year.

Persons 18 years and over in Managerial, Administrative, Professional or Clerical occupations who used a computer at home had been using computers for a longer period of time than persons in other occupations:

- 73% of 'Managers and administrators' who used a computer at home had used computers for 5 years or more;
- 71% of 'Professionals';
- 70% of 'Clerks;' and
- 61% of 'Para professionals.'

By comparison, persons 18 years and over in non-clerical occupations who used a computer at home had less long-term experience in the use of computers:

- 54% of persons in the occupational group 'labourers and related workers' who used a computer at home had used computers for 5 years or more;
- 42% of 'Trade persons;' and
- 39% of 'Plant/machinery operations and drivers.'

Employed males 18 years and over in Professional or Para professional occupation groups who had used a computer at home, were more likely to have long-term experience in the use of computers than females:

- 80% of males in the occupational group 'Professionals' had used computers for 5 years or more, compared with 57% of females; and
- 67% of males in the occupational group 'Para professionals' had used computers for 5 years or more compared with 47% of females.

YEARS OF USE *continued*

17

EMPLOYED HOME COMPUTER USERS, YEARS OF USE

	Less than 1 year	1 to less than 2 years	2 to less than 5 years	5 years or more	Don't know	Total
MALES (%)						
Managers and administrators	*3.5	*5.5	17.4	73.6	—	100.0
Professionals	—	*2.6	17.6	79.9	—	100.0
Para professionals	*4.1	*9.4	*14.5	66.7	*5.4	100.0
Trade persons	*8.5	*7.0	42.0	42.5	—	100.0
Clerks	*1.0	*11.2	20.2	67.7	—	100.0
Sales/personal service workers	*2.8	*18.6	22.5	54.3	*1.9	100.0
Plant/machinery operators and drivers	*25.3	*12.6	*21.3	40.8	—	100.0
Labourers and related workers	*10.1	*6.4	29.5	54.0	—	100.0
Not stated	—	—	—	—	—	100.0
<i>Total</i>	4.5	7.6	21.9	65.4	*0.7	100.0
MALES ('000)						
Managers and administrators	*10	*15	48	203	—	275
Professionals	—	*9	60	272	—	341
Para professionals	*5	*10	*16	74	*6	111
Trade persons	*13	*11	64	64	—	151
Clerks	*1	*11	20	67	—	99
Sales/personal service workers	*4	26	32	77	*3	142
Plant/machinery operators and drivers	*16	*8	*14	26	—	64
Labourers and related workers	*9	*6	25	47	—	87
Not stated	—	—	—	—	—	—
<i>Total</i>	57	96	278	830	*9	1 270
FEMALES (%)						
Managers and administrators	*6.6	*2.1	20.9	70.4	—	100.0
Professionals	*3.8	*6.9	32.4	56.6	0.3	100.0
Para professionals	*5.4	*15.2	*32.6	46.8	—	100.0
Trade persons	*43.8	—	*26.4	*29.8	—	100.0
Clerks	*6.7	*3.3	19.4	70.6	—	100.0
Sales/personal service workers	*7.4	*8.0	27.8	56.8	—	100.0
Plant/machinery operators and drivers	*7.0	*30.7	*37.2	*25.1	—	100.0
Labourers and related workers	*5.1	*10.2	*31.7	53.1	—	100.0
Not stated	—	—	—	—	—	—
<i>Total</i>	6.3	6.5	26.6	60.6	0.1	100.0
FEMALES ('000)						
Managers and administrators	*6	*2	18	61	—	86
Professionals	*8	*15	73	127	1	224
Para professionals	*3	*7	*16	22	—	48
Trade persons	*4	—	*2	*3	—	*9
Clerks	*15	*8	44	160	—	227
Sales/personal service workers	*12	*13	45	92	—	163
Plant/machinery operators and drivers	*1	*3	*3	*2	—	*9
Labourers and related workers	*2	*5	*14	24	—	45
Not stated	—	—	—	—	—	—
<i>Total</i>	51	52	215	492	1	811

...continued

YEARS OF USE *continued*

**17**

EMPLOYED HOME COMPUTER USERS, YEARS OF USE — *continued*

	<i>Less than 1 year</i>	<i>1 to less than 2 years</i>	<i>2 to less than 5 years</i>	<i>5 years or more</i>	<i>Don't know</i>	<i>Total</i>
PERSONS (%)						
Managers and administrators	*4.3	4.7	18.2	72.8	—	100.0
Professionals	*1.5	4.3	23.5	70.7	*0.1	100.0
Para professionals	*4.5	11.1	19.9	60.7	*3.8	100.0
Trade persons	10.5	*6.6	41.1	41.7	—	100.0
Clerks	*5.0	5.7	19.6	69.7	—	100.0
Sales/personal service workers	5.3	12.9	25.3	55.6	*0.9	100.0
Plant/machinery operators and drivers	23.1	*14.8	23.3	38.9	—	100.0
Labourers and related workers	*8.4	*7.7	30.2	53.7	—	100.0
Not stated	—	47.7	52.4	—	—	100.0
<b>Total</b>	<b>5.2</b>	<b>7.1</b>	<b>23.7</b>	<b>63.5</b>	<b>*0.4</b>	<b>100.0</b>
PERSONS ('000)						
Managers and administrators	*15	17	66	263	—	362
Professionals	*8	24	133	399	*1	565
Para professionals	*7	18	32	96	*6	159
Trade persons	17	*11	66	67	—	160
Clerks	*16	19	64	227	—	326
Sales/personal service workers	*16	39	77	169	*3	304
Plant/machinery operators and drivers	17	*11	17	28	—	73
Labourers and related workers	*11	*10	40	71	—	132
Not stated	—	—	—	—	—	—
<b>Total</b>	<b>108</b>	<b>148</b>	<b>494</b>	<b>1 322</b>	<b>*9</b>	<b>2 081</b>

## HOME COMPUTER ACTIVITIES

### MOST POPULAR USE

The most popular use for home computers, excluding dedicated games machines, was playing computer games. Of the 4 million persons 5 years and over using a computer at home in 1996, 2.3 million persons or 58%, used the computer to play computer games.

Educational activities were also highly popular. Of the 4 million home computer users:

- 1.8 million persons or 44% used the home computer for doing work related to studies; and
- nearly 1 million persons or 25% used 'mainly educational products' on the home computer.

Work-related activities were also significant home computer activities:

- 834,000 persons reported 'Doing work relevant to my employment (excl. own business)';
- 422,000 persons 'Doing work for the home-based business';
- 368,000 persons 'Doing work relevant to my business (excl. home-based business)'; and
- 38,000 persons 'Doing other paid work from home via computer'.

Over 860,000 persons identified 'Keeping personal or family records' as a popular home computer activity.

# HOME COMPUTER ACTIVITIES *continued*

## 18

### HOME COMPUTER ACTIVITIES OF PERSONS

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MALES (%)									
Playing computer games	60.6	63.1	63.7	62.9	63.9	68.8	*69.5	60.8	62.6
Using mainly educational products	23.3	21.9	26.6	22.8	22.9	*22.4	*24.2	*17.9	23.2
Doing work relevant to studies	40.7	42.6	37.2	38.2	37.8	39.8	*40.0	43.0	40.2
Doing work for the home based business	11.8	11.3	13.8	10.5	12.2	*10.0	*7.9	*11.9	11.9
Doing work relevant to my business (excl. home-based)	13.7	7.4	10.3	9.5	12.5	*9.8	*10.0	*10.9	10.7
Doing work relevant to my employment (excl. own business)	23.7	22.5	20.7	22.0	21.7	*19.9	*27.3	*34.8	22.8
Doing other paid work from home via computer	2.3	*0.8	—	*0.4	*1.9	*1.7	*1.0	*1.7	1.3
Keeping personal or family records	22.8	19.7	24.6	20.5	22.6	*16.9	*22.2	*28.0	22.0
'Adult' entertainment products	*1.3	*0.5	*1.2	*0.4	*2.2	*0.2	*0.8	*0.6	1.0
Electronic mail	7.6	5.3	4.8	*6.5	10.1	*6.3	*8.0	*11.2	6.7
Accessing the Internet	11.9	8.5	8.1	*8.2	11.3	*7.9	*10.1	*16.2	9.9
Accessing other on-line services/databases	4.5	3.0	*3.1	*4.1	*6.4	*2.7	*2.6	*5.8	4.0
Other	5.4	5.9	5.1	5.3	5.6	9.1	4.5	6.9	5.6
MALES ('000)									
Playing computer games	434	383	234	118	132	35	*14	35	1 385
Using mainly educational products	167	133	98	43	47	*11	*5	*10	514
Doing work relevant to studies	292	259	137	72	78	20	*8	25	890
Doing work for the home based business	85	69	51	20	25	*5	*2	*7	263
Doing work relevant to my business (excl. home-based)	98	45	38	18	26	*5	*2	*6	237
Doing work relevant to my employment (excl. own business)	170	137	76	41	45	*10	*5	20	504
Doing other paid work from home via computer	17	*5	—	*1	*4	*1	—	*1	29
Keeping personal or family records	164	120	90	38	47	*9	*4	*16	488
'Adult' entertainment products	*9	*3	*4	*1	*4	—	—	—	22
Electronic mail	55	32	18	*12	21	*3	*2	*7	148
Accessing the Internet	85	51	30	*15	23	*4	*2	*9	220
Accessing other on-line services/databases	32	18	*11	*8	*13	*1	*1	*3	88
Other	39	36	19	*10	*11	*5	*1	*4	124
FEMALES (%)									
Playing computer games	48.4	52.9	56.5	56.8	54.2	57.9	*51.1	49.3	52.5
Using mainly educational products	25.0	27.4	30.4	20.9	25.6	*22.9	*28.2	*22.8	26.3
Doing work relevant to studies	47.7	54.8	49.4	44.0	40.4	*38.8	*46.4	51.8	48.8
Doing work for the home based business	9.3	8.6	10.0	*7.7	*8.9	*7.9	*6.1	*8.3	9.0
Doing work relevant to my business (excl. home-based)	8.4	6.0	6.9	*7.7	*8.4	*8.3	*7.0	*7.8	7.4
Doing work relevant to my employment (excl. own business)	21.7	16.8	16.4	19.4	16.8	*14.0	*20.2	*26.7	18.7
Doing other paid work from home via computer	*0.6	*0.4	*0.5	*0.9	*0.3	*0.9	*0.5	*1.4	*0.5
Keeping personal or family records	22.2	18.1	21.5	24.4	23.8	*20.0	*21.7	*22.9	21.3
'Adult' entertainment products	—	*0.2	—	—	—	—	—	—	*0.1
Electronic mail	*2.4	3.7	*2.7	*3.3	*3.8	*2.1	*4.9	*5.4	3.1
Accessing the Internet	4.2	6.2	5.5	*3.6	*4.3	*3.2	*6.2	*7.3	5.0
Accessing other on-line services/databases	*1.0	*0.2	*0.7	*0.8	*0.6	0.0	0.0	*1.9	0.7
Other	7.5	6.8	7.6	*11.4	*7.8	*9.3	*6.7	*5.9	7.6

...continued

# HOME COMPUTER ACTIVITIES *continued*

## 18

### HOME COMPUTER ACTIVITIES OF PERSONS --- *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
FEMALES ('000)									
Playing computer games	274	247	185	77	89	22	*10	23	926
Using mainly educational products	142	128	100	28	42	*9	*5	*11	464
Doing work relevant to studies	270	255	162	59	66	*15	*9	24	860
Doing work for the home based business	53	40	33	*10	*15	*3	*1	*4	159
Doing work relevant to my business (excl. home-based)	48	28	23	*10	*14	*3	*1	*4	130
Doing work relevant to my employment (excl. own business)	123	78	54	26	28	*5	*4	*12	330
Doing other paid work from home via computer	*3	*2	*2	*1	—	—	—	*1	*9
Keeping personal or family records	126	84	71	33	39	*8	*4	*11	375
'Adult' entertainment products	—	*1	—	—	—	—	—	—	*1
Electronic mail	*13	17	*9	*4	*6	*1	*1	*3	54
Accessing the Internet	24	29	18	*5	*7	*1	*1	*3	88
Accessing other on-line services/databases	*5	*1	*2	*1	*1	—	—	*1	*12
Other	42	32	25	*15	*13	*4	*1	*3	135
PERSONS (%)									
Playing computer games	55.2	58.6	60.3	60.3	59.6	64.1	60.6	55.7	58.1
Using mainly educational products	24.1	24.3	28.4	22.0	24.1	22.6	*26.2	20.1	24.6
Doing work relevant to studies	43.8	47.9	42.9	40.6	39.0	39.4	43.1	46.9	44.0
Doing work for the home based business	10.7	10.1	12.0	9.3	10.8	*9.1	*7.0	*10.3	10.6
Doing work relevant to my business (excl. home-based)	11.3	6.8	8.7	8.8	10.7	*9.1	*8.5	*9.5	9.3
Doing work relevant to my employment (excl. own business)	22.8	20.0	18.7	20.9	19.6	*17.4	*23.9	*31.2	21.0
Doing other paid work from home via computer	1.5	*0.6	*0.2	*0.6	*1.2	*1.3	*0.8	*1.6	1.0
Keeping personal or family records	22.6	19.0	23.1	22.1	23.1	*18.3	*22.0	*25.8	21.7
'Adult' entertainment products	*0.7	*0.4	*0.6	*0.2	*1.2	0.0	0.0	0.0	0.6
Electronic mail	5.3	4.6	3.8	5.2	7.3	*4.5	*6.5	*8.6	5.1
Accessing the Internet	8.5	7.5	6.9	6.3	8.2	*5.9	*8.2	*12.2	7.8
Accessing other on-line services/databases	3.0	1.8	*2.0	*2.7	*3.8	*1.8	*1.7	*4.1	2.5
Other	6.3	6.3	6.3	7.9	6.5	*9.2	*5.6	*6.5	6.5
PERSONS ('000)									
Playing computer games	708	630	420	195	220	56	23	58	2 311
Using mainly educational products	309	261	197	71	89	20	*10	21	978
Doing work relevant to studies	562	514	299	131	144	35	17	49	1 750
Doing work for the home based business	138	109	84	30	40	*8	*3	*11	422
Doing work relevant to my business (excl. home-based)	146	73	60	28	39	*8	*3	*10	368
Doing work relevant to my employment (excl. own business)	292	215	130	67	72	*15	*9	33	834
Doing other paid work from home via computer	20	*7	*2	*2	*4	*1	—	*2	38
Keeping personal or family records	289	204	161	71	85	*16	*8	27	863
'Adult' entertainment products	*9	*4	*4	*1	*4	—	—	—	23
Electronic mail	68	49	26	17	27	*4	*2	*9	203
Accessing the Internet	109	80	48	20	30	*5	*3	*13	309
Accessing other on-line services/databases	38	19	*14	*9	*14	*2	*1	*4	100
Other	81	68	44	25	24	*8	*2	*7	259

## **HOME COMPUTER ACTIVITIES** *continued*

### ACTIVITY ON WHICH MOST TIME WAS SPENT

Of the 4 million home computer users 5 years and over in 1996:

- 32% identified doing work related to studies or educational activities as their main use;
- 30% identified playing computer games as their main use;
- 25% identified using the home computer for work-related purposes as their main use;
- 6% identified using the home computer for keeping personal or family records; and
- 2% identified on-line activities as their main use of the home computer.

# HOME COMPUTER ACTIVITIES *continued*

## 19

### HOME COMPUTER ACTIVITY ON WHICH MOST TIME WAS SPENT

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MALES (%)									
Playing computer games	34.4	34.1	36.5	37.3	36.5	39.5	*43.8	31.6	35.2
Using mainly educational products	5.1	4.7	5.8	*4.1	*4.0	*5.5	*5.0	*3.3	4.9
Doing work relevant to studies	17.0	22.9	16.8	18.9	19.1	*17.5	*13.7	*20.1	19.0
Doing work for the home-based business	8.6	7.8	11.1	*7.3	9.2	*7.2	*5.0	*8.0	8.7
Doing work relevant to my business (excl. home-based)	7.4	3.3	6.5	*7.1	*6.5	*4.1	*5.6	*4.5	5.9
Doing work relevant to my employment (excl. own business)	14.7	12.5	12.7	13.6	13.0	*12.8	*17.4	*18.0	13.6
Doing other paid work from home via computer	—	*0.4	—	—	—	*0.2	—	*0.1	*0.1
Keeping personal or family records	4.3	6.3	6.4	*4.2	*5.8	*3.5	*4.3	*5.9	5.3
'Adult' entertainment products	*0.1	*0.2	—	—	*0.2	—	—	—	*0.1
Electronic mail	*0.4	*0.3	—	*0.3	*0.9	*0.4	*0.4	*0.8	*0.4
Accessing the Internet	*2.2	*2.1	*1.0	*2.6	*1.5	*2.5	*2.8	*3.4	2.0
Accessing other on-line services/databases	*0.5	—	—	*0.4	*0.6	—	—	*0.1	*0.3
Other	4.2	3.6	*2.7	*3.3	*2.3	*6.2	*1.4	*3.4	3.5
MALES ('000)									
Playing computer games	254	210	134	70	76	20	*9	19	791
Using mainly educational products	38	29	21	*8	*8	*3	*1	*2	110
Doing work relevant to studies	126	140	62	35	40	*9	*3	*12	427
Doing work for the home-based business	63	48	41	*14	19	*4	*1	*5	195
Doing work relevant to my business (excl. home-based)	55	21	24	*13	*14	*2	*1	*3	132
Doing work relevant to my employment (excl. own business)	108	77	47	26	27	*6	*4	*11	305
Doing other paid work from home via computer	—	*3	—	—	—	—	—	—	*3
Keeping personal or family records	32	39	23	*8	*12	*2	*1	*3	120
'Adult' entertainment products	*1	*1	—	—	—	—	—	—	*2
Electronic mail	*3	*2	0	*1	*2	—	—	—	*8
Accessing the Internet	*16	*13	*4	*5	*3	*1	—	*2	45
Accessing other on-line services/databases	*4	—	—	*1	*1	—	—	—	*6
Other	31	22	*10	*6	*5	*3	—	*2	79
FEMALES (%)									
Playing computer games	19.7	21.9	24.7	26.6	29.9	*31.4	*24.6	*21.6	23.1
Using mainly educational products	11.0	8.1	9.1	*7.2	*8.5	*8.9	*8.8	*6.4	9.2
Doing work relevant to studies	32.5	38.8	33.1	30.6	25.3	*25.9	*30.1	*34.5	33.3
Doing work for the home-based business	6.6	5.8	8.3	*5.4	*7.0	*5.7	*4.7	*5.2	6.6
Doing work relevant to my business (excl. home-based)	5.4	*3.4	*3.0	*4.4	*4.2	*4.4	*5.2	*4.0	4.2
Doing work relevant to my employment (excl. own business)	12.6	10.0	8.6	*9.5	10.8	*8.8	*11.6	*15.5	10.8
Doing other paid work from home via computer	*0.1	*0.4	*0.2	*0.3	—	*0.6	—	*0.1	*0.2
Keeping personal or family records	6.6	5.1	5.8	*7.7	*7.5	*6.5	*8.2	*7.0	6.3
'Adult' entertainment products	—	*0.2	—	—	—	—	—	—	—
Electronic mail	—	*0.2	*0.5	*0.5	*0.8	*0.6	*0.5	*0.6	*0.3
Accessing the Internet	*0.2	*1.3	*0.9	*0.3	*0.6	*0.3	*0.5	*1.0	*0.7
Accessing other on-line services/databases	*0.2	—	—	*0.3	—	—	—	*0.2	*0.1
Other	4.8	4.0	*4.5	*6.3	*5.0	*6.0	*4.6	*3.1	4.6

... continued



# HOME COMPUTER ACTIVITIES *continued*

## 19

HOME COMPUTER ACTIVITY ON WHICH MOST TIME WAS SPENT — *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
FEMALES ('000)									
Playing computer games	113	102	81	36	50	*12	*5	*10	409
Using mainly educational products	63	38	30	*10	*14	*3	*2	*3	162
Doing work relevant to studies	186	181	108	42	42	*10	*6	*16	591
Doing work for the home-based business	38	27	27	*7	*12	*2	*1	*2	117
Doing work relevant to my business (excl. home-based)	31	*16	*10	*6	*7	*2	*1	*2	74
Doing work relevant to my employment (excl. own business)	72	47	28	*13	18	*3	*2	*7	191
Doing other paid work from home via computer	*1	*2	*1	0	0	0	—	0	*4
Keeping personal or family records	38	24	19	*11	*12	*2	*2	*3	111
'Adult' entertainment products	0	*1	0	0	0	0	—	0	*1
Electronic mail	0	*1	*2	*1	*1	—	—	—	*5
Accessing the Internet	1	6	3	—	1	—	—	—	12
Accessing other on-line services/databases	*1	—	—	—	—	—	—	—	*2
Other	27	18	*15	*9	*8	*2	*1	*1	82
PERSONS (%)									
Playing computer games	28.0	28.9	31.0	32.8	33.6	36.0	*34.5	27.2	29.9
Using mainly educational products	7.7	6.2	7.3	5.4	6.0	*7.0	*6.8	*4.7	6.8
Doing work relevant to studies	23.8	29.8	24.5	23.8	21.9	21.1	*21.7	26.5	25.3
Doing work for the home-based business	7.7	7.0	9.8	6.5	8.2	*6.5	*4.8	*6.8	7.7
Doing work relevant to my business (excl. home-based)	6.5	3.4	4.9	5.9	5.5	*4.2	*5.4	*4.3	5.1
Doing work relevant to my employment (excl. own business)	13.8	11.4	10.8	11.9	12.0	*11.1	*14.6	16.9	12.3
Doing other paid work from home via computer	*0.1	*0.4	*0.1	*0.1	—	*0.3	—	*0.1	*0.2
Keeping personal or family records	5.3	5.8	6.1	5.7	6.5	*4.8	*6.2	*6.4	5.7
'Adult' entertainment products	*0.1	*0.2	—	—	*0.1	—	—	—	*0.1
Electronic mail	*0.2	*0.2	*0.3	*0.4	*0.9	*0.5	*0.5	*0.7	*0.3
Accessing the Internet	1.3	1.8	*1.0	*1.6	*1.1	*1.6	*1.7	*2.3	1.4
Accessing other on-line services/databases	*0.4	—	—	*0.3	*0.4	—	—	*0.1	*0.2
Other	4.4	3.8	3.5	*4.5	*3.5	*6.2	*3.0	*3.3	4.0
PERSONS ('000)									
Playing computer games	367	312	215	107	126	32	*13	29	1 200
Using mainly educational products	101	67	51	17	22	*6	*3	*5	272
Doing work relevant to studies	312	321	170	77	82	19	*8	28	1 018
Doing work for the home-based business	101	75	68	21	31	*6	*2	*7	311
Doing work relevant to my business (excl. home-based)	86	36	34	19	21	*4	*2	*5	206
Doing work relevant to my employment (excl. own business)	181	124	75	39	45	*10	*6	18	496
Doing other paid work from home via computer	*1	*4	*1	—	—	—	—	—	*7
Keeping personal or family records	70	62	42	18	24	*4	*2	*7	231
'Adult' entertainment products	*1	*2	—	—	—	—	—	—	*3
Electronic mail	*3	*3	*2	*1	*3	—	—	*1	*13
Accessing the Internet	17	19	*7	*5	*4	*1	*1	*2	57
Accessing other on-line services/databases	*5	—	—	*1	*1	—	—	—	*7
Other	58	41	25	*15	*13	*5	*1	*3	161

## HOME COMPUTER ACTIVITIES *continued*

### COMPUTER TRAINING

Of the 4 million home computer users in 1996, 80%, nearly 3.2 million users undertook some form of computer training.

Of those who had received computer training:

- 44% (1.4 million persons) identified 'primary or secondary school' as their source of computer training;
- 32% (1 million persons) identified 'Other' e.g. software tutorials, friends and manuals/books, etc.
- 28% (900,000 persons) identified 'an employer';
- 16% (511,000 persons) identified 'university';
- 16% (502,000 persons) identified 'TAFE';
- 9% (292,000 persons) identified 'a commercial organisation'; and
- 6% (189,000 persons) identified 'adult community education course'.

# HOME COMPUTER ACTIVITIES *continued*

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### SOURCE OF COMPUTER TRAINING FOR PERSONS WHO USED A HOME COMPUTER

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MALES (%)									
The equipment supplier	13.5	6.4	12.7	10.5	14.0	*10.1	*14.9	*13.3	11.1
An employer	31.2	27.9	30.6	26.4	24.5	*28.6	*34.1	47.8	29.5
A commercial organisation	11.7	8.1	11.2	*7.2	10.0	*9.8	*10.0	*17.8	10.2
Primary or secondary school	34.3	49.0	39.9	46.4	45.4	49.3	*41.5	39.4	42.1
TAFE	12.2	13.6	15.3	17.3	19.3	*11.4	*9.1	*11	14.1
University	17.9	17.5	15.5	17.8	16.3	*12.5	*17.8	*23.7	17.3
Adult community education course	7.2	4.3	*3.8	*4.0	*3.7	*8.8	0.0	*4.2	5.1
Other	34.0	32.6	31.9	29.6	34.6	*29.6	*37.0	47.0	33.2
MALES ('000)									
The equipment supplier	72	32	37	16	23	*4	*2	*7	194
An employer	167	139	90	40	41	*11	*5	24	517
A commercial organisation	63	40	33	*11	17	*4	*2	*9	178
Primary or secondary school	184	244	117	70	76	19	*6	20	736
TAFE	74	74	51	29	35	*5	*2	*6	275
University	96	87	45	27	27	*5	*3	*12	302
Adult community education course	38	21	*11	*6	*6	*3	—	*2	89
Other	182	162	94	45	58	*11	*6	24	581
FEMALES (%)									
The equipment supplier	7.0	4.3	10.6	*5.5	*7.7	*7.3	*9.0	*7.4	6.9
An employer	31.5	23.6	23.5	26.0	25.6	*24.3	*31.9	*38.4	27.0
A commercial organisation	10.1	6.9	6.7	*6.4	*7.3	*7.0	*8.9	*10.4	8.0
Primary or secondary school	36.6	54.0	45.0	51.1	45.5	*48.3	*44.5	43.9	45.3
TAFE	14.5	11.8	19.2	17.0	15.0	*10.1	*17	*11.3	14.7
University	15.6	14.2	14.4	*12.8	15.1	*12.6	*15.9	*17.9	14.8
Adult community education course	9.1	6.7	*5.8	*5.1	*5.3	*10.8	*4.6	*5.0	7.0
Other	29.6	26.4	32.3	25.0	32.3	*30.3	*34.3	41.3	29.5
FEMALES ('000)									
The equipment supplier	31	16	27	*6	*10	*2	*1	*3	98
An employer	142	89	61	29	35	*7	*5	*16	384
A commercial organisation	46	26	17	*7	*10	*2	*1	*4	114
Primary or secondary school	165	204	116	57	62	*14	*7	18	643
TAFE	72	49	53	21	22	*3	*3	*5	227
University	70	54	37	*14	21	*4	*3	*7	210
Adult community education course	41	25	*15	*6	*7	*3	*1	*2	100
Other	133	100	83	28	44	*9	*5	17	420
PERSONS (%)									
The equipment supplier	10.5	5.5	11.7	8.4	11.2	*8.9	*11.9	*10.7	9.2
An employer	31.3	26.0	27.3	26.2	25.0	26.7	*33.0	43.6	28.4
A commercial organisation	11.0	7.6	9.1	6.9	8.8	*8.6	*9.4	*14.5	9.2
Primary or secondary school	35.4	51.2	42.3	48.4	45.4	48.9	*43.0	41.5	43.5
TAFE	13.2	12.8	17.0	17.2	17.3	*10.8	*13.0	*11.1	14.4
University	16.9	16.1	15.0	15.7	15.8	*12.5	*16.8	21.1	16.1
Adult community education course	8.0	5.3	4.8	4.5	4.4	*9.7	*3.0	*4.6	6.0
Other	32.0	29.9	32.1	27.6	33.6	29.9	*35.6	44.4	31.6
PERSONS ('000)									
The equipment supplier	104	48	65	22	34	*6	*4	*10	292
An employer	309	228	150	69	76	18	*10	40	900
A commercial organisation	108	66	50	18	27	*6	*3	*13	292
Primary or secondary school	349	448	233	127	138	33	*14	38	1 380
TAFE	146	123	104	50	56	*8	*4	*11	502
University	166	140	82	41	48	*9	*5	19	511
Adult community education course	79	46	26	*12	*13	*7	*1	*4	189
Other	315	262	177	73	102	20	*11	41	1 001

## TYPES OF COMPUTER GAMES

Of the 2.3 million persons using a home computer to play computer games:

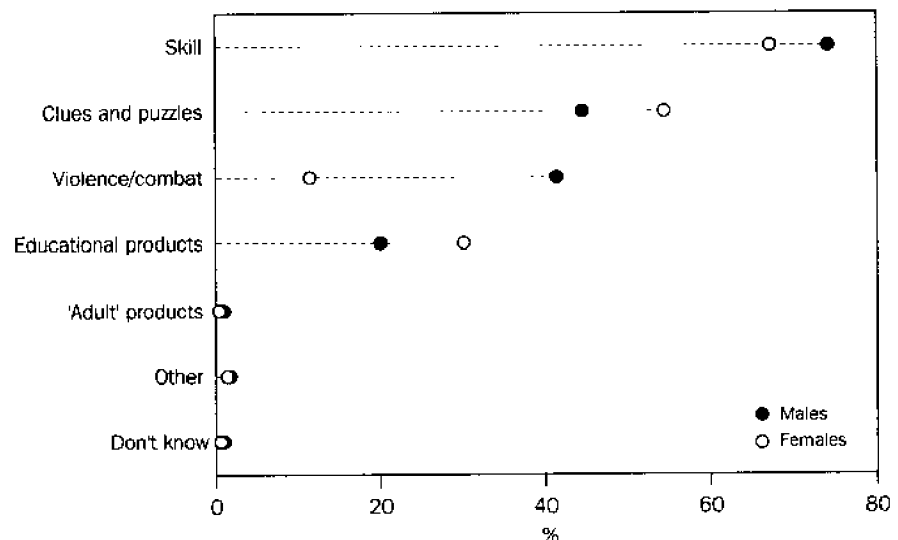
- 1.6 million (70%) mostly played games of skill;
- 1.1 million (48%) mostly played 'clues and puzzles' games;
- 0.7 million (29%) mostly played 'violence/combat' games; and
- 0.6 million (24%) mostly played 'educational products' games.

Games identified as 'adult' products were played by less than 1% of persons playing home computer games.

### BY SEX

Males were more interested in 'violence/combat' games and games of 'skill' than females (41% compared to 12% and 73% compared to 66%). Females showed more interest in 'clues and puzzles' and 'educational products' games than males (54% compared to 44% and 30% compared to 20%).

PERSONS PLAYING COMPUTER GAMES OR ENTERTAINMENT-SOFTWARE USED



### BY AGE

For all age groups, games of 'skill' were the most popular type of computer games, and 'clues and puzzles' games were the second most popular. There was little variation in the proportions across age groups.

'Violence/combat' computer games were popular with players of home computer games in the age groups 5-17, 18-24 and 40-54 years with usage ranging from 31%-38% of persons in these age groups. Interest in these types of computer games declined significantly from 40 years of age, with usage falling below 11%.

**TYPES OF COMPUTER GAMES** *continued*

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TYPES OF COMPUTER GAMES OR ENTERTAINMENT SOFTWARE MOSTLY USED

	Age group (years)					Total
	5-17	18-24	25-39	40-54	55+	
MALES (%)						
Violence/Combat	48.3	50.3	42.5	14.4	*4.3	40.8
Skill	75.7	71.1	68.3	70.8	72.2	72.7
Clues and puzzles	40.3	46.6	47.2	46.2	50.2	43.9
Educational products	29.2	*6.8	14.6	11.8	*15.1	19.9
'Adult' products	*0.3	*1.3	*2.6	*2.6	*2.5	1.3
Other	*1.3	*2.1	*2.3	*3.2	*4.1	2.0
Don't know	*0.8	*2.4	*1.4	*1.2	*1.7	1.3
MALES ('000)						
Violence/Combat	314	102	119	27	*3	565
Skill	491	144	192	135	45	1 007
Clues and puzzles	261	95	132	88	31	608
Educational products	190	*14	41	22	*9	276
'Adult' products	*2	*3	*7	*5	*2	18
Other	*8	*4	*6	*6	*3	28
Don't know	*5	*5	*4	*2	*1	17
FEMALES (%)						
Violence/Combat	12.9	16.6	11.2	*4.0	0.3	11.6
Skill	67.5	71.6	60.0	64.6	64.1	66.2
Clues and puzzles	53.0	52.4	54.0	58.7	*49.2	53.7
Educational products	41.6	*8.8	20.8	15.2	*10.6	29.9
'Adult' products	—	—	*0.4	*0.8	0.0	*0.2
Other	*0.9	*3.1	*1.3	*3.7	*5.2	*1.7
Don't know	*0.9	*1.9	*0.5	*0.6	0.0	*0.9
FEMALES ('000)						
Violence/Combat	66	19	18	*4	—	107
Skill	346	81	96	70	20	613
Clues and puzzles	272	59	86	64	*16	497
Educational products	213	*10	33	17	*3	276
'Adult' products	—	—	*1	*1	—	*2
Other	*4	*4	*2	*4	*2	*16
Don't know	*4	*2	*1	*1	—	8
PERSONS (%)						
Violence/Combat	32.7	38.3	31.1	*10.6	2.9	29.1
Skill	72.1	71.3	65.3	68.5	69.4	70.1
Clues and puzzles	45.9	48.7	49.6	50.7	*49.9	47.8
Educational products	34.7	*7.5	16.8	13.0	*13.6	23.9
'Adult' products	*0.2	*0.8	*1.8	*2.0	*1.6	0.9
Other	*1.1	*2.5	*1.9	*3.4	*4.5	1.9
Don't know	*0.8	*2.2	*1.0	*1.0	*1.2	1.1
PERSONS ('000)						
Violence/Combat	380	121	137	32	*3	672
Skill	837	226	287	205	65	1 620
Clues and puzzles	533	154	218	152	47	1 104
Educational products	403	24	74	39	*13	552
'Adult' products	*2	*3	*8	*6	*2	20
Other	*13	*8	*8	*10	*4	43
Don't know	*10	*7	*5	*3	*1	25

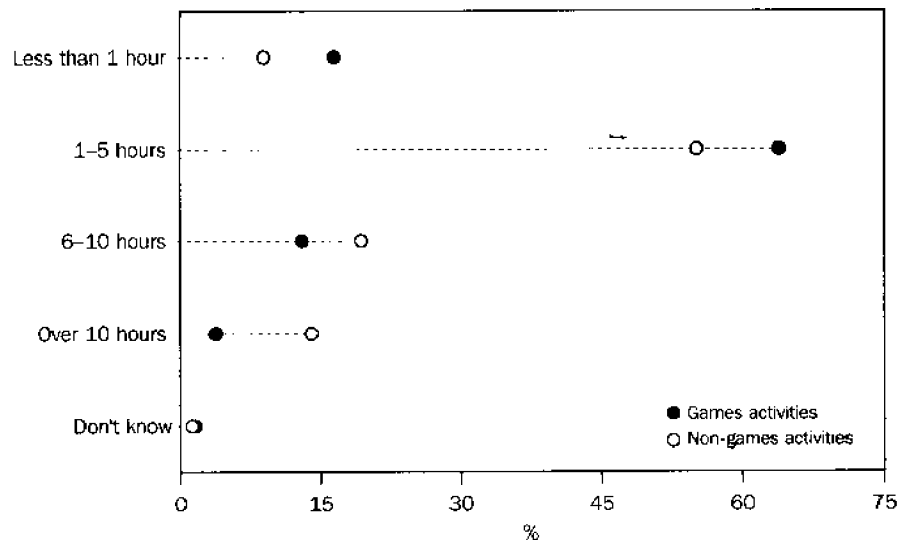
## TIME SPENT ON COMPUTER GAMES AND NON-GAMES ACTIVITIES

### TIME SPENT PLAYING COMPUTER GAMES

Of the 2.3 million persons using the home computer to play computer games:

- 64% spent 1–5 hours on average per week playing computer games;
- 17% spent less than 1 hour;
- 13% spent 6–10 hours;
- 4% spent over 10 hours; and
- only 0.4 million persons used the home computer solely for playing computer games.

HOURS PER WEEK USING HOUSEHOLD COMPUTER FOR GAMES AND NON-GAMES ACTIVITIES



### TIME SPENT ON NON-GAMES ACTIVITIES

Of the 3.6 million persons using a home computer for non-games activities in 1996:

- 55% spent 1–5 hours on non-computer games activities;
- 20% spent 6–10 hours;
- 14% spent over 10 hours;
- 9% spent less than 1 hour; and
- 1.7 million persons used the home computer for non-games activities only

# TIME SPENT ON COMPUTER GAMES AND NON-GAMES ACTIVITIES *continued*

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### HOURS SPENT USING A COMPUTER AT HOME FOR GAMES AND NON-GAMES ACTIVITIES

	Age group (years)					Total
	5-17	18-24	25-39	40-54	55+	
GAMES ACTIVITIES (%)						
Less than 1 hour	14.5	16.0	19.1	22.8	*15.7	16.7
1-5 hours	67.3	58.8	61.0	58.0	66.6	63.7
6-10 hours	13.4	15.2	12.8	12.0	*12.9	13.3
Over 10 hours	3.3	6.2	5.8	*4.4	*3.8	4.3
Don't know	1.6	*3.8	*1.3	*2.9	*1.0	2.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
GAMES ACTIVITIES ('000)						
Less than 1 hour	168	51	84	68	*15	386
1-5 hours	782	186	268	173	62	1 472
6-10 hours	156	48	56	36	*12	308
Over 10 hours	38	19	25	*13	*4	99
Don't know	18	*12	*6	*9	*1	45
<b>Total</b>	<b>1 162</b>	<b>316</b>	<b>440</b>	<b>299</b>	<b>94</b>	<b>2 311</b>
NON-COMPUTER GAMES ACTIVITIES (%)						
Less than 1 hour	15.9	6.8	5.9	6.9	*3.9	9.3
1-5 hours	65.7	48.2	52.0	50.5	45.2	55.0
6-10 hours	12.5	24.2	22.8	22.0	24.5	19.7
Over 10 hours	4.3	18.4	18.1	19.0	23.6	14.4
Don't know	1.6	*2.3	*1.2	*1.6	*2.8	1.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
NON-COMPUTER GAMES ACTIVITIES ('000)						
Less than 1 hour	180	34	52	60	*8	335
1-5 hours	744	239	466	441	98	1 989
6-10 hours	142	120	204	193	53	712
Over 10 hours	49	91	162	166	51	520
Don't know	18	*12	*11	*14	*6	60
<b>Total</b>	<b>1 132</b>	<b>497</b>	<b>896</b>	<b>874</b>	<b>217</b>	<b>3 617</b>

## **ON-LINE ACTIVITIES BY LABOUR FORCE STATUS, OCCUPATION AND SEX**

Of the 2.7 million persons 18 years and over using a computer at home:

- 8% used email facilities from home;
- 11% accessed the Internet from home; and
- 4% accessed on-line services/databases from home.

### **BY LABOUR FORCE STATUS**

Of the 2.1 million employed persons 18 years and over using a computer at home:

- 9% used email facilities from home;
- 11% accessed the Internet from home; and
- 4% accessed on-line services/databases from home.

Of the 160,000 unemployed persons 18 years and over using a computer at home:

- 2% used email facilities from home;
- 7% accessed the Internet from home; and
- nearly 1% accessed on-line services/databases from home.

Of the 460,000 persons 18 years and over not in the labour force and using a computer at home:

- 7% used email facilities from home;
- 10% accessed the Internet from home; and
- nearly 2% accessed on-line services/databases from home.

### **BY OCCUPATION**

For Managers and administrators using a computer at home:

- 14% used email facilities from home;
- 13% accessed the Internet from home; and
- 5% accessed on-line services/databases from home.

For Professionals and Para professionals using a computer at home:

- 10% and 9% respectively used email facilities from home;
- 15% and 12% respectively accessed the Internet from home; and
- 7% and 6% respectively accessed on-line services/databases from home.



## **ON-LINE ACTIVITIES BY LABOUR FORCE STATUS, OCCUPATION AND SEX** *continued*

### BY OCCUPATION *continued*

For Sales/personal service workers using a computer at home:

- 8% used email facilities from home;
- 11% accessed the Internet from home; and
- 3% accessed on-line services/databases from home.

### BY SEX

A higher proportion of male home computer users who were 18 years and over undertook on-line activities:

- nearly 10% of male home computer users who were 18 years and over accessed electronic mail from home compared with 5% of females;
- 14% of male home computer users who were 18 years and over accessed the Internet from home compared with 6% of females; and
- 6% of male home computer users who were 18 years and over accessed on-line services/databases from home compared with less than 1% of females.

### BY SEX AND LABOUR FORCE STATUS

For employed persons 18 years and over using a computer at home:

- 11% of males accessed email facilities from home compared with 5% of females;
- 14% of males accessed the Internet from home compared with 6% of females; and
- 6% of males accessed on-line services from home compared with less than 1% of females.

For unemployed persons 18 years and over using a computer at home:

- 2% of males accessed email facilities from home compared with 2% of females;
- 4% of males accessed the Internet from home compared with 11% of females; and
- for both males and females less than 1% accessed on-line services from home.

## **ON-LINE ACTIVITIES BY LABOUR FORCE STATUS, OCCUPATION AND SEX** *continued*

### BY SEX AND LABOUR FORCE STATUS *continued*

For home computer users who were 18 years and over and currently studying:

- 15% of males accessed email facilities from home compared with 10% of females;
- 24% of males accessed the Internet from home compared with 9% of females; and
- 3% of males accessed on-line services from home compare with less than 0.1% of females.

For persons 18 years and over not studying and not in the labour force who used a computer at home:

- 3% of males accessed email facilities from home compared with 2% of females;
- 7% of males accessed the Internet from home compared with 3% of females; and
- 3% of males accessed on-line services from home.

# ON-LINE ACTIVITIES BY LABOUR FORCE STATUS, OCCUPATION AND SEX *continued*

## 23

PERSONS 18 YEARS & OVER USING A COMPUTER AT HOME TO ACCESS ELECTRONIC MAIL, INTERNET & OTHER ON-LINE SERVICES/DATABASES

	<i>Electronic mail</i>		<i>Accessing Internet</i>		<i>Accessing other on-line services/databases</i>	
	%	'000	%	'000	%	'000
<b>MALES</b>						
Managers and administrators	14.3	39	13.7	38	7.0	19
Professionals	13.4	46	18.3	62	11.7	40
Para professionals	*10.7	*12	*12.5	*14	*7.4	*8
Trade persons	*5.1	*8	*10.0	*15	*1.3	*2
Clerks	*7.2	*7	*10.2	*10	*1.9	*2
Sales/personal service workers	14.2	20	21.2	30	*4.7	*7
Plant/machinery operators and drivers	*3.2	*2	*3.6	*2	*3	*2
Labourers and related workers	*1.1	*1	*5.1	*4	*1.6	*1
<b>Total</b>	10.6	135	13.9	176	6.4	81
Unemployed persons	*2.2	*2	*3.9	*3	*0.8	*1
Persons not in the labour force						
Currently studying	14.6	17	24.0	27	*2.7	*4
Other	*2.8	*3	*7.3	*8	*3.3	*3
<b>Total</b>	9.9	157	13.6	215	5.6	88
<b>FEMALES</b>						
Managers and administrators	*11.9	*10	*10.2	*9	—	—
Professionals	*5.4	*12	9.7	22	*1.0	*2
Para professionals	*5.0	*2	*11.2	*5	*3.1	*1
Trade persons	*1.3	—	*1.3	—	*1.3	—
Clerks	*4.2	*10	*3.1	*7	—	—
Sales/personal service workers	*1.6	*3	*2.4	*4	*1.5	*2
Plant/machinery operators and drivers	—	—	—	—	—	—
Labourers and related workers	*8.8	*4	*7.5	*3	—	—
<b>Total</b>	5.0	41	6.2	50	*0.9	*7
Unemployed persons	*1.8	*1	*10.5	*7	*0.4	—
Persons not in the labour force						
Currently studying	*9.6	*7	8.9	*7	0.1	—
Other	*2.1	*3	*2.5	*4	—	—
<b>Total</b>	4.7	53	6.1	68	*0.7	*7
<b>PERSONS</b>						
Managers and administrators	13.7	50	12.9	46	5.4	19
Professionals	10.2	58	14.9	84	7.4	42
Para professionals	*9.0	*14	12.1	19	*6.1	*10
Trade persons	4.9	*8	9.5	*15	1.3	*2
Clerks	*5.1	17	*5.3	17	*0.6	*2
Sales/personal service workers	7.5	23	11.1	34	*3.0	*9
Plant/machinery operators and drivers	*2.8	*2	*3.2	*2	*2.6	*2
Labourers and related workers	*3.8	*5	*5.9	*8	*1.4	*2
<b>Total</b>	8.5	176	10.9	226	4.2	88
Unemployed persons	*2.0	*3	*6.8	*11	*0.6	*1
Persons not in the labour force						
Currently studying	12.6	24	18.0	34	*1.7	*3
Other	*2.4	*6	*4.4	*12	*1.3	*4
<b>Total</b>	7.8	210	10.5	283	3.5	96

## WILLINGNESS TO USE ON-LINE SERVICES

### IN TOTAL

Of the 13 million persons in Australia 18 years and over in 1996:

- 21% said 'yes' to 'shopping from home';
- 29% said 'yes' to 'banking from home';
- 5% said 'yes' to 'gambling from home'; and
- 42% said 'yes' to 'staying in touch with people or finding things out via electronic mail from home'.

### BY STATE AND TERRITORY

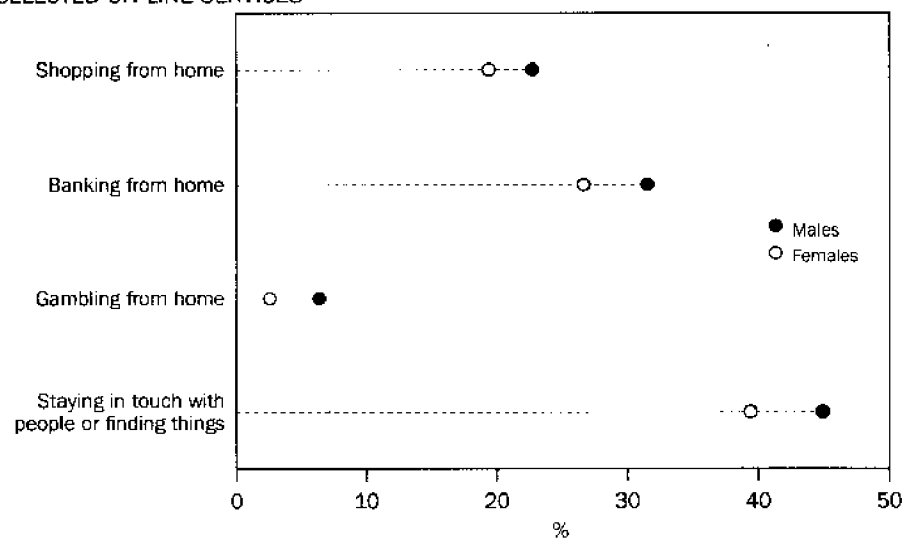
The Northern Territory and the Australian Capital Territory had the highest proportion of persons willing to access selected on-line home services:

- 28% for the Northern Territory and 26% for the Australian Capital Territory for home shopping;
- 41% for the Australian Capital Territory and 37% for the Northern Territory for home banking; and
- 61% for the Australian Capital Territory and 55% for the Northern Territory for staying in touch or finding things out via electronic mail.

### BY SEX

Males in general were marginally more interested in on-line services than females.

WILLINGNESS TO USE TELEVISION OR HOUSEHOLD COMPUTER FOR ACCESSING SELECTED ON-LINE SERVICES



**WILLINGNESS TO USE ON-LINE SERVICES** *continued*
**24**

WILLINGNESS OF PERSONS 18 YEARS AND OVER TO USE A COMPUTER OR TELEVISION AT HOME TO ACCESS ON-LINE SERVICES

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
MALES (%)									
Shopping from home	23.6	22.0	20.5	24.8	23.3	25.2	*28.0	27.8	22.8
Banking from home	32.1	31.3	30.4	30.7	32.8	30.2	36.6	44.2	31.7
Gambling from home	6.7	6.5	6.6	6.5	5.3	*8.1	*5.5	*7.3	6.5
Staying in touch with people or finding things out via electronic mail	43.3	44.2	43.5	50.5	48.5	44.3	51.9	65.2	45.1
MALES ('000)									
Shopping from home	518	353	240	131	143	42	*13	28	1 467
Banking from home	706	503	357	162	202	50	17	45	2 041
Gambling from home	147	104	78	34	33	*13	*3	*7	419
Staying in touch with people or finding things out via electronic mail	952	709	510	266	298	73	24	66	2 899
FEMALES (%)									
Shopping from home	18.8	21.1	18.6	18.3	19.1	18.8	*27.9	23.8	19.5
Banking from home	25.8	27.6	26.7	23.8	29.1	23.9	36.7	37.7	26.8
Gambling from home	2.4	3.0	3.0	*1.8	*2.6	*3.3	*3.8	*2.8	2.7
Staying in touch with people or finding things out via electronic mail	38.8	39.1	37.3	40.5	41.7	39.3	57.7	57.9	39.5
FEMALES ('000)									
Shopping from home	425	351	222	100	118	32	*13	25	1 287
Banking from home	582	460	318	130	180	40	17	40	1 769
Gambling from home	53	50	36	*10	*16	*6	*2	*3	176
Staying in touch with people or finding things out via electronic mail	876	653	444	222	258	66	27	62	2 609
PERSONS (%)									
Shopping from home	21.1	21.5	19.5	21.5	21.2	22.0	28.0	25.7	21.1
Banking from home	28.9	29.4	28.6	27.2	30.9	27.0	36.7	40.9	29.2
Gambling from home	4.5	4.7	4.8	4.1	4.0	5.7	*4.6	*5.0	4.6
Staying in touch with people or finding things out via electronic mail	41.0	41.6	40.3	45.4	45.1	41.8	54.9	61.4	42.2
PERSONS ('000)									
Shopping from home	942	704	462	231	261	73	26	54	2 754
Banking from home	1 288	963	675	292	382	90	34	85	3 810
Gambling from home	200	154	114	44	49	19	*4	*10	594
Staying in touch with people or finding things out via electronic mail	1 828	1 362	954	488	557	140	51	128	5 508

## **WILLINGNESS TO USE ON-LINE SERVICES** *continued*

### BY PERSONAL INCOME

For persons 18 years and over, interest in on-line shopping, on-line banking and electronic mail services from home generally increased with personal incomes above \$7,000. Persons with incomes \$7,000 and below showed significantly higher levels of interest in these services in comparison with persons with incomes in the range \$7,001–23,000. This may be attributable to the higher number of tertiary students in the \$0–\$7,000 income range, many of whom may access the Internet or use electronic mail services elsewhere.

For each of the on-line services identified it was found that:

- interest in on-line shopping services from home ranged from 12% of persons with incomes \$7,001–\$8,000 to 33% of persons with incomes above \$46,000;
- interest in on-line banking services ranged from 13% of persons with incomes from \$7,001–\$8,000 to over 50% of persons with incomes above \$46,000;
- interest in on-line gambling services remained low across all personal income ranges (2% to 8%); and
- the greatest interest was shown in staying in touch or finding things out via electronic mail. Just over 22% of persons with incomes \$7,001–\$8,000 to 66% of persons with incomes above \$46,000 indicated a willingness to use a home computer or television for this purpose.

**WILLINGNESS TO USE ON-LINE SERVICES** *continued*

**25**

WILLINGNESS OF PERSONS 18 YEARS AND OVER TO USE A COMPUTER OR TELEVISION AT HOME TO ACCESS ON-LINE SERVICES BY PERSONAL INCOME

	<i>Shopping</i>	<i>Banking</i>	<i>Gambling</i>	<i>Contact</i>	<i>None</i>
PERSONAL INCOME (%)					
\$0-\$4 000	23.5	29.8	5.0	45.3	47.7
\$4 001-\$7 000	15.9	22.5	4.7	34.7	59.2
\$7 001-\$8 000	12.4	12.8	3.6	22.3	71.7
\$8 001-\$12 000	11.8	17.8	3.1	26.0	68.8
\$12 001-\$17 000	20.2	26.1	3.7	35.9	56.7
\$17 001-\$23 000	17.9	23.7	3.7	41.5	52.2
\$23 001-\$29 000	23.4	34.2	4.8	48.1	44.2
\$29 001-\$36 000	24.7	36.4	5.2	52.3	39.9
\$36 001-\$46 000	31.2	45.0	6.8	60.3	32.0
\$46 001+	33.2	50.4	7.6	65.5	27.2
Not Stated	17.9	21.7	2.1	31.5	61.6
<i>Total</i>	21.1	29.2	4.6	42.2	50.9
PERSONAL INCOME ('000)					
\$0-\$4 000	340	431	72	655	691
\$4 001-\$7 000	132	188	39	289	494
\$7 001-\$8 000	125	130	37	225	725
\$8 001-\$12 000	183	276	48	403	1067
\$12 001-\$17 000	235	303	42	417	659
\$17 001-\$23 000	221	292	46	512	645
\$23 001-\$29 000	291	424	60	597	549
\$29 001-\$36 000	282	417	59	598	456
\$36 001-\$46 000	372	537	81	719	381
\$46 001+	381	579	87	752	312
Not Stated	193	233	23	339	662
<i>Total</i>	2754	3810	594	5508	6642

## EXPLANATORY NOTES

### POPULATION SURVEY MONITOR

**1** During 1996, the Population Survey Monitor carried questions on the household use of IT in its February, May, August and November surveys. From the fully responding households, details on the home use of technology were obtained from each household. Statistics presented in this publication are estimates averaged over the four surveys.

### DATA COLLECTED

**2** Data were collected on a number of topics relating to the use and ownership of information technology in the household.

#### IT data

**3** Data were collected on the following:

- ownership of selected communication technologies, i.e. facsimile machines, mobile phones, car phones, cordless phones, answering machines, pagers, voice mail and pay TV.
- use and ownership of computers and use of peripheral information technologies;
- use of games machines;
- use of selected software packages;
- expenditure on selected information technologies;
- planned expenditure on selected information technologies;
- main use of home computer equipment;
- time spent using computer equipment;
- source of computer training;
- computer competency; and
- willingness to access on-line services.



## **EXPLANATORY NOTES** *continued*

### DATA COLLECTED *continued*

#### Household data

**4** In addition to gathering data on the use of IT, the survey collected the characteristics of the household. These characteristics were:

- number of persons aged 18 years and over in household;
- household income;
- household family classification;
- dwelling structure;
- nature of occupancy;
- region;
- home-based business status; and
- State.

**5** Statistics relating to total households were based on 12,730 observations. Estimates for tables 1, 2 and 8 were produced from these observations. As not all households have computers, statistics relating only to households with computers were based on a subset of these. Estimates for tables 3–7 and 9–12 were produced from these observations.

#### Personal computer usage data

**6** Data on personal computer usage were collected for up to five people in each household with a computer. This led to 8,210 observations of household computer users. Age and sex were the only demographic variables sought in respect of personal usage characteristics for this set of observations. Estimates produced for all tables relating to persons (tables 13–25) were produced from these observations.

## **EXPLANATORY NOTES** *continued*

### DATA COLLECTED *continued*

#### Persons data

**7** It is also possible to classify adult persons by the following characteristics:

- age;
- sex;
- marital status;
- birthplace;
- highest educational qualification;
- income;
- labour force status;
- occupation; and
- major activity of those people not in the labour force.

#### HOUSEHOLD

**8** A household is a group of one or more persons in a private dwelling who consider themselves to be separate from other persons in the dwelling, and who make regular provision to take meals separately from other persons. Lodgers who receive accommodation and meals are not treated as separate households. A household may consist of any number of family and non-family members.

#### ACCURACY OF DATA

**9** As the estimates in this publication are based on information obtained from a sample drawn from households in the surveyed population, the estimates are subject to sampling variability; that is, they may differ from the figures that would have been produced if all households in Australia had been included in the survey. One measure of the likely differences is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of households was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all households had been included in the survey, and about 19 chances in 20 that the difference will be less than two standard errors.

## EXPLANATORY NOTES *continued*

### ACCURACY OF DATA *continued*

**10** The standard errors for some statistics are relatively high and users are advised to exercise caution in interpreting these statistics. Estimates with standard errors of 25% or more have been footnoted. The following table of standard errors is for data on the number of households using selected information technology.

<i>Size of estimate</i>	<i>Standard error</i>
'000	'000
100	10
200	13
500	20
800	23
1 000	26
2 000	33

Example using the standard error table

**11** Consider an estimate from the data of 200,000 persons who use home technology for some purpose. An estimate of 200,000 has a standard error of 13,000. This means there are about two chances in three that the true value (i.e. the value that would have been obtained from a complete census) is within the range 213,000 to 187,000. There are about 19 chances in 20 that the true value is in the range 226,000 to 174,000.

### ACKNOWLEDGMENT

**12** 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*.

## EXPLANATORY NOTES *continued*

### RELATED PUBLICATIONS

**13** Other ABS publications on the production and use of information technology and training in Australia are:

*Business Use of Information Technology, 1993-94* (Cat no. 8129.0)

*Computing Services Industry, Australia, 1992-93* (Cat no. 8669.0)

*Government Use of Information Technology, 1993-94* (Cat no. 8119.0)

*Household Use of Information Technology, February 1996*  
(Cat no. 8128.0)

*Information Technology in Australia, 1992-93* (Cat no. 8126.0)

*Information Technology, Australia. Preliminary, 1995-96* (Cat no. 8143.0)

### AVAILABILITY OF UNPUBLISHED STATISTICS

**14** As well as statistics included in this publication, the ABS has a range of data on the use of selected information technologies in households. Inquiries about these statistics should be made by telephoning David McGeachie on Canberra (02) 6252 5614 or Joseph Di Gregorio on Canberra (02) 6252 5609.

### SYMBOLS AND OTHER USAGES

ABS Australian Bureau of Statistics

IT information technology

\* estimates have a relative standard error of greater than 25%

— nil or rounded to zero







## For more information . . .

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