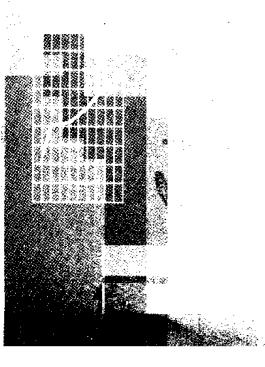
February 1996

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Household Use of Information Technology

Australia





HOUSEHOLD USE OF INFORMATION TECHNOLOGY AUSTRALIA, FEBRUARY 1996

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AUSTRALIAN BUREAU OF STATISTICS

CATALOGUE NO. 8128.0

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INQUIRIES

- for further information about the statistics in this publication and the availability of related unpublished statistics, contact David McGeachie on (06) 252 5614 or Joseph Di Gregorio on (06) 252 5609 or any State office.
 for information about other ABS statistics and services, please refer to the back of
 - this publication.

INTRODUCTION

This publication is the second of its type focusing on the use of information technology (IT) in private households. The first issue related to a survey conducted in February 1994.

The Australian Bureau of Statistics (ABS) plans to conduct four surveys of this type during 1996, each with a sample size of about 3,000 households. The main reason for this is to increase the effective sample size to a total of approximately 12,000 taken over the 12 month period. Analysis based on the 12,000 observations will produce a more reliable result than any of the individual surveys especially where analysis is focused on small target groups. In particular, data will become available classified by State.

The range of information sought in the February 1996 survey has increased from the last survey on the basis of user demand. Additional items of IT covered in the survey include mobile phones, car phones, cordless phones, answering machines, pagers, voice mail, and pay TV. The survey also collected a range of information about individual users within households and about the ownership of household computing equipment.

MAIN FINDINGS

CHANGE SINCE FEBRUARY 1994

- Computer usage in private households in February 1996 increased to 30% Australia wide from the 23% recorded in February 1994.
- The total number of computers used in households increased to 2.5 million in February 1996 from 1.9 million in February 1994.
- Of these, 81% were desktop or personal PCs, compared with 75% in February 1994.
- The use of dedicated games machines has decreased marginally to 16% of households from the 18% recorded for February 1994.
- About 23% of households which used a computer also had a modem compared with 17% in February 1994.
- The use of printers in households with computers was reasonably steady at 82% compared with 80% in February 1994.
- Nearly 10% of households had a facsimile machine compared with 4% in February 1994.
- Approximately 41% of households which used a computer also had CD-ROM equipment, a substantial increase from the 13% recorded in February 1994.
- Integrated software packages were used by 43% of households with a computer compared with 32% in February 1994.

IN FEBRUARY 1996

Users

A total of 3.9 million persons aged 5 years and over used a household computer.

Computer ownership

Of the 2.5 million computers used in households, approximately 79% were owned by a member of the household, 8% were owned by a registered home business and 12% were owned by entities from outside the household. These included employers (9% of machines) and other persons or organisations (2% of machines).

Barriers

Of the 4.7 million households which did not use a computer at home, 41% indicated they had no use for a computer and 31% indicated that costs were too high.

Of the 1.5 million households which used a computer but did not have a modem, 45% indicated that they were not interested or would not use it and 27% indicated that costs were too high.

Most popular use

The most popular use of household computers (which excludes dedicated games machines) was playing computer games. Half of these games players were aged 17 years or less.

Educational activities were also highly popular with household computer users. Just over 1 million persons indicated the use of 'mainly educational products'; 59% of these users were aged 17 years or less.

Internet users

There were an estimated 262,000 persons who used the Internet from home.

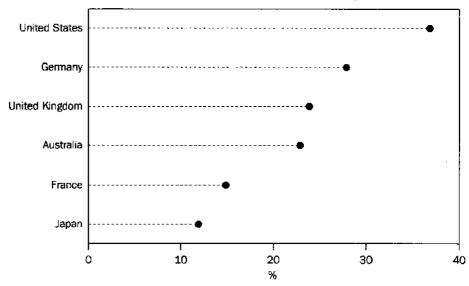
International comparison¹

While comparable data is not available for 1996, the February 1994 household IT statistics for Australia are similar to those recorded for the United Kingdom. The level of computer penetration in Australian households appears to be less than in the United States and Germany but more than Japan or France.

The level of penetration of computers in households in selected OECD countries in 1994 was:

- 37% United States;
- 28% Germany;
- 24% United Kingdom;
- 23% Australia;
- 15% France; and
- 12% Japan.

HOUSEHOLD USE OF COMPUTERS IN SELECTED OECD COUNTRIES, 1994



Source: STI: Science Technology Industry: The Knowledge-based Economy, OECD, 1996

SECTION 1 USE AND OWNERSHIP OF COMPUTERS AND SELECTED TECHNOLOGIES

INTRODUCTION

This section provides statistics on the diffusion of computers, games machines and peripheral information technologies such as CD-ROM, printers, scanners, modems, software etc, into private households. Both usage and ownership details are provided. Statistics are also presented on the characteristics of the most powerful computer owned or paid for by households (processing capacity and memory capacity) and reasons for households not having home computer facilities.

Other statistics in this section relate to the diffusion of selected communications technologies in private households. The figures indicate the extent to which households own or pay for facsimile machines, mobile phones, car phones, cordless phones, answering machines, pagers, voice mail, pay TV and other. Constraints on the size of the household questionnaire did not allow questions on usage of these communication technologies to be asked. Care should be taken in making comparisons with other data which may have been compiled on a usage rather than ownership basis. Usage-based figures would include equipment installed in households which is paid for by employers or other entities.

This section also provides broad statistics on expenditure and intended expenditure by households on selected technologies. Expenditure data was obtained in ranges and not as exact amounts. Estimates of expenditure levels have been derived by taking the midpoint of each range (except the upper open ended range where the bottom of the range has been used), multiplying by the number of households, and summing across size ranges. Expenditure estimates calculated on this basis are provided in tables 14 and 15. Figures derived in this way should be used with caution and only as a guide to overall expenditure levels.

Where possible comparisons are drawn between the results of the February 1996 survey and those obtained for February 1994.

This section includes the following tables:

- Table 1: Households using computers/dedicated games machines by region, February 1994 and February 1996
- Table 2: Households using computers/dedicated games machines by household income, February 1994 and February 1996
- Table 3: Households using computers/dedicated games machines by family type, February 1994 and February 1996
- Table 4: Use of computers in households by type of computer, February 1994 and February 1996
- Table 5: Ownership of computers used in households by region,
 February 1996

- Table 6: Capacity of most powerful computer owned or paid for by households by region, February 1996
- Table 7: Main reason for households not having computing facilities by region, February 1996
- Table 8: Use of peripheral IT equipment by households by region, February 1994 and February 1996
- Table 9: Main reason for households not having a modem or external link by region, February 1996
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- Table 11: Use of software packages by households where a computer is used by region, February 1994 and February 1996
- Table 12: Percentage of households owning/paying for selected communication technologies by region, February 1996
- Table 13: Years since last computer purchased or leased by region,
 February 1996
- Table 14: Expenditure on computer equipment and services by households where a computer is used during the 12 months to February 1996
- Table 15: Planned expenditure on computing equipment, February 1996

SUMMARY OF RESULTS

Number of computers

In February 1996 there were approximately 2.5 million computers in use in households. About 1.8 million (72%) of these were in capital cities and about 700,000 were in the remainder of Australia.

Computer usage

In February 1996, 30% of households frequently used a computer compared with 23% of households in February 1994. A third of households in State capitals frequently used a computer at home compared with 24% in the remainder of Australia. This compares with February 1994 usage of 27% for capital cities and 16% for the remainder of Australia.

Households consisting of married couples with children continued to show the highest percentage use of computers; 45% of an estimated 2.4 million such households used a computer in February 1996. This was compared with the February 1994 figure for similar households of 38%.

There were about 4.7 million households which did not use computing facilities.

Computer ownership

Of the 2 million households which used a computer at home, about 1.8 million households (92%) owned or paid for at least one computer.

Of the 2.5 million computers in households:

- 79% were owned by a member of the household;
- 9% were owned by an employer (excluding home-based businesses);
 and
- 8% were owned by a registered home-based business.

Capacity

Of the 1.8 million households which either owned or paid for a computer, the memory capacity of the most powerful computer owned or paid for was as follows:

- 12% had less than 4 megabytes of memory;
- 26% had between 4 and 8 megabytes;
- 25% had 8 to 16 megabytes;
- 8% had 16 to 32 megabytes;
- 6% had more than 32 megabytes; and
- 24% did not state or did not know the memory capacity of their most powerful computer.

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

- 35% had an IBM or IBM compatible 486;
- 21% had a 386;

- 12% had a 286;
- 10% had a Pentium;
- 6% had an Apple Macintosh;
- 2% had an Apple Power Macintosh; and
- 15% had some other type of computer or did not know.

Type of computer used

Of the 2.5 million computers used in Australian households at February 1996:

- 81% were desktop or personal computers;
- 14% were portable computers; and
- 5% were either combined portable/desktop computers, dedicated word processors or other computers.

Main reason for not having a computer

Of the 4.7 million households which did not have a computer, the main reasons given were:

- 41% had 'no use for a computer';
- 31% stated that 'costs are too high';
- 12% stated that 'no-one in the household is interested in computers';
 and
- 17% gave other reasons.

Modem or external link

Approximately 23% of the 2 million households which used a computer in February 1996 also had a modem or external link. This compares with 17% of 1.5 million households which used a computer in February 1994.

Main reason for not having a modem or external link

The main reasons given for not having a modem or external link were:

- 45% were 'not interested/wouldn't use it';
- 27% stated that 'costs are too high'; and
- 24% gave other reasons.

The apparent lack of interest in having a modem or external link seemed to be consistent across all household income levels. Households with the lowest incomes (up to \$24,000) had the highest percentage of responses 'costs are too high' (32%), while households with highest incomes (greater than \$46,000) had the lowest percentage of response (22%) for this category.

Use of peripheral equipment

Of the 2 million households which used a computer 82% also had a printer. This compares with 80% in February 1994.

Approximately 41% of households with a computer also had CD-ROM equipment. This is a significant increase from the 13% in February 1994. Almost 7% of households with a computer also had a character or image reader/scanner.

Software usage

Nearly 43% of households with a computer used integrated software packages in February 1996 compared with 32% in February 1994. The proportion of households which used other software remained relatively stable.

Educational software was used by 39% of households with a computer. This category was a new inclusion for the February 1996 survey.

Communication technologies

With respect to other communication technologies the survey showed:

- 25% of all households owned or paid for an answering machine (30% in capital cities, 19% in the remainder of Australia);
- 24% of all households owned or paid for a mobile phone (28% in capital cities, 19% in the remainder of Australia);
- 13% of all households owned or paid for a cordless phone (15% in capital cities, 11% in the remainder of Australia);
- 10% of all households owned or paid for a facsimile machine (11% in capital cities, 8% in the remainder of Australia);
- 52% of all households did not own or pay for any of the technologies apart from a telephone connection (47% in capital cities, 61% in the remainder of Australia); and
- 97% of all households in Australia had a telephone connected (98% in capital cities, 95% in the remainder of Australia).

Years since last computer purchased

Of the 2 million households which used a computer:

- 14% had never purchased or leased a computer;
- 22% purchased or leased a computer less than 1 year ago;
- 19% purchased or leased a computer between 1 and 2 years ago;
- 19% purchased or leased a computer between 2 and 3 years ago;
- 12% purchased or leased a computer between 3 and 4 years ago; and
- 14% purchased or leased a computer more than 4 years ago.

Expenditure

Households which used a computer spent approximately \$3 thousand million in the 12 months to February 1996 on computer-related goods and services. This represents \$1,500 per household where a computer is used in Australia

Of the 2 million households which used a computer:

 52% purchased software during the 12 months to February 1996, spending an estimated \$550 million;

- 43% purchased computer peripherals during the 12 months to February 1996, spending an estimated \$680 million; and
- 30% purchased desktop or personal computers during the 12 months to February 1996, spending an estimated \$870 million.

Expected expenditure

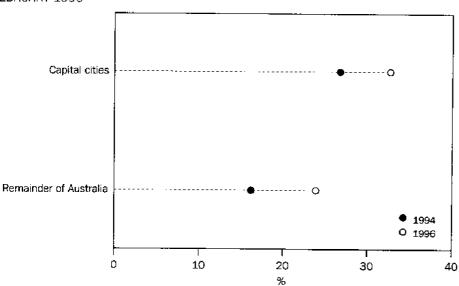
Of the 6.6 million households in Australia, 19% intended to purchase computer equipment in the 12 months from February 1996 and a further 11% intended to spend an amount of money in the 12 months from February 1997.

1

HOUSEHOLDS USING COMPUTERS/DEDICATED GAMES MACHINES BY REGION

		February 1994				February 1996
	Capital cities	Remainder of Australia	Total Australia	Capital cities	Remainder of Australia	Total Australia
	%	%	%	%	%	%
Computers	26.8	16.3	22.9	32.8	24.0	29.5
Dedicated games machine	18.7	16.1	17.8	16.8	14.5	15.9
Total number of households in Australia ('000)	3 999	2 389	6 388	4 173	2 472	6 645

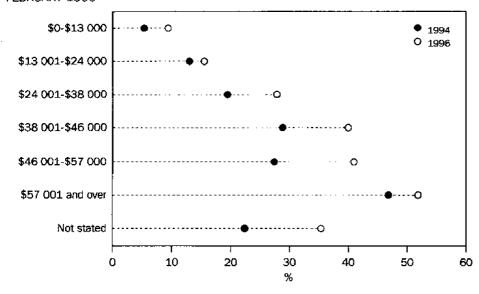
HOUSEHOLDS USING COMPUTERS BY REGION, FEBRUARY 1994 AND FEBRUARY 1996



-			February 1994			February 1996
_	Household computer	Dedicated games machine	Total number of households in each income range	Household computer	Dedicated games machine	Total number of households in each income range ¹
Household income	%	%	'000	%	%	,000
		C	APITAL CITIES			
\$0-\$13 000	*6.6	7.4	504	8.5	*5.5	581
\$13 001-\$24 000	13.2	11.8	636	19.5	15.4	813
\$24 001-\$38 000	20.7	22.3	666	30.6	19.3	717
\$38 001-\$46 000	36.8	16.2	360	46.6	26.0	364
\$46 001-\$57 000	30.7	28.5	365	40.8	20.5	348
\$57 001 and over	47.8	18.9	825	52.9	18.3	760
Not stated	27.5	26. 6	642	38.4	16.9	591
		RÉMAIN	DER OF AUSTRALIA			
\$0-\$13 000	*4.1	7.3	472	10.8	*7.4	3 97
\$13 001-\$24 000	13.1	10.5	484	10.3	6.5	586
\$24 001-\$38 000	18.1	20.2	451	24.4	21.1	498
\$38 001-\$46 000	14.9	12.8	198	28.4	*15.0	204
\$46 001-\$57 000	19.5	32.8	143	41.8	19.5	170
\$57 001 and over	44.3	21.3	251	49.5	25.1	263
Not stated	14.4	21.2	390	30.8	15.8	354
			TOTAL			
\$0-\$13 000	*5,4	7.3	976	9.5	6.3	978
\$13 001-\$24 000	13.2	11.2	1 120	1 5.7	11.7	1 399
\$24 001-\$38 000	19.6	21.4	1 11 7	28.0	20.0	1 215
\$38 001-\$46 000	29.0	15.0	559	40.1	22.1	568
\$46 001- \$ 57 000	27.5	29.7	508	41.1	20.2	517
\$57 001 and over	47.0	19.4	1 076	52.0	20.1	1 023
Not stated	22.5	24.5	1 031	35.5	16.5	944

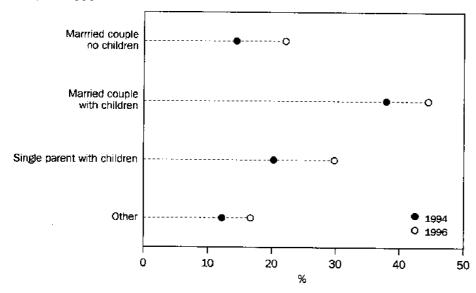
HOUSEHOLDS USING COMPUTERS BY HOUSEHOLD INCOME, FEBRUARY 1994 AND FEBRUARY 1996

Totals are for all households in each income range and not just households with computers or games machines.



<u>-</u>			February 1994			February 1996
	Household computer	Dedicated games machine	Total number of households in each family type ¹	Household computer	Dedicated games machine	Total number of households in each family type ¹
	%	%	'000	%	%	.000
	<u>-</u>	CAPITA	AL CITIES			
Married couple no children	17.6	*4.9	923	27.5	4.9	904
Married couple with children	41.8	31.9	1 515	48.4	29.2	1 560
Single parent with children	20.7	31.4	320	30.0	25.2	382
Other	16.8	9.7	1 241	18.8	7.9	1 326
		REMAINDER	OF AUSTRALIA	<u></u>		
Married couple no children	9.3	*2.5	571	14.9	*2 .7	637
Married couple with children	31.2	29.3	800	37.8	26.4	888
Single parent with children	20.0	39.4	189	29.6	24.6	219
Other	*5.9	7.5	829	13.3	7.2	728
		TC	DTAL			
Married couple no children	14.5	*4.0	1 494	22.3	4.0	1 541
Married couple with children	38.1	31.0	2 315	44.6	28.2	2 448
Single parent with children	20.4	34.4	509	29.9	25.0	601
Other	12.4	8.8	2 070	16.9	7.7	2 054

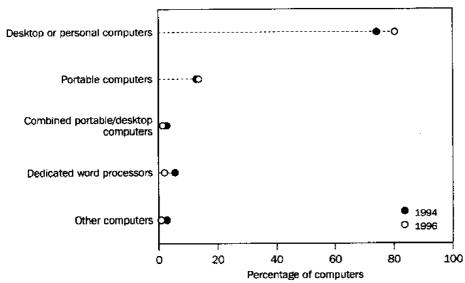
HOUSEHOLDS USING COMPUTERS BY FAMILY TYPE, FEBRUARY 1994 AND FEBRUARY 1996



USE OF COMPUTERS IN HOUSEHOLDS BY TYPE OF COMPUTER

	February 1994		Febru	uary 1996
	%	'000	%	'000
Portable computers	13.2	249	14.0	345
Desktop or personal computers	74.7	1 413	80.8	1 988
Combined portable/desktop computers	2.9	56	1.7	43
Dedicated word processors	6.1	11 5	2.3	57
Other computers	3.1	59	*1.2	29
Total number of computers	100.0	1 892	100.0	2 462

USE OF COMPUTERS IN HOUSEHOLDS BY TYPE OF COMPUTER, FEBRUARY 1994 AND FEBRUARY 1996



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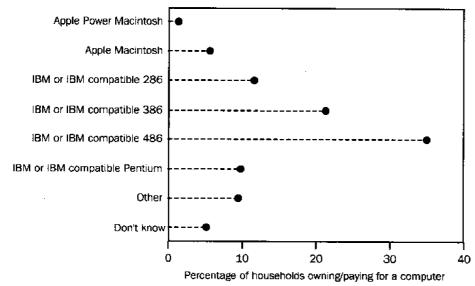
OWNERSHIP OF COMPUTERS USED IN HOUSEHOLDS BY REGION, FEBRUARY 1996

	Capital cities	Remainder of Australia	Total Australia
	%	%	%
Member of household	78.9	80.3	79.3
A registered home business	8.2	8.6	8.3
An employer	9.6	7.4	8.9
Other ¹	3.4	*3.7	3.4
Total number of computers ('000)	1 772	689	2 462

	Capital cities	Remainder of Australia	Total Australia
	%	%	%
Processor capacity			
Apple Power Macintosh	*2.0	*0.2	*1.5
Apple Macintosh	6.8	*3.2	5.7
IBM or IBM compatible 286	11.3	12.4	11.7
IBM or IBM compatible 386	23.2	17.3	21.4
IBM or IBM compatible 486	33.6	38.5	35.1
IBM or IBM compatible Pentium	10.0	9.9	9.9
Other	7.7	14.1	9.6
Don't know	5.5	*4.4	5.2
Memory capacity			
Less than 4 Mb	12.5	10.3	11.8
4 to less than 8 Mb	24.5	28.5	25.7
8 to less than 16 Mb	25.3	25.0	25.2
16 to less than 32 Mb	8.5	*5.8	7.7
32 to less than 64 Mb	3.0	*2.0	2.7
64 Mb or more	3.4	*2.7	3.2
Don't know	22.9	25.7	23.8
Fotal number of households owning or paying for a computer ² ('000)	1 263	545	1 808

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.

CAPACITY OF MOST POWERFUL COMPUTER, FEBRUARY 1996

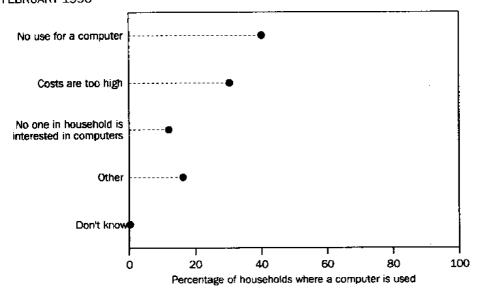


² Relates only to the most powerful computer owned or paid for in each household.

····	Capital cities	Remainder of Australia	Total Australia
	%	%	%
No use for a computer	42.5	37.4	40.5
Costs are too high	29.6	32.1	30.6
No one in household is interested in computers	11.1	13.6	12.1
Other¹	16.3	16.7	1 6 .5
Don't know	*0.5	*0.3	*0.4
Total number of households not having computing facilities ² ('000)	2 806	1879	4 685

¹ Includes 'computers are a bad influence', 'no one in household knows how to use a computer' and 'have access to a computer elsewhere'.

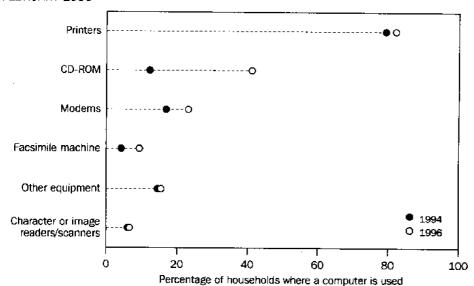
MAIN REASON FOR HOUSEHOLDS NOT HAVING COMPUTING FACILITIES, FEBRUARY 1996



² Relates only to the most powerful computer owned or paid for in each household.

94 <u>%</u> 7	1996	1994 %	1996 %	1994 %	1996
		%	%	96	
7	04 C	_,			%
	81.6	74.4	84.2	79.7	82.4
5.7	7.2	8.2	5.9	*6.3	6.8
.6	42	15.1	39.9		41.3
).1	24.8	8.3	20.2		23.4
5.1	10 .7	3.2	8.1		9.7
5.9	17.1	11.6	12.1	14.8	1 5.6
71	1 368	389	593	1 460	1 960
,	6).1 5.1 5.9	6 42 0.1 24.8 0.1 10.7 0.9 17.1	6 42 15.1 0.1 24.8 8.3 6.1 10.7 3.2 6.9 17.1 11.6	6 42 15.1 39.9 0.1 24.8 8.3 20.2 6.1 10.7 3.2 8.1 6.9 17.1 11.6 12.1	6 42 15.1 39.9 12.5 0.1 24.8 8.3 20.2 17.0 0.1 10.7 3.2 8.1 4.4 0.9 17.1 11.6 12.1 14.8

USE OF PERIPHERAL IT EQUIPMENT BY HOUSEHOLDS, FEBRUARY 1994 AND FEBRUARY 1996



MAIN REASON FOR HOUSEHOLDS NOT HAVING A MODEM OR EXTERNAL LINK BY REGION, FEBRUARY 1996

	Capital cities	Remainder of Australia	Total Australia
	%	%	%
Not interested/wouldn't use it	43.3	47.5	44.6
Costs are too high	25.3	31.8	27.3
Other ¹	27.4	17.2	24.2
Don't know	4.0	*3.6	3.8
Total number of households which use a computer and where a modern is not used ('000)	1 028	473	1 502

¹ Includes 'machine capacity is too small', 'wouldn't know how to use it', 'have access elsewhere when needed' and 'prefer not to have one'.

MAIN REASON FOR HOUSEHOLDS NOT HAVING A MODEM OR EXTERNAL LINK BY HOUSEHOLD INCOME, FEBRUARY 1996

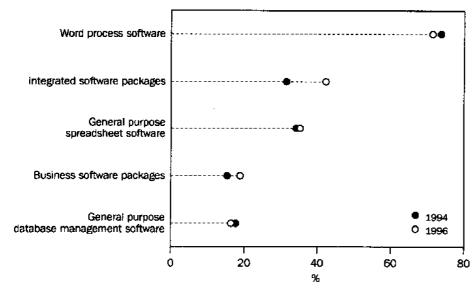
	\$0-\$24 000	\$24 001- \$46 000	Over \$46 000	Not stated
	%	%	%	%
Not interested/wouldn't use it	38.2	53.2	44.7	36.6
Costs are too high	32.4	25.3	21.7	36.9
Other ¹	26.6	19.7	29.2	19.5
Don't know	*2.8	*1.8	*4.4	*7.1
Total number of households which use a computer and where a modem is not used ('000)	253	441	536	271

¹ Includes 'machine capacity is too small', 'wouldn't know how to use it', 'have access elsewhere when needed' and 'prefer not to have one'.

11 USE OF SOFTWARE PACKAGES BY HOUSEHOLDS WHERE A COMPUTER IS USED BY REGION, FEBRUARY 1994 AND FEBRUARY 1996

es Remainder of	Remainder of Australia		l Australia
6 1994	94 1996	1994	1996
% %	%	%	%
1 35.1	45.7	31.7	42.5
9 64.6	68.7	73.9	71.6
1 14.3	21.3	15.5	19.1
9 17.0	34.3	34.3	35.4
8 15.6	18.4	17.9	16.6
8 11.1	8.1	13.1	10.0
6 6.7	9.5	7.6	8.2
8 4.5	7.1	10.7	9.0
5 n.a.	39.6	· n.a.	38.8
2 61.8	63.8	62.1	60.6
9 5.2	6.2	9.7	6.7
8 389	5 9 2	1 460	1 960
	.9 5.2	.9 5.2 6.2	.9 5.2 6.2 9.7

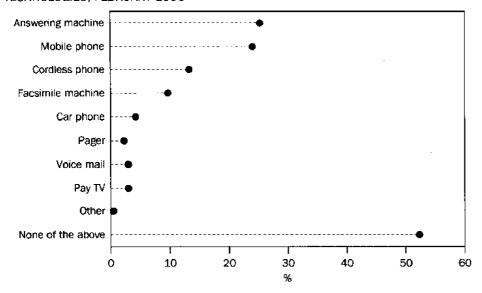
USE OF SOFTWARE PACKAGES BY HOUSEHOLDS WHERE A COMPUTER IS USED, FEBRUARY 1994 AND FEBRUARY 1996



PERCENTAGE OF HOUSEHOLDS OWNING/PAYING FOR SELECTED COMMUNICATIONS TECHNOLOGIES BY REGION, FEBRUARY 1996

	Capital cities	Remainder of Australia	Total Australia
	%	%	%
Facsimile machine			
Dedicated line	3.0	3.0	3.0
Other connection	7.4	5.8	6.8
Total number of households with facsimile machine	10.7	8.1	9.7
Mobile phone	27.5	18.5	24.1
Car phone	4.3	4.3	4.3
Cordless phone	15.0	10.8	13.4
Answering machine	29.5	18.6	25.4
Pager	3.1	1.4	2.4
Voice mail	4.0	*1.2	3.0
Pay TV ¹	4.1	*1.3	3.0
Other	*0.5	*0.6	0.5
None of the above	47.3	61.0	52.4
Telephone connected	97.8	95.2	96.8
Total number of households ('000)	4 173	2 472	6 64 5
Pay TV services are not widely available in all areas of Australia.			

PERCENTAGE OF HOUSEHOLDS OWNING/PAYING FOR SELECTED COMMUNICATIONS TECHNOLOGIES, FEBRUARY 1996



	Capital cities	Remainder of Australia	Total Australia
	%	%	%
Never	15.1	10.3	13.6
Less than 1 year	22.7	20.3	21.9
1 to less than 2 years	18.4	19.0	18.6
2 to less than 3 years	17.7	23.4	1 9 .4
3 to less than 4 years	11.5	12.7	11.8
More than 4 years	14.0	13.8	13.9
Don't know	*0.8	*0.6	*0.7
Total number of households where a computer is used ('000)	1 368	593	1 960

EXPENDITURE ON COMPUTER EQUIPMENT AND SERVICES BY HOUSEHOLDS WHERE A COMPUTER IS USED¹ DURING THE 12 MONTHS TO FEBRUARY 1996

	Households which used a computer and which purchased	Derived expenditure
Type of computer equipment/service	IT equipment/services ¹	\$m ²
Portable computer	3.0	. 90
Desktop or personal computer	30.3	870
Combined portable and desktop computer	1.0	40
Dedicated word processor	1.0	10
Other computers	0.2	5
Computer packages	6.8	330
Computer peripherals (including printers, character or image readers or scanners, CD-ROM, modems)	42.6	680
Software	52.3	550
Computer training	8.6	90
Repairs and maintenance	16.8	160
Modern charges		
Telephone/line fees and charges	10.9	20
Access fees for on-line facilities	10.6	30
Total	_	2 875

 $^{^{1}\,}$ Percentages of household which used a computer.

PLANNED EXPENDITURE ON COMPUTING EQUIPMENT, FEBRUARY 1996¹

	Percentage of all households	Derived expenditure
	%	\$m
Purchase or upgrade in the 12 months from February 1996	18.5	2 300
Purchase or upgrade in the 12 months from February 1997 but not in the 12 months from February 1996	11.0	1 300

Estimates on expenditure were obtained by taking the midpoint of each range (except the upper open ended ranges where the bottom of the range has been used), multiplying by the number of households, and summing across expenditure ranges.

Estimates on expenditure were obtained by taking the midpoint of each range (except the upper open ended ranges where the bottom of the range has been used), multiplying by the number of households, and summing across expenditure ranges.

SECTION 2 CHARACTERISTICS OF HOUSEHOLD INFORMATION TECHNOLOGY USERS

INTRODUCTION

This section provides information on the characteristics of users of information technology in the household. The time spent and use made of household computers are also examined as is the source of computer training. Statistics on the willingness of people to use their television or household computing facilities for accessing selected on-line services are also presented.

This section includes the following tables:

- Table 16: Use of computers in households by persons by age and sex, February 1996
- Table 17: Computer activities of persons in households by age and sex, February 1996
- Table 18: Age and sex of persons who used a household computer by activity on which most time was spent, February 1996
- Table 19: Source of computer training for persons who used a household computer by age and sex, February 1996
- Table 20: Type of games or entertainment software mostly used by age and sex, February 1996
- Table 21: Number of hours per week spent playing games on household computer by age and sex, February 1996
- Table 22: Number of hours per week spent using household computer (excluding playing games) by age and sex, February 1996
- Table 23: Willingness to use television or household computer for accessing selected on-line services by age and sex, February 1996

SUMMARY OF RESULTS

Users

In February 1996, 3.9 million persons aged 5 years and over used household computers. Of these, 2.2 million were males and 1.7 million were females.

The age distribution of household computer users was:

- 36% were aged 5-17 years; 43% of this age group used a household computer;
- 13% were aged 18–25 years; 23% of this age group used a household computer;
- 25% were aged 26–40 years; 24% of this age group used a household computer;
- 22% were aged 41-55 years; 28% of this age group used a household computer; and
- 5% were aged 56 years and over; 6% of this age group used a household computer.

Uses The most popular use for household computers, excluding dedicated games machines, was playing computer games. Half of the games players were aged 5-17 years.

A tenth of the 3.9 million persons who used a household computer used the computer solely for playing computer games.

Of the 2.3 million persons 5 years or older who played computer games on their household computer:

- 68% spent 1-5 hours per week playing computer games;
- 15% spent less than 1 hour per week playing computer games; and
- 12% spent from 6-10 hours per week playing computer games.

Educational activities were also highly popular. Just over 1 million household computer users indicated the use of 'mainly educational products'. Of these users, 59% were aged 5-17 years.

There were 1.6 million household computer users 'doing work relevant to studies'; 46% of these were aged 5-17 years.

Of the 3.9 million persons who used a household computer:

- 53% spent 1-5 hours per week using a household computer for non-computer games activities;
- 17% spent 6-10 hours per week on non-computer games activities: and
- 9% spent less than 1 hour per week on non-computer games activities.

Internet users

There were an estimated 262,000 users who indicated use of the Internet from home. The age distribution of these Internet users was:

- 11% were aged 5-17 years;
- 18% were aged 18-25 years;
- 38% were aged 26-40 years;
- 28% were aged 41-55 years; and
- 6% were over 55 years.

About 178,000 Internet users were male and 84,000 were female.

Other on-line activities

There were about 140,000 household computer users who indicated using electronic mail.

There were about 116,000 household computer users who accessed other on-line services/databases.

Working from home

Of those working from home:

- 833,000 persons used their household computer for 'doing work relevant to my employment (excluding own business)';
- 379,000 used it for 'doing work relevant to my business (excluding home based)';
- 422,000 used it for 'doing work for the home based business'; and
- 23,000 used it for 'other paid work from home via computer'.

Main use

Of the 3.9 million household computer users:

- 34% identified playing computer games as their main use;
- 21% identified 'doing work relevant to studies' as their main use; and
- 25% identified using the home computer for work-related purposes as their main use.

New services

One randomly selected adult from each household was asked about their willingness to use household technology for shopping from home, banking from home and gambling from home:

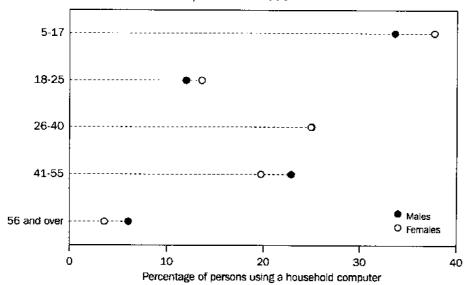
- 78% said 'no' to home shopping;
- 70% said 'no' to home banking; and
- 95% said 'no' to home gambling.

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USE OF COMPUTERS IN HOUSEHOLDS BY PERSONS BY AGE AND SEX, FEBRUARY 1996

	Males	Females	Total persons
Age group (years)	%	%	%
5–17	33.7	37.8	35.5
18–25	12.1	13.7	12.8
26–40	25.1	25.0	25.0
41~55	23.0	19.8	21.6
56 and over	6.1	3.7	5.1
Total number of persons using a household computer (*000)	2 207	1 697	3 904

COMPUTER USAGE BY AGE AND SEX, FEBRUARY 1996



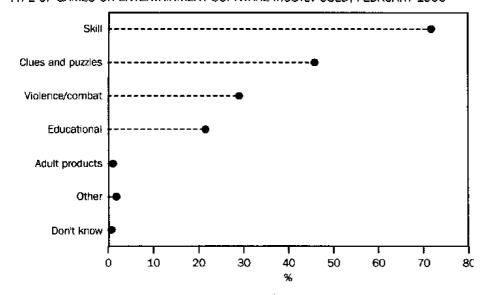
				Age gr	oup (years)	
	5–17	18-25	26-40	41–55	Over 55	Total
Activity	%	%	%	%	%	'000
	MALES					
Playing computer games	47.0	13.7	21.4	14.2	3.8	1 425
Using mainly educational products	56.3	6.3	17.5	1 4.5	*5.5	591
Doing work relevant to studies	44.6	19.3	21.0	13.0	*2.1	844
Doing work for the home based business	*0.1	*3.0	45.8	36.0	15.2	280
Doing work relevant to my business (excl. home based)	*0.1	*8.1	45.3	36.7	*9.8	254
Doing work relevant to my employment (excl. own business)	0.8	14.5	43.9	36.2	*4.6	485
Doing other paid work from home via computer	•	_	31.1	26.0	42.9	19
Keeping personal or family records	*1.4	11.2	40.7	36.2	10.5	518
'Adult' entertainment products	_	20.9	55.5	23.7		28
Electronic mail	*5.4	*8.9	53.2	*22.4	*10.1	105
Accessing the Internet	*8.1	*15.5	41.9	27.9	*6.7	178
Accessing other on-line services/databases	*10.1	*14.6	50.3	*16.6	*8.4	104
Other	*6.4	*14.4	*26.3	31.2	*21.8	124
	FEMALES					
Playing computer games	55.7	12.5	17.7	12.0	*2.1	920
Using mainly educational products	62.3	8.7	17.2	11.0	*0.9	461
Doing work relevant to studies	47.2	22.0	21.1	9.2	*0.6	776
Doing work for the home based business	*0.9	*4.8	38.4	43.9	*12.1	1 42
Doing work relevant to my business (excl. home based)	_	10.4	51.0	35.5	*3.2	125
Doing work relevant to my employment (excl. own business)	*0.9	*19.5	44.2	35.1	*0.3	348
Doing other paid work from home via computer	—·	*7.1	*6.6	*79.0	*7.3	4
Keeping personal or family records	*5.9	14.4	42.7	29.4	*7,6	381
'Adult' entertainment products				_		_
Electronic mail	*1.5	*29.6	*38.3	*30.6		37
Accessing the Internet	*16.1	*23.3	*28.6	*28.4	* 3.7	84
Accessing other on-line services/databases	*4.1	*42.6	*53.3			12
Other	*5.6	*11.6	27.5	39.8	*15.5	138
	PERSONS					
Playing computer games	50.4	13.3	19.9	13.3	3.1	2 346
Using mainly educational products	58.9	7.3	17.4	13.0	3.4	1 052
Doing work relevant to studies	45.8	20.6	21.1	11.2	*1.4	1 620
Doing work for the home based business	*0.4	*3.6	43.3	38.6	14.1	422
Doing work relevant to my business (excl. home based)	*0.1	*8.9	47.2	36.3	*7.6	379
Doing work relevant to my employment (excl. own business)	*0.8	16.6	44.1	35.8	*2.8	833
Doing other paid work from home via computer	_	*1.4	*26.4	*36.1	*36.1	23
Keeping personal or family records	*3.3	12.6	41.5	33.3	9.3	900
'Adult' entertainment products	_	*20.9	*55.5	*23.7	_	28
Electronic mail	*4.4	*14.3	49.3	24.5	*7.5	141
Accessing the Internet	*10.7	18.0	37.6	28.0	*5.7	262
Accessing other on-line services/databases	*9.5	*17.4	50.6	*14.9	*7.5	116
Other	*6.0	12.9	26.9	35.7	18.5	263

			_	Age gro	oup (years)	
	5–17	18-25	26-40	41-55	Over 55	Tota
Activity	%	%	%	%	%	9
MAL	ES					
Playing computer games	69.0	45.1	21.3	1.6.8	19.5	39.
Using mainly educational products	11.2	*3.9	*2.4	*3.8	*6.6	6.
Doing work relevant to studies	18.3	25.2	16.2	11.0	*3.2	16.
Doing work for the home based business		*2.8	14.6	14.3	23.1	8.
Doing work relevant to my business (excl. home based)	_	*1.8	10.4	11.3	*8.4	5.
Doing work relevant to my employment (excl. own business)	_	*7.0	23.7	22.1	*10.6	12.
Doing other paid work from home via computer			20.1		*2.9	*0.
Keeping personal or family records	*0.1	*6.0	*5.9	10.9	*7.8	5.
'Adult' entertainment products	0.1	*1.5				
Electronic mail		*0.7	<u>-</u>	*0.1	_	*0.
Accessing the Internet	*0.6	*3.2	*2.6	*3.8	_	*0.
Accessing other on-line services/databases	0.0	"Ş.Z	*0.1		_	2.
Other	*0.9	*1.4		*0.3	*47.0	*0.
Don't know	-0.9		*2.5	*5.5	*17.9	3.
DOI C KITOW	_	*1.6	*0.2	*0.1	-	*0.
Total number of males in age group using a home computer ('000)	745	267	553	507	135	2 20
FEMAI	ĿS					
Playing computer games	46.7	15.1	15.4	12.0	*12.5	26.
Using mainly educational products	17.2	*4.3	*7.2	*4.6	*5.7	10.
Doing work relevant to studies	34.0	55.4	19.9	12.9	*6.4	28.
Doing work for the home based business		*1.6	9.2	11.8	*22.3	5.
Doing work relevant to my business (excl. home based)	_	*2.1	*7.9	*8.1	*5.3	4.
Doing work relevant to my employment (excl. own business)	_	*10.2	22.8	25.6	*1,5	12.
Doing other paid work from home via computer	_	_	_	*1.0	_	*0.
Keeping personal or family records	*1.5	*4.6	10.4	12.4	*19.8	7.
'Adult' entertainment products			_	_		_
Electronic mail	_	*2.2	*0.4	_	_	*0.
Accessing the Internet	_	*0.1	*0.9	_		*0.
Accessing other on-line services/databases	_	*0.1	_	_		_
Other	_	*2.8	*5.6	10.8	*26.6	4.
Don't know	0.6	*1.6	*0.4	*0.9	_	*0.
Total number of females in age group using a home computer						
('000)	642	232	424	335	63	1 69
PERSO						
Playing computer games	58.7	31.1	18.7	14.9	*17.3	33.6
Jsing mainly educational products	14.0	*4.1	4.5	4.1	*6.3	7.8
Doing work relevant to studies	25.6	39.2	17.8	11.7	*4.2	21.
Doing work for the home based business	_	*2.2	12.3	13.3	22.8	7.
Doing work relevant to my business (excl. home based)	_	*1.9	9.3	10.0	*7.4	5.:
Doing work relevant to my employment (excl. own business)	-	8.5	23.3	23.5	*7.7	12.
Doing other paid work from home via computer	_	_	_	*0.4	*2.0	*0.5
Reeping personal or family records	*0.8	*5.4	7.9	11.5	*11.6	6.6
Adult' entertainment products	_	*0.8	_	_	_	*0.:
Electronic mail	_	*1.4	*0.2		_	*0.:
Accessing the Internet	*0.3	*1.8	*1.9	*2.3	_	1.3
Accessing other on-line services/databases	_	*0.1	_	*0.2	_	*0.:
Other	*0.5	*2.1	3.9	7.6	20.7	4.:
Don't know	*0.3	*1.6	*0.3	*0.4		*0.5
fotal number of persons in age group using a home computer						
('000)	1 386	500	977	843	198	3 904

		 ,		Age ,		
	5–17	18-25	26-40	41-55	Over 55	Tota
	%	%	%	%	%	'000
		MALES		<u></u>		
The equipment supplier	*0.3	*13.2	44.5	37.0	5.0	191
An employer	*0.2	9.8	47.4	35.2	7.4	556
A commercial organisation	_	*12.6	37.8	40.6	9.1	170
Primary or secondary school	72.6	20.5	4.8	2.0*	*0.1	777
TAFE	*1.0	17.3	44.3	28.8	*8.6	258
University	*1.6	28.1	40.2	28.1	*2.1	225
Adult community education course	*1.5	*3.2	64.0	*21.3	10.0	94
Other	20.5	8.2	32.5	31.8	7.1	631
		FEMALES				
The equipment supplier	*4.0	*1.1	43.1	45.6	*6.2	80
An employer	_	13.7	47.4	32.9	*6.1	364
A commercial organisation	*2.4	*22.4	30.5	41.7	*3.0	117
Primary or secondary school	76.6	18.8	*3.3	*1.4	_	650
TAFÉ	*2.2	22.2	51.1	23.0	*1.7	207
University	***	51.2	39.7	*9.1	_	191
Adult community education course	*3.4	*11.9	*36.5	*39.4	*8.9	85
Other	30.1	13.7	26.9	25.1	*4.2	431
		PERSONS				
The equipment supplier	*1.4	*9.6	44. 1	39.5	*5.4	271
An employer	*0.2	11.3	47.4	34.3	6.9	920
commercial organisation	*1.0	16.6	34.8	41.1	*6.6	287
Primary or secondary school	74.4	19.7	4.1	*1.7	_	1 427
TAFE	*1.5	19.5	47.3	26.2	*5.5	465
University	*0.8	38.7	40.0	19.4	*1.1	416
Adult community education course	*2.4	*7. 4	50.9	29.9	9.5	179
Other	24.4	10.4	30.2	29.1	5.9	1 062

	Violence/ combat	Skill	Clues and puzzles	Educational products	'Adult' products	Other	Don't know
Age group (years)	%	%	%	%	%	%	%
			MALES				
5-17	52.9	50.0	44.8	68.4		*1.3	
18-25	18.2	13.8	13.6	*2.2	*6.9	*30.2	*13.2
26-40	21.2	19.6	24.0	20.4	*52.0	*38.8	*41.7
41-55	7.8	13.2	12.2	*5.3	*41.1	*18.1	*45.1
Over 55	_	3.4	5.4	*3.7	_	*11.7	_
Total number of males ('000)	568	1 054	611	277	29	35	10
			FEMALES				
5–17	52.4	53.4	55.3	79.6		*10.3	*68.5
18-25	28.1	14.3	12.1	*1.6	_	*9 .9	
26-40	*15.5	16.5	17.8	*10.3	_	*57.5	*28.7
4 1 –55	*4.0	13.4	12.3	*6.5		*22.3	
Over 55		*2.4	*2.6	*2.0	_	_	*2.9
Total number of females ('000)	121	633	469	233	_	14	10
		j	PERSONS				
5–17	52.8	51.2	49.4	73.5	_	*3.9	*35.6
18-25	20.0	14.0	12.9	*1.9	*6.9	*24.5	*6.3
26-40	20.2	18.5	21.3	15.8	*52.0	*44.1	*34.9
41-55	7.1	13.3	12.2	*5.8	*41.1	*19.3	*21.6
Over 55		3.0	4.2	*2.9	_	*8.4	*1.5
Total number of persons ('000)	689	1 687	1 080	510	29	48	20

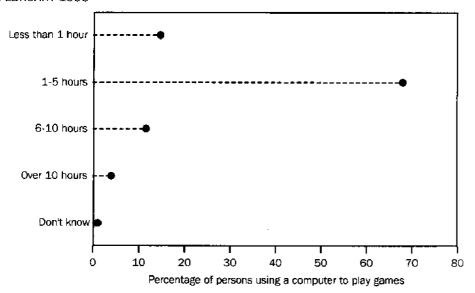
TYPE OF GAMES OR ENTERTAINMENT SOFTWARE MOSTLY USED, FEBRUARY 1996



NUMBER OF HOURS PER WEEK SPENT PLAYING GAMES ON HOUSEHOLD COMPUTER BY AGE AND SEX, FEBRUARY 1996¹

than 1 hour hours hours hours hours hours 10 hours know number of males using a home computer to play games ('000) FEMALES	5-17 %	1825 %	26–40	41–55	Over 55	Total
mg computer games MALES than 1 hour hours hours hours 10 hours t know number of males using a home computer to play games ('000) FEMALES	%	%				
than 1 hour hours hours hours 10 hours t know number of males using a home computer to play games ('000) FEMALES	<i>-</i> -		%	%	%	%
hours 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7						
hours 10 hours t know number of males using a home computer to play games ('000) FEMALES	7.3	*9.3	*9,7	23.3	*15.3	10.7
hours 10 hours t know number of males using a home computer to play games ('000) FEMALES	72.8	58.7	71.1	53.9	81.0	68.1
number of males using a home computer to play games ('000) FEMALES	14.3	24.4	10.9	*16.6	_	14.7
number of males using a home computer to play games ('000) FEMALES	6.0	*4.7	*7.3	*3.9	*3.8	5.5
FEMALES	_	*2.9	*1.0	*2.3		*0.9
	670	196	305.0	202	54	1 425
than 1 hour	19.4	30.3	22.7	*21.1	*4.8	21.3
hours 7	70.4	65.3	62.7	*63.4	*75.2	67.7
hours	7.8	_	*8.8	*7.9	*17.0	7.2
10 hours	*1.0	*4.4	*3.1	*4.1	*1.4	*2.2
t know	*1.4		*2.8	*3.0	*1.6	*1.6
number of females using a home computer to play games						
	513	115	163	110	19	920
PERSONS						
than 1 hour	12.6	17.1	14.2	22.5	*12.5	14.8
hours 7	71.8	61.1	68.1	57.5	79.4	68
) hours 1	11.5	15.4	10.2	13.5	*4.5	11.8
10 hours	3.6	*4.6	*5.8	*4.0	*3.2	*4.2
: know	*0.6	*1.8	*1.6	*2.5	*0.4	1.2
number of persons using a home computer to play games 00)						
cludes use of dedicated games machines.	182	311	468	312	73	2 346

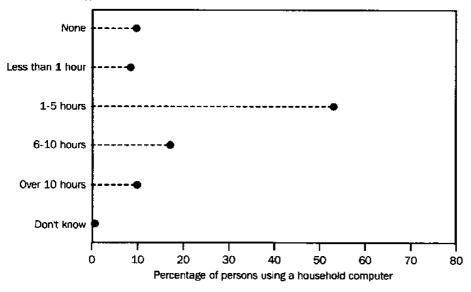
NUMBER OF HOURS PER WEEK SPENT PLAYING GAMES ON HOUSEHOLD COMPUTER, FEBRUARY 1996



NUMBER OF HOURS PER WEEK SPENT USING HOUSEHOLD COMPUTER (EXCLUDING PLAYING GAMES) BY AGE AND SEX, FEBRUARY 1996

				Age gr	oup (years)	
	5-17	18-25	26–40	41-55	Over 55	Total
Number of hours per week using household computer	%	%	%	%	%	%
-	MALES					
Nil	18.9	*12.2	*5.5	*5.4	*13.0	11.3
Less than 1 hour	13.4	*9.4	*4,4	*5.9	*5.3	8.4
1–5 hours	5 6. 5	47.8	52.2	46.9	27.0	50.4
6–10 hours	7.7	*11.4	17.6	25.6	30.8	16.1
Over 10 hours	2.6	17.1	19.4	15.4	24.0	12.8
Don't know	*1.0	*2.2	*0.7	*0.9	_	*1.0
Total number of males using a household computer ('000)	745	267	553	507	135	2 207
	FEMALES			******		
Nil	17.5	*1.7	*1.4	*2.9	*7.3	8.0
Less than 1 hour	8.6	*9.6	11.3	*8.5	*0.4	9.1
1–5 hours	55.9	59.0	57.0	56.9	56.0	56.8
6-10 hours	13.7	21.4	21.2	25.4	*7.1	18.7
Over 10 hours	3.9	8.4	9.0	5.3	20.6	7.7
Don't know	*0.5	_	*0.2	*1.0	*8.6	*0.7
Total number of females using a household computer ('000)	642	232	424	335	63	1 697
	PERSONS	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Nil	18.2	7.3	3.7	4.4	*11.2	9.9
Less than 1 hour	11.2	9.5	7.4	6.9	*3.7	8.7
1–5 hours	56.2	53.0	54.3	50.9	36.2	53.2
6–10 hours	10.5	16.0	19.2	25.5	23.2	17.3
Over 10 hours	3.2	13.1	15.0	11.4	22.9	10.2
Don't know	*0.7	*1.2	*0.5	*0.9	*2.7	*0.9
Total number of persons using a household computer ('000)	1 386	450	977	843	198	3 904

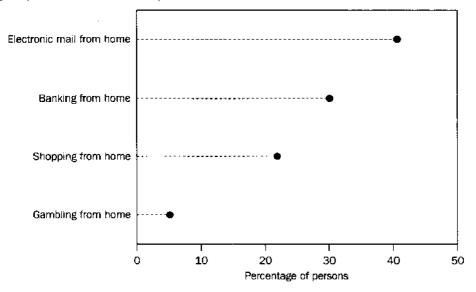
NUMBER OF HOURS PER WEEK SPENT USING HOUSEHOLD COMPUTER (EXCLUDING PLAYING GAMES), FEBRUARY 1996



1	
	_*

			Age group (years)				
18–19	20-29	30 –39	40-49	50–59	60 and over	Tota	
%	%	%	%	%	%	94	
	M/	ALES					
40.3	25.6	29.9	23.8	13.9	9.7	22.0	
44.2	46.0	36.2	34.1	20.4	8.5	30.6	
21.5	12.8	11.3	2.8	3.6	8.7	7.8	
61.6	55.8	51.1	51.4	28.1	13.9	42.2	
247	1 374	1 381	1 287	909	1 228	6 425	
	FEN	1ALES	J				
19.6	29.6	27.6	26.9	15.8	8.4	21.9	
23.8	41.2	43.2	31.4	22.3	9.5	29.8	
10.4	4.1	2.2	3.7	2.7	*0.8	2.9	
40.4	58.2	57.3	42.4	27.0	8.2	39.4	
236	1 371	1 418	1 280	877	1 420	6 601	
	PER	SONS					
30.2	27.6	28.7	25.3	14.8	9.0	22.0	
34.2	43.6	39.8	32.7	21.3	9.0	30.2	
16.1	8.5	6.7	3.2	3.2	2.1	5.3	
51.3	57.0	54.3	46.9	27.5	10.8	40.8	
483	2 744	2 799	2 567	1 785	2 648	13 028	
	40.3 44.2 21.5 61.6 247 19.6 23.8 10.4 40.4 236 30.2 34.2 16.1	HAVE ASSESSED SET 13.0 ASSESSED ASSESSE	MALES 40.3	MALES 40.3	MALES 40.3	MALES 40.3	

WILLINGNESS TO USE TELEVISION OR HOUSEHOLD COMPUTER FOR ACCESSING SELECTED ON-LINE SERVICES, FEBRUARY 1996



EXPLANATORY NOTES

POPULATION SURVEY MONITOR

- **1** A total of 4,625 households were visited for the February 1996 Population Survey Monitor (PSM). Completed questionnaires were obtained from 3,258 households. Data was not obtained from the remaining households for the following reasons:
- refusals 457 households:
- vacant or under construction dwellings 472 households;
- uncontactable during interview week 340 households; and
- death, illness or language problems 98 households.
- 2 From the fully responding households, details on the home use of technology were obtained from one person (responsible adult) in each household.

DATA COLLECTED

3 Data was collected on a number of topics relating to the use and ownership of information technology in the household.

IT data

- 4 Data was 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; and
- time spent using computer equipment.

Household data

- 5 In addition to gathering data on the use of IT, the survey collected the characteristics of the household. These characteristics are:
- number of persons aged 18 years and over in household;
- household income;
- household family classification;
- dwelling structure;
- nature of occupancy;
- region; and
- State.

6 Statistics relating to total households are based on 3,258 observations. As not all households have computers, statistics relating to households with computers are based on a subset of these. There were 1,008 observations of households which use computers.

Personal computer usage data

7 Data on personal computer usage was collected for up to five people in each household with a computer. This led to 2,075 observations of household computer users. Age and sex are the only demographic variables sought in respect of personal usage characteristics for this set of observations.

Persons data

- **8** 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.
- **9** While age and sex statistics have only been provided in this publication other variables will become available at the end of 1996.

HOUSEHOLD

10 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

11 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 nineteen chances in twenty that the difference will be less than two standard errors.

12 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 presented with an asterisk preceding the value. The following table of standard errors is for data on the number of households using selected information technology.

Size of estimate	Standard error	_
000	,000	
100	20	
200	26	
500	39	
800	46	
1 000	51	
2 000	65	

Example using the standard error table

13 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 26,000. 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 226,000 to 174,000. There are about nineteen chances in twenty that the true value is in the range 252,000 to 148,000.

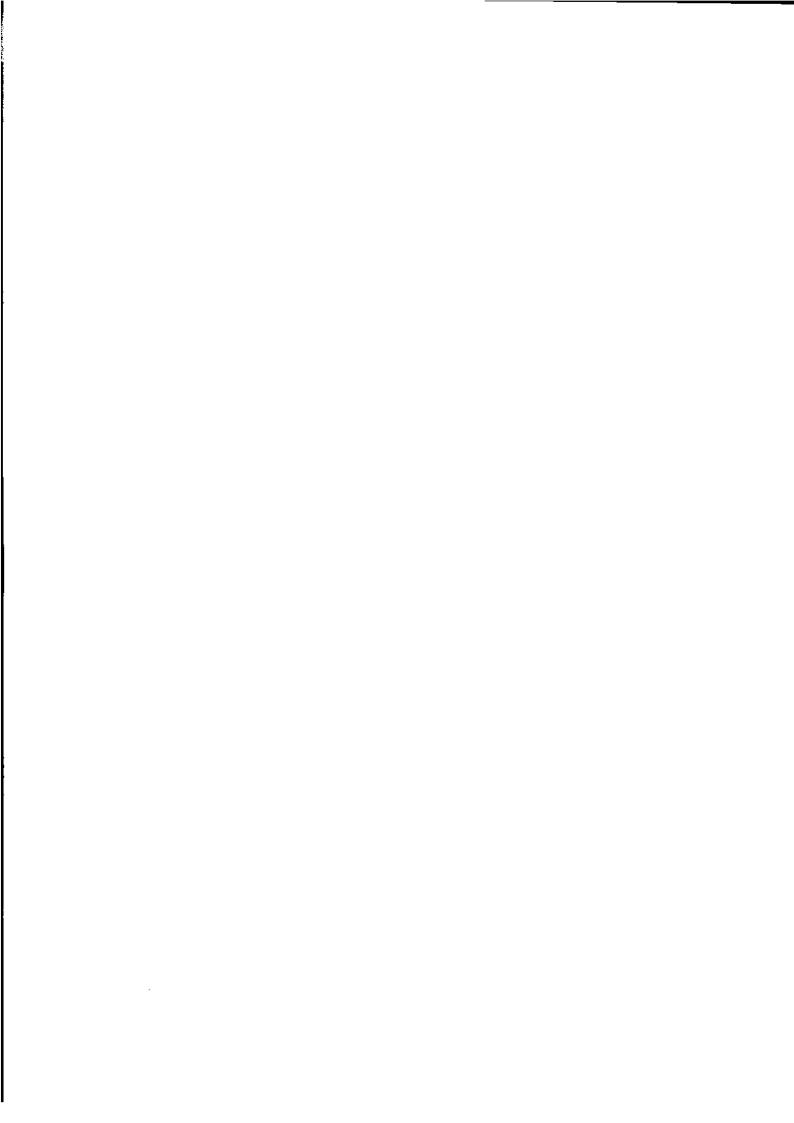
AVAILABILITY OF UNPUBLISHED STATISTICS

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 (06) 252 5614 or Joseph Di Gregorio on (06) 252 5609.

SYMBOLS AND OTHER **USAGES**

- estimates have a relative standard error of greater than 25%
- nil or rounded to zero.





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