

USE OF THE INTERNET BY HOUSEHOLDERS

AUSTRALIA

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- For further information about these and related statistics, contact Joseph Di Gregorio on Canberra 02 6252 5609 or David McGeachie on Canberra 02 6252 5614.

NOTES

ABOUT THIS PUBLICATION

This publication presents a selection of results from a survey conducted in May 1998 of 3,213 persons randomly selected from private households. It focuses on the use of the Internet both by households and by persons aged 18 years and over.

ABOUT THE SURVEY

The May survey is the second of four surveys planned for 1998; a previous survey was conducted in February and two other surveys are scheduled for August and November. The range of information sought in the 1998 surveys has been expanded to address Internet usage in more detail than previous surveys conducted in 1996. Questions on the use of the Internet have been expanded to cover its use both at home and outside of the home.

OTHER PUBLICATIONS

Use of the Internet by Householders (Cat. no. 8147.0) and *Household Use of Information Technology* (Cat. no. 8128.0) were previously released from the February 1998 survey. Users comparing the data in this publication with earlier surveys should refer to paragraphs 3–8 of the Explanatory Notes.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
*	estimates have a relative standard error of greater than 25%
—	nil or rounded to zero

W. McLennan
Australian Statistician

MAIN FEATURES

GROWTH IN INTERNET ACCESS

By Households At May 1998, 971,000 households (14% of all households) had access to the Internet from home, an increase of nearly 14% from February 1998 when 854,000 households were estimated to have home Internet access.

The increase in the number of households with home Internet access was not paralleled by a similar rise in the number of households with computers, indicating that the bulk of this increase occurred in households which already had home computing facilities.

By Persons frequently using a computer at home At May 1998, nearly 1.4 million persons aged 18 years and over (10% of all persons 18 years and over) frequently used a home computer (once a week or more) and accessed the Internet from home. This represents an increase over February 1998 of 37% (more than 360,000 persons). The increase in the number of adults frequently using a home computer and accessing the Internet from home was significantly greater than the increase in the number of households with home Internet access, indicating an increase in the number of adults per household accessing the Internet from home.

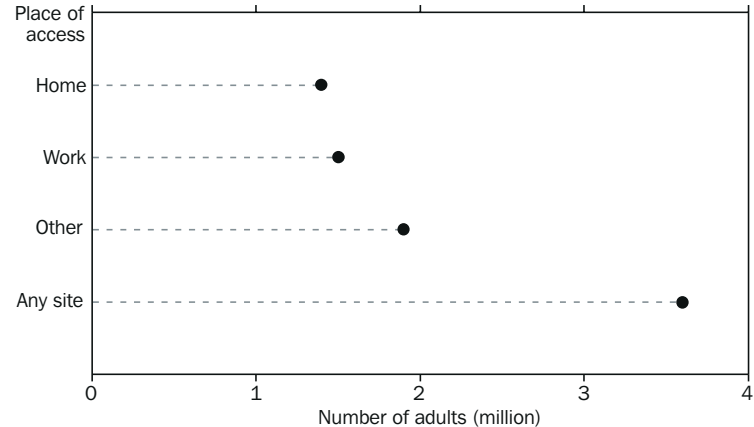
By Persons frequently using a computer outside the home At May 1998, an estimated 2.3 million persons aged 18 years and over (17% of all persons 18 years and over) frequently used a computer outside the home and accessed the Internet outside the home. This represents an increase over February 1998 of 15% (just over 300,000 persons).

PLACE OF INTERNET ACCESS

Nearly 3.6 million Australians aged 18 years and over, regardless of the frequency of their computer use, accessed the Internet from any site in the 12 months to May 1998. This represented 26% of Australia's total population aged 18 years and over.

Work was the most frequently reported place for Internet access for adults (1.5 million persons), followed by home access (1.4 million persons). Other places of access collectively accounted for nearly 1.9 million persons.

PLACE OF INTERNET ACCESS *continued*



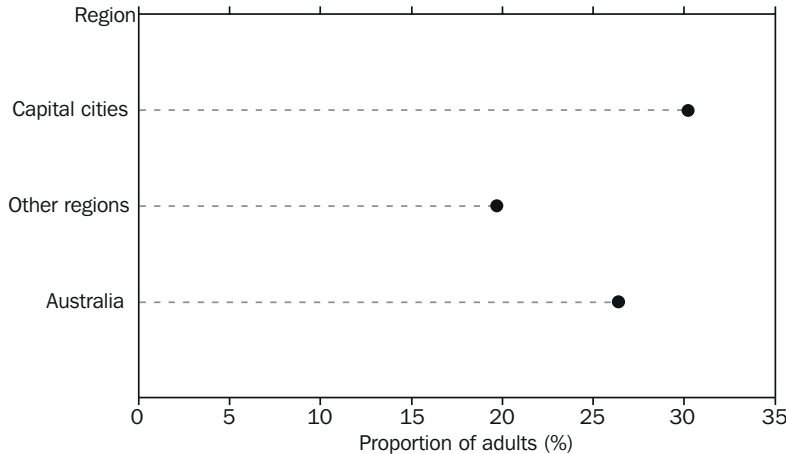
CHARACTERISTICS OF HOUSEHOLDS WITH HOME INTERNET ACCESS

Of the 971,000 households with Internet access at May 1998, almost 80% were located in capital cities. Just over 770,000 households in capital cities had home Internet access at May 1998 (18% of all households in capital cities). By comparison, only 201,000 households in other areas of Australia had home Internet access (8% of all households in these areas).

- By family type More than 20% of households of the type married couple and children had home Internet access. Households of this type accounted for 50% of all households with home Internet access.
- By income The level of home Internet access increased with household income. More than 35% of households with incomes greater than \$66,000 had home Internet access. These households accounted for 41% of all households with home Internet access.

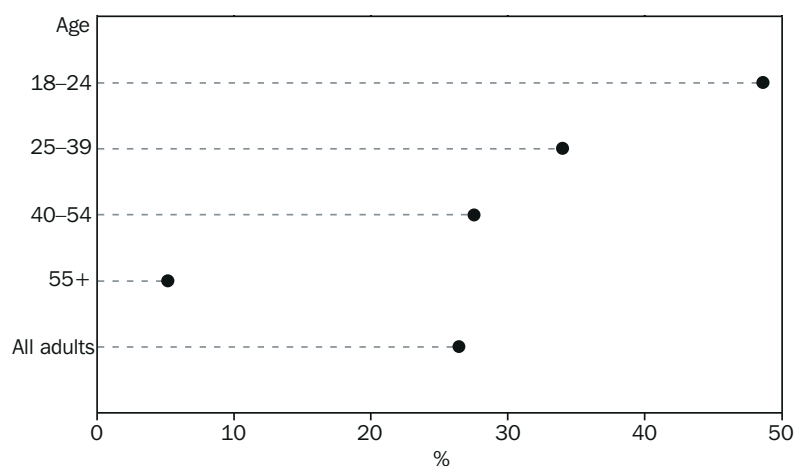
CHARACTERISTICS OF INTERNET USERS

- By region Of the 3.6 million adults accessing the Internet from any site in the 12 months to May 1998, 74% resided in capital cities. More than 2.6 million adults in capital cities (30% of all adults in capital cities) accessed the Internet in the 12 months to May 1998 compared to 942,000 adults (20%) in other regions.



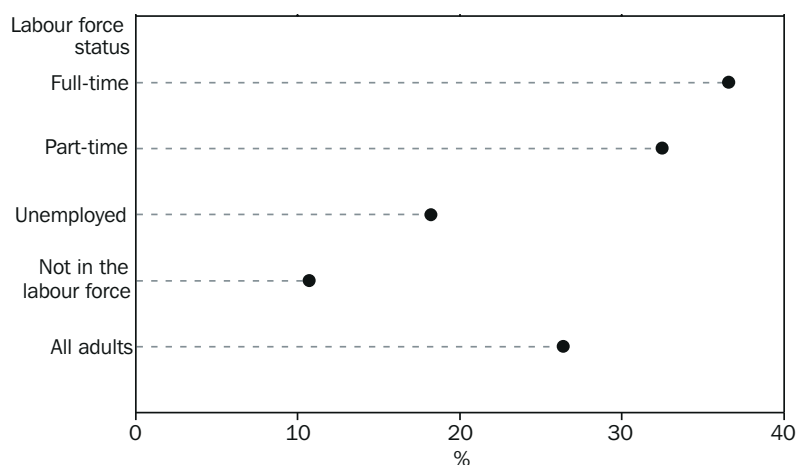
By sex Approximately 29% of males (1.9 million) 18 years and over had accessed the Internet in the 12 months to May 1998. The corresponding figure for females was 24% (1.7 million).

By age Youngest age groups had the greatest proportion of Internet users. Nearly 49% (880,000) of 18–24 year olds accessed the Internet. For persons aged 25–39 years the estimate was 34% (nearly 1.5 million persons).

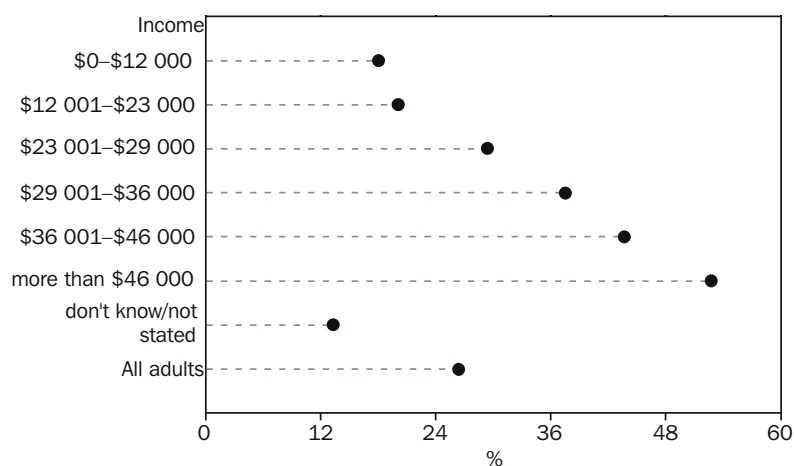


By labour force status Nearly 37% of adults (2.2 million persons) in full-time employment had accessed the Internet in the 12 months to May 1998. For other labour force categories:

- 33% (817,000) of adults in part-time employment had accessed the Internet;
- 18% (99,000) of unemployed adults had accessed the Internet; and
- 11% (482,000) of adults not in the labour force had accessed the Internet.



By personal income Personal income is highly positively correlated with the proportion of adults using the Internet. The larger the personal income the greater the proportion of people who had accessed the Internet from any site in the 12 months to May 1998.



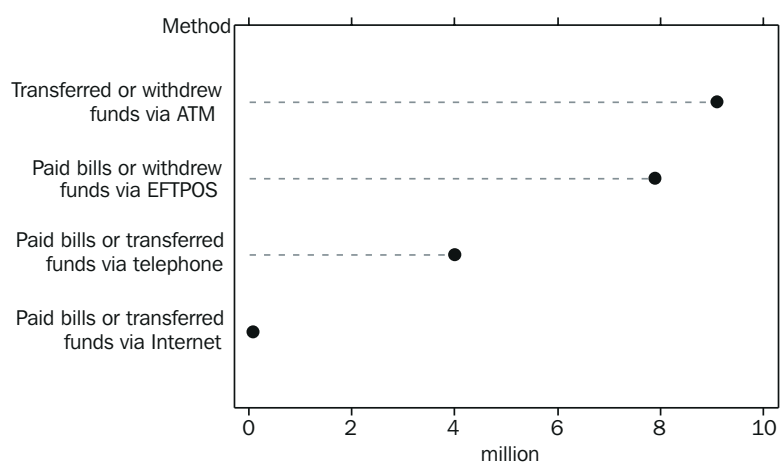
ELECTRONIC COMMERCE ACTIVITIES

Purchasing/ordering goods or services The survey also measured the extent to which adults used the Internet to purchase/ order goods and services for their own private use. The survey showed that:

- an estimated 409,000 adults used the Internet for this purpose in the year leading up to the May 1998 survey. This is double that recorded in the February 1998 survey for the year prior to that survey.
- these adults undertook about 1.1 million purchases in the year prior to the May 1998 survey.
- approximately one third of these adults made a purchase in the six weeks leading up to the May 1998 survey.
- approximately three quarters of persons making purchases/orders via the Internet had paid for them online.
- about 70% of persons undertaking purchases/orders via the Internet reported that they had obtained them from overseas.
- nearly three quarters of persons undertaking purchases/orders via the Internet and paying for them online, had spent up to \$250 on Internet purchases in the 12 months to May 1998. The remainder had spent more than \$250.

Paying bills or transferring funds

Bill payment and funds transfer conducted via the Internet is well behind the use of the telephone, EFTPOS or ATMs for similar activities. In the 3 months to May 1998, only 73,000 adults (less than 1% of all adults) are estimated to have used the Internet to pay bills, or transfer funds. More than 4 million adults (30%) had paid bills or transferred funds via the telephone, nearly 8 million adults (59%) had used EFTPOS and more than 9 million adults (68%) had used an ATM during the same period.



1

USE OF THE INTERNET

	<i>at May 1998</i>			
	<i>at February 1998</i>	<i>Proportion of total</i>		<i>Change since February 1998(a)</i>
	'000	'000	%	%
Households with home Internet access	854	971	14.2	13.7
Adults frequently using a computer at home and accessing the Internet from home	986	1 352	10.1	37.1
Adults frequently using a computer outside the home and accessing the Internet outside the home	2 004	2 309	17.2	15.2

(a) Refer to paragraphs 3–8 of Explanatory Notes.

2

HOUSEHOLDS WITH HOME INTERNET ACCESS AT MAY 1998(a)

	'000	%
Family type		
Married couple no children	196	11.6
Married couple with children	484	20.2
Single parent with children	68	11.2
Single person	75	5.0
Other	148	23.2
Household income		
\$0–\$14 000	*35	*2.7
\$14 001–\$27 000	58	4.7
\$27 001–\$44 000	115	10.7
\$44 001–\$66 000	184	16.9
\$66 001+	398	35.2
Not stated	182	17.5
Region		
Capital cities	770	18.0
Rest of Australia	201	7.9
Australia	971	14.2

(a) Percentages are of all households in each category.

3

ADULTS ACCESSING THE INTERNET IN THE 12 MONTHS TO MAY 1998(a)(b)(c)

	Site of Internet access							
	Home		Work		Other sites		Any site	
	'000	%	'000	%	'000	%	'000	%
Age								
18-24	257	14.2	193	10.6	772	42.6	881	48.6
25-39	609	14.3	667	15.6	655	15.3	1 449	34.0
40-54	488	12.9	611	16.2	374	9.9	1 037	27.5
55+	79	2.2	*71	*2.0	82	2.3	187	5.2
Sex								
Males	920	13.9	922	13.9	946	14.3	1 905	28.7
Females	512	7.5	619	9.1	936	13.7	1 651	24.2
Labour force status								
employed full-time	897	15.2	1 339	22.7	880	14.9	2 157	36.6
employed part-time	301	12.0	164	6.5	568	22.6	817	32.5
unemployed	*13	*2.4	*1	*0.3	90	16.6	99	18.2
not in the labour force	222	4.9	*37	0.8	345	7.7	482	10.7
Personal income								
\$0-\$12 000	313	6.1	88	1.7	762	14.8	922	18.0
\$12 001-\$23 000	173	7.2	103	4.3	314	13.1	482	20.1
\$23 001-\$29 000	96	8.4	184	16.0	148	12.8	339	29.4
\$29 001-\$36 000	217	15.9	270	19.7	177	12.9	513	37.5
\$36 001-\$46 000	161	15.4	319	30.5	192	18.3	457	43.7
more than \$46 000	404	30.0	515	38.2	231	17.2	711	52.7
don't know/not stated	*68	*6.8	*62	*6.2	*59	*6.0	132	13.3
Region								
Capital cities	1 157	13.4	1 156	13.3	1 371	15.8	2 613	30.2
Other	276	5.8	385	8.1	511	10.7	942	19.7
Total	1 433	10.7	1 541	11.5	1 882	14.0	3 555	26.4

(a) Percentages are of all persons in each category.

(b) Persons can nominate more than one site if applicable.

(c) Relates to all adult computer users, not just those frequently using a computer.

4

USE OF INTERNET TO MAKE PURCHASES FOR OWN PRIVATE USE(a)

	'000	%
Purchased or ordered goods/services(b)	409	11.5
Location of purchase(c)		
Australia	116	28.3
Overseas	254	62.2
Both	*29	*7.0
Don't know	*10	*2.4
Location from which order made(c)		
Home	336	82.3
At work	*19	*4.6
Other	*53	*13.1
Goods purchased and paid for online(c)	318	77.9
Number of purchases(c)		
one	149	36.5
two	87	21.2
three	86	21.0
four or more	82	20.2
don't know	*5	1.1
Period when purchases made(c)		
April–May 1998	142	34.8
January–March 1998	122	29.9
October–December 1997	199	48.6
June–September 1997	113	27.7
Other	*26	*6.3
Can't remember/don't know	*5	*1.1

(a) Period covers the 12 months to February 1998.

(b) Percentages are of all persons aged 18 years and over accessing the Internet.

(c) Percentages are of all persons aged 18 years and over making purchases via the Internet.

5

ELECTRONIC TRANSACTIONS UNDERTAKEN BY PERSONS 18 YEARS AND OVER(a)(b)

	<i>Paid bills or transferred funds via Internet</i>	<i>Paid bills via information kiosk</i>	<i>Paid bills or transferred funds via phone</i>	<i>Paid bills or withdrew funds via EFTPOS</i>	<i>Transferred or withdrew funds via ATM</i>
AGE					
	'000	'000	'000	'000	'000
18-24	*23	—	409	1 495	1 665
25-39	*32	*27	1 762	3 114	3 541
40-54	*17	*18	1 304	2 393	2 715
54+	*1	*6	544	891	1 214
	%	%	%	%	%
18-24	*1.3	—	22.6	82.5	91.8
25-39	*0.8	*0.6	41.3	73.0	83.0
40-54	*0.5	*0.5	34.5	63.3	71.9
54+	—	*0.2	15.2	24.8	33.8
REGION					
	'000	'000	'000	'000	'000
Capital cities	*61	*37	2 868	5 139	6 033
Rest of Australia	*12	*14	1 152	2 755	3 101
Australia	*73	*51	4 020	7 893	9 134
	%	%	%	%	%
Capital cities	*0.7	*0.4	33.1	59.3	69.6
Rest of Australia	*0.3	*0.3	24.1	57.6	64.9
Australia	*0.6	*0.4	29.9	58.7	67.9

(a) Period covers the 3 months to May 1998.

(b) Percentages are of all persons aged 18 years and over in each category.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

1 During May 1998 the Population Survey Monitor collected data on the use of information technology, including the Internet.

From this survey, data was compiled for households and for persons. The majority of statistics presented in this publication relate to persons 18 years and over. Table 2 presents statistics on households.

DATA COLLECTED

2 Data were collected on a number of topics relating to the Internet. These included:

For persons accessing the Internet:

- place of Internet access;
- activities undertaken via Internet;
- personal characteristics of Internet users including age, sex, marital status, birthplace, highest educational qualification, income, labour force status, occupation and major activity of those people not in the labour force; and
- bill payment and funds transfer via the Internet/ electronic kiosks.

For households accessing the Internet:

- households characteristics such as income, family type and region.

COMPARING DATA OVER TIME

3 Users are advised to take care when comparing the data shown in this publication with similar data shown in the February 1998 issues of *Use of the Internet by households* (Cat no: 8147.0) and *Household Use of Information Technology* (Cat no: 8128.0). The main reasons for this are:

- the relatively high standard errors of movement for some of the data items, particularly the cross classifications of Internet users by personal characteristics (age, sex, etc.);
- that the frequency of Internet use was not specifically asked in the survey. Frequent users of the Internet have been approximated in this publication by estimating the number of Internet users who frequently (once a week or more) used a computer; and
- questions on Internet use relate to use during the previous 12 months leading up to the survey and therefore changes in estimates of Internet use between consecutive quarterly surveys may not necessarily reflect changes over the most recent quarter.

ACCURACY OF DATA

4 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.

5 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 marked with an asterisk (*). The following table of standard errors is for data on the number of persons and households accessing the Internet.

<i>Size of estimate</i>	<i>Standard error for persons 18+ Feb & May 1998</i>	<i>Standard error for households Feb & May 1998</i>
<i>'000</i>	<i>'000</i>	<i>'000</i>
100	19.7	13.3
200	26.5	17.8
500	38.5	25.2
800	46.1	29.5
1 000	50.4	32.3
1 500	57.1	37.1
2 000	65.0	41.8

Example using the standard
error table

6 Consider the estimate of the number of persons 18 years and over who accessed the Internet from home. An estimate of 1,433,000 has a standard error of 57,100. 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 1,375,900 to 1,490,100. There are about 19 chances in 20 that the true value is in the range 1,318,800 to 1,547,200.

7 Particular care should be taken when comparing figures over time. It is not correct to assume that an apparent difference between figures is actually significant. Such an estimate is subject to sampling error. An approximate standard error (SE) of the difference between two estimates (x-y) may be calculated by the following formula:

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

Example using the standard
error table continued

8 In table 1 the increase in the number of households with home Internet access is 117,000. The approximate standard error on this movement is 44,000. Therefore we can say that there are 2 chances in 3 that the true value is within the range 73,000 to 161,000 and 19 chances in 20 that the true value is in the range 29,000 to 205,000. Table 3 also shows the number of adults accessing the Internet from home has increased by 395,000. Using the above formula a standard error of approximately 70,000 is calculated for the movement. Therefore it can be said that there are 2 chances in 3 that the true value is within the range 325,000 to 465,000 and 19 chances in 20 that the true value is in the range 255,000 to 535,000.

ACKNOWLEDGMENT

9 Australian Bureau of Statistics (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*.

RELATED PUBLICATIONS

10 Other ABS publications on the production and use of information technology and telecommunication goods and services in Australia are:

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

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

Household Use of Information Technology, February 1998 (Cat. no. 8128.0)

Household Use of Information Technology, Australia 1996
(Cat. no. 8146.0)

Information Technology in Australia, 1995–96 (Cat. no. 8126.0)

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

Telecommunications Services, Australia 1996–97 (Cat. no. 8148.0)

Use of the Internet by Householders, Australia February 1998 (Cat. no. 8147.0)

AVAILABILITY OF UNPUBLISHED STATISTICS

11 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 Joseph Di Gregorio on Canberra 02 6252 5609 or David McGeachie on Canberra 02 6252 5614.

SELF-HELP ACCESS TO STATISTICS

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