



USE OF THE INTERNET BY HOUSEHOLDERS

AUSTRALIA

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- For more information about these and related statistics, contact Joseph Di Gregorio on Canberra 02 6252 5609, or any ABS office shown on the back cover of this publication.

NOTES

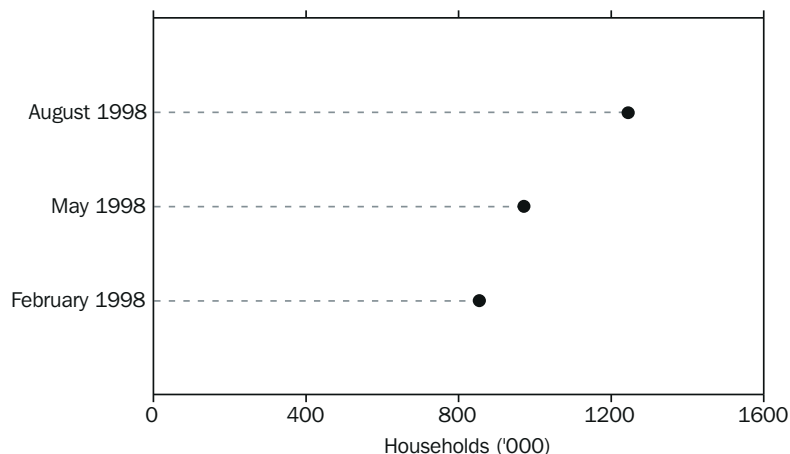
- ABOUT THIS PUBLICATION This publication presents a selection of results from a survey conducted in August 1998 of 3,300 persons randomly selected from private households. It focuses on the use of the Internet both by households and by persons aged 18 years and over.
- ABOUT THE SURVEY The August survey is the third of four surveys planned for 1998; previous surveys were conducted in February and May and one other survey is scheduled for 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. For 1998, questions on the use of the Internet have been expanded to cover both its use at home and outside of the home.
- OTHER PUBLICATIONS *Use of the Internet by Householders* (Cat. no. 8147.0) was previously released from the February and May 1998 surveys. *Household use of Information Technology* (Cat. no. 8128.0) was released from the February 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
 IT Information Technology
 TAFE Tertiary and Further Education
 * estimates have a relative standard error of greater than 25%
 — nil or rounded to zero

W. McLennan
Australian Statistician

MAIN FEATURES

INTERNET ACCESS

By households At August 1998, 1,245,000 households (18% of all households) had access to the Internet from home. This is an increase of 28% over the estimate recorded for May 1998 (971,000 households) and 46% greater than that recorded in February 1998 (854,000 households).



Adults accessing the Internet More than 4.2 million adults accessed the Internet in the 12 months to August 1998. This represented 32% of Australia's total adult population.

In the 12 months to May 1998, nearly 3.6 million adults had accessed the Internet from any site; 26% of the total adult population. The 12 month period to February 1998 saw just over 3 million adults accessing the Internet; nearly 23% of the total adult population.

PLACE OF INTERNET ACCESS

In the 12 month period to August 1998, work and home were the most frequently reported places for Internet access by adults (1.9 million persons for each site or 14% of adults). Other frequently reported sites of Internet access included:

- friend's or neighbour's house, 934,000 adult Internet users;
- TAFE/ or tertiary institutions, 933,000 adults; and
- Public libraries, 395,000 adults.

In the 12 months to February 1998, access at work was reported by 1.3 million adults and access at home by just over 1 million. Other frequently reported sites of Internet access included:

- friend's or neighbour's house, 806,000 adult Internet users;
- TAFE/ or tertiary institutions, 519,000 adults; and
- Public libraries, 219,000 adults.

CHARACTERISTICS OF
HOUSEHOLDS WITH HOME
INTERNET ACCESS

By region Of the 1.2 millions households with Internet access at August 1998, almost 72% were located in capital cities. Nearly 900,000 households in capital cities had home Internet access at August 1998 (20% of all households in capital cities). This compares with 350,000 households in other areas of Australia (14% of all households in these areas).

By family type More than 25% of households consisting of a married couple with children had home Internet access. Households of this type accounted for nearly 46% of all households with home Internet access.

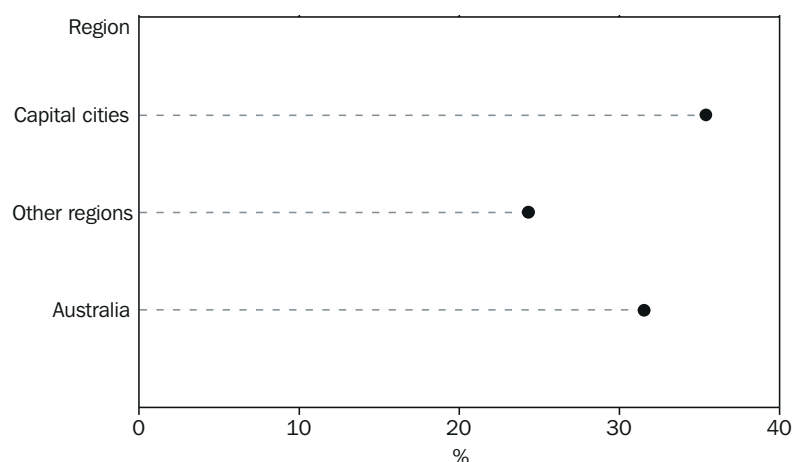
Just over 17% of households of the type married couple with no children had home Internet access and only 11% of single parent households were connected to the Internet.

By income The proportion of households with home Internet access increased with household income. Nearly 40% of households with incomes greater than \$66,000 had home Internet access. These households accounted for 35% of all households with home Internet access.

Approximately 26% of households with incomes of \$44,001-\$66,000 had home Internet access. The level of home Internet access was less than 10% for households with incomes below \$27,000.

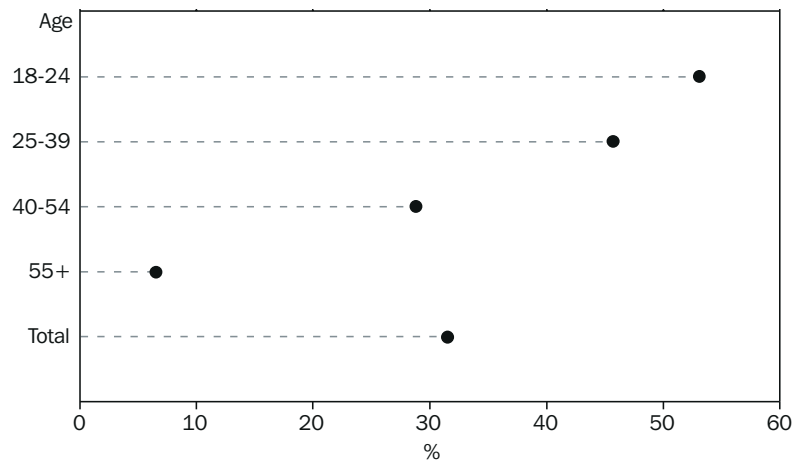
CHARACTERISTICS OF
INTERNET USERS

By region Of the 4.2 million adults who accessed the Internet from any site in the 12 months to August 1998, 73% resided in capital cities. More than 3 million adults in capital cities (35% of all adults in capital cities) accessed the Internet in the 12 months to August 1998 compared to 1.2 million adults (24%) in other regions.



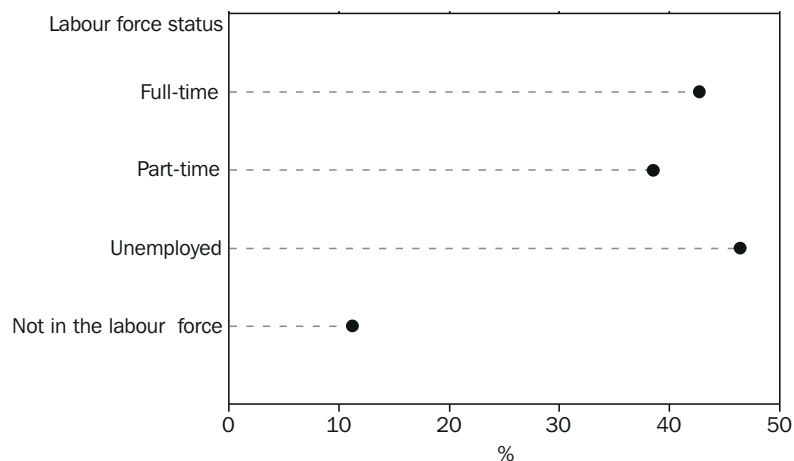
By sex More than 35% of males (2.3 million) 18 years and over had accessed the Internet in the 12 months to August 1998. The corresponding figure for females was 28% (1.9 million).

By age Younger age groups had the greatest proportion of Internet users. More than 53% (960,000) of 18–24 year olds accessed the Internet in the 12 months to August 1998. For persons aged 25–39 years the estimate was 46% (more than 1.9 million persons). For 40–54 years the figure was 29% and 6.5% for persons 55 years and over.



By labour force status More than 46% of unemployed adults (318,000) had accessed the Internet in the 12 months to August 1998. For other labour force categories:

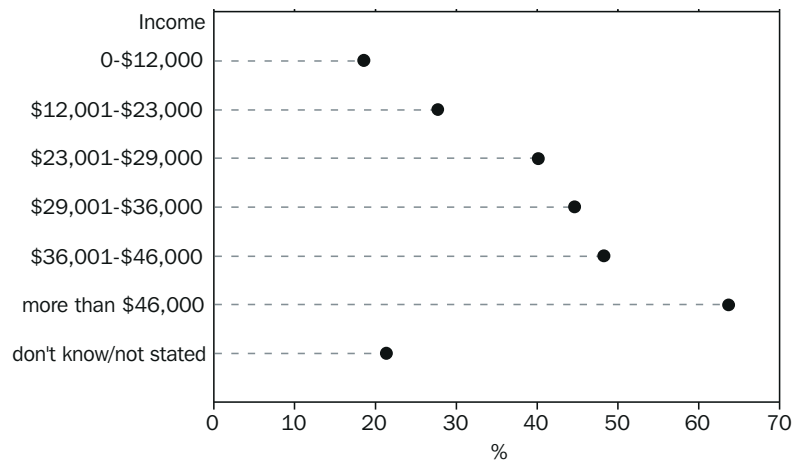
- Nearly 43% of adults (2.4 million persons) in full-time employment had accessed the Internet;
- 39% of adults (970,000) in part-time employment had accessed the Internet;
- 11% of adults (500,000) not in the labour force had accessed the Internet.



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 August 1998.

Nearly 64% of adults with incomes greater than \$46,000 had accessed the Internet in the 12 months to August 1998. This compared with 48% for adults with personal incomes of \$36,001–\$46,000 and 45% for adults with personal incomes \$29,001–\$36,000. Internet usage by adults with incomes below \$23,000 dropped below 30% and below 20% for adults with incomes less than \$12,000.



ADULTS FREQUENTLY ACCESSING THE INTERNET

Of the 1.9 million adults who accessed the Internet from work in the 12 months to August 1998:

- 32% accessed the Internet daily;
- 26% 2–6 times a week; and
- 15% once a week, giving a total of 73% who accessed the Internet frequently from work.

Of the 3.2 million adults who accessed the Internet from sites other than work in the 12 months to August 1998:

- 16% accessed the Internet daily;
- 25% 2–6 times a week; and
- 17% once a week, giving a total of 58% who accessed the Internet frequently from sites other than work.

ELECTRONIC COMMERCE
ACTIVITIES

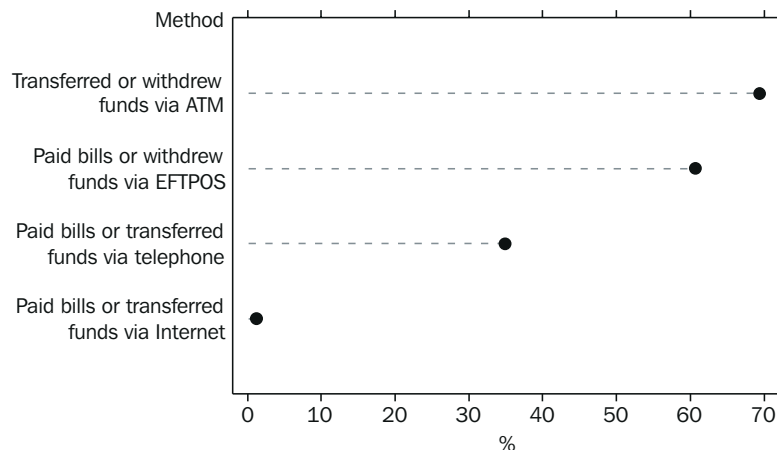
Purchasing/ordering goods
or services

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 425,000 adults (13% of all adults who accessed the Internet) used the Internet for this purpose in the year leading up to the August 1998 survey;
- these adults made about 1.3 million purchases in the year prior to the August 1998 survey;
- approximately 51% of these adults made a purchase in the six weeks leading up to the August 1998 survey;
- approximately 77% of persons making purchases/orders via the Internet had paid for them online;
- about 69% of persons undertaking purchases/orders via the Internet reported that they had obtained them from overseas;
- of the adults who purchased goods via the Internet from Australia and who paid for those goods online, 65% had spent up to \$250; 43% had spent less than \$100; and
- of the adults who purchased goods via the Internet from overseas and who paid for those goods online, just over 50% had spent up to \$250; 40% had spent up to \$100.

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 three months to August 1998, only 162,000 adults (less than 2% of all adults) are estimated to have used the Internet to pay bills, or transfer funds. Nearly 4.7 million adults (35%) had paid bills or transferred funds via the telephone, nearly 8.2 million adults (61%) had used EFTPOS and more than 9.3 million adults (69%) had used an ATM during the same period.



TELEWORKING

At August 1998, nearly 3% of adults (359,000 persons) reported that they were able to access their employer's computer system from home via a modem.

Two thirds of these, 2% of adults (273,000 persons), reported they had a formal teleworking agreement with their employer so that they could work from home; this is twice the number recorded in February 1998.

1

ACCESS TO THE INTERNET

	<u>At August 1998</u>				Change since February 1998
	At February 1998	At May 1998	'000	%	
Households with home Internet access(a)	854	971	1 245	17.9	45.8
Adults accessing the Internet(b)(c)					
from home	1 038	1 433	1 883	14.0	81.4
from work	1 302	1 541	1 903	14.2	46.2
from neighbour's/friend's house	806	877	934	6.9	15.9
from TAFE/University	519	777	933	6.9	79.8
from public library	219	418	395	2.9	80.4
from other sites(d)	363	499	383	2.8	5.5
from any site	3 032	3 555	4 233	31.5	39.6

(a) Percentages are of all households.

(b) Percentages are of all adults.

(c) Persons can nominate more than one site.

(d) Includes school, government agency, shopfront, shops, stores, telecafes.

2

HOUSEHOLDS WITH HOME INTERNET ACCESS AT AUGUST 1998(a)

	'000	%
Family type		
Married couple no children	291	17.1
Married couple with children	571	25.1
Single parent with children	62	10.6
Single person	158	9.6
Other	164	22.1
Household income		
\$0-\$14 000	57	4.2
\$14 001-\$27 000	110	8.6
\$27 001-\$44 000	164	13.9
\$44 001-\$66 000	288	26.0
\$66 001+	432	39.5
Not stated	194	21.1
Region		
Capital cities	895	20.4
Rest of Australia	350	13.7
Australia	1245	17.9

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

3

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

	Site of Internet access							
	Home		Work		Other sites		Any site	
	'000	%	'000	%	'000	%	'000	%
Age								
18-24	373	20.7	206	11.4	738	41.0	957	53.1
25-39	807	18.9	995	23.3	995	23.3	1 949	45.7
40-54	558	14.7	611	16.1	387	10.2	1 095	28.8
55+	145	4.1	91	2.5	*65	*1.8	232	6.5
Sex								
Males	1 130	17.0	1 053	15.9	1 194	18.0	2 337	35.2
Females	753	11.1	850	12.5	991	14.5	1 896	27.8
Labour force status								
employed full-time	1 058	18.4	1 603	27.9	985	17.2	2 448	42.7
employed part-time	460	18.3	224	8.9	617	24.6	967	38.5
unemployed	105	15.2	*43	*6.2	229	33.3	318	46.4
not in the labour force	261	5.9	*33	*0.7	354	8.0	500	11.2
Personal income								
0-\$12 000	354	6.8	89	1.7	758	14.5	974	18.6
\$12 001-\$23 000	333	13.2	158	6.3	456	18.1	701	27.7
\$23 001-\$29 000	210	17.6	254	21.2	262	22.0	479	40.1
\$29 001-\$36 000	219	21.4	271	26.4	150	14.6	457	44.6
\$36 001-\$46 000	229	18.3	407	32.5	228	18.2	605	48.3
more than \$46 000	418	32.8	643	50.4	231	18.1	813	63.7
don't know/not stated	119	12.5	82	8.6	99	10.4	204	21.4
Region								
Capital cities	1 388	16.0	1 372	15.8	1 590	18.3	3 070	35.4
Other	495	10.4	531	11.1	595	12.5	1 163	24.3
Total	1 883	14.0	1 903	14.2	2 185	16.2	4 233	31.5

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

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

4

FREQUENCY OF ADULT INTERNET ACCESS(a)(b)

	Site of Internet access			
	At work		Away from work	
	'000	%	'000	%
Frequency of Internet access				
daily	609	32.0	531	16.4
2-6 times a week	503	26.4	803	24.8
once a week	280	14.7	564	17.4
once every 2 weeks	103	5.4	286	8.8
once a month	224	11.7	296	9.1
once every 3 months	*71	*3.8	196	6.0
once every 6 months	*18	*0.9	144	4.4
less than every 6 months	78	4.1	281	8.7
don't know	*18	*0.9	139	4.3

(a) Internet access occurring in the 12 months to August 1998.

(b) Percentages are of all adults accessing the Internet at each site.

5

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

	'000	%
Purchased or ordered goods/services(b)	425	13.1
Location from which order made(c)		
Home	289	68.1
At work	*65	*15.3
Other	*71	*16.6
Location of purchase(c)		
Australia	132	31.0
Overseas	233	55.0
Both	*59	*14.0
Goods purchased and paid for online(c)	325	76.6
Number of purchases(c)		
one	148	34.8
two	89	20.9
three	*56	*13.2
four or more	123	28.9
don't know	*10	*2.3
Period when purchases made(c)		
July–August 1998	218	51.4
April–June 1998	141	33.1
January–March 1998	184	43.5
October–December 1997	111	26.0
Other	*4	*1.0
Can't remember/don't know	*16	*3.7

(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.

6

ELECTRONIC TRANSACTIONS UNDERTAKEN BY ADULTS(a)(b)

	<i>Paid bills 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	*12	*7	563	1 430	1 630
25-39	107	*28	2 017	3 356	3 721
40-54	*42	*18	1 394	2 281	2 751
54+	*1	*10	716	1 097	1 230
	%	%	%	%	%
18-24	*0.6	*0.4	31.3	79.4	90.5
25-39	2.5	*0.7	47.3	78.6	87.2
40-54	*1.1	*0.5	36.6	60.0	72.3
54+	—	*0.3	20.0	30.7	34.4
REGION					
	'000	'000	'000	'000	'000
Capital cities	136	*54	3 363	5 361	6 151
Rest of Australia	*26	*8	1 327	2 803	3 181
Australia	162	*62	4 690	8 164	9 332
	%	%	%	%	%
Capital cities	*1.6	*0.6	38.8	61.8	70.9
Rest of Australia	*0.5	*0.2	27.7	58.6	66.5
Australia	1.2	*0.5	34.9	60.7	69.4

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

(b) Percentages are of all adults in each category.

7

TELEWORKING ARRANGEMENTS AT AUGUST 1998(a)

	<i>Males</i>		<i>Females</i>		<i>Persons</i>	
	'000	%	'000	%	'000	%
Were able to access an employer's computer from home through a modem	251	3.8	108	1.6	359	2.7
Had a teleworking agreement	189	2.9	84	1.2	273	2.0

(a) Percentages are of all adults.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

1 During August 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. Tables 1 and 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 where Internet accessed;
- 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 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 and May 1998 issues of *Use of the Internet by Householders* (Cat. no. 8147.0) and the February 1998 issue of *Household Use of Information Technology* (Cat. no. 8128.0). The main reasons 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.); 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.

ACCURACY OF DATA

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+</i>	<i>Standard error for households</i>
'000	'000	'000
10	6.6	4.7
20	9.4	6.7
50	14.5	9.9
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 adults who accessed the Internet from home. An estimate of 1,883,000 has a standard error of around 65,000. 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 1,818,000 to 1,948,100. There are about 19 chances in 20 that the true value is in the range 1,753,000 to 2,013,000.

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:

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

8 The increase in the number of households with home Internet access from May 1998 is 274,000. The standard error on this movement is about 46,000. Therefore we can say that there are 2 chances in 3 that the true value is within the range 228,000 to 320,000 and 19 chances in 20 that the true value is in the range 182,000 to 366,000.

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)

Household Use of Information Technology, Australia 1998
(Cat. no. 8146.0)

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

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

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)

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.

SELF-HELP ACCESS TO STATISTICS

PHONE Call 1900 986 400 for the latest statistics on CPI, Labour Force, Earnings, National Accounts, Balance of Payments and other topics. (Call cost is 75c per minute)

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