



USE OF THE INTERNET BY HOUSEHOLDERS

AUSTRALIA

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C O N T E N T S

	<i>page</i>
Notes	2
Main features	3
 LIST OF TABLES	
1 Access to the Internet	9
2 Households with home Internet access at November 1998	9
3 Adults accessing the Internet in the 12 months to November 1998	10
4 Frequency of adult Internet access	10
5 Adults' Internet purchases for own private use	11
6 Electronic transactions undertaken by adults	12
7 Teleworking arrangements at November 1998	12
 ADDITIONAL INFORMATION	
Explanatory notes	13

- For further information about these and related statistics, contact Bill Pattinson on Canberra 02 6252 5019 or any ABS office shown on the back cover of this publication.

NOTES

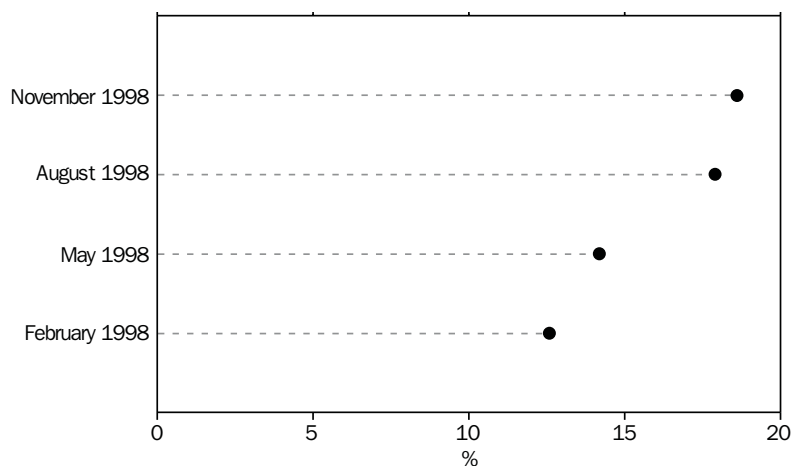
FORTHCOMING ISSUES	<table border="0" style="width: 100%;"> <tr> <td style="text-align: left; vertical-align: top;"><i>ISSUE (Quarter)</i></td> <td style="text-align: left; vertical-align: top;"><i>EXPECTED RELEASE DATE</i></td> </tr> <tr> <td style="padding-left: 20px;">February 1999</td> <td style="padding-left: 20px;">30 June 1999</td> </tr> <tr> <td style="padding-left: 20px;">May 1999</td> <td style="padding-left: 20px;">20 September 1999</td> </tr> </table>	<i>ISSUE (Quarter)</i>	<i>EXPECTED RELEASE DATE</i>	February 1999	30 June 1999	May 1999	20 September 1999				
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ABOUT THIS PUBLICATION	<p>This publication presents a selection of results from a survey conducted in November 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.</p>										
ABOUT THE SURVEY	<p>The November survey is the last of four surveys undertaken during 1998; previous surveys were conducted in February, May and August. The range of information sought in the 1998 surveys was expanded to address Internet usage in more detail than previous surveys conducted in 1996. For 1998, questions on the use of the Internet were extended to cover both its use at home and outside of the home. Similar surveys will also be undertaken in 1999.</p>										
ACCURACY OF ESTIMATES OF MOVEMENT	<p>Users are advised to take care when comparing the data shown in this publication with similar data in other issues of <i>Use of the Internet by Householders</i> (Cat. no. 8147.0) and <i>Household Use of Information Technology</i> (Cat. no. 8128.0). The main reason for this is 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). See paragraphs 8 to 10 of the Explanatory Notes.</p>										
OTHER PUBLICATIONS	<p><i>Use of the Internet by Householders</i> (Cat. no. 8147.0) was previously released from the February, May and August 1998 surveys. <i>Household Use of Information Technology</i> (Cat. no. 8128.0) was released from the February survey. Users comparing the data in this publication with earlier surveys should refer to paragraphs 4–10 of the Explanatory Notes.</p>										
SYMBOLS AND OTHER USAGES	<table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">ABS</td> <td>Australian Bureau of Statistics</td> </tr> <tr> <td style="padding-right: 20px;">IT</td> <td>Information Technology</td> </tr> <tr> <td style="padding-right: 20px;">TAFE</td> <td>Tertiary and Further Education</td> </tr> <tr> <td style="padding-right: 20px;">*</td> <td>estimates have a relative standard error of greater than 25%</td> </tr> <tr> <td style="padding-right: 20px;">—</td> <td>nil or rounded to zero</td> </tr> </table>	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
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Dennis Trewin
Acting Australian Statistician

MAIN FEATURES

INTERNET ACCESS

By households At November 1998 it was estimated that 18.6% of all households had home Internet access. This was only a relatively small increase over the estimate recorded in the August survey (17.9%). The estimate, however, still shows an increase of 49% over the February 1998 survey. Care should be taken in interpreting quarter to quarter movements in this series because of the relatively high sampling errors.



Adults accessing the Internet More than 4 million adults accessed the Internet in the 12 months to November 1998. This represented 31% of Australia's total adult population. The November estimate was similar to that reported for the August survey. In the 12 months to February 1998 just over 3 million adults accessed the Internet; this was nearly 23% of the total adult population.

PLACE OF INTERNET ACCESS

In the 12 months to November 1998, work and home were the most frequently reported places for Internet access by adults (1.9 million adults for work and around 1.7 million adults for home). Other frequently reported sites of Internet access included:

- friend's or neighbour's house, 1.1 million adult Internet users;
- TAFE or tertiary institutions, just over 800,000 adults; and
- public libraries, 413,000 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 adults. 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 family type More than 27% of households consisting of a married couple and children had home Internet access. Households of this type accounted for nearly 54% of all households with home Internet access.

Just under 15% of households of the type 'married couple no children', and 'single parent with children' had home Internet access, but only 9% of households of the type 'single person' were connected to the Internet.

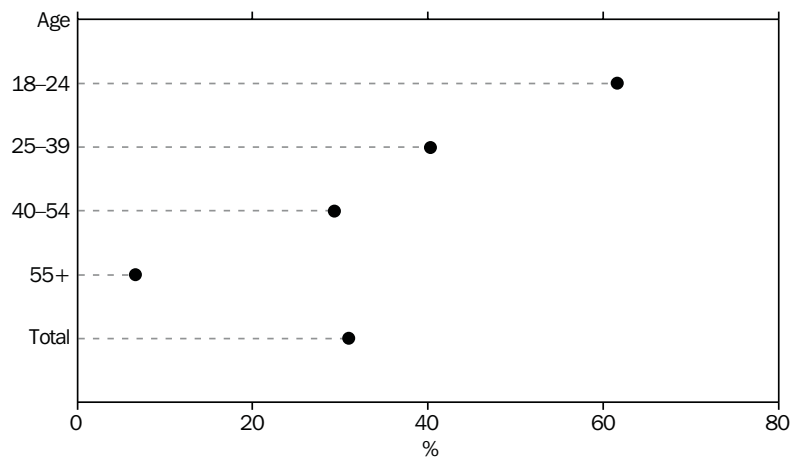
By income The proportion of households with home Internet access increased with household income. Nearly 42% of households with incomes greater than \$66,000 had home Internet access. These households accounted for 36% of all households with home Internet access.

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

By region Of the nearly 1.3 millions households with Internet access at November 1998, just over 73% were located in capital cities. Nearly 930,000 households in capital cities had home Internet access at November 1998 (22% of all households in capital cities). This compares with 343,000 households in other areas of Australia (14% of all households in these areas).

CHARACTERISTICS OF
INTERNET USERS

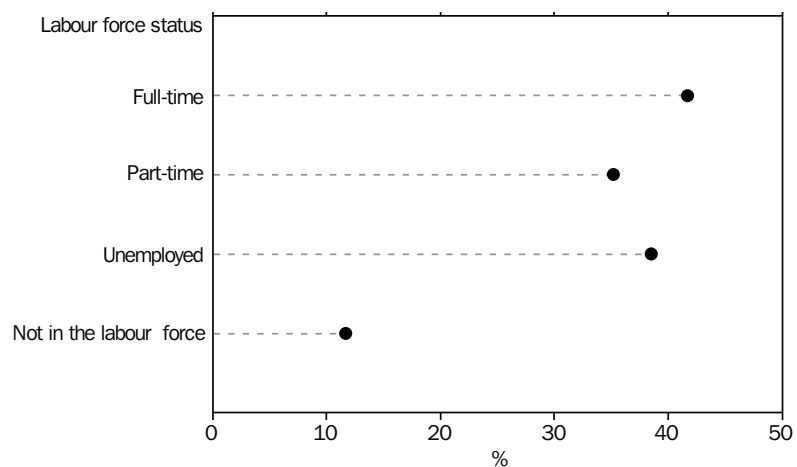
By age Younger age groups had the greatest proportion of Internet users. Nearly 62% (1.1 million persons) of 18-24 year olds accessed the Internet in the 12 months to November 1998. For persons aged 25-39 years the estimate was 40% (1.7 million persons). For persons aged 40-54 years it was 29% and for persons aged 55 years and over it was 7%.



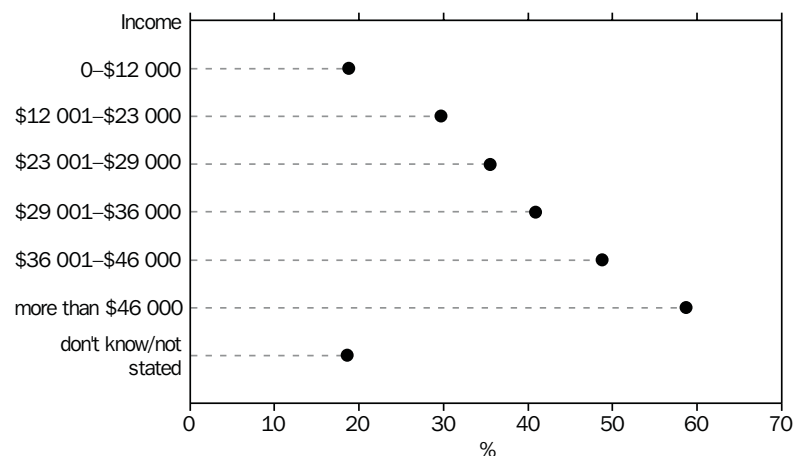
By sex Just over 34% of males 18 years and over (2.3 million persons) had accessed the Internet in the 12 months to November 1998. The corresponding figure for females was 28% or 1.9 million persons.

By labour force status Just under 42% of adults employed full-time (2.6 million persons) had accessed the Internet in the 12 months to November 1998. For other labour force categories:

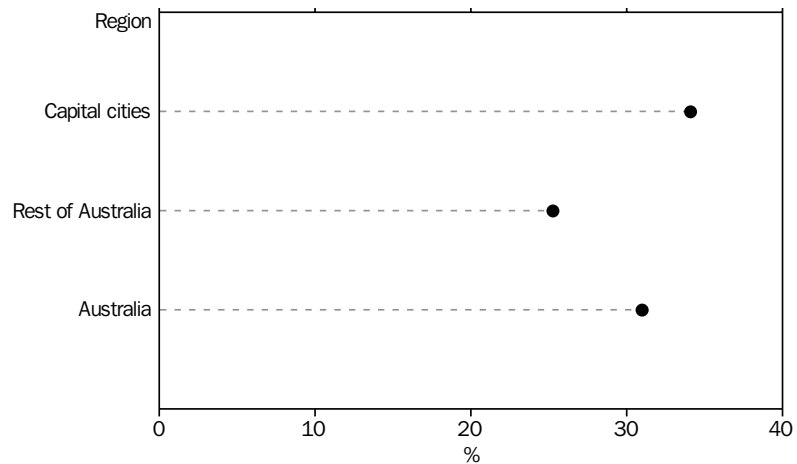
- 39% of unemployed adults (230,000 persons) had accessed the Internet;
- 35% of adults in part-time employment (870,000 persons) had accessed the Internet; and
- 12% of adults not in the labour force (490,000 persons) had accessed the Internet.



By personal income The larger the personal income the greater the proportion of people who had accessed the Internet from any site in the 12 months to November 1998. Nearly 59% of adults with incomes greater than \$46,000 had accessed the Internet in the 12 months to November 1998. This compared with 49% for adults with personal incomes of \$36,001–\$46,000 and 41% 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.



By region Of the 4.2 million adults accessing the Internet from any site in the 12 months to November 1998, 71% resided in capital cities. Nearly 3 million adults in capital cities (34% of all adults in capital cities) accessed the Internet in the 12 months to November 1998 compared to 1.2 million adults (25%) in other regions.



FREQUENCY OF ADULTS ACCESSING THE INTERNET

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

- 37% accessed the Internet daily;
- 25% 2–6 times a week; and
- 16% once a week, giving a total of 78% 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 November 1998:

- 11% accessed the Internet daily;
- 24% 2–6 times a week; and
- 18% once a week, giving a total of 53% 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:

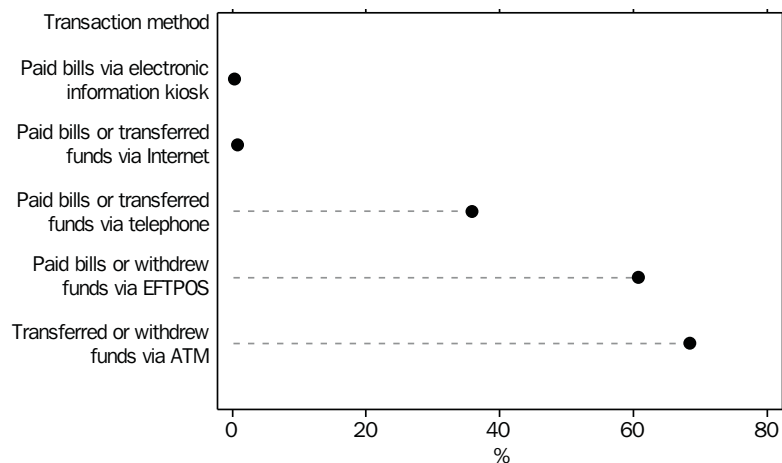
- Nearly 286,000 adults (7% of all adults who accessed the Internet) used the Internet to purchase or order goods or services for their own private use in the 12 months to November 1998. These adults undertook about 1.2 million purchases in the year prior to the November 1998 survey.

Purchasing/ordering goods or services *continued*

- Approximately 44% of these adults made a purchase in the six weeks leading up to the November 1998 survey.
- Approximately 83% of persons making purchases/orders via the Internet had paid for them online.
- About 64% of persons undertaking purchases/orders via the Internet reported that they had obtained them from overseas.
- Of the 131,000 adults who purchased goods via the Internet from Australia and who paid for those goods online, nearly 36% had spent up to \$100, 24% had spent \$251–\$500 and 33% had spent more than \$500.
- Of the 160,000 adults who purchased goods via the Internet from overseas and who paid for those goods online, nearly 36% had spent \$101–\$250, 24% had spent \$251–\$500 and 33% had spent more than \$500.
- It should be noted that the estimates of small numbers or proportions from this survey are subject to relatively high sampling errors and extreme care should be taken in interpreting any changes between successive surveys.

Paying bills or transferring funds

The November survey found that bill payment and funds transfer conducted via the Internet or an electronic kiosk were well behind the use of telephone banking, EFTPOS and ATMs. In the three months to November 1998, only 112,000 adults (less than 1% of all adults) were estimated to have used the Internet to pay bills, or transfer funds. Only 43,000 adults (0.3%) were estimated to have used an electronic kiosk for funds transfer or bill payment. During the same three month period more than 4.8 million adults (36%) had paid bills or transferred funds via the telephone, 8.2 million adults (61%) had used EFTPOS and nearly 9.3 million adults (68%) had used an ATM.



TELEWORKING

At November 1998, nearly 5% of employed adults (410,000 persons) reported they were able to access their employer's computer system from home via a modem, an increase of 159% over the February 1998 estimate of 158,000 persons.

Nearly 4% of employed adults (312,000 persons) reported they had a teleworking agreement with their employer to access their computer via a modem so that they could work from home, an increase of 128% from the February estimate of 137,000 persons.

1 ACCESS TO THE INTERNET

	<u>November 1998</u>					% change since February 1998	
	<i>February 1998</i>	<i>May 1998</i>	<i>August 1998</i>			<i>February 1998</i>	
	'000	'000	'000	'000	%	%	
Households with home Internet access(a)	854	971	1 245	1 272	18.6		48.9
Adults accessing the Internet(b)(c)							
from home	1 038	1 433	1 883	1 670	12.3		60.9
from work	1 302	1 541	1 903	1 930	14.2		48.2
from neighbour's/friend's house	806	877	934	1 114	8.2		38.2
from TAFE/University	519	777	933	802	5.9		54.5
from public library	219	418	395	413	3.0		88.6
from other sites(d)	661	352	383	492	3.6		-25.6
from any site	3 032	3 555	4 233	4 192	31.0		38.3

(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 NOVEMBER 1998(a)

	'000	%
Family type		
Married couple no children	247	14.7
Married couple with children	681	27.3
Single parent with children	76	14.5
Single person	126	8.6
Other	142	21.8
Household income		
\$0-\$14 000	44	3.5
\$14 001-\$27 000	118	10.1
\$27 001-\$44 000	186	15.9
\$44 001-\$66 000	300	26.0
\$66 001+	464	41.5
Not stated	161	16.9
Region		
Capital cities	929	21.7
Rest of Australia	343	13.5
Australia	1 272	18.6

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

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

	Site of Internet access							
	Home		Work		Other sites		Any site	
	'000	%	'000	%	'000	%	'000	%
Age								
18-24	388	21.5	247	13.7	917	50.8	1 112	61.6
25-39	609	14.3	942	22.1	811	19.0	1 721	40.3
40-54	535	14.0	620	16.2	364	9.5	1 120	29.3
55+	138	3.8	121	3.3	*70	*1.9	240	6.6
Sex								
Males	1 052	15.8	1 088	16.3	1 197	17.9	2 292	34.3
Females	618	9.0	842	12.3	964	14.0	1 900	27.7
Labour force status								
employed full-time	1 033	16.6	1 606	25.8	1 084	17.4	2 598	41.7
employed part-time	402	16.2	228	9.2	532	21.4	873	35.2
unemployed	*49	*8.1	*21	*3.6	217	36.2	230	38.5
not in the labour force	187	4.5	74	1.8	329	7.9	491	11.7
Personal income								
0-\$12 000	364	7.3	86	1.7	774	15.6	935	18.8
\$12 001-\$23 000	272	10.0	247	9.1	490	18.1	807	29.7
\$23 001-\$29 000	153	14.8	185	17.9	134	13.0	365	35.5
\$29 001-\$36 000	223	17.0	318	24.2	218	16.6	537	40.9
\$36 001-\$46 000	191	16.8	383	33.9	207	18.2	552	48.8
more than \$46 000	359	26.1	639	46.4	229	16.7	808	58.7
don't know/not stated	109	10.7	72	7.1	110	10.8	188	18.6
Region								
Capital cities	1 299	14.9	1 414	16.2	1 496	17.2	2 969	34.1
Rest of Australia	371	7.7	515	10.7	665	13.8	1 223	25.3
Total	1 670	12.3	1 930	14.3	2 161	16.0	4 192	31.0

(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	707	36.6	357	11.1
2-6 times a week	479	24.8	784	24.3
once a week	308	16.0	564	17.5
once every 2 weeks	97	5.1	236	7.3
once a month	210	10.9	334	10.4
once every 3 months	*55	*2.9	266	8.3
once every 6 months	*21	*1.1	151	4.7
less than every 6 months	*43	*2.2	275	8.5
don't know	*10	*0.5	255	7.9
total	1 930	100.0	3 222	100.0

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

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

5 ADULTS' INTERNET PURCHASES FOR OWN PRIVATE USE(a)

	'000	%
Purchased or ordered goods/services(b)	286	6.8
Location from which order made(c)		
Home	223	78.1
At work	*29	10.1
Other	*34	11.9
Location of purchase(c)		
Australia	102	35.6
Overseas	128	44.9
Both	*56	19.5
Goods purchased and paid for online(c)	236	82.7
Number of purchases(c)		
one	94	33.0
two	73	25.5
three	*15	*5.3
four or more	100	34.9
don't know	*4	*1.4
Period when purchases made(c)		
October–November 1998	124	43.5
July–September 1998	147	51.5
April–June 1998	108	37.9
January–March 1998	103	36.0
Other	*7	*2.3
Can't remember/don't know	*23	*8.0

(a) Period covers the 12 months to November 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	*19	0	563	1 489	1 675
25-39	*47	*17	2 024	3 321	3 661
40-54	*44	*26	1 513	2 347	2 647
54+	*2	0	745	1 068	1 282
	%	%	%	%	%
18-24	*1.0	0.0	31.2	82.5	92.7
25-39	*1.1	*0.4	47.5	77.8	85.8
40-54	*1.2	*0.7	39.5	61.3	69.2
54+	*0.1	0.0	20.5	29.3	35.2
REGION					
	'000	'000	'000	'000	'000
Capital cities	101	*22	3 328	5 268	6 087
Rest of Australia	*12	*21	1 517	2 957	3 178
Australia	112	*43	4 845	8 225	9 265
	%	%	%	%	%
Capital cities	1.2	*0.3	38.2	60.5	69.9
Rest of Australia	*0.2	*0.4	31.4	61.2	65.8
Australia	0.8	*0.3	35.8	60.7	68.4

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

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

7

TELEWORKING ARRANGEMENTS AT NOVEMBER 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	275	5.7	136	3.5	410	4.7
Had a teleworking agreement	230	4.8	83	2.1	312	3.6

(a) Percentages are of all employed adults.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

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

2 From this survey, data were 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 present statistics on households.

DATA COLLECTED

3 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 as income, family type and region.

COMPARING DATA OVER TIME

4 Users are advised to take care when comparing the data shown in this publication with similar data shown in the May and August 1998 issues of *Use of the Internet by Householders, Australia* (Cat. no. 8147.0) and the February 1998 issue of *Household Use of Information Technology, Australia* (Cat. no 8128.0). The main reason is 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).

ACCURACY OF DATA

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

6 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

7 Consider the estimate of the number of adults who accessed the Internet from home. An estimate of 1,670,000 has a standard error of around 60,000. This means there are about two chances in three (67%) that the true value (i.e. the value that would have been obtained from a complete census) is within the range 1,610,000 to 1,730,000. There are about 19 chances in 20 (95%) that the true value is in the range 1,550,000 to 1,790,000.

8 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:

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

9 The increase in the number of households with home Internet access from February 1998 is 418,000. The standard error on this movement is about 45,000. Therefore we can say that there are 2 chances in 3 that the true value is within the range 373,000 to 463,000 and 19 chances in 20 that the true value is in the range 328,000 to 508,000.

10 The increase in the number of households with home Internet access from August 1998 is 27,000. Using the formula above we can calculate the standard error on this movement is about 50,000. This shows that there are 2 chances in 3 that the change would be between a fall of 23,000 and an increase of 77,000 and 19 chances in 20 that the change would be between a fall of 73,000 and an increase of 127,000.

ACKNOWLEDGMENT **11** 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 **12** 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 **13** 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 Tim Power on Canberra 02 6252 7895.

SELF-HELP ACCESS TO STATISTICS

DIAL-A-STATISTIC For current and historical Consumer Price Index data, call 1902 981 074.
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Perth	08 9360 5140	08 9360 5955
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EMAIL client.services@abs.gov.au



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