

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 any ABS office shown on the back cover of this publication.

NOTES

FORTHCOMING ISSUES	<p><i>ISSUE (Quarter)</i></p> <p>May 1999</p> <p>August 1999</p>	<p><i>EXPECTED RELEASE DATE</i></p> <p>20 September 1999</p> <p>20 December 1999</p>
ABOUT THIS PUBLICATION	<p>This publication presents a selection of results from a survey conducted in February 1999 of 3,300 persons randomly selected from private households. It focuses on the use of the Internet both by households and by adults (persons aged 18 years and over) and also presents statistics on electronic commerce activities of adults.</p>	
ABOUT THE SURVEY	<p>The February 1999 survey is the first of four surveys planned for 1999. In 1996 and 1998 surveys were conducted quarterly for February, May, August and November. The range of information sought in the 1999 surveys has been expanded to address Internet usage in more detail than previous surveys conducted in 1998 or 1996. Questions on the use of the Internet have been expanded in 1999 to include frequency of household Internet use and frequency of adult Internet use inside and outside of the home, problems experienced when accessing the Internet and the types of goods or services purchased via the Internet.</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). 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 7 to 9 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, August and November 1998 surveys of Household Use of Information Technology. <i>Household Use of Information Technology, Australia, 1998</i> (Cat. no. 8146.0) is based on the consolidated surveys for 1998 and presents detailed State estimates. Users comparing the data in this publication with earlier surveys should refer to paragraphs 3–9 of the Explanatory Notes.</p>	
SYMBOLS AND OTHER USAGES	<p>ABS Australian Bureau of Statistics</p> <p>ATM Automatic Teller Machine</p> <p>EFTPOS Electronic Funds Transfer at Point of Sale</p> <p>TAFE Tertiary and Further Education</p> <p>* Estimates have a relative standard error of 25% or more</p> <p>— nil or round to zero</p>	

W. McLennan
Australian Statistician

MAIN FEATURES

INTERNET ACCESS

By Households At February 1999 it was estimated that just over 18% of all households (1.3 million) had home Internet access, an increase of 423,000 or 50% over the February 1998 estimate. At the same time, the number of households with a home computer increased by 287,000 or 10% since February 1998 to reach 3.2 million. This indicates that around a third of the households acquiring home Internet access since February 1998 already had a home computer.

International comparisons There is little recent data available on the uptake of selected technologies by households in other countries and this makes comparisons between Australia and other countries difficult. However, some data from the various official statistical agencies has been provided in the following table. A number of countries outside of Australia are currently undertaking their own households surveys and it is expected that more up to date statistics will be available in the second half of 1999.

While the available statistics show that Australia compared favourably with the countries identified much of the data for countries other than Finland is more than 12 months old. It is expected that for countries such as the Netherlands and the United States, which already had significant proportions of households with a home computer or home Internet access in 1997, the current take up of computers or the Internet will be equal to or higher than Australia.

HOUSEHOLDS WITH A HOME COMPUTER OR HOME INTERNET ACCESS

	<i>Period of reference</i>	<i>Households with a home computer</i>	<i>Households with home Internet access</i>
<i>Country</i>		<i>%</i>	<i>%</i>
Australia	February 1999	45.3	18.3
United States	October 1997	36.6	18.6
Finland	May 1999	41.7	21.4
United Kingdom	February 1997	29.0	5.0
Netherlands	1997	50.0	n.a.

Adults accessing the Internet An estimated 5 million adults accessed the Internet at some time over the 12 months to February 1999 which was 37% of Australia's total adult population. In comparison, just over 3 million adults accessed the Internet at some time over the 12 months to February 1998 which was 23% of Australia's adult population.

PLACE OF INTERNET ACCESS

In the 12 month period to February 1999, work and home were the most frequently reported places for Internet access by adults (2.5 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, 1.5 million adult Internet users;
- TAFE/tertiary institutions, just over 1.0 million adults; and
- Public libraries, 0.7 million 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 1.0 million adults. Other frequently reported sites of Internet access in the 12 months to February 1998 included:

- Friend's or neighbour's house, 0.8 million adult Internet users;
- TAFE/tertiary institutions, 0.5 million adults; and
- Public libraries, 0.2 million adults.

CHARACTERISTICS OF HOUSEHOLDS WITH HOME INTERNET ACCESS

By family type	At February 1999, 28% of households of the family type 'couple with children' had home Internet access, compared with 19% at February 1998. Households of this type accounted for a similar proportion of Internet households at February 1999 and February 1998 (around 53% of all Internet households). At February 1999, just over 16% of households of the type 'couple with no children' had home Internet access and 13% of households of the type 'single parent' were connected to the Internet compared with 8% and 7% respectively at February 1998.
By region	Of the nearly 1.3 millions households with Internet access at February 1999, 79% (1.0 million) were located in capital cities. Of the 854,000 households with Internet access at February 1998, just under 79% (672,000) were located in capital cities. At February 1999, just under 23% of capital city households had home Internet access as compared to 11% of households in other areas of Australia. The comparable details for February 1998 were 16% and 7%.

HOUSEHOLDS EXPERIENCING PROBLEMS WHEN ACCESSING THE INTERNET

At February 1999, 27% of Internet households (347,000) reported experiencing problems when accessing the Internet. Of these 347,000 households:

- 66% reported experiencing line drop outs;
- 45% reported slow speeds; and
- 31% report other problems.

By region Nearly 24% of Internet households in capital cities reported experiencing problems when accessing the Internet compared with 41% of Internet households in other areas. For both capital cities and other areas the most frequently reported problem was line drop outs.

INTENTIONS TO ACQUIRE HOME INTERNET ACCESS

At February 1998, there were 854,000 households with home Internet access and 474,000 households with a computer which intended to acquire home Internet access in the next 12 months, giving an expected total of 1,328,000 households with Internet access at February 1999. At February 1999, there were 1,277,000 households with home Internet access, which gives a realisation ratio of 96% on the February 1998 intentions.

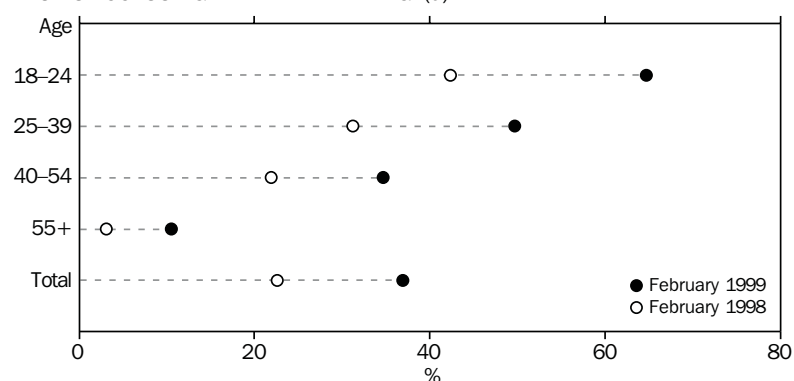
At February 1999, there were 745,000 households with a computer which intended to acquire home Internet access in the next 12 months. Therefore, taken with the households which currently have Internet access, there should be around 2 million households with Internet access at February 2000.

CHARACTERISTICS OF INTERNET USERS

Between February 1998 and February 1999 there has been no change in the dominant characteristics of adults accessing the Internet.

By age In the 12 months to February 1999 and February 1998 younger age groups had the greatest proportion of Internet users. Nearly 65% (1.2 million) of 18–24 year olds accessed the Internet from any site in the 12 months to February 1999 compared with 42% in the 12 months to February 1998. For persons aged 25–39 years the estimate was 50% (2.1 million) in 1999 compared with 31% (1.3 million) in the 12 months to February 1998. For 40–54 year olds, the figure was 35% (1.3 million) to February 1999 compared with 22% (0.8 million) to February 1998 and for persons aged 55 years and over it was 11% (0.4 million) to February 1999 compared with only 3% (0.1 million) to February 1998.

ADULTS ACCESSING THE INTERNET BY AGE(a)



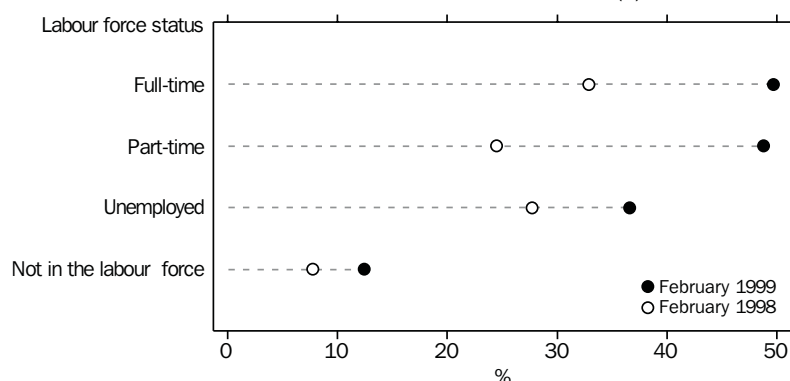
(a) Period of access covers the 12 months to February 1998 or February 1999.

By sex Approximately 39% of adult males (2.6 million) had accessed the Internet in the 12 months to February 1999. The corresponding figure for females was 35% (2.4 million). In the 12 months to February 1998, 26% of adult males (1.7 million) accessed the Internet from any site compared with 19% of adult females (1.3 million).

By labour force status Nearly 50% of adults employed full-time (3.1 million) had accessed the Internet in the 12 months to February 1999 compared with 33% (1.9 million) in the 12 months to February 1998. For other labour force categories:

- 49% of adults employed part-time (1.1 million) accessed the Internet in the 12 months to February 1999 (25% to February 1998);
- 37% of unemployed adults (0.2 million) accessed the Internet in the 12 months to February 1999 (28% to February 1998); and
- 12% of adults not in the labour force (0.5 million) had accessed the Internet in the 12 months to February 1999 (8% to February 1998).

ADULTS ACCESSING THE INTERNET BY LABOUR FORCE STATUS(a)



(a) Period of access covers the 12 months to February 1998 or February 1999.

By region Of the 5 million adults who accessed the Internet from any site in the 12 months to February 1999, 75% resided in capital cities compared with 79% in the 12 months to February 1998. In the 12 months to February 1999, 42% of adults in capital cities (3.7 million) accessed the Internet from any site compared with 27% (1.3 million) in other areas. In the 12 months to February 1998, 28% of adults in capital cities (2.4 million) accessed the Internet compared with 14% of adults (0.6 million) in other areas.

FREQUENCY OF INTERNET ACCESS

By households Of the 1.3 million households with home Internet access at February 1999 nearly 40% accessed the Internet daily, 38% accessed it two to six times a week and 10% once a week (giving 88% of Internet households which frequently accessed the Internet). In comparison, of the

By households *continued* 3.2 million households which had a home computer at February 1999, 54% used the home computer daily, 27% used it two to six times a week and 8% once a week (giving 89% of computer households which frequently used their home computer).

By adults Of the 1.7 million adults who accessed the Internet from home in the 12 months to February 1999:

- 30% accessed the Internet daily;
- 38%, accessed it two to six times a week; and
- 18% once a week (giving a total of 86% of these adults who frequently accessed the Internet from home).

Of the 2.5 million adults who accessed the Internet from work in the 12 months to February 1999:

- 39% accessed the Internet daily;
- 17% accessed it two to six times a week; and
- 12% once a week (giving a total of 68% of these adults who frequently accessed the Internet from work)

Of the 2.8 million adults who accessed the Internet from other sites in the 12 months to February 1999:

- 2% accessed the Internet daily;
- 14% accessed it two to six times a week; and
- 10% once a week (giving a total of 26% of these adults who frequently accessed the Internet from other sites).

ELECTRONIC COMMERCE ACTIVITIES

Purchasing/ordering goods or services via the Internet Nearly 4% of Australian adults (480,000) used the Internet to purchase or order goods or services for their own private use in the 12 months to February 1999. These Internet shoppers made an estimated 1.9 million purchases via the Internet and nearly 77% of Internet shoppers paid for their purchases online. By comparison, in the 12 months to February 1998 an estimated 207,000 adults purchased or ordered goods or services via the Internet.

An estimated 76% of Internet shoppers (365,000) were at home when making purchases or orders via the Internet. Just over 30% of Internet shoppers made their purchases only from Australia, 47% made them only from overseas, and 22% from both Australia and overseas.

Number of purchases Of the 480,000 Internet shoppers:

- 36% made one purchase or order via the Internet;
- 9% made two;
- 10% made three;
- 12% made four; and
- 29% made five or more.

Period of Internet purchases Nearly 54% of adult Internet shoppers undertook an order or purchase during the period January to February 1999, 60% undertook Internet purchases during the period September to December 1998, 50% during the period May to August 1998 and 30% March to April 1998.

Types of goods or services purchased or ordered via the Internet Of the 480,000 adults undertaking purchases or orders via the Internet in the 12 months to February 1999:

- 41% reported purchasing books or magazines;
- 40% reported purchasing computer software or equipment;
- 20% reported purchasing music;
- 11% clothing or shoes;
- 8% holidays;
- 6% tickets to entertainment; and
- 2% sporting equipment.

EXPENDITURE ON GOODS OR SERVICES PURCHASED VIA THE INTERNET

Total expenditure Of the 480,000 adults making purchases via the Internet in the 12 months to February 1999:

- 13% spent up to \$50 on Internet purchases;
- 16% spent \$51–\$100;
- 21% spent \$101–\$250;
- 14% spent \$251–\$500; and
- 35% spent more than \$500.

Total online expenditure Of the 368,000 Internet shoppers at February 1999 who paid for their purchases online:

- 14% spent up to \$50;
- 12% spent \$51–\$100;
- 23% spent \$101–\$250;
- 19% spent \$251–\$500; and
- 32% spent more than \$500.

Paying bills or transferring funds

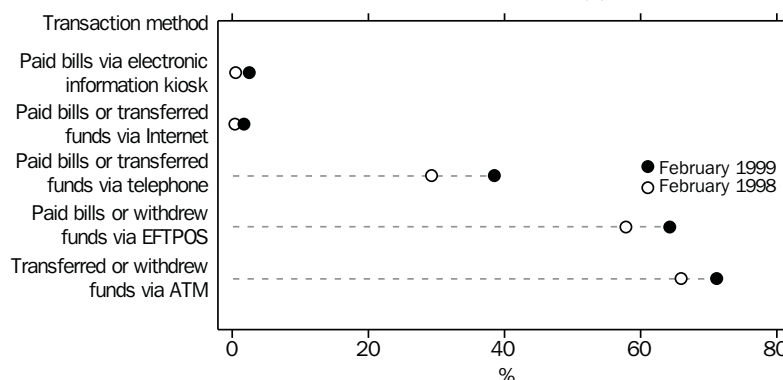
In the three months to February 1999:

- 2% of all adults (217,000) used the Internet to pay bills or transfer funds;
- 2% of all adults (325,000) used an electronic information kiosk to pay bills;
- 39% (5.2 million) used a telephone to pay bills or transfer funds;
- 64% (8.7 million) used EFTPOS; and
- 71% (9.7 million) used an ATM.

By comparison, in the three months to February 1998:

- less than 1% of adults (44,000) used the Internet to pay bills or transfer funds;
- less than 1% of adults (69,000) used an electronic information kiosk to pay bills;
- 29% (3.9 million) used a telephone to pay bills or transfer funds;
- 58% (7.8 million) used EFTPOS; and
- 66% (8.9 million) used an ATM.

ADULTS UNDERTAKING SELECTED ELECTRONIC COMMERCE(a)



(a) Period covers the 3 months to February 1998 or February 1999.

TELEWORKING

At February 1999, nearly 7% of employed adults (0.6 million persons) reported they were able to access their employer's computer system from home via a modem compared with 5% (0.2 million) of employed adults at February 1998. At February 1999, just over 5% of employed adults (0.4 million persons) reported they had a teleworking agreement with their employer to access their computer via a modem so that they could work from home compared with 4% (0.1 million) of employed adults at February 1998.

1 ACCESS TO THE INTERNET

	February 1999						% change since February 1998
	February 1998	May 1998	August 1998	November 1998			
	'000	'000	'000	'000	'000	%	%
Households with a home computer(a)	2 880	2 879	3 195	3 240	3 167	45.3	10.0
Households with home Internet access(a)	854	971	1 245	1 272	1 277	18.3	49.5
Adults accessing the Internet(b)(c)							
from home	1 038	1 433	1 883	1 670	1 681	12.4	61.9
from work	1 302	1 541	1 903	1 930	2 499	18.4	91.9
from neighbour's/friend's house	806	877	934	1 114	1 491	11.0	85.0
from TAFE/tertiary institution	519	777	933	802	1 018	7.5	96.1
from public library	219	418	395	413	692	5.1	216.0
from other sites(d)	661	352	383	492	833	6.1	26.0
from any site	3 032	3 555	4 233	4 192	5 001	36.8	64.9

(a) Proportions are of all households.

(b) Proportions 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(a)

	February 1998		February 1999	
	'000	%	'000	%
Family type				
Couple with no children	133	8.0	284	16.3
Couple with children	460	19.2	671	28.0
Single parent with children	39	7.4	78	12.8
Single person	65	4.4	114	7.0
Other	157	21.7	131	21.9
Region				
Capital cities	672	15.8	1 010	22.8
Rest of Australia	182	7.2	267	10.5
Australia	854	12.6	1 277	18.3

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

3

HOUSEHOLDS WITH HOME INTERNET ACCESS, BY TYPE OF INTERNET ACCESS(a)

	<i>Email</i>			<i>Other Internet services such as the World Wide Web</i>		
	Yes	No	Don't know	Yes	No	Don't know
	%	%	%	%	%	%
Family type						
Couple with no children	98.4	1.1	0.5	91.8	3.1	5.1
Couple with children	97.0	2.0	1.1	93.3	3.4	3.3
Single parent with children	94.9	0.0	5.1	94.6	0.4	5.1
Single person	96.0	4.0	0.0	92.5	4.0	3.6
Other	97.0	0.0	3.0	86.9	4.3	8.8
Region						
Capital cities	98.0	0.6	1.5	93.2	2.6	4.2
Rest of Australia	93.8	5.6	0.6	89.0	6.0	5.0
Australia	97.1	1.6	1.3	92.3	3.3	4.4

(a) Proportions are of all households with access to the Internet.

4

HOUSEHOLDS WITH A HOME COMPUTER OR HOME INTERNET ACCESS, BY FREQUENCY OF USE

	<i>Households with a home computer(a)</i>		<i>Households with home Internet access(b)</i>	
	'000	%	'000	%
Frequency of Internet access				
daily	1 717	54.2	509	39.8
2-6 times a week	839	26.5	479	37.5
once a week	256	8.1	129	10.1
once every two weeks	81	2.6	45	3.5
once a month	82	2.6	73	5.7
once every three months	45	1.4	*5	0.4
once every six months	32	1.0	—	—
less than every six months	*21	*0.7	*17	*1.4
not at all	82	2.6	—	—
don't know	*10	*0.3	*19	*1.5
Total	3 167	100.0	1 277	100.0

(a) Proportions are of households with a home computer.

(b) Proportions are of households with home Internet access.

5

HOUSEHOLDS EXPERIENCING PROBLEMS WHEN ACCESSING THE INTERNET

	<i>Capital Cities</i>		<i>Rest of Australia</i>		<i>Australia</i>	
	'000	%	'000	%	'000	%
Households experiencing problems(a)	239	23.6	109	40.7	347	27.2
Type of problem(b)						
Slow speed	110	46.1	46	42.1	156	44.9
Line drop outs	157	65.6	71	65.3	227	65.5
Other	77	32.3	31	28.3	108	31.1
Don't know	*4	*1.6	—	—	*4	*1.1

(a) Proportions are of all households with home Internet access.

(b) Proportions are of all households experiencing problems when accessing the Internet.

6

INTENTIONS OF HOUSEHOLDS TO ACQUIRE INTERNET ACCESS

	<i>Households with home Internet access at February 1998</i>	<i>Households intending to acquire home Internet access in the 12 months from February 1998</i>	<i>Households with home Internet access at February 1999</i>	<i>Households intending to acquire home Internet access in the 12 months from February 1999(a)</i>	
	'000	'000	'000	'000	%
Family type					
Couple with no children	133	70	284	138	36.4
Couple with children	460	277	671	412	43.7
Single parent with children	39	*17	78	56	26.6
Single person	65	52	114	80	41.0
Other	157	58	131	59	38.4
Region					
Capital cities	672	317	1 010	471	39.9
Rest of Australia	182	157	267	274	39.1
Australia	854	474	1 277	745	39.6

(a) Proportions are of all households at February 1999 with a home computer and no home Internet access.

	Site of Internet access							
	Home		Work		Other sites		Any site	
	'000	%	'000	%	'000	%	'000	%
February 1999(c)								
Age								
18-24	326	17.9	304	16.7	997	54.8	1 176	64.7
25-39	701	16.5	1 129	26.6	1 126	26.5	2 111	49.7
40-54	505	13.1	865	22.5	561	14.6	1 331	34.7
55+	150	4.1	201	5.5	148	4.1	383	10.5
Sex								
Males	906	13.6	1 432	21.4	1 420	21.3	2 603	39.0
Females	776	11.3	1 067	15.5	1 412	20.5	2 399	34.8
Labour force status								
employed full-time	974	15.7	2 019	32.6	1 466	23.7	3 071	49.7
employed part-time	425	18.2	392	16.7	709	30.3	1 143	48.8
unemployed	*50	*7.6	68	10.3	234	35.5	242	36.6
not in the labour force	232	5.3	*20	*0.5	424	9.7	545	12.4
Region								
Capital cities	1 414	16.0	1 894	21.4	2 031	22.9	3 742	42.3
Rest of Australia	267	5.7	605	12.8	802	16.0	1 259	26.7
Total	1 681	12.4	2 499	18.4	2 833	20.9	5 001	36.9
February 1998(c)								
Age								
18-24	149	8.2	188	10.3	537	29.6	770	42.4
25-39	479	11.2	601	14.1	605	14.2	1 329	31.2
40-54	341	9.1	491	13.1	246	6.6	822	21.9
55+	70	2.0	229	0.6	*29	*0.8	111	3.1
Sex								
Males	711	10.8	713	10.8	811	12.3	1 715	26.0
Females	327	4.8	590	8.7	606	8.9	1 317	19.3
Labour force status								
employed full-time	657	11.4	1 135	19.7	719	12.5	1 902	32.9
employed part-time	158	6.5	130	5.4	344	14.2	594	24.5
unemployed	65	9.5	*16	*2.4	138	20.1	190	27.7
not in the labour force	159	3.5	*21	*0.5	215	4.8	346	7.7
Region								
Capital cities	865	10.0	1 076	12.5	1 095	12.7	2 388	27.7
Rest of Australia	174	3.6	227	4.7	322	6.8	644	13.5
Total	1 038	7.7	1 302	9.7	1 417	10.6	3 032	22.6

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

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

(c) Internet access occurring in the 12 months.

Frequency of Internet access	Site of Internet access					
	At home		At work		Other site	
	'000	%	'000	%	'000	%
daily	510	30.3	974	39.0	58	2.0
2-6 times a week	637	37.9	423	16.9	385	13.6
once a week	305	18.1	293	11.7	294	10.4
once every two weeks	71	4.2	119	4.8	201	7.1
once a month	128	7.6	317	12.7	394	13.9
once every three months	*6	*0.4	147	5.9	332	11.7
once every six months	*1	*0.1	98	3.9	338	11.9
less than every six months	*8	*0.5	122	4.9	746	26.3
don't know	*17	*1	*6	*0.3	83	2.9
total	1 681	100.0	2 499	100.0	2 833	100.0

(a) Internet access in the 12 months to February 1999.

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

9 ADULTS USING THE INTERNET TO PURCHASE OR ORDER GOODS
OR SERVICES FOR PRIVATE USE(a)

	'000	%
Purchased or ordered goods/services(b)	480	3.5
Location from which order made(c)		
Home	365	76.0
At work	105	21.9
Other	56	11.7
Location of purchase(c)		
Australia	146	30.5
Overseas	224	46.7
Both	105	21.8
Don't know	5	0.9
Goods purchased and paid for online(c)	368	76.7
Number of purchases(c)		
one	174	36.3
two	*45	*9.4
three	*46	*9.6
four	58	12.0
five or more	139	29.0
don't know	*17	*3.6
Period of purchase(c)		
Jan-Feb 99	257	53.6
Sep-Dec 98	283	59.1
May-Aug 98	240	50.1
Mar-Apr 98	142	29.7
Other	*10	*2.0
Can't remember don't know	*4	*0.8
Type of goods purchased by adults(c)		
Music	94	19.6
Book/magazines	194	40.5
Computer software/equipment	190	39.7
Clothing shoes etc.	*52	*10.8
Sporting equipment	*10	*2.2
Holidays	*40	*8.4
Entertainment/tickets to entertainment events	*30	*6.4
Other	143	29.8

(a) Relates to private purchases undertaken in the 12 months to February 1999.

(b) Proportions are of all adults.

(c) Proportions are of all adults making purchases or orders via the Internet.

10 EXPENDITURE ON INTERNET PURCHASES BY ADULTS(a)

	<i>Adults making purchases or orders via the Internet(b)</i>		<i>Adults paying for Internet purchases online(c)</i>	
	'000	%	'000	%
Level of expenditure				
\$1-\$50	63	13.2	*51	*14.0
\$51-\$100	75	15.6	*44	*12.0
\$101-\$250	99	20.7	84	23.0
\$251-\$500	65	13.6	69	18.7
More than \$500	168	35.0	118	32.2
Don't know	*9	*1.9	*1	*0.3

(a) Period covers the 12 months to February 1999.

(b) Proportions are of all adults making purchases or orders via the Internet.

(c) Proportions are of all adults paying for Internet purchases online.

11 ADULTS UNDERTAKING SELECTED ELECTRONIC COMMERCE(a)

	<i>February 1998(b)</i>		<i>February 1999(c)</i>	
	'000	%	'000	%
Type of electronic transaction				
Paid bills or transferred funds via Internet	*44	*0.3	217	1.6
Paid bills via an information kiosk	69	0.5	325	2.4
Paid bills or transferred funds via phone	3 929	29.3	5 230	38.5
Paid bills or withdrew funds via EFTPOS	7 755	57.8	8 733	64.3
Transferred or withdrew funds via ATM	8 858	66.0	9 666	71.2

(a) Proportions are of all adults.

(b) Period covers the 3 months to February 1998.

(c) Period covers 3 months to February 1999.

12
CHARACTERISTICS OF ADULTS UNDERTAKING SELECTED ELECTRONIC COMMERCE(a)(b)

	<i>Paid bills or transferred funds via Internet</i>	<i>Paid bills via an 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>
Persons					
Males ('000)	155	164	2 679	4 242	4 801
Females ('000)	62	161	2 551	4 491	4 866
Males (%)	2.3	2.5	40.1	63.5	71.9
Females (%)	0.9	2.3	37.0	65.1	70.6
Age					
18-24 ('000)	*35	*41	550	1 479	1 610
25-39 ('000)	69	110	2 144	3 401	3 695
40-54 ('000)	89	105	1 595	2 568	2 865
54+ ('000)	*23	69	941	1 285	1 495
18-24 (%)	*2.0	*2.3	30.2	81.4	88.6
25-39 (%)	1.6	2.6	50.5	80.0	86.9
40-54 (%)	2.3	2.7	41.6	66.9	74.7
54+ (%)	*0.6	1.9	25.7	35.1	40.8
Region					
Capital cities ('000)	183	210	3 754	5 845	6 589
Rest of Australia ('000)	*34	114	1 476	2 888	3 077
Australia ('000)	217	325	5 230	8 733	9 666
Capital cities (%)	2.1	2.4	42.4	66.0	74.4
Rest of Australia (%)	*0.7	2.4	31.3	61.2	65.2
Australia (%)	1.6	2.4	38.5	64.3	71.2

(a) Period covers the three months to February 1999.

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

13
ADULTS TELEWORKING(a)

	<i>February 1998</i>		<i>February 1999</i>	
	<i>'000</i>	<i>%</i>	<i>'000</i>	<i>%</i>
Able to access employer's computer from home through a modem	158	4.7	556	6.5
Have an agreement with an employer to access their computer via a modem to work from home	137	3.6	444	5.2

(a) Proportions are of all employed adults.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

1 During February 1999 the Population Survey Monitor collected data on the use of Internet and electronic commerce activities of adults. From this survey, data were compiled for households and for persons. Tables 1–6 in this publication present statistics for households and tables 1, 7–13 present statistics for adults (persons aged 18 years or over).

DATA COLLECTED

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

For households:

- number of households with a computer;
- frequency of computer use;
- number of households connected to the Internet;
- characteristics of households with home Internet access including, family type, income, state and region;
- level of household Internet connection (have email, have access to the World Wide Web);
- frequency of Internet use;
- problems experienced when accessing the Internet; and
- intentions to connect to the Internet.

For persons:

- number of persons accessing the Internet;
- place where Internet accessed;
- frequency of Internet access;
- 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;
- use of the Internet to purchase or order goods or services;
- bill payment and funds transfer via the Internet/ electronic kiosks, the telephone, use of EFTPOS and ATMs; and
- teleworking.

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, May, August and November 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 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

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.

<i>Size of estimate</i>	<i>Standard error for persons 18+</i>		<i>Standard error for households</i>	
	<i>February 1998</i>	<i>February 1999</i>	<i>February 1998</i>	<i>February 1999</i>
<i>'000</i>	<i>'000</i>	<i>'000</i>	<i>'000</i>	<i>'000</i>
10	6.6	6.9	4.7	5.1
20	9.4	9.8	6.7	7.3
50	14.5	15.1	9.9	11.3
100	19.7	20.8	13.3	15.5
200	26.5	27.9	17.8	20.9
500	38.5	40.4	25.2	30.2
800	46.1	48.4	29.5	35.0
1 000	50.4	53.0	32.3	39.2
1 500	57.1	60.0	37.1	43.4
2 000	65.0	68.2	41.8	50.1

Example using the standard error table

6 Consider the estimate of the number of adults who accessed the Internet from home in the 12 months to February 1999. An estimate of 1,681,000 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 1,621,000 to 1,741,000. There are about 19 chances in 20 (95%) that the true value is in the range 1,561,000 to 1,801,000.

Example using the standard
error table *continued*

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 February 1998 is 423,000. The standard error on this movement is about 51,503. Therefore we can say that there are two chances in three that the true value is within the range 371,497 to 474,503 and 19 chances in 20 that the true value is in the range 319,994 to 526,006.

9 The standard error of the estimate of movement for some IT indicators are shown in the following table.

<i>Indicator</i>	<i>Standard error of the estimate of movement (February 1998 to February 1999)</i>
	'000
Households with home Internet access	51 503
Adults accessing the Internet from home	80 898
Adults using the Internet to purchase or order goods or services	48 316

Acknowledgment **10** 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

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

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

Business Use of Information Technology, Australia, Preliminary, 1997-98
(Cat. no. 8133.0)

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

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

RELATED PUBLICATIONS
continued

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

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

Telecommunications Services, Australia, 1996–97 (Cat. no. 8145.0)

AVAILABILITY OF
UNPUBLISHED STATISTICS

12 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 email joseph.digregorio@abs.gov.au; or Tim Power on Canberra 02 6252 7895 or email tim.power@abs.gov.au.

SELF-HELP ACCESS TO STATISTICS

<i>CPI INFOLINE</i>	For current and historical Consumer Price Index data, call 1902 981 074 (call cost 75c per minute).
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