



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 Client Services in any ABS office as shown on the back cover of this publication.

NOTES

FORTHCOMING ISSUES	<i>ISSUE (Quarter)</i>	<i>EXPECTED RELEASE DATE</i>
	August 1999	20 December 1999
	November 1999	1 March 2000
ABOUT THIS PUBLICATION	This publication presents a selection of results from a survey conducted in May 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.	
ABOUT THE SURVEY	The May 1999 survey is the second of four surveys planned for 1999. A survey for February 1999 has already been conducted with two others remaining for August and November. 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.	
ACCURACY OF ESTIMATES OF MOVEMENT	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 7–9 of the Explanatory Notes.	
OTHER PUBLICATIONS	<i>Use of the Internet by Householders</i> (Cat. no. 8147.0) was previously released from the February, May, August and November 1998 and February 1999 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.	

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MAIN FEATURES

INTERNET ACCESS

By households At May 1999 it was estimated that just over 22% of all households (1.5 million) had home Internet access, an increase of 553,000 or nearly 57% over the May 1998 estimate. At the same time, the number of households with a home computer increased by 366,000 or 13% since May 1998 to reach 3.2 million (47% of all households).

Adults accessing the Internet An estimated 5.5 million adults accessed the Internet at some time over the 12 months to May 1999 which was 40% of Australia's total adult population. In comparison, nearly 3.6 million adults accessed the Internet at some time over the 12 months to May 1998 which was 26% of Australia's adult population.

PLACE OF INTERNET ACCESS

In the 12 month period to May 1999, work and home were the most frequently reported places for Internet access by adults (2.7 million adults for work and 2.3 million adults for home). Other reported sites of Internet access included:

- friend's or neighbour's house, 1.6 million adult Internet users;
- TAFE/tertiary institutions, just over 1.0 million adults;
- public libraries, 0.7 million adults;
- shops, stores or telecafes, 0.3 million adults; and
- schools and government agencies/ shopfronts, 0.2 million adults each.

In comparison with the 12 months to May 1998, access at work was reported by 1.5 million adults and access at home by 1.4 million adults. Other sites of Internet access in the 12 months to May 1998 included:

- friend's or neighbour's house, 0.9 million adult Internet users;
- TAFE/ tertiary institutions, 0.8 million adults;
- public libraries, 0.4 million adults;
- shops, stores or telecafes, 0.2 million adults;
- schools, nearly 0.2 million adults; and
- government agencies/shopfronts, nearly 60,000 adults.

CHARACTERISTICS OF HOUSEHOLDS WITH HOME INTERNET ACCESS

By family type At May 1999, 36% of households of the family type, 'couple with children' had home Internet access, compared with 20% at May 1998. Households of this type accounted for 55% of Internet households at May 1999 and 50% at May 1998. At May 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 12% and 11% respectively at May 1998.

By region Of the nearly 1.5 million households with Internet access at May 1999, 73% (1.1 million households) were located in capital cities. Of the 971,000 households with Internet access at May 1998, just over 79% (770,000) were located in capital cities. At May 1999, just under 26% of capital city households had home Internet access compared with nearly 17% of households in other areas of Australia. The comparable details for May 1998 were 18% and 8%.

LEVEL OF INTERNET ACCESS

More than 92% of households with Internet access reported that they had access to the World Wide Web while 4% did not know the level of connection to the Internet.

INTENTIONS TO ACQUIRE HOME INTERNET ACCESS

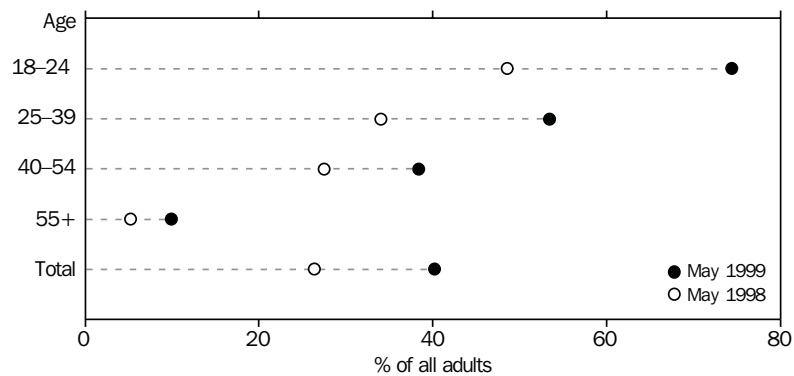
At May 1999, there were 684,000 households with a computer which intended to acquire home Internet access in the next 12 months compared to 527,000 households at May 1998.

CHARACTERISTICS OF INTERNET USERS

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

By age In the 12 months to May 1999 and May 1998 younger age groups had the greatest proportion of Internet users. Just over 74% (1.3 million) of 18–24 year olds accessed the Internet from any site in the 12 months to May 1999 compared with 49% (0.9 million) in the 12 months to May 1998. For persons aged 25–39 years the estimate was 53% (2.3 million) for May 1999 compared with 34% (1.4 million) in the 12 months to May 1998. For 40–54 year olds, the figure was 39% (1.5 million) to May 1999 compared with 28% (1.0 million) to May 1998 and for persons aged 55 years and over it was 10% (0.4 million) to May 1999 compared with only 5% (0.2 million) to May 1998.

ADULTS ACCESSING THE INTERNET, By Age(a)



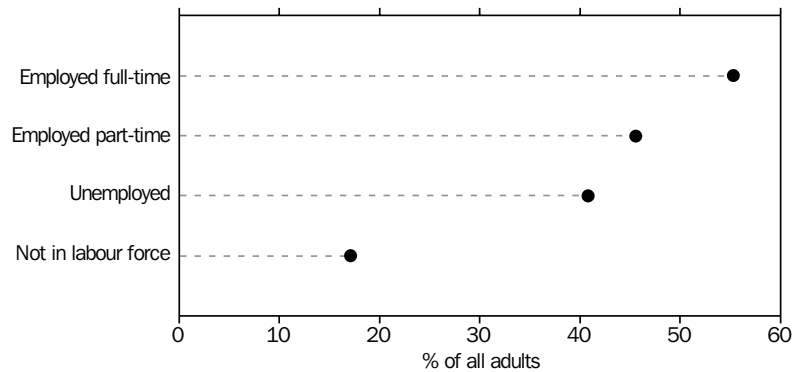
(a) Period of access covers the 12 months to May 1998 or May 1999.

By sex Approximately 44% of adult males (2.9 million) had accessed the Internet in the 12 months to May 1999. The corresponding figure for females was 37% (2.5 million). In the 12 months to May 1998, 29% of adult males (1.9 million) accessed the Internet from any site compared with 24% of adult females (1.7 million).

By labour force status Nearly 55% of adults employed full-time (3.4 million) had accessed the Internet in the 12 months to May 1999. For other labour force categories:

- 46% of adults employed part-time (1.0 million) accessed the Internet in the 12 months to May 1999;
- 41% of unemployed adults (0.2 million) accessed the Internet in the 12 months to May 1999; and
- 17% of adults not in the labour force (0.8 million) had accessed the Internet in the 12 months to May 1999.

ADULTS ACCESSING THE INTERNET, By Labour Force Status(a)



(a) Period of access covers the 12 months to May 1999.

By region Of the 5.5 million adults who accessed the Internet from any site in the 12 months to May 1999, nearly 72% resided in capital cities compared with 74% in the 12 months to May 1998. In the 12 months to May 1999, 44% of adults in capital cities (3.9 million) accessed the Internet from any site compared with 33% (1.5 million) in other areas. In the 12 months to May 1998, 30% of adults in capital cities (2.6 million) accessed the Internet compared with 20% of adults (0.9 million) in other areas.

FREQUENCY OF INTERNET ACCESS

By households Of the 1.5 million households with home Internet access at May 1999, nearly 43% accessed the Internet daily, 37% accessed it two to six times a week and 12% once a week (giving 92% of Internet households which frequently accessed the Internet). There was no significant differences in the frequency of Internet access between Internet households in capital cities and their counterparts in other areas of Australia. For both regions, 92% of Internet households accessed the Internet frequently (once a week or more). Proportionally, slightly more Internet households in capital cities accessed the Internet daily (44%) compared to 40% of Internet households in other areas.

By adults Of the 2.3 million adults who accessed the Internet from home in the 12 months to May 1999:

- 35% accessed the Internet daily;
- 30% accessed it two to six times a week; and
- 19% once a week (giving a total of 84% of these adults who frequently accessed the Internet from home).

Of the 2.7 million adults who accessed the Internet from work in the 12 months to May 1999:

- 48% accessed the Internet daily;
- 16% accessed it two to six times a week; and
- 12% once a week (giving a total of 76% of these adults who frequently accessed the Internet from work).

Of the 3.1 million adults who accessed the Internet from any other site in the 12 months to May 1999:

- 3% accessed the Internet daily;
- 12% accessed it two to six times a week; and
- 9% once a week (giving a total of 24% of these adults who frequently accessed the Internet from other sites).

By sex Approximately 89% of males who accessed the Internet at home did so frequently compared with 77% for females. For other sites of Internet access:

- 76% of males who accessed the Internet at work did so frequently compared with 72% for females; and
- 25% of females who accessed the Internet at sites other than home or work did so frequently compared with 23% for males.

FREQUENCY OF COMPUTER USE

By households There was considerable difference in the frequency of home computer use between households with home Internet access and households with a home computer and no home Internet access.

Nearly 76% of households with home Internet access used the home computer daily compared with 40% of households with a home computer and no Internet access. Just over 98% of Internet households used the home computer frequently (once a week or more) compared with 81% for households with a home computer and no home Internet access.

ELECTRONIC COMMERCE ACTIVITIES

Purchasing/ordering goods or services via the Internet Nearly 5% of Australian adults (650,000) used the Internet to purchase or order goods or services for their own private use in the 12 months to May 1999. These Internet shoppers made an estimated 3 million purchases or orders via the Internet and nearly 76% of Internet shoppers paid for their purchases online. By comparison, in the 12 months to May 1998, an estimated 409,000 adults purchased or ordered goods or services via the Internet.

Nearly 71% of Internet shoppers (459,000) were at home when making purchases or orders via the Internet. Just over 41% of Internet shoppers made their purchases only from Australia, 43% made them only from overseas, and 16% from both Australia and overseas.

Number of purchases Of the 650,000 Internet shoppers:

- 30% made one purchase or order via the Internet;
- 22% made two;
- 18% made three;
- 3% made four; and
- 22% made five or more.

Period of Internet purchases Nearly 45% of adult Internet shoppers undertook an order or purchase during the period April to May 1999, 43% undertook Internet purchases during the period January to March 1999, 48% during the period September to December 1998 and 33% May to August 1998.

Types of goods or services purchased or ordered via the Internet Of the 650,000 adults undertaking purchases or orders via the Internet in the 12 months to May 1999:

- 38% reported purchasing books or magazines;
- 34% reported purchasing computer software or equipment;
- 14% reported purchasing music;
- 11% clothing or shoes;
- 9% holidays;
- 8% tickets to entertainment events; and
- 4% sporting equipment.

EXPENDITURE ON GOODS
OR SERVICES PURCHASED
VIA THE INTERNET

Total expenditure Of the 650,000 adults making purchases via the Internet in the 12 months to May 1999:

- 14% spent up to \$50 on Internet purchases;
- 22% spent \$51–\$100;
- 21% spent \$101–\$250;
- 13% spent \$251–\$500; and
- 29% spent more than \$500.

Total online expenditure Of the 492,000 Internet shoppers at May 1999 who paid for their purchases online:

- 14% spent up to \$50;
- 28% spent \$51–\$100;
- 28% spent \$101–\$250;
- 10% spent \$251–\$500; and
- 20% spent more than \$500.

PAYING BILLS OR
TRANSFERRING FUNDS

In the three months to May 1999:

- 2% of all adults (270,000) used the Internet to pay bills or transfer funds;
- 2% of all adults (221,000) used an electronic information kiosk to pay bills;
- 39% (5.3 million) used a telephone to pay bills or transfer funds;
- 62% (8.4 million) used EFTPOS; and
- 72% (9.8 million) used an ATM.

By comparison, in the three months to May 1998:

- less than 1% of adults (73,000) used the Internet to pay bills or transfer funds;
- less than 1% of adults (51,000) used an electronic information kiosk to pay bills;
- 30% (4.0 million) used a telephone to pay bills or transfer funds;
- 59% (7.9 million) used EFTPOS; and
- 68% (9.1 million) used an ATM.

By sex Sex was not a significant influence in the use of the more established forms of electronic commerce by adults. A similar proportion of males and females used the telephone to transfer funds or pay bills (40% and 39%) or used an ATM to withdraw or transfer funds (73% and 71%). However, a slightly higher proportion of females used EFTPOS than males (64% compared with 60%).

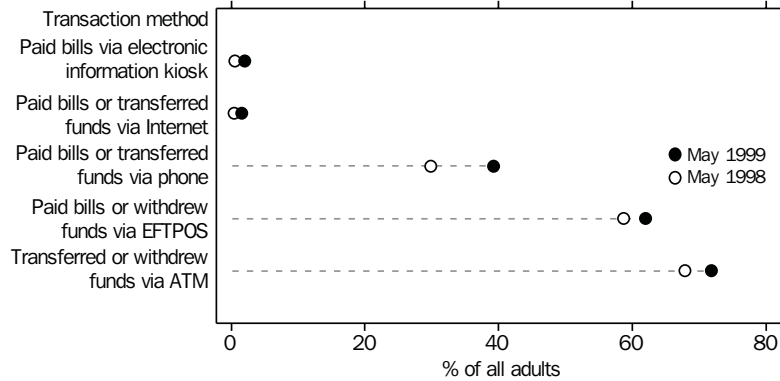
While the use of the Internet for banking or bill payment purposes is still relatively low, a slighter higher proportion of males used these facilities than females (nearly 3% for males and less than 2% for females).

By age The proportion of adults who used EFTPOS or ATMs in the three months to May 1999 varied with age:

- 80% of persons aged 18–24 years used EFTPOS and 92% had used an ATM;
- 80% of 25–39 year olds used EFTPOS and 87% used an ATM;
- 65% of 40–54 years olds used EFTPOS and 76% an ATM; and
- only 29% of persons aged 55 years or more used EFTPOS and 40% an ATM.

By age Use of telephone banking or telephone bill payment was highest amongst 25–39 year olds (48%) and 40–54 year olds (45%). Nearly 38% of 18–24 year olds used telephone banking and bill payment compared with 24% for persons aged 55 years or more.

ADULTS UNDERTAKING SELECTED ELECTRONIC COMMERCE(a)



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

Teleworking At May 1999, nearly 7% of employed adults (0.6 million persons) reported that they were able to access their employer's computer system from home via a modem compared with 2% (0.2 million) of employed adults at May 1998. At May 1999, nearly 5% of employed adults (0.4 million persons) reported that they had a teleworking agreement with their employer to access their computer via a modem so that they could work from home compared with 2% (0.2 million) of employed persons at May 1998.

1 ACCESS TO THE INTERNET

					May 1999		Change since May 1998
	May 1998	August 1998	November 1998	February 1999	'000	%	
	'000	'000	'000	'000			
Households with a home computer(a)	2 879	3 195	3 240	3 167	3 245	47.2	12.7
Households with home Internet access(a)	971	1 245	1 272	1 277	1 524	22.2	57.0
Adults accessing the Internet(b)(c)							
from home	1 433	1 883	1 670	1 681	2 311	17.0	61.3
from work	1 541	1 903	1 930	2 499	2 733	20.1	77.4
from neighbour's/friend's house	877	934	1 114	1 491	1 607	11.8	83.2
from TAFE/University	777	933	802	1 018	1 014	7.5	30.5
from public library	418	395	413	692	744	5.5	78.0
from shops/ stores/ telecafes	178	157	189	221	336	2.5	88.8
from school	152	104	111	273	223	1.6	46.7
from government agency/ department/ shopfront	*57	*37	99	197	180	1.3	215.8
from other sites(d)	123	107	116	252	299	2.2	143.1
from any site	3 555	4 233	4 192	5 001	5 465	40.2	53.7

(a) Proportions are of all households.

(b) Proportions are of all adults.

(c) Persons can nominate more than one site.

(d) Includes telecentres and community or voluntary organisations.

2 HOUSEHOLDS WITH HOME INTERNET ACCESS(a)

	May 1998		May 1999	
	'000	%	'000	%
FAMILY TYPE				
Couple with no children	196	11.6	274	16.2
Couple with children	484	20.2	833	36.3
Single parent with children	68	11.2	91	13.0
Single person	75	5.0	110	8.1
Other	148	23.2	217	26.4
REGION				
Capital cities	770	18.0	1 108	25.5
Rest of Australia	201	7.9	417	16.6
Australia	971	14.2	1 524	22.2

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

3

HOUSEHOLDS WITH HOME INTERNET ACCESS BY LEVEL OF INTERNET ACCESS(a)

	<i>Email</i>			<i>Other Internet services such as the World Wide Web</i>		
	<i>Yes</i>	<i>No</i>	<i>Don't know</i>	<i>Yes</i>	<i>No</i>	<i>Don't know</i>
	%	%	%	%	%	%
FAMILY TYPE						
Couple with no children	98.7	1.3	0.0	98.2	0.5	1.2
Couple with children	95.4	2.1	2.5	90.3	5.1	4.6
Single parent with children	96.6	3.4	0.0	94.7	5.3	0.0
Single person	91.9	4.0	4.1	92.3	3.7	4.1
Other	95.6	2.6	1.8	90.8	3.4	5.9
REGION						
Capital cities	95.8	1.8	2.5	92.3	3.6	4.1
Rest of Australia	96.1	3.6	0.4	91.8	4.9	3.3
Australia	95.8	2.3	1.9	92.2	4.0	3.8

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

4

HOUSEHOLDS WITH HOME INTERNET ACCESS, BY FREQUENCY OF INTERNET USE(a)

<i>Frequency of Internet access</i>	<i>Capital cities</i>		<i>Rest of Australia</i>		<i>Australia</i>	
	<i>'000</i>	<i>%</i>	<i>'000</i>	<i>%</i>	<i>'000</i>	<i>%</i>
Daily	488	44.0	166	39.8	654	42.9
2-6 times a week	404	36.5	164	39.3	568	37.3
Once a week	128	11.5	50	12.1	178	11.7
Once every 2 weeks or less	74	6.6	35	8.4	109	7.1
Not at all	*14	*1.3	**2	**0.4	*16	*1.0
Total	1 108	100.0	417	100.0	1 524	100.0

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

5 HOUSEHOLDS WITH A HOME COMPUTER, BY FREQUENCY OF COMPUTER USE

Frequency of computer use	Households with a home computer and no Internet access(a)		Households with home Internet access(b)		All households with a home computer(c)(d)	
	'000	%	'000	%	'000	%
Daily	688	40.3	1 158	75.9	1 854	57.1
2-6 times a week	487	28.5	297	19.5	788	24.3
Once a week	211	12.4	*41	*2.7	252	7.8
Once every 2 weeks	79	4.6	—	—	79	2.5
Once every month or less	167	9.8	*22	*1.5	189	5.8
Not at all	75	4.4	**6	**0.4	81	2.5
Don't know	**1	**0.1	—	—	**2	**0.1
Total	1 708	100.0	1 524	100.0	3 245	100.0

(a) Proportions are of households with a home computer and no Internet access.

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

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

(d) Includes home computer households which did not know if they had home Internet access.

6 INTENTIONS OF HOUSEHOLDS TO ACQUIRE INTERNET ACCESS

	Households with home Internet access at May 1998	Households intending to acquire home Internet access in the 12 months from May 1998	Households with home Internet access at May 1999	Households intending to acquire home internet access in the next 12 months from May 1999(a)	
	'000	'000	'000	'000	%
FAMILY TYPE					
Couple with no children	196	87	274	134	37.4
Couple with children	484	327	833	347	44.9
Single parent with children	68	*25	91	59	24.4
Single person	75	*44	110	50	39.2
Other	148	*44	217	94	45.3
REGION					
Capital cities	770	361	1 108	483	42.3
Rest of Australia	201	166	417	201	35.5
Australia	971	527	1 524	684	40.0

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

	Site of Internet access							
	Home		Work		Other sites		Any site	
	'000	%	'000	%	'000	%	'000	%
MAY 1999(c)								
Age								
18-24	480	26.7	399	22.1	1 148	63.7	1 340	74.4
25-39	885	20.8	1 338	31.5	1 200	28.2	2 270	53.4
40-54	771	20.0	866	22.5	614	15.9	1 491	38.7
55+	174	4.8	130	3.5	178	4.9	364	9.9
Sex								
Males	1 324	19.8	1 536	23.0	1 734	26.0	2 941	44.0
Females	987	14.3	1 197	17.3	1 406	20.4	2 524	36.5
Labour force status								
Employed full-time	1 435	23.2	2 322	37.6	1 673	27.1	3 416	55.3
Employed part-time	483	21.1	292	12.8	660	28.8	1 044	45.6
Unemployed	*62	*11.5	*61	*11.3	195	35.9	221	40.8
Not in the labour force	330	7.2	*57	*1.2	613	13.4	784	17.1
Region								
Capital cities	1 659	18.7	2 037	22.9	2 214	24.9	3 917	44.1
Rest of Australia	652	13.9	696	14.8	926	19.7	1 547	32.9
Total	2 311	17.0	2 733	20.1	3 141	23.1	5 465	40.2
MAY 1998(c)								
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
Region								
Capital cities	1 157	13.4	1 156	13.3	1 371	15.8	2 613	30.2
Rest of Australia	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) 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	%
MALES						
Daily	514	38.8	756	49.3	56	3.2
2-6 times a week	428	32.3	243	15.8	218	12.6
Once a week	237	17.9	172	11.2	123	7.1
Once every 2 weeks	83	6.3	*57	*3.7	84	4.9
Once a month or less	*62	*4.7	274	17.8	1 218	70.2
Don't know	—	—	*33	*2.2	*36	*2.1
Total	1 324	100.0	1 536	100.0	1 734	100.0
FEMALES						
Daily	291	29.5	542	45.3	*34	*2.4
2-6 times a week	264	26.7	180	15.1	157	11.2
Once a week	209	21.2	141	11.8	164	11.7
Once every 2 weeks	79	8.0	89	7.4	*71	*5.1
Once a month or less	144	14.6	246	20.5	921	65.5
Don't know	—	—	—	—	*59	*4.2
Total	987	100.0	1 197	100.0	1 406	100.0
PERSONS						
Daily	805	34.8	1 298	47.5	89	2.8
2-6 times a week	692	29.9	423	15.5	375	11.9
Once a week	446	19.3	313	11.5	287	9.1
Once every 2 weeks	162	7.0	146	5.4	155	5.0
Once a month or less	206	8.9	519	19.0	2 139	68.1
Don't know	—	—	*33	*1.2	95	3.0
Total	2 311	100.0	2 733	100.0	3 141	100.0

(a) Internet access occurring in the 12 months to May 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)	650	4.8
Location from which order made(c)		
Home	459	70.6
At work	219	33.7
Other	*44	*6.7
Location of purchase(c)		
Australia only	264	40.7
Overseas only	281	43.3
Both Australia and Overseas	104	16.1
Goods purchased and paid for online(c)	492	75.7
Number of purchases(c)		
One	197	30.4
Two	144	22.2
Three	114	17.5
Four	*19	*2.9
Five or more	144	22.2
Don't know	*31	*4.8
Period of purchase(c)		
April-May 99	292	45.0
Jan-Mar 99	282	43.3
Sep-Dec 98	312	47.9
May-Aug 98	213	32.8
Other	148	22.8
Can't remember don't know	*35	*5.4
Type of goods purchased by adults(c)		
Music	91	14.0
Book/magazines	250	38.4
Computer software/equipment	222	34.1
Clothing, shoes etc.	*68	*10.5
Sporting equipment	*22	*3.5
Holidays	*55	*8.5
Entertainment/tickets to entertainment events	*50	*7.6
Other	148	22.8

(a) Relates to private purchases undertaken in the 12 months to May 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>Level of expenditure</i>	<i>Adults making purchases or orders via the Internet(b)</i>		<i>Adults paying for Internet purchases online(c)</i>	
	'000	%	'000	%
\$1-\$50	90	13.9	70	14.3
\$51-\$100	140	21.6	137	27.8
\$101-\$250	135	20.8	139	28.3
\$251-\$500	87	13.4	*48	*9.8
More than \$500	187	28.8	98	19.9
Don't know	**10	**1.5	—	—
Total	650	100.0	492	100.0

(a) Period covers the 12 months to May 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>Type of electronic transaction</i>	<i>May 1998(b)</i>		<i>May 1999(c)</i>	
	'000	%	'000	%
Paid bills or transferred funds via Internet	*73	*0.6	270	2.0
Paid bills via an information kiosk	*51	*0.4	221	1.6
Paid bills or transferred funds via phone	4 020	29.9	5 335	39.3
Paid bills or withdrew funds via EFTPOS	7 893	58.7	8 425	62.0
Transferred or withdrew funds via ATM	9 134	67.9	9 757	71.8

(a) Proportions are of all adults.

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

(c) Period covers the 3 months to May 1999.

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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)	176	137	2 666	3 993	4 853
Females ('000)	94	83	2 669	4 432	4 904
Males (%)	2.6	2.1	39.9	59.8	72.7
Females (%)	1.4	1.2	38.6	64.2	71.0
AGE					
18-24 ('000)	**7	**17	676	1 445	1 663
25-39 ('000)	185	85	2 061	3 402	3 713
40-54 ('000)	*56	82	1 721	2 508	2 914
55+ ('000)	*22	*37	877	1 071	1 466
18-24 (%)	**0.4	1.0	37.5	80.2	92.3
25-39 (%)	4.3	2.0	48.4	80.0	87.3
40-54 (%)	*1.5	2.1	44.6	65.0	75.6
55+ (%)	*0.6	*1.0	23.9	29.2	39.9
REGION					
Capital cities ('000)	236	159	3 907	5 592	6 476
Rest of Australia ('000)	*33	*61	1 428	2 834	3 282
Australia ('000)	270	221	5 335	8 425	9 757
Capital cities (%)	2.7	1.8	44.0	63.0	72.9
Rest of Australia (%)	*0.7	*1.3	30.4	60.2	69.7
Australia (%)	2.0	1.6	39.3	62.0	71.8

(a) Period covers the 3 months to May 1999.

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

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ADULTS TELEWORKING(a)

	<i>May 1998</i>		<i>May 1999</i>	
	<i>'000</i>	<i>%</i>	<i>'000</i>	<i>%</i>
Able to access employer's computer from home through a modem	157	1.9	587	6.9
Have an agreement with an employer to access their computer via a modem to work from home	150	1.8	412	4.9

(a) Proportions are of all employed adults.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

1 During May 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;
- frequent phone line 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 and February 1999 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

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 19 chances in 20 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.

Size of estimate	Standard error for persons 18+		Standard error for households	
	May 1998	May 1999	May 1998	May 1999
'000	'000	'000	'000	'000
5	3.3	3.6
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 households with home Internet accessed at May 1999. An estimate of 1,524,000 households has a standard error of around 43,400. 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 1,480,600 to 1,567,400. There are about 19 chances in 20 (95%) that the true value is in the range 1,437,200 to 1,610,800.

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 May 1998 is 553,000. The standard error on this movement is about 54,100. Therefore we can say that there are two chances in three that the true value is within the range 498,900 to 607,100 and 19 chances in 20 that the true value is in the range 444,800 to 661,200.

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 (May 1998 to May 1999)</i>
	<i>'000</i>
Households with home Internet access	54 100
Adults accessing the Internet from home	88 870

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)

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.

SYMBOLS AND OTHER
USAGES

ABS	Australian Bureau of Statistics
ATM	Automatic Teller Machine
EFTPOS	Electronic Funds Transfer at Point of Sale
TAFE	Tertiary and Further Education
*	Estimates have a relative standard error of 25% or more
**	Estimates have a relative standard error of 50% or more
—	nil or round to zero

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- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 75c per minute).
- DIAL-A-STATISTIC* For the latest figures for National Accounts, Balance of Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 75c per minute).
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