



USE OF THE INTERNET BY HOUSEHOLDERS

AUSTRALIA

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- For further information about these and related statistics, contact John Ovington on Canberra 02 6252 5189, or Client Services in any ABS office as shown on the back cover of this publication.

NOTES

FORTHCOMING ISSUES	<p><i>ISSUE (Quarter)</i></p> <p>November 1999</p> <p>February 2000</p>	<p><i>EXPECTED RELEASE DATE</i></p> <p>1 March 2000</p> <p>28 May 2000</p>
ABOUT THIS PUBLICATION	<p>This publication presents a selection of results from a survey conducted in August 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 August 1999 survey is the third of four surveys planned for 1999. Surveys for February 1999 and May 1999 have already been conducted and associated data released, with one other remaining for 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. Questions on the use of the Internet 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.).</p>	
OTHER PUBLICATIONS	<p><i>Use of the Internet by Householders</i> (Cat. no. 8147.0) is released from the February, May, August and November surveys of Household Use of Information Technology. The November survey results are expected to be released in March 2000. <i>Household Use of Information Technology, Australia, 1998</i> (Cat. no. 8146.0) is based on the consolidated surveys for the four quarters and also included 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>** Estimates have a relative standard error of 50% or more</p> <p>— nil or round to zero</p>	
	<p>W. McLennan Australian Statistician</p>	

MAIN FEATURES

INTERNET ACCESS

By households At August 1999 it was estimated that nearly 23% of all households (1.6 million) had home Internet access, an increase of 333,000 or nearly 27% over the August 1998 estimate where only 18% of households had Internet access. The proportion of households with a home computer at August 1999 has risen only slightly since August 1998, to 48% or 3.4 million households, up from 46% of households.

Adults accessing the Internet An estimated 5.6 million adults accessed the Internet at some time over the 12 months to August 1999 which was 41% of Australia's total adult population. In comparison, nearly 4.2 million adults accessed the Internet at some time over the 12 months to August 1998 which was 32% of Australia's adult population.

PLACE OF INTERNET ACCESS

In the 12 month period to August 1999, work and home were the most frequently reported places for Internet access by adults (2.6 million adults for work and nearly 2.4 million adults for home). Other reported sites of Internet access included:

- friend's or neighbour's house, 1.5 million adult Internet users;
- TAFE/tertiary institutions, 0.9 million adults;
- public libraries, 0.9 million adults;
- shops, stores or telecafes, 0.4 million adults;
- schools, 0.2 million adults each; and
- government agencies/departments, 0.1 million adults.

CHARACTERISTICS OF HOUSEHOLDS WITH HOME INTERNET ACCESS

By family type At August 1999, 36% of households of the family type, 'couple with children' had home Internet access, compared with 25% at August 1998. Households of this type accounted for 55% of Internet households at August 1999 and 46% at August 1998. At August 1999, 16% of households of the type 'couple with no children' had home Internet access and 16% of households of the type 'single parent' were connected to the Internet, compared with 17% and 11% respectively at August 1998.

By region Of the nearly 1.6 million households with Internet access at August 1999, 74% (1.2 million households) were located in capital cities. Of the 1.2 million households with Internet access at August 1998, just over 72% (895,000) were located in capital cities. At August 1999, just under 26% of capital city households had home Internet access compared with 17% of households in other areas of Australia. The comparable details for August 1998 were 20% and 14%.

LEVEL OF INTERNET ACCESS

Nearly 96% of households with Internet access reported that they had access to the World Wide Web while 2% did not know the level of connection to the Internet.

INTENTIONS TO ACQUIRE HOME INTERNET ACCESS

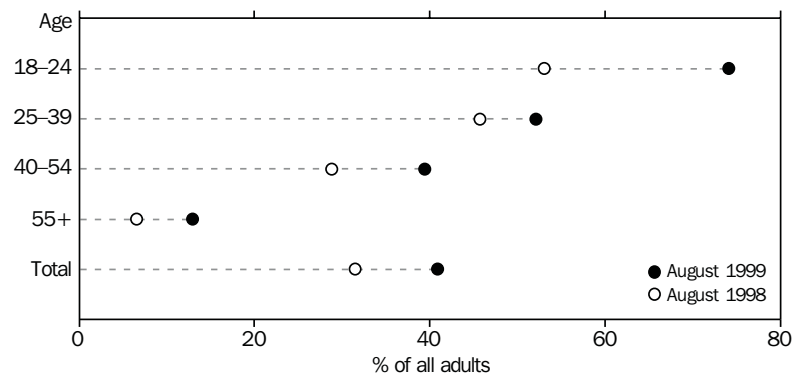
At August 1999, there were 672,000 households with a computer which intended to acquire home Internet access in the next 12 months. This compares with 576,000 households at August 1998.

CHARACTERISTICS OF INTERNET USERS

In the 12 months to August 1999, 41% of adults (5.6 million) accessed the Internet from any site. This compares with 32% (4.2 million) in the 12 months to August 1998. Between August 1998 and August 1999 there has been no change in the dominant characteristics of adults accessing the Internet.

By age In the 12 months from August 1998 to August 1999 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 August 1999 compared with 53% (1.0 million) in the 12 months to August 1998. For persons aged 25–39 years the estimate was 52% (2.2 million) for August 1999 compared with 46% (1.9 million) in the 12 months to August 1998. For 40–54 year olds, the figure was 39% (1.5 million) to August 1999 compared with 29% (1.1 million) to August 1998 and for persons aged 55 years and over it was 13% (0.5 million) to August 1999 compared with only 7% (0.2 million) to August 1998.

ADULTS ACCESSING THE INTERNET BY AGE(a)



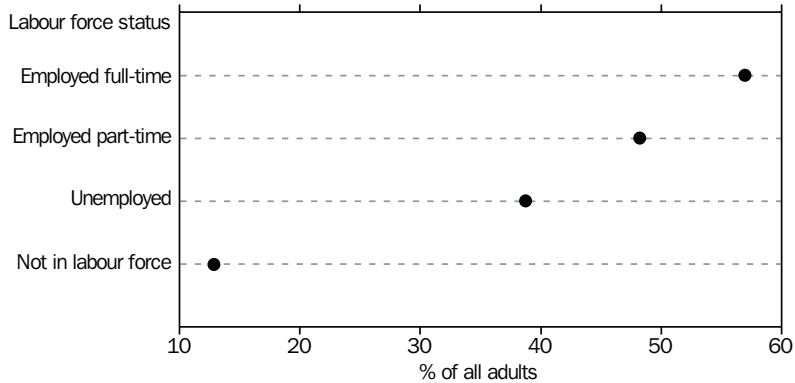
(a) Period of access covers the 12 months to August.

By sex Approximately 46% of adult males (3.0 million) had accessed the Internet in the 12 months to August 1999. The corresponding figure for females was 36% (2.5 million). In the 12 months to August 1998, 35% of adult males (2.3 million) accessed the Internet from any site compared with 28% of females (1.9 million).

By labour force status Nearly 57% of adults employed full-time (3.4 million) had accessed the Internet in the 12 months to August 1999. For other labour force categories:

- 48% of adults employed part-time (1.2 million) accessed the Internet in the 12 months to August 1999;
- 39% of unemployed adults (0.2 million) accessed the Internet in the 12 months to August 1999; and
- 16% of adults not in the labour force (0.7 million) had accessed the Internet in the 12 months to August 1999.

ADULTS ACCESSING THE INTERNET, BY LABOUR FORCE STATUS(a)



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

By region Of the 5.6 million adults who accessed the Internet from any site in the 12 months to August 1999, nearly 71% resided in capital cities compared with 73% in the 12 months to August 1998. In the 12 months to August 1999, 44% of adults in capital cities (3.9 million) accessed the Internet from any site compared with 35% (1.6 million) in other areas. In the 12 months to August 1998, 35% of adults in capital cities (3.1 million) accessed the Internet compared with 24% of adults (1.2 million) in other areas.

FREQUENCY OF INTERNET ACCESS

By households Of the 1.6 million households with home Internet access at August 1999, 40% accessed the Internet daily, 39% accessed it two to six times a week and 12% once a week. The frequency of Internet access between Internet households in capital cities and their counterparts in other areas of Australia varied slightly, with 43% of Internet households in capital cities accessing the Internet daily, compared with 32% of Internet households in other areas. However, the proportion of Internet households accessing the Internet once a week or more was very similar—92% in capital cities compared with 91% in other areas of Australia.

By adults Of the 2.4 million adults who accessed the Internet from home in the 12 months to August 1999:

- 32% accessed the Internet daily;
- 32% accessed it two to six times a week; and
- 14% once a week (giving a total of 78% of these adults who accessed the Internet once a week or more from home).

Of the 2.6 million adults who accessed the Internet from work in the 12 months to August 1999:

- 44% accessed the Internet daily;
- 19% accessed it two to six times a week; and
- 14% once a week (giving a total of 77% of these adults who accessed the Internet once a week or more from work).

Of the 3.0 million adults who accessed the Internet from any other site in the 12 months to August 1999:

- 5% accessed the Internet daily;
- 9% accessed it two to six times a week; and
- 10% once a week (giving a total of 24% of these adults who accessed the Internet from other sites).

By sex Approximately 82% of males who accessed the Internet at home did so once a week or more compared with 75% for females. For other sites of Internet access:

- 79% of males who accessed the Internet at work did so once a week or more compared with 73% for females; and
- 25% of females who accessed the Internet at sites other than home or work did so once a week or more 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.

Of households with home Internet access, 73% used the home computer daily, compared with 39% of households with a home computer and no Internet access. Just over 98% of Internet households used the home computer once a week or more compared with 78% 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 (652,000) used the Internet to purchase or order goods or services for their own private use in the 12 months to August 1999. By comparison, in the 12 months to August 1998, an estimated 425,000 (3%) adults purchased or ordered goods or services via the Internet. In the 12 months to August 1999, 80% of Internet shoppers paid for their purchases online compared with 77% in the 12 months to August 1998.

Nearly 73% of Internet shoppers (478,000) were at home when making purchases or orders via the Internet. Just over 44% of Internet shoppers made their purchases only from Australia, 43% made them only from overseas, and 14% from both Australia and overseas.

Number of purchases Of the 652,000 Internet shoppers:

- 31% made one purchase or order via the Internet;
- 25% made two;
- 12% made three;
- 4% made four; and
- 27% made five or more.

Period of Internet purchases Nearly 50% of adult Internet shoppers undertook an order or purchase during the period July to August 1999, 42% undertook Internet purchases during the period March to June 1999, 31% during the period November to February 1999 and 29% September to October 1998.

Types of goods or services purchased or ordered via the Internet Of the 652,000 adults undertaking purchases or orders via the Internet in the 12 months to August 1999:

- 43% reported purchasing books or magazines;
- 30% reported purchasing computer software or equipment;
- 17% reported purchasing music;
- 9% reported purchasing tickets to entertainment events;
- 9% reported purchasing holidays;
- 5% reported purchasing sporting equipment; and
- 4% clothing/shoes.

EXPENDITURE ON GOODS
OR SERVICES PURCHASED
VIA THE INTERNET

Total expenditure Of the 652,000 adults making purchases via the Internet in the 12 months to August 1999:

- 19% spent up to \$50 on Internet purchases;
- 23% spent \$51–\$100;
- 15% spent \$101–\$250;
- 26% spent \$251–\$500; and
- 16% spent more than \$500.

Total online expenditure Of the 522,000 Internet shoppers at August 1999 who paid for their purchases online:

- 16% spent up to \$50;
- 32% spent \$51–\$100;
- 15% spent \$101–\$250;
- 23% spent \$251–\$500; and
- 13% spent more than \$500.

PAYING BILLS OR
TRANSFERRING FUNDS

In the three months to August 1999:

- 3% of all adults (457,000) used the Internet to pay bills or transfer funds;
- 1% of all adults (151,000) used an electronic information kiosk to pay bills;
- 40% of all adults (5.4 million) used a telephone to pay bills or transfer funds;
- 62% of all adults (8.4 million) used EFTPOS; and
- 70% of all adults (9.5 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 undertook the following electronic commerce transactions:

- transferred funds or paid bills via the telephone (39% of males and 40% of females);
- paid bills or withdrew funds via EFTPOS (62% of males and 61% of females); and
- transferred or withdrew funds via an ATM (71% of males and 69% of females).

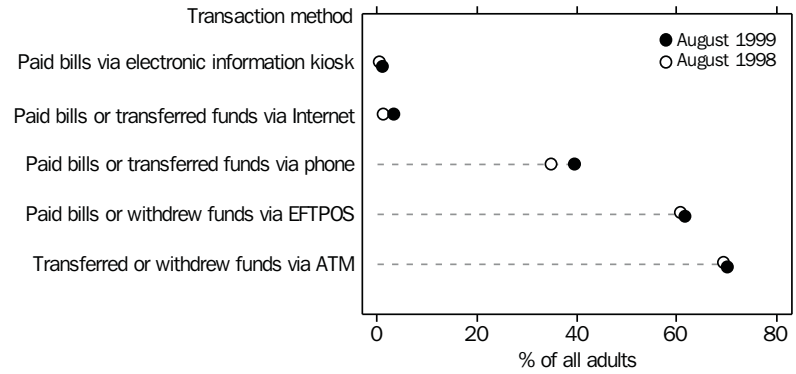
While the use of the Internet for banking or bill payment purposes is still relatively low, a slighter higher proportion of males used these facilities than females (nearly 5% for males and 2% for females).

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

- 74% of persons aged 18–24 years used EFTPOS and 84% had used an ATM;
- 80% of 25–39 year olds used EFTPOS and 88% used an ATM;
- 60% of 40–54 years olds used EFTPOS and 73% an ATM; and
- only 36% of persons aged 55 years or more used EFTPOS and 40% an ATM.

Use of telephone banking or telephone bill payment was highest amongst 25–39 year olds (53%) and 40–54 year olds (43%). Nearly 32% of 18–24 year olds used telephone banking or bill payment compared with 25% for persons aged 55 years or more.

ADULTS UNDERTAKING SELECTED ELECTRONIC COMMERCE(a)



(a) Period of access covers the 3 months to August.

Teleworking At August 1999, 6% of employed adults (544,000 persons) reported that they were able to access their employer's computer system from home via a modem compared with 2% (359,000) of employed adults at August 1998. At August 1999, nearly 5% of employed adults (402,000 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% (273,000) of employed persons at August 1998.

1

ACCESS TO THE INTERNET

	August 1999						Change since August 1998
	August 1998	November 1998	February 1999	May 1999	August 1999		
	'000	'000	'000	'000	'000	%	
Households with a home computer(a)	3 195	3 240	3 167	3 245	3 380	48.5	**5.8
Households with home Internet access(a)	1 245	1 272	1 277	1 524	1 578	22.6	26.8
Adults accessing the Internet(b)(c)							
from home	1 883	1 670	1 681	2 311	2 364	17.4	26.8
from work	1 903	1 930	2 499	2 733	2 642	19.4	38.8
from neighbour's/friend's house	934	1 114	1 491	1 607	1 522	11.2	62.9
from TAFE/tertiary institution	933	802	1 018	1 014	904	6.7	** -3.0
from public library	395	413	692	744	900	6.6	127.7
from shops/stores/telecafes	157	189	221	336	371	2.7	136.3
from school	104	111	273	223	201	1.5	*93.7
from government agency/department/shopfront	*37	99	197	180	142	1.0	*285.9
from other sites(d)	107	116	252	299	365	2.7	241.4
from any site	4 233	4 192	5 001	5 465	5 553	40.9	31.3

(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)

	August 1998		August 1999	
	'000	%	'000	%
FAMILY TYPE				
Couple with no children	291	17.1	271	15.8
Couple with children	571	25.1	868	36.4
Single parent with children	62	10.6	97	16.0
Single person	158	9.6	152	9.6
Other	164	22.1	190	27.8
REGION				
Capital cities	895	20.4	1 163	25.7
Rest of Australia	350	13.7	415	17.0
Australia	1245	17.9	1 578	22.6

(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>		
	Yes	No	Don't know	Yes	No	Don't know
	%	%	%	%	%	%
FAMILY TYPE						
Couple with no children	97.5	2.5	—	97.3	2.1	*0.6
Couple with children	97.8	*1.7	*0.5	95.0	3.3	*1.7
Single parent with children	100.0	—	—	97.9	2.1	—
Single person	97.0	—	3.0	94.9	*1.4	3.7
Other	97.5	2.5	—	95.1	2.4	2.5
REGION						
Capital cities	97.4	2.2	*0.4	94.8	3.6	*1.6
Rest of Australia	98.8	**0.2	*1	97.9	**0.1	2.0
Australia	97.8	*1.7	*0.6	95.6	2.7	*1.7

(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>	
	'000	%	'000	%	'000	%
Daily	502	43.2	135	32.4	637	40.4
2-6 times a week	435	37.4	181	43.6	616	39.0
Once a week	133	11.4	61	14.6	193	12.2
Once every 2 weeks or less	93	8.0	35	8.5	129	8.1
Not at all	—	—	**4	**0.9	**4	**0.2
Total	1 163	100.0	415	100.0	1 578	100.0

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

5 HOUSEHOLDS WITH A HOME COMPUTER, BY FREQUENCY OF USE

Frequency of computer use	Households with a home computer and no Internet access		Households with home Internet access		All households with a home computer(a)(b)	
	'000	%	'000	%	'000	%
Daily	693	38.6	1 156	73.3	1 854	54.8
2-6 times a week	467	26.0	360	22.8	827	24.5
Once a week	239	13.3	37	2.3	275	8.1
Once every 2 weeks	96	5.3	*19	*1.2	116	3.4
Once every month or less	191	10.7	**6	**0.4	197	5.8
Not at all	110	6.1	—	—	111	3.3
Don't know	**1	**0.1	—	—	**1	—
Total	1 797	100.0	1 578	100.0	3 380	100.0

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

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

6 INTENTIONS OF HOUSEHOLDS TO ACQUIRE INTERNET ACCESS

	Households with home Internet access at August 1998	Households with home Internet access at August 1999	Households intending to acquire home Internet access in the next 12 months from August 1999(a)	
	'000	'000	'000	%
FAMILY TYPE				
Couple with no children	291	271	140	38.2
Couple with children	571	868	337	41.4
Single parent with children	62	97	58	32.6
Single person	158	152	57	23.1
Other	164	190	80	42.0
REGION				
Capital cities	895	1 163	454	37.7
Rest of Australia	350	415	218	36.8
Australia	1 245	1 578	672	37.4

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

	Home		Work		Other sites		Site of Internet access	
	'000	%	'000	%	'000	%	'000	%
AUGUST 1999(c)								
Age								
18-24	559	31.0	355	19.7	1 041	57.7	1 336	74.1
25-39	816	19.2	1 199	28.3	1 309	30.9	2 207	52.1
40-54	744	19.0	906	23.2	504	12.9	1 541	39.4
55+	245	6.7	183	5.0	152	4.2	469	12.9
Sex								
Males	1 378	20.6	1 553	23.2	1 629	24.4	3 049	45.6
Females	987	14.3	1 089	15.8	1 377	19.9	2 504	36.2
Labour force status								
employed full-time	1 459	24.1	2 166	35.8	1 571	26.0	3 443	56.9
employed part-time	555	23.0	392	16.2	658	27.2	1 165	48.2
unemployed	100	15.8	**11	**1.7	230	36.3	245	38.7
not in the labour force	250	5.6	73	1.6	548	12.2	700	15.6
Region								
Capital cities	1 716	19.2	1 993	22.3	2 075	23.3	3 926	44.0
Rest of Australia	648	13.9	649	13.9	931	19.9	1 627	34.9
Total	2 364	17.4	2 642	19.4	3 007	22.1	5 553	40.9
AUGUST 1998(c)								
Age								
18-24	373	20.7	206	11.4	738	41.0	957	53.1
25-39	807	18.9	995	23.3	995	23.3	1 949	45.7
40-54	558	14.7	611	16.1	387	10.2	1 095	28.8
55+	145	4.1	91	2.5	*65	*1.8	232	6.5
Sex								
Males	1 130	17.0	1 053	15.9	1 194	18.0	2 337	35.2
Females	753	11.1	850	12.5	991	14.5	1 896	27.8
Labour force status								
employed full-time	1 058	18.4	1 603	27.9	985	17.2	2 448	42.7
employed part-time	460	18.3	224	8.9	617	24.6	967	38.5
unemployed	105	15.2	*43	*6.2	229	33.3	318	46.4
not in the labour force	261	5.9	*33	*0.7	354	8.0	500	11.2
Region								
Capital cities	1 388	16.0	1 372	15.8	1 590	18.3	3 070	35.4
Rest of Australia	495	10.4	531	11.1	595	12.5	1 163	24.3
Total	1 883	14.0	1 903	14.2	2 185	16.2	4 233	31.5

(a) 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 to August.

Frequency of Internet access	Site of Internet access					
	At home		At work		Other site	
	'000	%	'000	%	'000	%
MALES						
Daily	527	38.3	722	46.5	75	4.6
2-6 times a week	400	29.0	278	17.9	107	6.6
Once a week	201	14.6	215	13.8	193	11.9
Once every 2 weeks	84	6.1	78	5.0	85	5.2
Once a month or less	166	12.1	250	16.1	1 112	68.2
Don't know	—	—	**11	**0.7	*57	*3.5
Total	1 378	100.0	1 553	100.0	1 629	100.0
FEMALES						
Daily	237	24.0	426	39.1	78	5.7
2-6 times a week	364	36.9	214	19.6	151	10.9
Once a week	134	13.6	154	14.1	115	8.3
Once every 2 weeks	85	8.6	*54	*4.9	101	7.3
Once a month or less	165	16.7	241	22.1	863	62.6
Don't know	**2	**0.2	**1	**0.1	70	5.1
Total	987	100.0	1 089	100.0	1 377	100.0
PERSONS						
Daily	764	32.3	1 148	43.5	153	5.1
2-6 times a week	764	32.3	491	18.6	258	8.6
Once a week	335	14.2	369	13.9	308	10.2
Once every 2 weeks	168	7.1	132	5.0	186	6.2
Once a month or less	331	14.0	491	18.6	1 974	65.7
Don't know	**2	**0.1	**12	**0.5	127	4.2
Total	2 364	100.0	2 642	100.0	3 007	100.0

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

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

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

	'000	%
Purchased or ordered goods/services(b)	652	4.8
Location from which order made(c)		
Home	478	73.4
At work	131	20.2
Other	*66	*10.2
Location of purchase(c)		
Australia only	285	43.8
Overseas only	277	42.5
Both Australia & Overseas	89	13.6
Goods and services purchased and paid for online(c)	522	80.1
Number of purchases(c)		
One	205	31.4
Two	164	25.2
Three	78	12.0
Four	*25	*3.8
Five or more	173	26.5
Don't know	**7	**1.1
Period of purchase(c)		
Jul-Aug 99	323	49.6
Apr-Jun 99	270	41.4
Jan-Mar 99	201	30.9
Sep-Dec 98	186	28.6
Can't remember/don't know	*52	*8.1
Type of goods purchased by adults(c)		
Music	112	17.2
Book/magazines	282	43.3
Computer software/equipment	195	29.9
Clothing shoes etc.	*23	*3.5
Sporting equipment	*35	*5.3
Holidays	*57	*8.8
Entertainment/tickets to entertainment events	*58	*8.9
Other	157	24.0

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

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

(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	120	18.5	85	16.3
\$51-\$100	153	23.4	166	31.7
\$101-\$250	100	15.4	76	14.7
\$251-\$500	169	26.0	122	23.4
More than \$500	103	15.8	*67	*12.8
Don't know	**6	**0.9	**6	**1.1
Total	652	100.0	522	100.0

(a) Period covers the 12 months to August 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>August 1998(b)</i>		<i>August 1999(c)</i>	
	'000	%	'000	%
Paid bills or transferred funds via Internet	162	1.2	457	3.4
Paid bills via an information kiosk	62	0.5	151	1.1
Paid bills or transferred funds via phone	4 690	34.9	5 363	39.5
Paid bills or withdrew funds via EFTPOS	8 164	60.7	8 368	61.6
Transferred or withdrew funds via ATM	9 332	69.4	9 531	70.1

(a) Proportions are of all adults.

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

(c) Period covers the 3 months to August 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					
	'000	'000	'000	'000	'000
Males	305	76	2 619	4 131	4 770
Females	151	74	2 743	4 237	4 761
	%	%	%	%	%
Males	4.6	1.1	39.2	61.8	71.4
Females	2.2	1.1	39.7	61.4	68.9
AGE					
	'000	'000	'000	'000	'000
18-24	134	**4	569	1 326	1 511
25-39	161	*62	2 227	3 396	3 719
40-54	133	*53	1 659	2 352	2 843
54+	*28	*31	909	1 295	1 458
	%	%	%	%	%
18-24	7.4	**0.2	31.5	73.5	83.8
25-39	3.8	*1.5	52.5	80.1	87.8
40-54	3.4	*1.4	42.5	60.2	72.8
54+	*0.8	*0.9	25.0	35.6	40.0
REGION					
	'000	'000	'000	'000	'000
Capital cities	333	106	3 784	5 692	6 341
Rest of Australia	123	*45	1 579	2 676	3 190
Australia	457	151	5 363	8 368	9 531
	%	%	%	%	%
Capital cities	3.7	1.2	42.4	63.8	71.1
Rest of Australia	2.6	*1	33.8	57.3	68.3
Australia	3.4	1.1	39.5	61.6	70.1

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

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

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ADULTS TELEWORKING(a)

	<i>August 1998</i>		<i>August 1999</i>	
	'000	%	'000	%
Able to access employer's computer from home through a modem	359	2.7	544	6.4
Have an agreement with an employer to access their computer via a modem to work from home	273	2.0	402	4.8

(a) Proportions are of all employed adults.

EXPLANATORY NOTES

POPULATION SURVEY MONITOR

1 During August 1999 the ABS 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; 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 and May 1999 issues of *Use of the Internet by Householders, Australia* (Cat. no. 8147.0). 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 relative standard errors of 25% or more have been marked with an asterisk (*). Estimates with a relative standard error of 50% or more are marked with a double 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	
	August 1998	August 1999	August 1998	August 1999
'000	'000	'000	'000	'000
5	3.3	3.6
10	6.6	7.1	4.7	5.1
20	9.4	10.5	6.7	7.3
50	14.5	17.0	9.9	11.3
100	19.7	23.8	13.3	15.5
200	26.5	32.4	17.8	20.9
500	38.5	46.6	25.2	30.2
800	46.1	55.2	29.5	35.0
1 000	50.4	59.5	32.3	39.2
1 500	57.1	67.7	37.1	43.4
2 000	65.0	73.8	41.8	50.1

Example using the standard error table

6 Consider the estimate of the number of households with home Internet accessed at August 1999. The estimate of 1,578,000 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 1,534,600 to 1,621,400. There are about 19 chances in 20 (95%) that the true value is in the range 1,491,200 to 1,664,800.

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 For example, the increase in the number of households with home Internet access from August 1998 is 333,000. The standard error on this movement is about 55,600. Therefore we can say that there are 2 chances in 3 that the true value is within the range 277,400 to 388,600 and 19 chances in 20 that the true value is in the range 221,800 to 444,200.

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 (August 1998 to August 1999)</i>
	<i>'000</i>
Households with home Internet access	55.6
Adults accessing the Internet from home	83.2

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, 1997–98
(Cat. no. 8129.0)

Government Use of Information Technology, 1997–98 (Cat. no. 8119.0)

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

Use of Information Technology on Farms, Australia, 1999
(Cat. no. 8134.0)

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 John Ovington on Canberra 02 6252 5189 or email john.ovington@abs.gov.au.

SELF-HELP ACCESS TO STATISTICS

- 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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