# Australian Bureau of Statistics



AUSTRALIA

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 For further information about these and related statistics, contact John Ovington on Canberra 02 6252 5189, or the National Information Service on 1300 135 070.

## NOTES

FORTHCOMING ISSUES						
	<i>ISSUE</i> November 2000	RELEASE DATE 23 February 2001				
ABOUT THIS PUBLICATION	Internet access in Au	This publication presents statistics about the extent of computer and Internet access in Australia. It also presents a profile of adult users at home, work and other locations.				
ABOUT THE SURVEY	from 3,200 adults ran	The survey was conducted during August 2000, collecting information from 3,200 adults randomly selected from private households. Households in remote and sparsely settled parts of Australia are excluded from the survey.				
FEATURE ARTICLE	The feature article presents data relating to the computer and Internet activities of children aged 5 to 14 years. This data was collected as part of the April 2000 Labour Force Survey. Details of that survey's methodology can be found in the publication <i>Labour Force, Australia</i> (Cat. no. 6203.0).					
ACCURACY OF ESTIMATES OF MOVEMENT	Users are advised to take care when comparing the data shown in this publication with similar data in previous issues of <i>Use of the Internet by Housebolders, Australia</i> (Cat. no. 8147.0). Some of the data items have high standard errors, so observed differences may be the result of sampling error. Users comparing data in this publication with data from earlier releases should refer to paragraphs 10 and 11 of the Explanatory Notes.					
PUBLICATION RELEASES	Data from the quarterly surveys have been released via the publication <i>Use of the Internet by Householders, Australia</i> (Cat. no. 8147.0). This publication is available for each quarter from May 1998 to May 2000. In addition, the annual publication <i>Household Use of Information Technology, Australia</i> (Cat. no. 8146.0) is available for 1998 and 1999.					
END OF THE QUARTERLY DATA SERIES	The Population Survey Monitor (PSM), through which the quarterly Household Use of Information Technology data are currently collected will be conducted for the last time for the November quarter 2000. Th ABS is currently developing an annual survey vehicle to replace the PS series.					
SYMBOLS AND OTHER USAGES	ATMAutomatic 7EFTPOSElectronic 1TAFETertiary andn.anot availabl*estimates h**estimates h	Bureau of Statistics Teller Machine Funds Transfer at Point of Sale d Further Education le ave a relative standard error between 25% and 50% ave a relative standard error of 50% or more ided to zero				

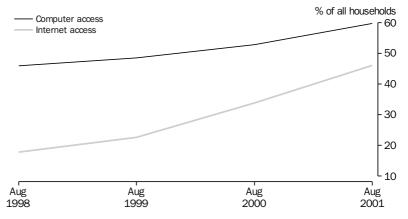
Dennis Trewin Australian Statistician

#### **MAIN FEATURES**

HOUSEHOLD ACCESS TO COMPUTERS AND THE INTERNET By August 2000 over half (53%) of the households in Australia, or 3.7 million households, had access to a computer at home. The number of households with access to the Internet at home rose to 2.4 million, or 34% of all Australian households.

The following graph indicates the increase in the proportion of households with access to a computer or the Internet at home. Included is an estimate for August 2001, based upon the reported intentions of those households without home access at August 2000. While the proportion of households with home access continues to rise for both computers and the Internet, the difference is decreasing.

#### 1 HOUSEHOLD COMPUTER AND INTERNET ACCESS



#### 2 HOUSEHOLD ACCESS TO COMPUTERS OR THE INTERNET(a)

	Households with access to a computer at home			Househo	lds with access	to the Internet at home
	August 1998	August 1999	August 2000	August 1998	August 1999	August 2000
	%	%	%	%	%	%
Household income						
\$0-\$49,999	31	33	37	9	12	19
\$50,000 or more	70	70	75	33	36	51
Households						
With children under 18 years	64	67	72	23	32	47
Without children under 18 years	36	38	42	15	17	27
Region						
Metropolitan areas	51	52	57	20	26	38
Other areas	38	41	46	14	17	26
Total	46	48	53	18	23	34

HOUSEHOLD ACCESS TO COMPUTERS AND THE INTERNET continued Differences in the level of access can be seen when groups of households with distinct characteristics are compared. By August 2000:

- Households with higher incomes were more likely to have access to a computer or the Internet at home. Households with incomes of \$50,000 or more were twice as likely to have access to a computer at home than households with incomes under \$50,000 (75% compared to 37%) and well over twice as likely to have access to the Internet at home (51% compared to 19%).
- Households with children under 18 years were more likely to have computer access than households without children under 18 years. Although 42% of households without children under 18 years of age had access to a computer at home, the proportion of households with children under 18 years that had access was considerably higher (72%). Similarly for home Internet access, 27% of households without children under 18 years had access compared to 47% of households with children under 18 years.
- Households in metropolitan areas were more likely than households in other areas to have access at home, particularly Internet access. Nearly half (46%) of the households outside metropolitan areas had access to a computer at home compared to 57% of households in metropolitan areas. One-quarter (26%) of households outside metropolitan areas had access to the Internet at home compared to 38% of households in metropolitan areas.

#### FREQUENCY OF HOUSEHOLD COMPUTER AND INTERNET USE

Well over half (57%) of the households in Australia with access to a computer at home used it daily. A high proportion (91%) of households used their home computer at least once a week. Households with Internet access tended to use their home computer more frequently than households without Internet access. Households with home Internet access were far more likely than households without home Internet access to use their home computer daily (70% compared to 33%).

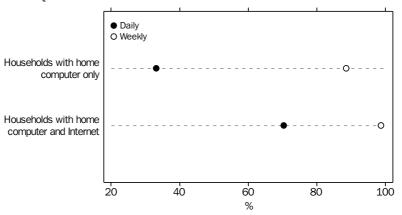
For households with access to the Internet, 44% accessed the Internet daily, while a very high proportion (95%) accessed the Internet at least once a week.

	Computer use(a)	Internet access(b)
Frequency	%	%
Daily	57	44
2-6 times a week	27	41
Once a week	7	10
Once every 2 weeks	2	2
Once every month or less	4	3
Not used	2	—
Total	100	100

#### 3 FREQUENCY OF HOUSEHOLD COMPUTER USE AND INTERNET ACCESS

(a) Proportions are of all households with access to a computer at home, August 2000.

(b) Proportions are of all households with access to the Internet at home, August 2000.



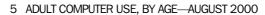
#### 4 FREQUENCY OF HOME COMPUTER USE-AUGUST 2000

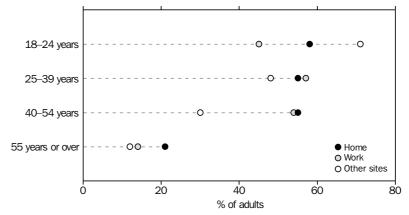
#### CHARACTERISTICS OF ADULT COMPUTER USERS

Two-thirds (66%) of the adults in Australia, or 9.1m adults, used a computer during the 12 months to August 2000. The most popular sites of use were either home (46% of all adults) or work (43% of all adults). Over a third of all adults (36%) had used a computer at sites other than home or work. The most popular of these sites were a neighbour, friend or relative's home (19% of all adults), library (13% of all adults) and TAFE or other tertiary institution (11% of all adults).

Differences in the likelihood that an adult was a computer user can be seen when the characteristics of the adult or the site of use are compared. During the 12 months to August 2000:

- Adults aged 55 or over were far less likely to have used a computer than adults aged 18 to 54. Only 30% of adults aged 55 or over had used a computer compared to 72% of adults aged 40 to 54, 83% of adults aged 25 to 39 and 86% of adults aged 18 to 24. For adults aged 55 or over the most popular site of use was home. Home or work were the most popular sites of use for adults aged 25 to 54. Adults aged 18 to 24 were more likely to have used a computer at sites other than home or work.
- There was only a small difference in the likelihood that males and females had used a computer regardless of the site of use. Overall, 69% of adult males had used a computer compared to 63% of adult females.
- Adults who were employed were more than twice as likely as those who were not employed to have used a computer (83% compared to 35%). Even at home, employed adults were more than twice as likely as unemployed adults to have used a computer (58% compared to 26%).
- Adults with incomes of \$40,000 or more were far more likely to have used a computer than adults with incomes under \$40,000 (91% compared to 57%). Both at home and work, there were large differences in the likelihood that an adult had used a computer between these two income groups.
- Adults residing in metropolitan areas were slightly more likely to have used a computer than adults residing outside metropolitan areas (67% compared to 62%). The main difference occurred in computer use at home, with 49% of adults in metropolitan areas using a computer at home compared to 41% of adults in other areas.





#### 6 ADULT COMPUTER USE, BY SITE(a)(b)(c)

	Home	Work	Other	Any site
	%	%	%	%
Age				
18–24 years	58	45	71	86
25–39 years	55	57	48	83
40–54 years	55	54	30	72
55 years or over	21	14	12	30
Sex				
Males	49	46	35	69
Females	43	40	37	63
Employment status				
Employed	58	64	43	83
Not employed	26	—	23	35
Income				
0–\$39,999	38	31	35	57
\$40,000 or more	69	79	44	91
Region				
Metropolitan areas	49	45	37	67
Other areas	41	39	34	62
Total	46	43	36	66

(a) Computer used during the 12 months to August 2000.

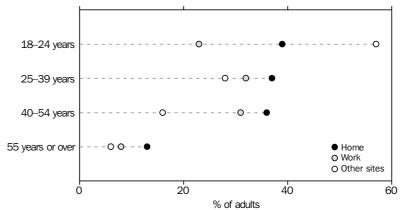
(b) Proportions are of all adults in each category.

(c) Adults can nominate more than one site if applicable.

CHARACTERISTICS OF ADULT INTERNET USERS In the 12 months to August 2000, 48% of the adults in Australia, or 6.6 million adults, accessed the Internet. Just under a third (30%) of all adults accessed the Internet at home while 24% accessed the Internet at work and 22% accessed the Internet at sites other than home or work. The most popular of these sites were a neighbour, friend or relative's home (12% of all adults), TAFE or other tertiary institution (7% of all adults) and library (5% of all adults).

Differences in the likelihood that an adult was an Internet user can be seen when the characteristics of the adult or the site of access are compared. During the 12 months to August 2000:

- The likelihood that an adult was an Internet user decreased as age increased. Of the adults aged 18 to 24, 73% were Internet users compared to 59% of adults aged 25 to 39 and 51% of adults aged 40 to 54. Only 18% of adults aged 55 or over were Internet users. Adults aged 18 to 24 were far more likely to have accessed the Internet at sites other than home or work, while home was the most popular site of access for adults in the other age groups.
- Adult males were more likely than adult females to have been Internet users (51% compared to 44%).
- Adults who were employed were nearly three times as likely as those who were not employed to have been Internet users (62% compared to 23%). Home (39%) and work (35%) were the most popular sites of access for adults who were employed. Adults who were not employed were just as likely to have accessed the Internet at home (15%) as at other sites (14%).
- Adults with incomes of \$40,000 or more were nearly twice as likely to have been Internet users as adults with incomes under \$40,000 (74% compared to 39%). Adults with incomes of \$40,000 or more were far more likely than adults with incomes under \$40,000 to have accessed the Internet both at work (51% compared to 14%) and home (52% compared to 22%).
- Adults residing in metropolitan areas were more likely to have accessed the Internet than adults residing outside metropolitan areas (52% compared to 39%). The largest difference occurred in access at home, with 34% of adults in metropolitan areas accessing the Internet compared to 23% of adults in other areas.



#### 7 ADULT INTERNET ACCESS, BY AGE-AUGUST 2000

#### 8 ADULT INTERNET ACCESS, BY SITE(a)(b)(c)

	Home	Work	Other	Any site
	%	%	%	%
Age				
18–24 years	39	23	57	73
25–39 years	37	32	28	59
40–54 years	36	31	16	51
55 years or over	13	8	6	18
Sex				
Males	33	27	23	51
Females	28	20	22	44
Employment status				
Employed	39	35	27	62
Not employed	15	—	14	23
Income				
0-\$39,999	22	14	22	39
\$40,000 or more	52	51	27	74
Region				
Metropolitan areas	34	26	25	52
Other areas	23	18	18	39
Total	30	24	22	48

(a) Internet accessed during the 12 months to August 2000.

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

(c) Adults can nominate more than one site if applicable.

#### FREQUENCY OF ADULT COMPUTER AND INTERNET USE

A high proportion of adults (84%) who used a computer at home did so at least once a week. At work, adults who used a computer were even more likely (92%) to have used it at least once a week. At sites other than home or work, only one-third (34%) of adults who used a computer did so at least once a week while 59% used it only once a month or less often.

Similar patterns of use were seen among Internet users. At home, 85% of adults who accessed the Internet did so at least once a week and 86% of adults who accessed the Internet at work did so at least once a week. At other sites, only 31% of adults who accessed the Internet did so at least once a week while 61% of adults who accessed the Internet at these sites did so only once a month or less often.

			Site(a)
	At home	At work	At other sites
Frequency	%	%	%
	COMPUTER USE(b)		
Daily	32	67(c)	8
2-6 times a week	37	19	13
Once a week	15	6	13
Once every 2 weeks	7	*1	7
Once a month or less	9	6	59
Total	100	100	100
	INTERNET ACCESS(d)		
Daily	26	49(c)	7
2-6 times a week	42	25	13
Once a week	17	12	11
Once every 2 weeks	6	5	8
Once a month or less	9	10	61
Total	100	100	100

#### 9 FREQUENCY OF ADULT COMPUTER USE AND INTERNET ACCESS

(a) Adults can nominate more than one site if applicable.

(b) Proportions are of all adults using a computer at a particular site, August 2000.

(c) Will include adults who do not work 7 days each week.

(d) Proportions are of all adults accessing the Internet at a particular site, August 2000.

ADULTS WORKING FROM	Only a small proportion of the adult population used the Internet to access government services (10%) or to pay bills or transfer funds (8%). In comparison, nearly half the adult population (49%) used the telephone to pay bills or transfer funds, while two-thirds (66%) used EFTPOS and three out of every four adults (73%) used ATMs.					
ELECTRONIC TRANSACTIONS access government services (10%) or to pay In comparison, nearly half the adult populi telephone to pay bills or transfer funds, will EFTPOS and three out of every four adults   10 ADULTS MAKING SELECTED ELECTRONIC T   Accessed the Internet to use government services(b) Paid bills or transferred funds via the Internet(c) Paid bills or transferred funds via the Internet(c) Paid bills or transferred funds via the Internet(c) Paid bills or withdrew funds via EFTPOS(c) Transferred or withdrew funds via ATM(c)   (a) Proportions are of all adults. (b) Period covers the 12 months to August 2000.   (c) Period covers the 12 months to August 2000. (c) Period covers the 3 months to August 2000.   (d) Proportions are of all adults. (b) Period covers the 3 months to August 2000.   (e) Period covers the 3 months to August 2000. (c) Period covers the 3 months to August 2000.   (f) Period covers the 3 months to August 2000. (c) Period covers the 3 months to August 2000.   ADULTS WORKING FROM At August 2000, 7% of employed adults have employer to work from home on an ongoid adults spent almost a quarter of their total working from home.   To enable them to work from home, 40% (c) portable PC while one-third (33%) could ac computer system via a modem. Over a thir information related to their work on floppy 42% reported using a mobile phone to work rom one. One in every seven adults wor use any of the technologies listed in table   11 ADULTS WORKING FROM HOME Have an agreement with employer to work f	10 ADULIS MAKING SELECTED ELECTRONIC TRANSACTIONS(a)					
		%				
ELECTRONIC TRANSACTIONS access government services (10%) or to pay bills or transfer funds, while two-thir In comparison, nearly half the adult population (49%) telephone to pay bills or transfer funds, while two-thir EFTPOS and three out of every four adults (73%) used   10 ADULTS MAKING SELECTED ELECTRONIC TRANSACTIONS   Accessed the Internet to use government services(b)   Paid bills or transferred funds via the Internet(c)   Paid bills or transferred funds via telephone(c)   Paid bills or withdrew funds via telephone(c)   (a) Proportions are of all adults.   (b) Period covers the 12 months to August 2000.   (c) Period covers the 12 months to August 2000.   (c) Period covers the 3 months to August 2000.   (d) To access termologic adults space their comployer to work from home.   To enable them to work from home, 40% of		10 8				
		49				
	• • • • • •	66				
	Transferred or withdrew funds via ATM(c)	73				
	(a) Proportions are of all adults.					
	(b) Period covers the 12 months to August 2000.					
	(c) Period covers the 3 months to August 2000.					
	working from home. To enable them to work from home, 40% of these adults had use portable PC while one-third (33%) could access their employer's computer system via a modem. Over a third (37%) took home information related to their work on floppy disks or CDs. While 42% reported using a mobile phone to work from home, only 159 reported this as the only form of technology that enabled them to from home. One in every seven adults working from home (15%) use any of the technologies listed in table 11 to work from home.	of a % o work did not				
		<u>%</u> 7				
		33 40				
	Use of floppy disks/CD ROMS containing work related information	40 37 42				
	(a) Proportions are of all employed adults.					
	(b) Proportions are of all employed adults who have an agreement to work from home on an or basis.	igoing				

INTERNET SHOPPING FOR PRIVATE USE In the 12 months to August 2000, 6% of all Australian adults purchased or ordered goods or services for their own private use via the Internet. These adults will be referred to as Internet shoppers. Overall 780,000 adults were Internet shoppers during the 12 months to August 2000, an increase of 128,000 adults on the August 1999 estimate of 652,000 adults.

Characteristics of Internet shoppers in the 12 months to August 2000 included:

- Adults aged 55 years or over were unlikely to have been Internet shoppers (1%).
- There was little difference between adult males and adult females in the likelihood that they were an Internet shopper (6% of adult males compared to 5% of adult females).
- Employed adults were far more likely to have been Internet shoppers than unemployed adults (8% compared to 2%).
- Adults with incomes of \$40,000 or more were much more likely to have been Internet shoppers than adults with incomes under \$40,000 (13% compared to 3%).
- Adults in metropolitan areas were more likely to have been Internet shoppers than adults in other areas (7% compared to 4%).

	Internet shoppers	Internet users
	%	%
Age		
18–24 years	8	73
25–39 years	8	59
40–54 years	6	51
55 years or over	*1	18
Sex		
Males	6	51
Females	5	44
Employment status		
Employed	8	62
Not employed	2	23
Income		
0–\$39,999	3	39
\$40,000 or more	13	74
Region		
Metropolitan areas	7	52
Other areas	4	39
Total	6	48

#### 12 CHARACTERISTICS OF ADULT INTERNET SHOPPERS(a)(b)

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

(b) Adults purchased or ordered goods and services for their private use during the 12 months to August 2000.

INTERNET SHOPPING FOR PRIVATE USE continued

Features of the purchases/orders made in the 12 months to August 2000 included:

- Books and magazines (27% of all Internet shoppers) and music (also 27% of all Internet shoppers) were the most popular types of goods or services purchased or ordered.
- Just under one-third (31%) of all Internet shoppers purchased or ordered on only one occasion.
- Almost one-third (31%) of Internet shoppers spent \$100 or less and another 55% spent between \$101 and \$1,000. However 12% of Internet shoppers spent over \$1,000.
- More than five out of every six (85%) Internet shoppers paid for all or part of their purchase/order online by giving their credit card details.
- Over half (54%) of the Internet shoppers purchased/ordered goods or services only from Australia while 33% purchased/ordered only from overseas.

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T2	CHARACTERISTICS		PURCHASES	AND	URDERSIG	а,

	%
Location of purchase/order	
Australia only	54
Overseas only	33
Both Australia and Overseas	13
Number of occasions on which purchase/order made	
One	31
Two to four	40
Five or more	27
Value of purchases/orders	
0-\$100	31
\$101-\$500	39
\$501-\$1,000	16
\$1,001 or more	*12
Don't know	**3
Paid online for good and services	85
Type of goods/services purchased/ordered	
Music	27
Books or magazines	27
Computer software	17
Entertainment or tickets to entertainment	15
Computer hardware	*12
Clothing or shoes	*12
Food and groceries	*10
Holidays	*9
Other goods/services	34

(a) Proportions are of all adults having purchased or ordered goods or services for private use via the Internet in the 12 months to August 2000.

#### FEATURE ARTICLE USE OF COMPUTERS AND THE INTERNET BY CHILDREN

This article presents data relating to the use of computers and the Internet by children aged 5 to 14 years. The data were collected as part of the April 2000 Monthly Population Survey. The survey component included questions on the sporting, cultural and computer and Internet activities of children during the period from April 1999 to April 2000. An adult in each household provided information on the activities of all children in the household. Data were collected for 9,600 children residing in 5,900 households.

For readers also interested in the sporting and cultural activities of children, data will be released in December in the ABS publication *Children's Participation in Culture and Leisure Activities* (Cat. no. 4901.0). Readers requiring more information about the survey methodology should refer to the publication *Labour Force, Australia* (Cat. no. 6203.0).

#### 14 COMPUTER OR INTERNET USE BY CHILDREN AGED 5-14 YEARS(a)(b)

_	Children using a computer		Children accessing the Inter			
	Metropolitan areas	Other areas	Total	Metropolitan areas	Other areas	Tota
	%	%	%	%	%	%
Family type						
Single parent	92	94	93	48	44	46
Two parents	95	95	95	46	47	47
Employment status of parents						
Single parent—not employed	88	92	90	37	38	37
Single parent—employed	96	97	96	59	51	55
Two parents—neither employed	88	92	89	29	35	32
Two parents—at least one employed	93	92	93	40	40	40
Two parents—both employed	97	96	97	53	53	53
State/Territory						
New South Wales	93	94	93	41	41	41
Victoria	95	95	95	46	54	48
Queensland	95	94	95	51	47	49
South Australia	98	98	98	50	46	49
Western Australia	95	95	95	57	50	55
Tasmania	97	98	98	58	51	54
Northern Territory	n.a.	n.a.	92	n.a.	n.a.	46
Australian Capital Territory	n.a.	n.a.	94	n.a.	n.a.	48
Australia	95	95	95	47	47	47

(a) Proportions are of all children (aged 5-14 years) in each category.

(b) Use occurred during the 12 months to April 2000.

During the 12 months to April 2000, almost all (95%) children aged 5 to 14 years had used a computer and almost half (47%) had accessed the Internet. The likelihood that a child had used a computer increased slightly with age. In contrast, the likelihood that a child had accessed the Internet increased markedly with the age of the child. There was little difference in the likelihood that a child of either sex had used either a computer or the Internet.

#### COMPUTER USE AT PARTICULAR SITES BY CHILDREN AGED 5-14 YEARS(a)(b) 15

					S	Site of use(c)
	Total number of children	Home	School	Someone else's home	Public library	Any site
	'000	%	%	%	%	%
Sex						
Males	1 354	71	89	41	12	95
Females	1 287	72	89	35	14	95
Age						
5–8 years	1 056	62	80	29	5	89
9–11 years	817	74	94	41	16	97
12–14 years	770	81	96	47	22	99
Region						
Metropolitan areas	1 549	73	88	38	14	95
Other areas	1 092	69	90	38	12	95
Total	2 642	71	89	38	13	95

(a) Proportions are of all children (aged 5-14 years) in each category.

(b) Use occurred during the 12 months to April 2000.

(c) Children may have used a computer at only one or any number of sites.

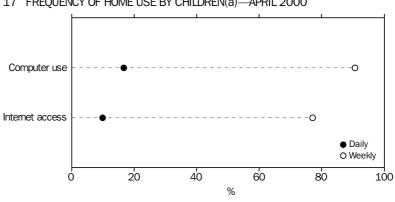
#### INTERNET ACCESS AT PARTICULAR SITES BY CHILDREN AGED 5-14 YEARS(a)(b) 16

					Site	of access(c)
	Total number of children	Home	School	Someone else's home	Public library	Any site
	'000	%	%	%	%	%
Sex						
Males	1 354	27	32	10	4	47
Females	1 287	25	30	9	3	46
Age						
5–8 years	1 056	12	12	3	1	22
9–11 years	817	30	37	10	3	55
12–14 years	770	42	51	19	7	72
Region						
Metropolitan areas	1 549	28	30	10	3	47
Other areas	1 092	23	33	10	4	47
Total	2 642	26	31	10	3	47

(a) Proportions are of all children (aged 5-14 years) in each category.

(b) Access occurred during the 12 months to April 2000.

(c) Children may have accessed the Internet at only one or any number of sites.



#### 17 FREQUENCY OF HOME USE BY CHILDREN(a)-APRIL 2000

<sup>(</sup>a) Children aged 5-14 years.

At home, children were just as likely to use a computer to play games as they were to do school or educational activities. For those children accessing the Internet at home, school and educational activities were the most popular. Other popular home Internet activities included email and the use of chat rooms and general browsing. Children who did use either a computer or the Internet at home were likely to be frequent users. For those using a computer at home 91% used it at least once a week, while 77% of children accessing the Internet at home did so at least once a week.

	Internet based activities	Playing games	School or educational activities	Other activities
	%	%	%	%
Sex				
Males	34	89	82	12
Females	32	80	86	16
Age				
5–8 years	15	89	70	11
9–11 years	36	86	88	15
12-14 years	49	78	95	15
Total	33	84	84	14

#### 18 HOME COMPUTER ACTIVITIES OF CHILDREN AGED 5-14 YEARS(a)

(a) Proportions are of all children (aged 5-14 years) in each category who used a computer at home during the 12 months to April 2000.

	Use email or chat rooms	Playing games	School or educational activities	Browsing the Net for leisure	Other activities
	%	%	%	%	%
Sex					
Males	46	48	81	54	7
Females	58	30	85	44	5
Age					
5–8 years	34	41	63	39	4
9–11 years	43	40	84	43	7
12–14 years	64	39	89	58	7
Total	51	40	83	50	6

#### 19 HOME INTERNET ACTIVITIES OF CHILDREN AGED 5-14 YEARS(a)

(a) Proportions are of all children (aged 5–14 years) in each category who accessed the Internet at home during the 12 months to April 2000.

#### **EXPLANATORY NOTES**

POPULATION SURVEY The Population Survey Monitor is a guarterly household survey of 1 MONITOR approximately 3,200 private households throughout Australia. During 2000, the Population Survey Monitor will carry questions about the use of information technology (IT). In each household, an adult (person aged 18 or over) is selected at random to complete the survey. A trained interviewer conducts a personal interview with the selected adult to obtain information relating to both the household's and the selected adult's use of IT. SCOPE AND COVERAGE 2 All usual residents in private households are included in the scope of the PSM. However, households in sparsely settled and Indigenous areas are excluded from the survey. The exclusion of persons in these

households has only a minor impact on the aggregate estimates produced for individual States and Territories. The exception is the Northern Territory where such persons account for approximately 20% of the population.

- HOUSEHOLD DATA **3** In addition to gathering data on the use of IT, the survey collected data on the characteristics of the household. These characteristics include:
  - household income;
  - household family classifications;
  - State and Territory; and
  - region (metropolitan or ex-metropolitan).
- PERSONAL DATA **4** The survey also collected data on the characteristics of the randomly selected adult, namely:
  - age;
  - gender;
  - highest educational qualification;
  - income;
  - labour force status; and
  - occupation.

#### DEFINITION OF HOUSEHOLD **5** A group of one or more persons in a private dwelling who consider themselves to be separate from other persons in the dwelling, and who make regular provision to take meals separately from those other persons. Lodgers who receive accommodation and meals are not treated as separate households. A household may consist of any number of family and non-family members.

# DEFINITION OF6Refers to capital city statistical divisions. These delimit an area which<br/>is stable for general statistical purposes. The boundary is defined to<br/>contain anticipated development of the city for a period of 20 years.<br/>They contain more than just the urban centre, and represent the city in<br/>the wider sense.

ACCURACY OF DATA **7** 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 difference is given by the standard error (SE), 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 SE 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 SEs.

**8** The SEs for some statistics are relatively high and users are advised to exercise caution in interpreting these statistics. Estimates with SEs of 25% or more have been marked with an asterisk. The following table of SEs relate to estimates of the number of households and estimates of the number of adults.

	Standard error for persons 18+			Stand	ard error for	households
Size of estimate	Aug 1998	Aug 1999	Aug 2000	Aug 1998	Aug 1999	Aug 2000
'000	'000	'000	'000	'000	'000	'000
5				3.3	3.6	3.6
10	6.9	7.0	7.1	4.7	5.1	5.1
20	9.8	10.5	10.5	6.7	7.3	7.3
50	15.1	17.0	17.0	9.9	11.3	11.3
100	20.8	23.8	23.8	13.3	15.5	15.5
200	27.9	32.4	32.4	17.8	20.9	20.9
500	40.4	46.6	46.6	25.2	30.2	30.2
800	48.4	55.1	55.2	29.5	35.0	35.0
1 000	53.0	59.5	59.5	32.3	39.2	39.2
1 500	60.0	67.7	67.7	37.1	43.4	43.4
2 000	68.2	73.8	73.8	41.8	50.1	50.1

## EXAMPLE USING THE STANDARD ERROR TABLE

**9** Consider the estimate of the number of adults who purchased or ordered goods and services for private use via the Internet in the 12 months to August 2000. The estimate of 780,000 adults has a standard error around 55,000. This means there are about two chances in three that the true value (i.e. the value that would have been obtained from a complete census) is within the range 725,000 to 835,000 adults. There are about 19 chances in 20 that the true value is in the range 670,000 to 890,000 adults.

COMPARING DATA OVER TIME **10** Users are advised to take care when comparing the data from this publication to similar data from previous issues. High standard errors for estimates of movements may mean that an apparent difference between figures is not actually significant. An approximate value for the standard error (SE) of the difference between two estimates (x–y) may be calculated by the following formula:

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

**11** For example, the increase in the number of adults between August 1999 and August 2000 who were Internet shoppers is 128,000. The standard error on this movement is about 75,000. Therefore we can say that there are 2 chances in 3 that the true value is within the range 53,000 to 203,000 and 19 chances in 20 that the true value is in the range –22,000 to 278,000. If the range does not include the value zero, the movement can be considered to be statistically significant.

ACKNOWLEDGMENT **12** 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 **13** Other ABS publications on the production and use of information technology and telecommunication goods and services in Australia are:
  - Household Use of Information Technology, Australia (Cat. no. 8146.0) 1998 and 1999 issues
  - Use of the Internet by Householders, Australia, 1998–99 (Cat. no. 8147.0) February, May, August, November 1999, and February and May 2000 issues
  - Use of Information Technology on Farms, Australia, 1998–99 (Cat. no. 8150.0)
  - Information Technology, Australia, Preliminary 1998–99 (Cat. no. 8143.0)
  - Business Use of Information Technology, Australia, 1997–98 (Cat. no. 8129.0)

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

AVAILABILITY OF UNPUBLISHED STATISTICS **14** 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

#### FOR MORE INFORMATION...

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LIBRARY	A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
CPI INFOLINE	For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c 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 77c per minute).

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