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HOUSEHOLD USE OF INFORMATION TECHNOLOGY FEBRUARY 1994

TIM SKINNER
Acting Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

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HOUSEHOLD USE OF INFORMATION TECHNOLOGY

Main findings

Some of the main findings from the survey are:

- 23 per cent of households frequently used a computer at home.
- 4.4 per cent of all households in Australia have a fax machine
- 2.9 per cent of all households have CD ROM equipment
- 2.9 per cent of households in Australia have a home based business and a fax machine.
- 3.8 per cent of households in Australia have one or more portable computers
- 20 per cent of households in Australia have one or more desktops or personal computers
- 18 per cent of households have a dedicated games machine which is regularly used by persons in the household

Of households in which a computer is frequently used:

- 74 per cent use word processing software.
- 34 per cent use general purpose spreadsheet software.
- 41 per cent had a member of the household who had undertaken computer training from an employer.
- 41 per cent had a member of the household who had undertaken computer training from a secondary or primary school.
- 80 per cent also used printers.
- 25 per cent mainly used home computer equipment for education purposes.
- 42 per cent used computer equipment on average 1 to 5 hours per week.

Of the 742,000 households with home based businesses:

- 25 per cent had a fax machine.
- 46 per cent frequently used a computer.

INQUIRIES

- *for further information about statistics in this publication and the availability of related unpublished statistics, contact Joseph Di Gregorio on Canberra (06) 252 5609 or any ABS State office.*
 - *for information about other ABS statistics and services please refer to the back cover of this publication.*
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Introduction

The ABS is currently collecting and publishing statistics which will measure the production and consumption (use) of Information Technology (IT) goods and services in the Australian economy. This publication, the first in a series on IT, looks at the extent to which IT is being used by households. Other IT statistics to be released by the ABS are outlined below.

IT production statistics for the period 1992-93 (due to be released early in 1995), will focus on those businesses which are producing IT goods and services in Australia (the IT industry). The statistics to be published include, income from selected IT goods and services, total employment, operating expenses (e.g., wages and salaries) and capital expenditure. These data will be available for each of the selected ANZSIC industries.

IT consumption statistics for the General Government and Business Enterprise sectors, for the period 1993-94 (planned for release in the latter half of 1995), will provide counts of selected IT equipment installed in organisations, expenditure on IT equipment for use in the organisation and other computer and communication operating expenses such as IT hiring expenses. Data will be aggregated to broad industry sectors in the Business Enterprise sector

TABLE 1: PERCENTAGE OF HOUSEHOLDS USING SELECTED IT EQUIPMENT, BY STATE, FEBRUARY 1994

	NSW	VIC.	QLD	SA	WA	TAS	NT	ACT	AUST.
Fax machine(a)	4.6	5.0	4.0	2.2	4.8	3.9	5.9	5.2	4.4
Dedicated games machine	18.1	16.8	19.6	15.7	18.3	12.6	20.3	19.6	17.8
Frequent use of a computer	23.9	23.7	20.2	20.5	22.9	18.8	20.4	35.8	22.9
Printers	17.4	19.6	18.0	15.4	19.4	14.2	20.4	31.2	18.2
Character or image readers or scanners(a)	1.1	2.1	1.0	1.6	1.8	2.2	—	0.9	1.5
CD ROM(a)	3.5	2.9	2.2	1.5	3.2	2.8	4.2	1.7	2.9
Modems(a)	4.0	4.7	3.2	3.0	3.6	2.9	—	6.2	3.9
Other equipment(a)(b)	3.3	3.7	3.1	1.2	4.8	4.0	2.9	6.3	3.4
	— number —								
Total number of households	2,179	1,622	1,117	543	594	173	55	103	6,387

(a) These estimates are subject to fairly large relative standard errors. (b) Includes additional keyboards, add-on storage etc.

TABLE 2: USE OF SOFTWARE PACKAGES BY HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED, FEBRUARY 1994

	<i>Number of households ('000)</i>	<i>Percentage of households where a computer is frequently used</i>
Integrated software packages	462	31.7
Word processor software	1,079	73.9
Business software packages	226	15.5
General purpose spreadsheet software	501	34.3
General purpose database management software	262	17.9
Programming language software	191	13.1
Communications software	157	10.8
Games software	907	62.1
Total number of households where a computer is frequently used	1,460	

TABLE 3: SOURCE OF COMPUTER TRAINING IN HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED, FEBRUARY 1994

	<i>Number of households ('000)</i>	<i>Percentage of households where a computer is frequently used</i>
Computer training from supplier	194	13.3
Computer training from employer	596	40.8
Computer training from a commercial organisation	186	12.8
Computer training from a primary or secondary school	605	41.4
Computer training from a TAFE college	340	23.3
Computer training from a university	310	21.2
Computer training from a computer tutorial	261	17.9
Other	238	16.3
No training	165	11.3
Total number of households where a computer is frequently used	1,460	

TABLE 4: USE OF SELECTED PERIPHERAL IT EQUIPMENT IN HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED, FEBRUARY 1994

<i>Type of equipment</i>	<i>Numbers of households ('000)</i>	<i>Percentage of households where a computer is frequently used</i>
Printers	1,164	79.7
Character or image readers or scanners(a)	92	6.3
CD ROM equipment	183	12.5
Modems	248	16.9
Other equipment such as additional keyboards, add-on storage or drives etc.	216	14.8
Total number of households where a computer is frequently used	1,460	

(a) These estimates are subject to fairly high relative standard errors.

TABLE 5: EXPENDITURE DURING THE 12 MONTHS TO FEBRUARY 1994 BY HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED (PERCENTAGE OF HOUSEHOLDS)

<i>Expenditure range</i>	<i>Selected IT Goods and Services(a)</i>						<i>Computer packages</i>	<i>Computer software</i>	<i>Training in the use of computers</i>	<i>Repair and maintenance of computers</i>
	<i>Portable computers excluding software</i>	<i>Desktop or personal computers excluding software</i>	<i>Combined portable and desktop computers excluding software</i>	<i>Dedicated word processors excluding software</i>	<i>Other computers excluding software</i>	<i>Other computers excluding software</i>				
None	9.7	43.3	2.7	5.1	1.8	8.9	45.2	88.4	82.2	
\$1-\$1000	2.8	19.5	0.9	2.0	0.5	1.1	39.5	7.7	15.3	
\$1001-\$3000	1.5	10.7	0.2	—	0.2	2.0	3.4	—	0.7	
\$3001-\$5000	1.4	3.5	—	—	0.6	1.2	0.4	0.2	—	
Over \$5000	0.1	2.1	0.2	—	0.2	—	0.3	—	—	
Included in the computer package	—	—	—	—	—	—	4.6	0.2	0.2	
Don't know	0.6	4.1	—	0.6	0.3	1.2	6.7	3.5	1.5	

(a) Estimates of 7 per cent or less are subject to fairly high relative standard errors.

TABLE 6: PLANNED EXPENDITURE ON COMPUTING EQUIPMENT DURING THE NEXT 12 MONTHS FROM FEBRUARY 1994 BY HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED(a)

<i>Expenditure range</i>	<i>Number of households ('000s)</i>	<i>Percentage of households where a computer is frequently used</i>
\$1-\$1000	235	16.1
\$1001-\$3000	142	9.7
\$3001-\$5000	57	3.9
Over \$5000	24	1.7
Don't know	29	2.0
Total number of households where a computer is frequently used	1,460	

(a) Estimates of 7 per cent or less are subject to fairly high relative standard errors.

TABLE 7: PLANNED PURCHASE, UPGRADE OR REPLACEMENT OF COMPUTING EQUIPMENT, INCLUDING SOFTWARE BY HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED

	<i>Number of households ('000s)</i>	<i>Percentage</i>
Purchase or upgrade in the 12 months from February 1994	487	33.3
Purchase or upgrade in the 12 months from February 1995 but not in the 12 months from February 1994	262	17.9
Total number of households where a computer is frequently used	1,460	

TABLE 8: USE OF SELECTED INFORMATION TECHNOLOGIES BY THOSE HOUSEHOLDS WHICH HAVE HOME BASED BUSINESSES, FEBRUARY 1994

<i>Selected IT equipment</i>	<i>Number of households which have home based businesses and where selected IT equipment is frequently used ('000)</i>	<i>Percentage of households with home based businesses which use selected IT equipment</i>
Fax machines	186	25.0
Computer	344	46.3
Printers	301	40.5
Character or image readers or scanners(a)	22	3.0
CD ROM equipment(a)	52	7.0
Modems	80	10.8
Other equipment	70	9.6
Total number of households which have home based businesses	742	

(a) These estimates are subject to fairly high relative standard errors.

TABLE 9: HOUSEHOLDS WITH A HOME BASED BUSINESS INTENDING TO PURCHASE, UPGRADE OR REPLACE COMPUTING EQUIPMENT, INCLUDING SOFTWARE

	<i>Number of households (000s)</i>	<i>Percentage</i>
Purchase or upgrade in the 12 months from February 1994	228	30.7
Purchase or upgrade in the 12 months from February 1995 but not in the 12 months from February 1994	110	14.5
Total number of households with home based businesses	742	

TABLE 10: PERCENTAGE OF HOUSEHOLDS IN EACH STATE PLANNING TO PURCHASE, UPGRADE OR REPLACE COMPUTING EQUIPMENT, INCLUDING SOFTWARE IN THE NEXT 12 MONTHS FROM FEBRUARY 1994

<i>State</i>	<i>Number of households (000s)</i>	<i>Percentage of households</i>
New South Wales	337	15.5
Victoria	320	19.7
Queensland	195	17.4
South Australia	54	10.0
Western Australia	81	13.7
Tasmania	18	10.1
Northern Territory	7	13.3
Australian Capital Territory	32	30.6
Australia	1,043	16.3

TABLE 11: PERCENTAGE OF HOUSEHOLDS IN EACH STATE PLANNING TO PURCHASE, UPGRADE OR REPLACE COMPUTING EQUIPMENT, INCLUDING SOFTWARE IN THE 12 MONTHS FROM FEBRUARY 1995

<i>State</i>	<i>Number of households (000s)</i>	<i>Percentage of households in each State</i>
New South Wales	177	8.1
Victoria	128	7.9
Queensland	179	16.1
South Australia	45	8.3
Western Australia	52	8.8
Tasmania	24	13.6
Northern Territory(a)	3	5.0
Australian Capital Territory	10	10.0
Australia	618	9.7

(a) These estimates are subject to fairly high relative standard errors.

TABLE 12: PLANNED EXPENDITURE ON COMPUTING EQUIPMENT, INCLUDING SOFTWARE, IN THE NEXT 12 MONTHS FROM FEBRUARY 1994 BY HOUSEHOLDS IN EACH STATE
(000s)

<i>Expenditure range</i>	<i>NSW</i>	<i>VIC.</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>TAS.</i>	<i>NT</i>	<i>ACT</i>	<i>AUST.</i>
\$1-\$1000	157	154	62	30	29	12	2	11	457
\$1001-\$3000	115	122	82	15	28	6	2	12	382
\$3001-\$5000	33	22	25	5	17	—	2	4	108
Over \$5000	13	9	8	3	—	—	1	2	36
Don't know	19	13	17	2	6	—	1	3	60
Total	337	320	195	54	80	18	7	32	1,043
Total number of households	2,179	1,622	1,117	543	594	173	55	103	6,387

TABLE 13: MAIN USES OF HOME COMPUTING EQUIPMENT

<i>Main use of home computing equipment</i>	<i>Number of households ('000)</i>	<i>Percentage of households where a computer is frequently used</i>
Entertainment	329	22.5
Family budget(a)	21	1.5
Business records	182	12.5
Other home based businesses(a)	70	4.8
General word processing	213	14.6
Education purposes	364	24.9
Professional writing(a)	46	3.1
Take home work	203	13.9
Other usage(a)	32	2.2
Total number of households where a computer is frequently used	1,460	

(a) These estimates are subject to fairly high relative standard errors.

TABLE 14: AVERAGE TIME SPENT USING COMPUTING EQUIPMENT BY HOUSEHOLDS WHERE A COMPUTER IS FREQUENTLY USED(a)

<i>Average number of hours per week computer equipment is used</i>	<i>Number of households ('000)</i>	<i>Percentage of households where a computer is frequently used.</i>
1-5	613	42.0
6-10	316	21.6
11-15	134	9.1
16-20(b)	97	6.7
21-25(b)	49	3.3
26-30(b)	22	1.5
31-35(b)	28	1.9
36-40(b)	12	0.8
41 and over(b)	33	2.2
Total number of households where a computer is frequently used	1,460	

(a) Excludes use of computing equipment for playing computer games. (b) These estimates are subject to fairly high relative standard errors.

EXPLANATORY NOTES

Home based businesses

For the purpose of this survey all households were asked the question 'Does any member of this household run a home based business?' Respondents were not excluded on the basis of whether or not they were employed elsewhere.

Household

A group of one or more persons in a private dwelling who consider themselves to be separate from other persons (if any) in the dwelling, and who make regular provision to take meals separately from other persons; i.e. at other times or in different rooms. 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.

Details of the Household use of Technology Survey

A total of 2,959 households were visited for the February 1994 Population Survey Monitor (PSM). Completed questionnaires were obtained from 2,337 households. From the 2,337 fully responding households, details of the use of home technology were obtained from one person in each household, that is, a sample of 2,337 people.

The Population Survey Monitor (PSM) is a quarterly household survey conducted throughout Australia. The PSM has been introduced to meet the needs of government agencies and non profit organisations. It is a user-funded statistical service where clients arrange to include the topic of their choice. Each survey asks a set of core questions of each usual resident aged 15 years and over within the selected household. Supplementary questions on particular topics can be asked of randomly selected persons or particular person within the selected household.

Data collected

Data was collected on a number of topics relating to the use of information technology in the household. These include:

1. Use of selected information technologies, i.e. fax machines, computers, printers, character or image readers or scanners, CD ROM equipment, and modems.
2. Use of games machines.
3. Use of selected software packages.
4. Source of computer training.
5. Expenditure on selected information technologies.
6. Planned expenditure on selected information technologies.
7. Main use of home computer equipment.
8. Time spent using computer equipment.

In addition to gathering data on the use of IT in the household the survey collected data on various characteristics of the people responding to the survey and the characteristics of the households. The personal characteristics by which it is possible to classify the IT data are age, sex, marital status, birthplace, education, income, labour force status, occupation and major activity of those people not in the labour force. The household characteristics are number of persons aged 18 years and over in household, age of eldest dependent, household family classification, dwelling structure, nature of occupancy and state. It should be noted, however, that these personal characteristics relate to the person being interviewed and not necessarily the major user of the equipment.

Accuracy of data

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

The standard errors for some statistics are relatively high and users are advised to exercise caution in interpreting these statistics. The following table of standard errors is for data on the number of households using selected information technology.

<i>Size of Estimate ('000)</i>	<i>Standard Error ('000)</i>
50	17
100	23
200	31
500	45
800	56
1,000	59
2,000	76
5,000	105

Example using the standard error table

Table 2 shows that 31.7 per cent of households where a computer is frequently used also use integrated software packages. This represents 462,000 households. The table of standard error shows that the standard error on an estimate of this size is approximately 45,000. This means that there are two chances in three that the true figure is in the range of 417,000 to 507,000. The standard error of percentage estimates can be obtained using the above table by dividing the standard error (in '000) by the estimate (in '000) and multiplying by the estimated percentage. In the example quoted, the percentage standard error is 45 divided by 500 then multiplied by 31.7 = 2.9 per cent. Thus, there are two chances in three that the true percentage is in the range 28.8 per cent to 34.6 per cent.

Availability of unpublished statistics

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 on these statistics should be made by telephoning David McGeachie on (06) 252 5614 or Joseph Di Gregorio on (06) 252 5609.



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