

# **USE OF INFORMATION TECHNOLOGY BY HOUSEHOLDS IN QUEENSLAND**

EMBARGO: 11.30AM (CANBERRA TIME) WED 31 MAY 2006

## **C O N T E N T S**

	<i>page</i>
Introductory Notes . . . . .	2
List of tables . . . . .	3
Chapter 1: Main findings . . . . .	5
Chapter 2: Use of computers . . . . .	7
Chapter 3: Use of Internet . . . . .	13
Chapter 4: Type of Internet connection and type of technology used for broadband Internet access . . . . .	21
Chapter 5: Selected Internet transactions . . . . .	25

## **ADDITIONAL INFORMATION**

Explanatory Notes . . . . .	29
Technical Note . . . . .	33
Glossary . . . . .	37

## **I N Q U I R I E S**

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Statistical Consultancy Unit on Brisbane (07) 3222 6012.

# NOTES

## BACKGROUND

This report presents an analysis of Queensland data on household use of information technology 2004–05.

The statistics in this report were compiled from the Multi-Purpose Household Survey (MPHS), conducted by the Australian Bureau of Statistics (ABS) as a supplement to the Labour Force Survey (LFS) each month from August 2004 to June 2005. The information was obtained from people aged 18 years and over about the access and use of computers and the Internet by private households.

This report has been prepared by the ABS at the request of the Queensland Department of State Development, Trade and Innovation as an alternative to the State Supplementary Survey in 2005.

## ABOUT HOUSEHOLD USE OF INFORMATION TECHNOLOGY (HUIT) DATA

Data on Household Use of Information Technology (HUIT) was previously collected by the ABS in the Population Survey Monitor (1998, 1999, and 2000), Survey of Education, Training and Information Technology (2001), General Social Survey (2002), Survey of Disability, Ageing and Carers (2003).

## ABOUT THE 2004–05 MPHS

The 2004–05 MPHS included a HUIT module. The survey collected information from 15,524 randomly selected private dwelling households across Australia. In this survey, one randomly selected person per household was asked about their household's access to and their own use of computers and the Internet.

## HISTORICAL COMPARISONS

The range of information sought in the Household Use of Information Technology surveys has changed over previous years. More information on these statistics can be found in *1998–2003 Use of Information Technology by Households in Queensland (Cat. no. 8146.3)*.

The HUIT data for 2003 was obtained from the Survey of Disability, Ageing and Carers (SDAC), and person level data from this survey only relates to persons with a disability aged 15 years or over, and is thus not comparable with results from the MPHS 2004–05. SDAC data are comparable at the household level.

## DATA COLLECTED AND PRESENTATION

The tables in this report cover analysis of households and persons. Household level data has been presented with the characteristics of household income and Major Statistical Region (MSR). The MSRs for Queensland are Brisbane and Balance of Queensland. Any reference in the text to Brisbane relates to the Brisbane MSR. For more information on the MSRs, see the Glossary.

Person level data has been presented with characteristics for sex, age group, education level, personal income and labour force status.

## FURTHER INFORMATION

For further information on any of the content in this report please contact the National Information and Referral Service on 1300 135 070.

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Acting Regional Director, Queensland

**LIST OF TABLES** .....

*page*

LIST OF TABLES

USE OF COMPUTERS

**2.2** Households with computer access at home, 1998 to 2004–05 ..... 8  
**2.3** Use of computers, Persons by selected characteristics, 2004–05 ..... 10  
**2.4** Purpose of computer use, Persons by selected characteristics,  
 2004–05 ..... 12

USE OF INTERNET

**3.2** Households with Internet access at home, 1998 to 2004–05 ..... 14  
**3.3** Site of Internet use, Persons by selected characteristics, 2004–05 ..... 16  
**3.4** Purpose of Internet use at home, Persons by selected characteristics,  
 2004–05 ..... 18  
**3.5** Main purpose of Internet use at home, Persons by selected  
 characteristics, 2004–05 ..... 20

TYPE OF INTERNET CONNECTION AND TYPE OF TECHNOLOGY USED FOR  
 BROADBAND INTERNET ACCESS

**4.2** Type of Internet access at home, by households with Internet access,  
 2004–05 ..... 22  
**4.3** Type of Internet access at home, Persons by selected characteristics,  
 2004–05 ..... 23  
**4.4** Type of broadband Internet access at home, by households with  
 broadband access, 2004–05 ..... 24

SELECTED INTERNET TRANSACTIONS

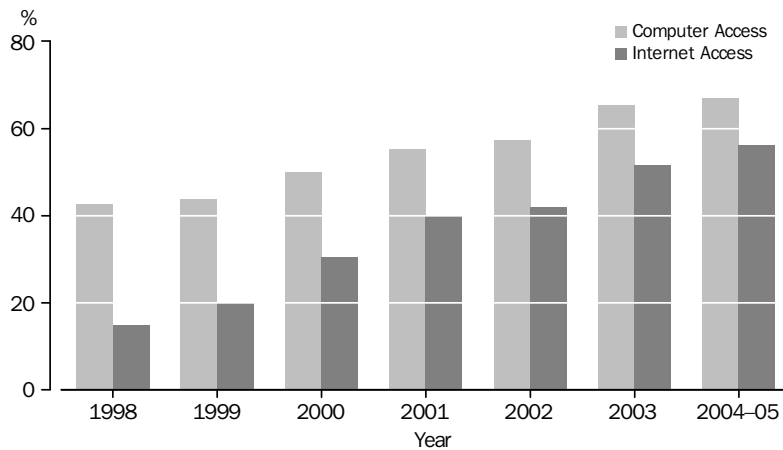
**5.2** Purchased or ordered goods or services via the Internet, Persons by  
 selected characteristics, 2004–05 ..... 26  
**5.3** Main reason for not purchasing or ordering goods or services via the  
 Internet, Persons by selected characteristics, 2004–05 ..... 28



**MAIN FINDINGS**

In 2004–05, 67% of Queensland households had access to a computer at home and 56% had home Internet access. The growth in household access to a computer has not been as strong over recent years (57% of all households in 2002 to 67% in 2004–05) compared with the growth of household Internet access (42% of all households in 2002 to 56% in 2004–05).

**1.1** COMPUTER AND INTERNET ACCESS, Proportion of total households—1998 to 2004–05



**HOUSEHOLD CHARACTERISTICS**  
*Statistical region*

Between 1998 and 2004–05, households in the Brisbane region consistently had a higher rate of access to computers at home compared with households in the Balance of Queensland. The growth in access to a home computer has consistently increased for households in the Balance of Queensland (from 62% in 2003 to 66% in 2004–05), whereas growth in computer access has begun to level off in recent years for households in Brisbane (69% in 2003 and 2004–05). In 2004–05, access to the Internet was similar to the pattern of computer access, with the households in Brisbane having a higher proportion of access (59%) compared with households in the Balance of Queensland (54%). However, Internet access continued to increase for both major statistical regions over the seven year period, 1998 to 2004–05.

*Annual household income*

The lower the annual income for households in Queensland, the less likely they had access to a computer at home. Between 1998 and 2004–05, access to a computer at home increased consistently for households in all income groups. The strongest growth in access to a computer at home occurred in households with an income between \$25,000–\$49,999 over this period.

PURPOSE OF USING A  
COMPUTER

Overall, 61% of all persons in Queensland used a computer at home during 2004–05. The most frequently reported reason for using a computer at home was for personal or private purposes (97%), followed by work or business related purposes (53%) and education or study (38%). Home was the most frequently reported site of Internet use (52%) followed by work (28%) and a neighbour's, friend's or relative's home (20%).

BROADBAND INTERNET  
ACCESS

Of the 861,000 Queensland households with home Internet access in 2004–05, 27% had broadband Internet access and 71% had dial-up access. Of the 232,200 households with broadband access, Digital Subscriber Line (DSL) was the most common type of technology used to connect to the Internet (77%) followed by cable (19%).

PURCHASING GOODS OR  
SERVICES VIA INTERNET

In 2004–05, of all persons in Queensland aged 18 years or over, 32% purchased or ordered goods or services via the Internet. For the 921,800 Queenslanders that did not purchase or order goods via the Internet, 'have no need' was the principal reason given, followed by security concerns including providing credit card details on-line.

## CHAPTER 2

## USE OF COMPUTERS

### HOUSEHOLD COMPUTER ACCESS

Access to computers in Queensland households increased every year between 1998 and 2004–05. In 2004–2005, 67% of all households in Queensland had access to a home computer. The greatest growth, from 57% to 65%, occurred between 2002 and 2003.

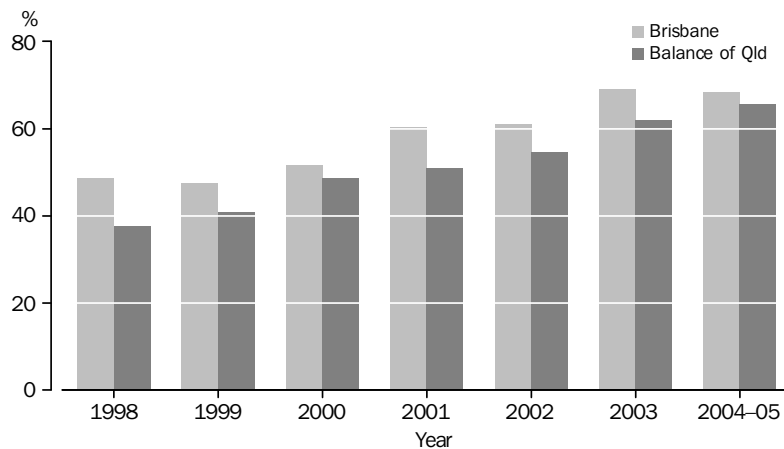
### HOUSEHOLD CHARACTERISTICS

*Statistical region*

Home computer access for households in Brisbane increased between 1998 to 2004–05 (49% to 69%) with increases in most years.

The proportion of households in Balance of Queensland with access to home computers increased steadily from 38% in 1998 to 66% in 2004–05, with increases in every year. The largest increase occurred from 1999 to 2000 (41% to 49%) while the smallest increase occurred between 2000 and 2001 (49% to 51%).

**2.1** COMPUTER ACCESS, Proportion of total households by region—1998 to 2004–05



### *Annual household income*

Overall, the proportion of all households in Queensland with computer access increased across all income ranges from 1998 to 2004–05. The lower the annual income for households in Queensland, the less likely they had access to a computer at home. In 1998, 20% of Queensland households with an income under \$25,000 had access to a computer at home, by 2004–05, this proportion had increased to 39%. Households with an income between \$25,000–\$49,999 had the largest proportional increase in computer access at home from 40% to 61% between 1998 and 2004–05.

**2.2** HOUSEHOLDS WITH COMPUTER ACCESS AT HOME—1998 to 2004–05

	NUMBER OF HOUSEHOLDS WITH ACCESS						
	1998	1999	2000	2001	2002	2003	2004–05
	'000	'000	'000	'000	'000	'000	'000
Household income(a)							
\$0–\$24,999(b)	88.9	83.1	91.7	na	137.6	np	135.8
\$25,000–\$49,999	128.5	142.4	173.2	na	225.4	np	191.7
\$50,000–\$74,999	136.0	149.7	166.6	na	194.2	np	177.4
\$75,000–\$99,999	61.8	78.2	69.4	na	105.9	np	133.6
\$100,000 and over	59.9	57.2	65.3	na	154.1	np	159.8
Statistical region							
Brisbane MSR	292.8	290.2	321.6	387.0	395.1	463.2	479.2
Balance of Qld MSR	268.9	295.3	358.6	389.2	427.4	493.9	546.4
<b>Total households</b>	<b>561.7</b>	<b>585.5</b>	<b>680.2</b>	<b>776.2</b>	<b>822.5</b>	<b>957.1</b>	<b>1 025.6</b>

na not available

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes Don't know.

(b) Includes those households with income less than zero. For details see paragraph 15 of Explanatory notes.

**2.2** HOUSEHOLDS WITH COMPUTER ACCESS AT HOME—1998 to 2004–05 *continued*

	PROPORTION OF ALL HOUSEHOLDS(a)						
	1998	1999	2000	2001	2002	2003(b)	2004–05
	%	%	%	%	%	%	%
Household income(c)							
\$0–\$24,999(d)	20.4	19.9	24.4	na	30.6	np	38.8
\$25,000–\$49,999	39.8	41.7	49.5	na	59.7	np	61.4
\$50,000–\$74,999	60.1	62.7	68.9	na	73.8	np	78.6
\$75,000–\$99,999	72.7	70.2	70.1	na	82.5	np	83.6
\$100,000 and over	80.8	81.0	77.2	na	75.4	np	90.5
Statistical region							
Brisbane MSR	48.6	47.4	51.7	60.3	61.0	69.1	68.5
Balance of Qld MSR	37.8	40.9	48.7	51.0	54.5	62.1	65.6
<b>Total households</b>	<b>42.8</b>	<b>43.9</b>	<b>50.1</b>	<b>55.2</b>	<b>57.4</b>	<b>65.3</b>	<b>66.9</b>

na not available

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Percentages are the proportion of all households that had computer access at home in each category.

(b) For more detailed information on non-published household income data see paragraph 15 of the Technical notes.

(c) Excludes Don't know.

(d) Includes those households with income less than zero. For details see paragraph 15 of Explanatory notes.

## USE OF COMPUTERS AT HOME: PERSON CHARACTERISTICS

In 2004–05, 61% of persons in Queensland aged 18 years or over used a computer at home in the previous 12 months. Computer use at home varied with characteristics such as age, education, income and labour force status.



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<i>Age</i>	The proportion of Queenslanders that had used a computer at home was highest for persons aged 18–24 years (76%). The likelihood that a person had used a computer at home decreased with age with persons aged 65 years or over (25%) reporting the lowest proportion of computer use at home.
<i>Education</i>	As the level of education increased, greater proportions of persons in each category used a computer at home. During 2004–05, persons educated to either a diploma/advanced diploma or to a bachelor degree or higher (78% each) were more likely to use a computer at home. Persons with a year 12 or lower education were generally the least likely to use a computer at home (44%).
<i>Annual personal income</i>	As annual personal income increased for persons in Queensland, so did the use of computers at home. Persons with an income of \$100,000 or over reported the highest proportion of computer use (88%) compared with persons with an income of under \$25,000 (51%).
<i>Labour force status</i>	Employed persons were more likely to use a computer at home (71%) than unemployed persons (67%) and those not in the labour force (38%).

Labour force status  
continued

**2.3** USE OF COMPUTERS, Persons by selected characteristics—2004–05

	No. of persons aged 18 years or over	Home use of computer	Home use of computer(a)
	'000	'000	%
Sex			
Male	1 429.0	871.9	61.0
Female	1 462.2	889.3	60.8
Age group (years)			
18–24	381.7	290.7	76.2
25–34	541.3	390.4	72.1
35–44	572.1	408.1	71.3
45–54	531.6	348.5	65.6
55–64	422.4	215.2	51.0
65 years or over	442.1	108.3	24.5
Level of highest educational attainment(b)			
Year 12 or lower	1 115.6	491.3	44.0
Trade/other certificate	287.8	163.4	56.8
Diploma/advanced diploma	116.7	91.1	78.1
Bachelor degree or higher	252.3	197.4	78.2
Person income(c)			
\$0–\$24,999(d)	1 222.2	621.1	50.8
\$25,000–\$49,999	794.8	525.7	66.1
\$50,000–\$74,999	316.2	248.2	78.5
\$75,000–\$99,999	82.5	72.0	87.3
\$100,000 and over	68.6	60.6	88.4
Labour force status(e)			
Employed	1 924.5	1 371.8	71.3
Unemployed	86.2	57.9	67.1
Not in the labour force	880.4	331.6	37.7
<b>Total persons</b>	<b>2 891.2</b>	<b>1 761.3</b>	<b>60.9</b>

- (a) Percentages are the proportion of all persons that had computer access at home in each category.
- (b) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of Technical note.
- (c) Excludes Don't know.
- (d) Includes those persons with income less than zero.
- (e) Labour force status in the week before the survey.

PURPOSE OF COMPUTER  
USE: PERSON  
CHARACTERISTICS

For the 1,761,300 persons in Queensland who used a computer at home, the most frequently reported purpose was for personal or private use (97%), followed by work or business related purposes (53%), education or study (38%) and for volunteer or community reasons (16%).

<i>Sex</i>	There was little difference between males and females who had used the computer at home for personal or for private reasons. In comparison, a higher proportion of males compared with females reported using a computer at home for work or business related purposes (58% and 49% respectively) and education or study purposes (40% and 37% respectively).
<i>Age</i>	Home computer use for education or study purposes decreased as aged increased. Persons aged 18–24 years were more likely to use computers for education purposes (58%) than those aged 55–64 years. A higher proportion of persons aged 45–54 years used a computer for work or business related purposes (65%) compared with all other age groups, especially for persons aged 18–24 years (44%).
<i>Education</i>	Persons with a bachelor degree or higher were more likely than persons with any other education level to use computers at home for work (73% of persons with a bachelor degree), educational purposes (51%) and voluntary or community purposes (25%).
<i>Labour force status</i>	Persons not in the labour force were more likely to use a computer at home for personal or private reasons (98%) compared with employed persons and unemployed persons (both 96%). Nearly two-thirds (65%) of employed persons used a computer at home for work or business related purposes compared with unemployed persons (29%) and those not in the labour force (11%). Unemployed persons were more likely to use a computer for educational purposes (54%) than employed persons (41%) and those not in the labour force (27%).

Labour force status  
continued

**2.4** PURPOSE OF COMPUTER USE, Persons by selected characteristics—2004–05

	No. of persons who used a computer at home	PURPOSE OF COMPUTER USE(a)				
		Personal or private purposes	Work or business related purposes	Education or study purposes	Volunteer or community purposes	Other purposes
	'000	%	%	%	%	%
Sex						
Male	871.9	96.4	57.5	40.0	15.4	8.5
Female	889.3	96.8	49.4	36.8	16.4	9.0
Age group (years)						
18–24	290.7	96.8	43.9	58.1	11.7	*10.1
25–34	390.4	97.7	56.1	41.0	11.9	9.9
35–44	408.1	95.3	59.7	38.9	18.2	8.6
45–54	348.5	95.3	65.0	35.1	18.6	7.5
55–64	215.2	97.1	51.7	25.7	17.7	8.0
65 years or over	108.3	100.0	*11.6	*10.2	20.6	*7.1
Level of highest educational attainment(b)						
Year 12 or lower	491.3	*96.2	32.3	28.0	15.7	9.1
Trade/other certificate	163.4	94.4	44.9	27.6	15.4	10.2
Diploma/advanced diploma	91.1	100.0	46.2	38.2	*24.9	**6.2
Bachelor degree or higher	197.4	98.5	72.9	50.6	25.0	*7.2
Person income(c)						
\$0–\$24,999(d)	621.1	97.7	32.2	39.5	16.3	11.1
\$25,000–\$49,999	525.7	96.5	55.9	36.2	12.7	7.0
\$50,000–\$74,999	248.2	98.7	74.4	39.3	16.9	7.9
\$75,000–\$99,999	72.0	91.0	90.7	51.8	*25.6	*8.6
\$100,000 and over	60.6	87.0	88.7	37.3	*15.8	**6.0
Labour force status(e)						
Employed	1 371.8	96.3	64.7	40.6	15.3	8.5
Unemployed	57.9	96.0	28.8	53.5	*20.8	*11.5
Not in the labour force	331.6	97.9	11.2	26.8	17.6	9.4
<b>Total Persons</b>	<b>1 761.3</b>	<b>96.6</b>	<b>53.4</b>	<b>38.4</b>	<b>15.9</b>	<b>8.7</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of all persons who had computer access at home in each category.

(b) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraph 11–14 of Technical notes.

(c) Excludes Don't know.

(d) Includes those persons with income less than zero.

(e) Labour force status in the week before the survey.

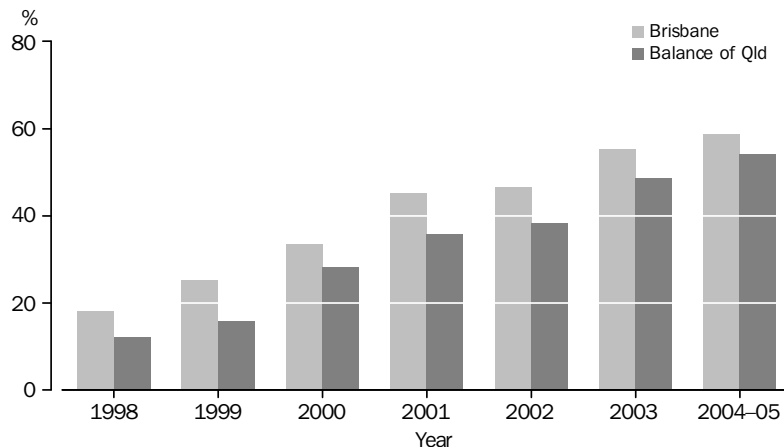
**INCREASES IN HOME INTERNET ACCESS**

Between 1998 and 2004–05, the proportion of Queensland households with access to the Internet at home more than tripled, with strong positive growth across the period (15% in 1998 to 56% in 2004–05).

**HOUSEHOLD CHARACTERISTICS**

Of the 561,700 households with computer access at home in 1998, approximately 15% (194,000) also had access to the Internet. By 2004–05, the proportion of all households with Internet access had grown to 56% in a series of annual increases, the largest occurring between 1999 and 2000 (20% to 31%).

**3.1** INTERNET ACCESS, Proportion of households by region—1998 to 2004–05



*Statistical region*

Internet access at home for households in Brisbane increased strongly between 1998 and 2004–05 (18% to 59%). Similarly, the proportion of households that had access to the Internet in the Balance of Queensland increased from 12% in 1998 to 54% in 2004–05. When comparing households in Brisbane with households in the Balance of Queensland, the gap in the proportion of households with Internet access has closed in recent years. In 2001, there was a 9 percentage point difference between households in Brisbane and households in the Balance of Queensland. In 2004–05, this difference was 5 percentage points.

*Annual household income*

Households with lower incomes consistently recorded lower levels of home Internet access when compared with those with higher incomes between 1998 and 2004–05. Households with an income of \$100,000 and over displayed the most Internet access growth than other income groups over the 7-year period.

**3.2** HOUSEHOLDS WITH INTERNET ACCESS AT HOME —1998 to 2004–05

	NUMBER OF HOUSEHOLDS WITH ACCESS						
	1998	1999	2000	2001	2002	2003	2004–05
	'000	'000	'000	'000	'000	'000	'000
Household income(a)							
\$0–\$24,999(b)	23.1	21.8	49.9	na	83.7	np	90.9
\$25,000–\$49,999	38.4	57.0	94.3	na	157.7	np	150.2
\$50,000–\$74,999	46.2	75.5	99.8	na	144.1	np	153.6
\$75,000–\$99,999	23.9	44.1	45.3	na	82.8	np	114.2
\$100,000 and over	29.4	34.8	53.0	na	130.9	np	152.6
Statistical region							
Brisbane MSR	108.8	153.9	209.0	289.6	302.0	370.1	410.6
Balance of Qld MSR	85.2	114.8	207.5	273.7	300.4	386.7	450.4
<b>Total households</b>	<b>194.0</b>	<b>268.6</b>	<b>416.5</b>	<b>563.3</b>	<b>602.3</b>	<b>756.8</b>	<b>861.0</b>

na not available

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes Don't know.

(b) Includes those households with income less than zero. For details see paragraph 15 of Explanatory notes.

**3.2** HOUSEHOLDS WITH INTERNET ACCESS AT HOME —1998 to 2004–05 *continued*

	PROPORTION OF ALL HOUSEHOLDS(a)						
	1998	1999	2000	2001	2002	2003(b)	2004–05
	%	%	%	%	%	%	%
Household income(c)							
\$0–\$24,999(d)	5.3	5.2	13.3	na	18.6	np	26.0
\$25,000–\$49,999	11.9	16.7	26.9	na	41.7	np	48.1
\$50,000–\$74,999	20.4	31.6	41.3	na	54.7	np	68.1
\$75,000–\$99,999	28.1	39.6	45.7	na	64.5	np	71.4
\$100,000 and over	39.7	49.4	62.6	na	64.1	np	86.4
Statistical region							
Brisbane MSR	18.1	25.2	33.6	45.2	46.6	55.3	58.7
Balance of Qld MSR	12.0	15.9	28.2	35.9	38.3	48.7	54.1
<b>Total households</b>	<b>14.8</b>	<b>20.1</b>	<b>30.7</b>	<b>40.1</b>	<b>42.1</b>	<b>51.7</b>	<b>56.2</b>

na not available

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Percentages are the proportion of all households with Internet access in each category.

(b) For more information on non-published household income data see paragraph 15 of the Technical notes.

(c) Excludes Don't know.

(d) Includes those households with income less than zero. For details see paragraph 15 of Explanatory notes.

USE OF INTERNET BY  
SITE: PERSON  
CHARACTERISTICS

The most common location of a persons access to the Internet was in the home (52%), followed by work (28%) and neighbour's, friend's or relative's house (20%).

<i>Age</i>	Persons aged 18–24 years were more likely to access the Internet at home (66%), at a neighbour's, friend's or relative's house (49%) or at a TAFE or tertiary institution (29%) when compared with other age groups. The highest proportion of Internet use at work was reported by persons aged 25–34 years (40%).
<i>Education</i>	Persons with an educational attainment of a diploma/advanced diploma or a bachelor degree or higher were more likely to access the Internet at work and at home, than those with a trade or year 12 or lower education. A greater proportion of persons with a bachelor degree or higher (73%) used the Internet at home compared to persons with a year 12 or lower education (37%). One half (50%) of all persons with a bachelor degree or higher used the Internet at work compared with 11% of persons with a year 12 or lower education.
<i>Annual income</i>	Internet use from home generally increased with annual income, with the highest proportion occurring amongst persons who reported an income of \$100,000 and over (84%). Persons with an income of \$100,000 and over were twice as likely to access the Internet from home than persons with an income under \$25,000 (42%).
<i>Labour force status</i>	During 2004–05, employed persons were the predominant users of the Internet from home and work compared with unemployed persons and those not in the labour force. That said, unemployed persons who had used the Internet at home was more than half (53%). Unemployed persons were more likely to access the Internet at a neighbour's, friend's or relative's house (33%) or other site (26%) compared with employed persons and those not in the labour force.
SITE OF INTERNET USE: PERSON CHARACTERISTICS	In 2004–05, 64% of all persons aged 18 years or over used the Internet at any site (includes all reported sites). Internet use at any site decreased as age increased. Persons aged 18–24 years were more than four times more likely to use the Internet at any site (88%) than those aged 65 years or over (20%).
<i>Age</i>	
<i>Education</i>	The higher the education level obtained by persons, the more likely they were to use the Internet at any site. Persons with a Bachelor degree or higher (85%) were almost twice as likely to use the Internet at any site than those with an education level of year 12 or lower (44%).
<i>Annual personal income</i>	As personal income increased, there was a corresponding rise in Internet use at any site. Persons with an annual income of \$100,000 and over recorded the highest proportion of Internet use at any site (89%) compared with persons with an annual income of under \$25,000 (51%) who had the lowest proportion.

### 3.3 SITE OF INTERNET USE, Persons by selected characteristics—2004–05

	No. of persons aged 18 years or over	SITE OF INTERNET USE(a)							Any site
		Home	Work	Neighbour's friend's or relative's house	Public library	TAFE or tertiary institution	Other(b)		
	'000	%	%	%	%	%	%	%	
<b>Sex</b>									
Male	1 429.0	53.1	27.5	20.2	7.5	7.5	12.8	62.9	
Female	1 462.2	51.4	28.0	19.0	7.9	7.6	11.5	64.7	
<b>Age group (years)</b>									
18–24	381.7	66.2	29.6	48.5	*14.2	28.6	21.7	87.9	
25–34	541.3	61.1	39.6	32.0	10.5	8.6	16.6	80.1	
35–44	572.1	62.5	34.7	14.9	8.8	4.9	9.8	71.8	
45–54	531.6	57.7	33.1	14.4	6.6	*4.2	13.8	67.9	
55–64	422.4	43.9	21.8	8.4	*4.5	*2.3	9.1	51.0	
65 years or over	442.1	17.6	*1.9	*2.3	**1.7	**0.3	*2.5	19.8	
<b>Level of highest educational attainment(c)(d)</b>									
Year 12 or lower	1 115.6	36.5	10.7	11.5	6.2	6.3	7.2	43.9	
Trade/other certificate	287.8	45.1	*10.9	11.0	*4.7	*4.8	9.0	54.4	
Diploma/advanced diploma	116.7	70.4	36.8	*15.5	*9.6	*6.7	*13.6	80.8	
Bachelor degree or higher	252.3	73.2	50.1	23.0	14.4	*9.1	23.4	84.9	
<b>Person income(e)</b>									
\$0–\$24,999(f)	1 222.2	41.6	10.2	16.6	8.6	10.8	10.3	50.9	
\$25,000–\$49,999	794.8	56.5	37.7	23.1	6.7	6.5	12.2	72.4	
\$50,000–\$74,999	316.2	70.5	53.8	25.8	*6.9	*5.1	18.0	84.7	
\$75,000–\$99,999	82.5	78.6	70.0	*21.3	*11.9	**1.5	*22.4	88.4	
\$100,000 and over	68.6	83.6	65.0	*21.3	**7.8	**3.4	23.1	88.7	
<b>Labour Force Status(g)</b>									
Employed	1 924.5	62.6	39.7	24.1	8.0	8.2	15.1	76.4	
Unemployed	86.2	52.6	*15.6	32.9	*20.1	*21.0	26.1	73.1	
Not in the labour force	880.4	29.7	2.9	8.4	6.0	4.7	4.5	35.1	
<b>Total Persons</b>	<b>2 891.2</b>	<b>52.3</b>	<b>27.7</b>	<b>19.6</b>	<b>7.7</b>	<b>7.5</b>	<b>12.2</b>	<b>63.8</b>	

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of persons who have accessed the Internet at a particular site in each category.

(b) Includes government agency/department/shopfront and Internet/cyber cafe, shopping mall, airport or similar

(c) Excludes those who never attended school or where level was not determined.

(d) Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of Technical notes.

(e) Excludes Don't know.

(f) Includes those persons with income less than zero.

(g) Labour force status in the week before the survey.

#### PURPOSE OF INTERNET USE AT HOME: PERSON CHARACTERISTICS

Of the 1,511,000 persons in Queensland who accessed the Internet at home, 97% (1,463,112) reported personal use as a reason for accessing the Internet. Work or business related purposes was the next most frequent reason (49%) followed by education or study purposes (37%) and voluntary or community reasons (13%). Persons could report one or more purposes for using the Internet.

#### Sex

Males and females reported similar proportions in all possible reasons for Internet use, except for work or business related purposes. Over one-half (53%) of males reported using the Internet at home for work or business related purposes compared with less than one half (45%) of females.



*Age*

The proportion of Internet use for educational purposes decreased as age increased. Persons aged 18–24 years who accessed the Internet at home were more likely than any other age group to use the Internet for this purpose (54%). The age group with the highest proportion of Internet use for work related purposes was reported by persons aged 45–54 years (60%).

**3.4** PURPOSE OF INTERNET USE AT HOME, Persons by selected characteristics—2004–05

	No. of persons who accessed the Internet at home	PURPOSE OF INTERNET USE (a)				
		Personal or private purposes	Work or business related purposes	Education or study purposes	Volunteer or community purposes	Other purposes
	'000	%	%	%	%	%
<b>Sex</b>						
Male	759.2	96.0	53.4	36.9	12.2	9.6
Female	751.8	97.7	45.0	36.7	12.8	7.6
<b>Age group (years)</b>						
18–24	252.8	96.7	33.7	53.5	*8.7	*11.2
25–34	330.7	96.8	52.5	39.1	7.7	11.4
35–44	357.6	96.2	56.0	38.5	14.5	*6.6
45–54	306.9	96.7	60.1	33.4	15.2	*5.8
55–64	185.3	97.7	48.5	23.6	16.5	*7.8
65 years or over	77.7	99.1	*13.0	*8.9	*16.0	*9.6
<b>Level of highest educational attainment(b)</b>						
Year 12 or lower	407.5	96.3	29.6	28.6	12.8	8.9
Trade/other certificate	129.9	93.9	39.6	23.0	*12.0	*9.6
Diploma/advanced diploma	82.1	98.6	40.9	*32.4	*18.8	**5.4
Bachelor degree or higher	184.7	99.6	69.5	47.9	20.8	*6.7
<b>Person income(c)</b>						
\$0–\$24,999(d)	507.9	97.7	30.6	38.6	13.5	10.5
\$25,000–\$49,999	448.8	97.1	46.4	33.1	9.9	*8.1
\$50,000–\$74,999	223.0	99.0	71.3	37.0	14.6	8.4
\$75,000–\$99,999	64.9	91.2	87.2	52.7	*17.6	*10.8
\$100,000 and over	57.3	93.1	81.3	*37.0	*12.1	**2.3
<b>Labour force status(e)</b>						
Employed	1 203.9	96.6	58.2	38.2	11.9	8.5
Unemployed	45.3	100.0	*31.2	62.8	*25.0	*11.4
Not in the labour force	261.8	97.1	11.0	25.5	13.1	8.4
<b>Total persons</b>	<b>1 511.0</b>	<b>96.8</b>	<b>49.2</b>	<b>36.8</b>	<b>12.5</b>	<b>8.6</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of all persons with Internet access at home in each category.

(b) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of Technical notes.

(c) Excludes Don't know.

(d) Includes those persons with income less than zero.

(e) Labour force status in the week before the survey.

**MAIN PURPOSE OF INTERNET USE AT HOME: PERSON CHARACTERISTICS**

In 2004–05, for all persons who had access to the Internet at home, the main purpose for Internet use was personal use (66%), followed by work related (21%) and other purposes (13%).

**Sex**

Males reported a lower proportion of personal use (63%) compared with females (68%), although males were more likely than females to use the Internet at home for work related purposes (25% and 17% respectively).

**Age**

Personal use was the main purpose for Internet use across all age ranges, especially for persons aged 65 years or over who reported a substantially higher proportion (91%) than any other age group.

*Annual income*

Persons with an income of \$75,000–\$99,999 reported the highest proportion of work related purposes as their main reason for Internet use (50%) while persons with an income of under \$25,000 reported the lowest proportion of work related Internet use (11%).

*Labour force status*

A higher proportion of persons not in the labour force recorded personal reasons as the main purpose of home Internet use (85%) compared with employed (61%) and unemployed persons (65%).

Labour force status  
continued

**3.5** MAIN PURPOSE OF INTERNET USE AT HOME, Persons by selected characteristics—2004–05

	No. of persons who accessed the Internet at home '000	MAIN PURPOSE OF INTERNET USE(a)		
		Personal %	Work related %	Other purposes(b) %
<b>Sex</b>				
Male	759.2	63.2	24.9	11.9
Female	751.8	68.0	17.3	14.7
<b>Age group (years)</b>				
18–24	252.8	61.9	*8.9	29.1
25–34	330.7	66.1	19.5	14.4
35–44	357.6	62.8	27.0	10.3
45–54	306.9	63.1	28.9	8.0
55–64	185.3	68.3	23.6	*8.1
65 years or over	77.7	91.4	**4.5	**4.1
<b>Level of highest educational attainment(c)</b>				
Year 12 or lower	407.5	70.6	13.1	16.3
Trade/other certificate	129.9	71.9	17.4	*10.7
Diploma/advanced diploma	82.1	62.4	27.7	*9.9
Bachelor degree or higher	184.7	58.5	27.2	14.2
<b>Person income(d)</b>				
\$0–\$24,999(e)	507.9	67.4	11.0	21.6
\$25,000–\$49,999	448.8	70.8	18.9	10.2
\$50,000–\$74,999	223.0	62.4	28.3	*9.3
\$75,000–\$99,999	64.9	39.0	50.2	**10.7
\$100,000 and over	57.3	*51.4	46.4	**2.2
<b>Labour force status(f)</b>				
Employed	1 203.9	61.4	25.7	13.0
Unemployed	45.3	65.4	**8.3	*26.3
Not in the labour force	261.8	85.1	*2.4	12.5
<b>Total persons</b>	<b>1 511.0</b>	<b>65.6</b>	<b>21.1</b>	<b>13.3</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution  
 \*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of all persons with Internet access at home in all categories.

(b) Includes education or study purposes and voluntary or community purposes.

(c) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of Technical notes.

(d) Excludes Don't know.

(e) Includes those persons with income less than zero.

(f) Labour force status in the week before the survey.

CHAPTER **4**

**TYPE OF INTERNET CONNECTION AND TYPE OF TECHNOLOGY USED FOR BROADBAND INTERNET ACCESS** .....

TYPE OF INTERNET ACCESS AT HOME

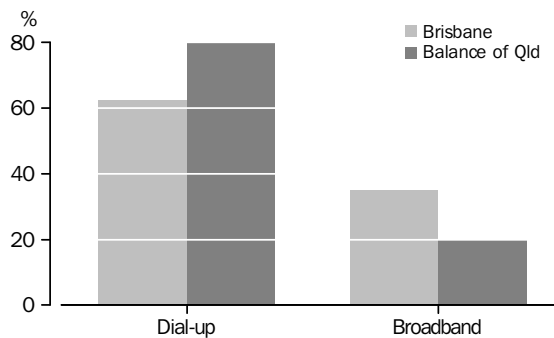
During 2004–05, dial-up Internet access was reported to be the most popular method of Internet connection for households. Of the 861,000 households that accessed the Internet at home, 71% (612,000) had dial-up connections and 27% (232,000) reported a broadband Internet connection.

HOUSEHOLD CHARACTERISTICS

*Statistical region*

Households in Brisbane (35%) were found to be more likely to have broadband Internet access at home than households in the Balance of Queensland (20%). However, dial-up access remained the most common Internet connection for both statistical regions (62% and 79% respectively).

**4.1** DIAL-UP OR BROADBAND INTERNET ACCESS, Proportion of households by region—2004–05



*Annual household income*

Over one-fifth (21%) of households with an income under \$25,000 had a broadband Internet connection, this increased to over one-third (35%) of households with an income of \$100,000 and over. Conversely, households in the lower income categories were more likely to have dial-up access where households in the two bottom income categories (\$0–\$24,999 and \$25,000–\$49,999) reported the highest proportion of dial-up access (77% each).

Annual household income  
continued

**4.2** TYPE OF INTERNET ACCESS AT HOME, by households with Internet access—2004–05

	No. of households accessing Internet at home '000	TYPE OF INTERNET ACCESS(a)		
		Dial-up %	Broadband %	Both or don't know %
Household income(b)				
\$0–\$24,999(c)	90.9	76.5	20.5	*3.1
\$25,000–\$49,999	150.2	76.5	21.9	*1.6
\$50,000–\$74,999	153.6	74.6	24.1	**1.3
\$75,000–\$99,999	114.2	64.2	34.0	*1.8
\$100,000 and over	152.6	64.5	34.6	**0.8
Statistical region				
Brisbane MSR	410.6	62.1	35.0	2.9
Balance of Qld MSR	450.4	79.4	19.6	*1.0
<b>Total households</b>	<b>861.0</b>	<b>71.1</b>	<b>27.0</b>	<b>1.9</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of households with Internet access at home in each category.

(b) Excludes Don't know.

(c) Includes those households with income less than zero.

PERSON CHARACTERISTICS

Of the 1,511,000 persons in Queensland who accessed the Internet at home, 68% had a dial-up Internet connection compared with 30% who had a broadband Internet connection. The use of dial-up and broadband Internet connections across Queensland varied according to different socio-demographic characteristics.

**Sex** Females were more likely to use a dial-up Internet connection at home (73%) than their males counterparts (64%). However, males reported a higher proportion of broadband Internet connection (35%) when compared to females (25%).

**Age** Persons aged 18–24 years and 45–54 years recorded the highest proportion of broadband Internet access at home (35% each). The lowest reported proportion of broadband Internet access were persons aged between 55–64 years (25%).

**Education** Persons with a trade/other certificate were more likely than any other category to use a dial-up Internet connection as their means of accessing the Internet (81%). Persons with a bachelor degree or higher were more likely to use a broadband Internet connection (42%) when compared with the other education categories.

**Annual personal income** The higher the annual income reported, the more likely persons were to have a broadband Internet connection at home. However, persons with an income of \$0–\$24,999 were more likely to have a broadband Internet connection (30%) than persons with an income of \$25,000–\$49,999 (28%). Persons with a reported annual income of \$25,000–\$49,999 were more likely to use a dial-up Internet connection at home (71%) when compared with other income categories, while persons who earned \$100,000 and over were more likely to use a broadband Internet connection (46%).

*Labour force status*

Employed persons, unemployed persons and those not in the labour force did not vary substantially in their relative proportions of dial-up and broadband Internet access. However, all categories were more likely to have a dial-up Internet connection than broadband.

**4.3** TYPE OF INTERNET ACCESS AT HOME, Persons by selected characteristics—2004–05

	No. of persons who accessed the Internet at home '000	TYPE OF INTERNET ACCESS (a)		
		Dial-up %	Broadband %	Both or Don't know %
<b>Sex</b>				
Male	759.2	63.9	35.0	*1.0
Female	751.8	72.6	25.5	*1.9
<b>Age group (years)</b>				
18–24	252.8	62.7	35.2	**2.1
25–34	330.7	70.3	28.0	*1.7
35–44	357.6	70.3	28.5	*1.2
45–54	306.9	63.9	35.4	**0.7
55–64	185.3	74.6	24.7	**0.7
65 years or over	77.7	70.3	*25.8	**3.9
<b>Level of highest educational attainment(b)</b>				
Year 12 or lower	407.5	69.2	29.1	**1.7
Trade/other certificate	129.9	80.8	*17.3	**2.0
Diploma/advanced diploma	82.1	63.3	*34.3	**2.4
Bachelor degree or higher	184.7	58.3	41.7	—
<b>Person income(c)</b>				
\$0–\$24,999(d)	507.9	67.5	30.1	*2.4
\$25,000–\$49,999	448.8	71.0	27.7	*1.3
\$50,000–\$74,999	223.0	64.8	34.2	**1.1
\$75,000–\$99,999	64.9	55.6	44.4	—
\$100,000 and over	57.3	53.9	46.1	—
<b>Labour force status(e)</b>				
Employed	1 203.9	68.0	30.5	*1.5
Unemployed	45.3	69.2	*30.8	—
Not in the labour force	261.8	69.2	29.1	**1.7
<b>Total persons</b>	<b>1 511.0</b>	<b>68.3</b>	<b>30.3</b>	<b>1.5</b>

- \* estimate has a relative standard error of 25% to 50% and should be used with caution
- \*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use
- nil or rounded to zero (including null cells)
- (a) Percentages are the proportion of all persons with home Internet access in each category.
- (b) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of Technical notes.
- (c) Excludes Don't know.
- (d) Includes those persons with income less than zero.
- (e) Labour force status in the week before the survey.

TYPE OF BROADBAND INTERNET ACCESS AT HOME

In 2004–05, the main type of technology that households used for broadband connection to the Internet was Digital Subscriber Line (DSL) with 77% of households in Queensland with broadband access reporting a DSL connection. The second most frequent type of technology used by Queensland households for broadband connection was cable (19%). Households in the Balance of Queensland were more likely to use DSL (87%) compared with households in Brisbane (71%). Across all the income groups, DSL connection was more common than cable connection to the Internet.

**4.4** TYPE OF BROADBAND INTERNET ACCESS AT HOME, by households with broadband access—2004–05

	No. of households with broadband access	TYPE OF BROADBAND INTERNET ACCESS (a)		
		Digital Subscriber Line	Cable	Other or don't know(b)
	'000	%	%	%
Household income(c)				
\$0–\$24,999(d)	18.6	79.0	**10.6	**10.5
\$25,000–\$49,999	32.9	68.7	*29.4	**1.9
\$50,000–\$74,999	37.0	74.0	24.3	**1.7
\$75,000–\$99,999	38.8	88.3	*9.9	**1.8
\$100,000 and over	52.8	77.3	20.3	**2.4
Statistical region				
Brisbane MSR	143.8	70.9	27.3	*1.8
Balance of Qld MSR	88.4	87.3	*6.7	*6.0
<b>Total households</b>	<b>232.2</b>	<b>77.2</b>	<b>19.4</b>	<b>*3.4</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of all households that had broadband Internet access in each category.

(b) Includes satellite and microwave.

(c) Excludes Don't know.

(d) Includes those households with income less than zero. For details see paragraph 15 of Explanatory notes.



PURCHASING OR ORDERING VIA THE INTERNET: PERSON CHARACTERISTICS

In 2004–05, almost one-third (32%) of persons aged 18 years or over in Queensland purchased or ordered goods or services via the Internet (i.e. Internet shopping) for private use. The likelihood that a person had access to the Internet at any site and whether they were an Internet shopper varied markedly between age and income groups.

Age

A higher proportion of persons in Queensland aged 25–34 years (46%) shopped via the Internet compared with other age groups, while shopping via the Internet was the least common for persons aged 65 years or over (6.5%).

Education

Persons with a bachelor degree or higher (54%) reported the highest proportion of Internet shopping. Persons with a year 12 or lower education (18%) were the least likely to shop via the Internet.

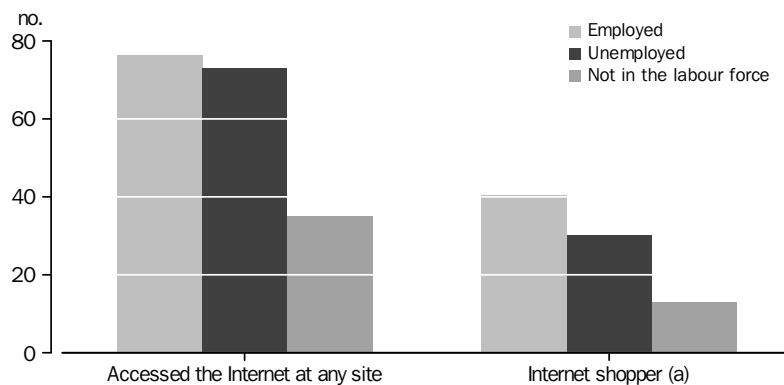
Annual personal income

During 2004–05, the proportion of persons purchasing or ordering goods or services via the Internet increased with personal income. Almost one in five persons with an annual personal income under \$25,000 purchased or ordered goods and services via the Internet. This rate almost tripled (58%) for persons with an income of \$100,000 and over.

Labour force status

There was little difference between employed (76%) and unemployed (73%) persons who had accessed the Internet at any site. However, the difference in the proportions of Internet shoppers was greater with 41% of employed persons compared with 30% of unemployed persons shopping via the Internet. Persons not in the labour force reported a substantially lower proportion of Internet shopping (13%).

**5.1** INTERNET ACCESS AND INTERNET SHOPPING, by labour force status—2004–05



(a) Internet shopper refers to persons who have purchased goods or services via the Internet for private use.

Labour force status  
continued

**5.2** PURCHASED OR ORDERED GOODS OR SERVICES VIA THE INTERNET, Persons by selected characteristics—2004–05

	No. of persons aged 18 years or over	Accessed the Internet at any site	Purchased or ordered goods or services via the Internet for private use
	'000	%	%
<b>Sex</b>			
Male	1 429.0	62.9	32.1
Female	1 462.2	64.7	31.6
<b>Age group (years)</b>			
18–24	381.7	87.9	35.3
25–34	541.3	80.1	45.9
35–44	572.1	71.8	37.3
45–54	531.6	67.9	37.3
65 years or over	442.1	19.8	6.5
<b>Level of highest educational attainment(a)</b>			
Year 12 or lower	1 115.6	43.9	17.9
Trade/other certificate	287.8	54.4	20.3
Diploma/advanced diploma	116.7	80.8	40.8
Bachelor degree or higher	252.3	84.9	54.4
<b>Person income(b)</b>			
\$0–\$24,999(c)	1 222.2	50.9	19.3
\$25,000–\$49,999	794.8	72.4	37.5
\$50,000–\$74,999	316.2	84.7	54.7
\$75,000–\$99,999	82.5	88.4	59.2
\$100,000 and over	68.6	88.7	58.3
<b>Labour force status(d)</b>			
Employed	1 924.5	76.4	40.6
Unemployed	86.2	73.1	30.3
Not in the labour force	880.4	35.1	13.0
<b>Total persons</b>	<b>2 891.2</b>	<b>63.8</b>	<b>31.9</b>

(a) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of the Technical notes.

(b) Excludes Don't know.

(c) Includes those persons with income less than zero. For details see paragraph 15 of Explanatory Notes.

(d) Labour force status in the week before the survey.

MAIN REASON FOR NOT PURCHASING OR ORDERING VIA THE INTERNET: PERSON CHARACTERISTICS

In 2004–05, of the 921,800 persons in Queensland who accessed the Internet but did not purchase goods and services, the most common reason given was that they had no need (34%), followed by security concerns (29%). Over one-fifth (21%) of persons reported 'other reasons' (e.g. privacy concerns and concerns about receiving or returning goods) and 17% of Internet users preferred to shop in person.

Sex

The reasons given for not purchasing goods and services via the Internet varied between males and females. Females were twice as likely to want to shop in person or liked to see the product before purchasing (23%) compared with their male counterparts (11%). Males were more likely than females to have no need to purchase goods or services via the Internet (38% and 30% respectively).

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<i>Age</i>	Persons aged 18–24 years were least likely of all age groups to report security concerns as the reason for not purchasing via the Internet (19%), however they were the most likely to report 'other reasons' (26%). Persons aged 35–44 years were the most likely to report the main reason as security concerns (38%) for not purchasing via the Internet. Both the youngest and oldest age group reported that they had no need to purchase via the Internet (41% each) as their strongest reason.
<i>Labour force status</i>	Persons who were employed reported their most common reason for not purchasing via the Internet as lack of need (35%), whereas those not in the labour force were more concerned about security (33%) than employed persons (28%).

### 5.3 MAIN REASON FOR NOT PURCHASING OR ORDERING GOODS VIA THE INTERNET, Persons by selected characteristics—2004–05

	No. of persons who did not purchase goods or services '000	MAIN REASON FOR NOT PURCHASING VIA THE INTERNET(a)			
		Have no need %	Prefer to shop in person (b) %	Security concerns(c) %	Other reasons(d) %
<b>Sex</b>					
Male	439.2	38.1	11.4	29.8	20.7
Female	482.6	29.7	22.5	27.3	20.5
<b>Age group (years)</b>					
18–24	200.8	40.9	*15.1	18.6	25.5
25–34	184.9	36.7	17.3	26.1	20.0
35–44	197.3	25.8	18.3	37.6	18.3
45–54	162.9	35.5	17.2	29.1	18.2
55–64	117.0	*23.8	19.4	33.9	22.9
65 years or over	58.8	41.3	*15.9	*27.1	*15.7
<b>Level of highest educational attainment(e)</b>					
Year 12 or lower	290.0	36.1	17.1	27.3	19.6
Trade/other certificate	98.2	32.6	*13.4	*25.5	28.5
Diploma/advanced diploma	46.7	*34.6	*17.1	*25.4	*23.0
Bachelor degree or higher	77.2	*24.3	*19.6	33.7	22.4
<b>Person income(f)</b>					
\$0–\$24,999(g)	385.8	36.9	15.3	22.8	25.0
\$25,000–\$49,999	277.4	31.9	22.4	28.6	17.1
\$50,000–\$74,999	94.8	34.5	*9.6	33.7	*22.2
\$75,000–\$99,999	24.1	**16.4	**5.6	*48.2	**29.9
\$100,000 and over	*20.9	*33.6	**6.1	*44.3	**16.0
<b>Labour force status(h)</b>					
Employed	689.9	34.7	16.3	27.9	21.1
Unemployed	36.9	*37.5	*24.6	*15.8	*22.1
Not in the labour force	194.9	29.5	18.9	32.9	18.6
<b>Total persons</b>	<b>921.8</b>	<b>33.7</b>	<b>17.2</b>	<b>28.5</b>	<b>20.6</b>

\* estimate has a relative standard error of 25% to 50% and should be used with caution

\*\* estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Percentages are the proportion of all persons who accessed the Internet but did not order or purchase.

(b) Includes like to see the product before purchasing.

(c) Includes concerns about providing credit card details on-line.

(d) Includes privacy concerns/concerned about providing personal details on-line and trust concerns/concerned about receiving or returning goods.

(e) Excludes those who never attended school or where level was not determined. Education levels have been collapsed to increase reliability. For details see paragraphs 11–14 of the Technical notes.

(f) Excludes Don't know.

(g) Includes those persons with income less than zero.

(h) Labour force status in the week before the survey.

## EXPLANATORY NOTES .....

### INTRODUCTION

**1** This publication presents results of the use of information technology by households in Queensland, which were compiled from data collected in the inaugural Multi-Purpose Household Survey (MPHS). This survey was conducted throughout Australia as a supplement to the Labour Force Survey (LFS) each month from August 2004 to June 2005.

**2** The MPHS was designed to provide statistics annually for a number of small, self-contained topics. These include labour topics and other social and economic topics. The topics collected in 2004–05 were:

- Barriers and Incentives to Labour Force Participation
- Retirement and Retirement Intentions
- Household Use of Information Technology (HUIT).

### DATA COLLECTION FOR MPHS

**3** The MPHS is conducted as a supplement to the monthly LFS. One-third of the dwellings in the outgoing rotation group (one-eighth of the sample is rotated out each month) are selected for the MPHS. In these dwellings, after LFS has been fully completed for each person in scope and coverage, a person (usual resident) aged 18 years and over is selected at random (based on a computer algorithm) and asked the additional MPHS questions in a personal interview. Data was collected using Computer Assisted Interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire in a notebook computer during a telephone interview.

**4** The sample was accumulated over an eleven-month period (August 2004 to June 2005). It was not enumerated in July 2004 due to a delay in full implementation of CAI for the LFS.

**5** The MPHS questions were asked using a telephone interview. The ABS has taken reasonable steps during the survey development process to ensure that this change in collection methodology does not affect the quality of the data, but a small impact for the more complex questions cannot be ruled out.

**6** The publication *Labour Force, Australia* (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing relevant to both the monthly LFS and supplementary surveys.

### SCOPE OF LABOUR FORCE SURVEY (LFS)

**7** The scope of the LFS is restricted to people aged 15 years and over and excludes the following persons:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants).

### SCOPE OF MULTI-PURPOSE HOUSEHOLD SURVEY (MPHS)

**8** For the MPHS in 2004–2005 the following people are also excluded:

- people under the age of 18 years
- people living in private dwellings in very remote parts of Australia
- people living in special dwellings such as hotels, university residences, etc.

SCOPE OF MULTI-PURPOSE  
HOUSEHOLD SURVEY (MPHS)  
*continued*

- Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for persons with disabilities), and inmates of prisons
- visitors to private dwellings
- people living in very remote indigenous communities.

**9** This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded persons living in very remote parts of Australia. The exclusion of these people is unlikely to impact on the estimates included in this publication.

COVERAGE

**10** In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See *Labour Force, Australia* (cat. no. 6202.0) for more details.

WEIGHTING, BENCHMARKING  
AND ESTIMATION

**11** Weighting is the process of adjusting results from a sample survey to infer results for the total in scope population. To do this, a 'weight' is allocated to each sample unit, which, for the MPHS, can be either a person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. The initial weights are then calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights are calibrated against population benchmarks to ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself.

*Benchmarking*

**12** The survey was benchmarked to the estimated civilian population aged 18 years and over living in private dwellings in each state and territory in non-sparsely settled areas. The process of weighting ensures that the survey estimates conform to person benchmarks by state, part of state, age and sex and to household benchmarks by state, part of state and household composition. These benchmarks are produced from estimates of the resident population derived independently of the survey.

*Estimates*

**13** Survey estimates of counts of persons or households are obtained by summing the weights of persons or households with the characteristic of interest.

IMPUTATION FOR  
NON-RESPONSE

**14** Certain data items such as estimates of income had significant non-response for 2004–05. The ABS has not applied any imputation methodology for estimation of values for non-responses.

INCOME LESS THAN ZERO

**15** Some households reported negative income in the survey. This is possible if they incur losses in their unincorporated businesses or have negative returns from their investments. Studies of income and expenditure from the 1998–99 Household Expenditure Survey (HES) have shown that such households in the bottom income decile and with negative gross incomes tend to have expenditure levels that are comparable to those of households with higher income levels (and slightly above the average expenditures recorded for the fifth decile), indicating that these households have access to economic resources, such as wealth or that the instance of low or negative income is temporary, perhaps reflecting business or investment start up.

COMPARABILITY WITH  
MONTHLY LFS STATISTICS

**16** Due to differences in the scope and sample size of the MPHS and that of the LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those from the LFS.

RELATED PUBLICATIONS

**17** Other ABS publications on the production and use of information and communication technologies and telecommunication goods and services in Australia are:

- *Use of Information Technology by Households in Queensland, 1998–2003* (cat. no. 8146.3)

## RELATED PUBLICATIONS

*continued*

- *Business Use of Information Technology, Australia, 2003–04* (cat. no. 8129.0)
- *Government Use of Information Technology, Australia, 2002–03* (cat. no. 8119.0)
- *Household Use of Information Technology, Australia, 2002–03* (cat. no. 8146.0)
- *Information and Communication Technology, Australia, 2002–03* (cat. no. 8126.0)
- *Use of Information Technology on Farms, Australia, 2003–04* (cat. no. 8150.0)
- *Internet Activity, Australia, March 2005* (cat. no. 8153.0)

**18** Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The catalogue is available from any ABS office or the ABS website <<http://www.abs.gov.au>>. The ABS also issues a daily release advice on the web site which details products to be released in the week ahead.

AVAILABILITY OF  
UNPUBLISHED STATISTICS

**19** As well as statistics included in this report, the ABS has a range of data on the use of selected information technologies in households. Inquiries about these statistics can be made by telephoning the National Information and Referral Service on 1300 135 070.





ESTIMATES

**1** Estimates provided in this report are based on information obtained from samples of households and persons. Estimates are subject to sampling and non-sampling error.

*Non-sampling error*

**2** Non-sampling error may arise as a result of error in the reporting, recording or processing of data and can occur even if there is complete enumeration of the population. Non-sampling error can be introduced through inadequacies in the questionnaire, non-response, inaccurate reporting by respondents, error in the application of survey procedures, incorrect recording of answers and errors in data entry and processing.

**3** It is not possible to measure the size of the non-sampling error. The extent of this error could vary considerably from survey to survey and from question to question. Every effort is made in the design of the survey and development of survey procedures to minimise the effect of this type of error.

*Sampling error*

**4** Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if all persons in scope of the survey had been included.

ESTIMATES OF SAMPLING ERROR

**5** One measure of the variability of estimates which occurs as a result of surveying only a sample of the population is the standard error (SE).

**6** 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.

**7** Tables of standard errors of household and person estimates are provided for 2004–05 below. Standard estimates are provided to enable readers to determine the SE for an estimate from the size of that estimate. The SE is derived from a mathematical model, referred to as the 'SE model'. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation between SEs for different estimates of the same size.

ESTIMATES OF SAMPLING  
 ERROR *continued*

STANDARD ERRORS OF HOUSEHOLD ESTIMATES—2004–05

<i>Size of estimate</i>	<i>Standard Error</i>	<i>Relative Standard Error</i>
no.	no.	%
100	130	130.0
200	220	110.0
300	300	100.0
500	420	84.0
700	530	75.7
1 000	670	67.0
1 500	870	58.0
2 000	1 050	52.5
2 500	1 200	48.0
3 000	1 350	45.0
3 500	1 450	41.4
4 000	1 600	40.0
5 000	1 800	36.0
7 000	2 150	30.7
10 000	2 600	26.0
15 000	3 250	21.7
20 000	3 750	18.7
30 000	4 550	15.1
40 000	5 150	12.9
50 000	5 700	11.4
100 000	7 650	7.6
150 000	8 950	5.9
200 000	10 000	5.0
300 000	11 550	3.8
500 000	13 650	2.7
1 000 000	16 750	1.7
2 000 000	20 050	1.0
5 000 000	24 400	0.5

ESTIMATES OF SAMPLING  
ERROR *continued*

STANDARD ERRORS OF PERSON ESTIMATES—2004–05

<i>Size of estimate</i>	<i>Standard Error</i>	<i>Relative Standard Error</i>
no.	no.	%
100	200	200.0
200	330	165.0
300	450	150.0
500	640	128.0
700	810	115.7
1 000	1 020	102.0
1 500	1 320	88.0
2 000	1 580	79.0
2 500	1 800	72.0
3 000	2 000	66.7
3 500	2 200	62.8
4 000	2 400	60.0
5 000	2 700	54.0
7 000	3 300	47.1
10 000	3 950	39.5
15 000	4 900	32.7
20 000	5 650	28.3
30 000	6 850	22.8
40 000	7 850	19.6
50 000	8 650	17.3
100 000	11 600	11.6
150 000	13 600	9.1
200 000	15 150	7.6
300 000	17 450	5.8
500 000	20 650	4.1
1 000 000	25 350	2.5
2 000 000	30 350	1.5
5 000 000	36 950	0.7

**8** The standard error can also be expressed as a percentage of the estimate. This is known as the relative standard error (RSE). The RSE is determined by dividing the standard error of the estimate SE(x) by the estimate x and expressing it as a percentage. That is:  $RSE(x) = 100 * SE(x) / x$  (where x is the estimate). The RSE is a measure of the percentage error likely to have occurred due to sampling.

**9** The tables below illustrate the RSE ranges for the size of estimates for tables in this report. Only estimates with RSEs less than 25% are considered sufficiently reliable for most purposes. Household and person estimates with an RSE between 25% and 50% are preceded by an asterisk (e.g. \*3.4) to indicate they are subject to high SEs and should be used with caution. Household and person estimates with an RSE greater than 50% are preceded by a double asterisk (e.g. \*\*0.3), are considered too unreliable for general use.

HOUSEHOLD ESTIMATES WITH RELATIVE STANDARD ERRORS OF 25% AND 50%—2004–05

<i>Size of estimate</i>	<i>Qld</i> no.
Estimate with RSE of 25%	11 065
Estimate with RSE of 50%	2 244

ESTIMATES OF SAMPLING  
ERROR *continued*

PERSON ESTIMATES WITH RELATIVE STANDARD ERRORS OF 25% AND  
50%—2004–05

	<i>Qld</i>
<i>Size of estimate</i>	<i>no.</i>
Estimate with RSE of 25%	25 385
Estimate with RSE of 50%	6 062

PROPORTIONS AND  
PERCENTAGES

**10** Proportions of a total and percentages formed from the ratio of two estimates are subject to sampling error. The size of the error depends on the accuracy of both the numerator and denominator. The formula for the relative standard error of a proportion or percentage for all four surveys is:

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

EDUCATIONAL  
CLASSIFICATIONS

**11** In 2001, the *Australian Standard Classification of Education (ASCED)* (cat. no. 1272.0) replaced the *ABS Classification of Qualifications (ABSCQ)* (cat. no. 1261.0). The ASCED is a new national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training, and higher education.

**12** The major groups of the ASCED classification have been aggregated to increase the reliability of estimates within each category.

**13** The nine broad Levels of Education in ASCED are:

- 1 Postgraduate Degree Level
- 2 Graduate Diploma and Graduate Certificate Level
- 3 Bachelor Degree Level
- 4 Advanced Diploma and Diploma Level
- 5 Certificate Level
- 6 Secondary Education
- 7 Primary Education
- 8 Pre-primary Education
- 9 Other Education

**14** These nine broad levels of ASCED have been collapsed into the following categories:

- Year 12 or lower (ASCED groups 6, 7, 8 and 9)
- Trade/other certificate (ASCED group 5)
- Diploma/advanced diploma (ASCED group 4)
- Bachelor degree or higher (ASCED groups 1, 2 and 3)

2003 SDAC HOUSEHOLD  
INCOME DATA

**15** Due to the difference in household income data of the MPHS and previous surveys, household income data for 2003 have been suppressed due to unreliable estimates. These have been annotated as not to be published in this publication (np).

## GLOSSARY .....

<b>Age</b>	This is the reported age of a person on their last birthday.
<b>Analog/Public Switched Telephone Network (PSTN)</b>	A telecommunications network operated by a carrier to provide services to the public.
<b>Australian Standard Classification of Education (ASCED)</b>	The ASCED is a new national standard classification which includes all sectors of the Australian education system, that is, schools, vocational education and training, and higher education. From 2001, ASCED replaced a number of classifications used in administrative and statistical systems, including the ABS Classification of Qualifications (ABSCQ). The ASCED comprises two classifications: Level of Education and Field of Education. See <i>Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0)</i> .
<b>Balance of Queensland Major Statistical Region (MSR)</b>	See <i>Statistical region</i> .
<b>Bit</b>	Abbreviation for binary and describing the smallest unit of information handled by a computer. One bit expresses a 1 or a 0 in a binary numeral, or a true or false logical condition. See also Byte.
<b>Brisbane Major Statistical Region (MSR)</b>	See <i>Statistical region</i> .
<b>Broadband</b>	Defined by the ABS as an 'always on' Internet connection with an access speed equal to or greater than 256 Kilobits per second (Kbps).
<b>Byte</b>	Abbreviation for binary term. A unit of data, almost always consisting of 8 bits. A byte can represent a single character, such as a letter, a digit, or punctuation mark. See also kilobit and kilobyte.
<b>Cable</b>	Describes those technologies including coaxial cable, fibre optic cable and hybrid fibre coaxial cable which are capable of transmitting data at speeds of up to 2 Gigabits per second (Gbps).
<b>Computer</b>	Portable, desktop and dedicated computers, and items such as pocket computers or 'personal organisers' which can be plugged into larger computers, are considered to be computers if they are usually in working order.
<b>Computer access (Computer use)</b>	This refers to use of a computer in the 12 months prior to interview.
<b>Dial-up connections</b>	Connection to the Internet via modem and dial-up software utilising the public switched telecommunication network (PSTN).
<b>Digital Subscriber Line (DSL)</b>	More properly referred to as ADSL as this covers several digital technologies (e.g. asymmetric DSL or ADSL and Symmetric DSL or SDSL) for fast two-way data connections over the public switched telecommunication network (PSTN).
<b>Employed</b>	See <i>Labour force status</i> .
<b>Gigabit (Gb)</b>	A data unit of 1,000,000,000 bits and equates to 1,024 megabits.
<b>Gigabyte (GB)</b>	A data unit of 1,073,741, 824 bytes and equates to 1,024 megabytes.
<b>Gigabits per second (Gbps)</b>	A data transfer speed measurement for high speed networks.

<b>Highest educational attainment</b>	Identifies the highest achievement a person has attained in any area of study. It is not a measurement of the relative importance of different fields of study, but a ranking of qualifications and other educational attainments regardless of the particular area of study or the type of institution at which the study was undertaken.
<b>Household</b>	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 but not meals are treated as separate households. Boarders who receive both accommodation and meals are not treated as separate households. A household may consist of any number of family and non-family members.
<b>Household income</b>	Household income is the sum of personal income from all members of the household aged 18 years and over.
<b>Integrated Services Digital Network (ISDN)</b>	A digit access technique for both voice and data. Digital alternative to an analogue public switched telephone service (PSTN) and carries data or voltages consisting of discrete steps or levels, as opposed to continuously variable analog data. ISDN enables digital transmission over the PSTN.
<b>Internet</b>	A facility that enables the user to access a wide range of information facilities, home pages or websites and allows users to send and receive electronic mail (email) messages.
<b>Internet access (Internet use)</b>	This refers to the use of the Internet in the 12 months prior to the interview. It includes access via mobile phones, set-top boxes connected to either an analogue or digital television, and games machines.
<b>Kilobit (Kb)</b>	A data unit of 1,024 bits and generally abbreviated as kb or kbit. Data speeds are generally referred to in kilobits (kbps) rather than kilobytes.
<b>Kilobyte (KB)</b>	A data unit of 1,024 bytes and generally abbreviated as KB or Kbyte.
<b>Kilobits per second (Kbps)</b>	A measure of data transfer rate. A unit of data transfer that equates to 1000 bits per second.
<b>Labour force status</b>	<p>A classification of the civilian population aged 18 years and over into employed, unemployed or not in the labour force.</p> <p>An employed household is defined as having at least one <i>employed person</i> living there.</p> <p><i>Employed persons</i> are aged 18 years and over who, during the reference week:</p> <ul style="list-style-type: none"> <li>■ worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or</li> <li>■ worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers).</li> </ul> <p><i>Employed</i> are also defined as employees who had a job but were not at work and were:</p> <ul style="list-style-type: none"> <li>■ away from work for less than four weeks up to the end of the reference week; or</li> <li>■ away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or</li> <li>■ away from work as a standard work or shift arrangement; or</li> <li>■ on strike or locked out; or</li> <li>■ on workers' compensation and expected to be returning to their job; or</li> <li>■ were employers or own account workers, who had a job, business or farm, but were not at work.</li> </ul> <p>An unemployed household is defined as having at least one <i>unemployed person</i> living there.</p> <p><i>Unemployed persons</i> are defined as those who had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and:</p> <ul style="list-style-type: none"> <li>■ were available for work in the reference week; or</li> </ul>

.....

<b>Labour force status <i>continued</i></b>	<ul style="list-style-type: none"> <li>■ were waiting to start a new job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.</li> </ul> <p>A household not in the labour force is defined as having at least one <i>person not in the labour force</i> living there.</p> <p><i>Persons not in the labour force</i> are aged 18 years and over who were not employed or unemployed, as defined. They include persons who were keeping house (unpaid) and persons who are retired, voluntarily inactive, or permanently unable to work.</p>
<b>Major Statistical region</b>	<p>Equates to Brisbane Major Statistical Region (MSR) and Balance of Queensland MSR.</p> <p>Brisbane MSR includes the statistical regions of:</p> <ul style="list-style-type: none"> <li>■ Brisbane City Inner Ring</li> <li>■ Brisbane City Outer Ring</li> <li>■ South and East Brisbane Statistical Division (BSD) Balance</li> <li>■ North and West BSD Balance</li> </ul> <p>Balance of Queensland MSR includes any area outside the Brisbane MSR.</p> <p>For more detail refer to the <i>Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0)</i>.</p>
<b>Megabit (Mb)</b>	A data unit of 1,048,576 bits, sometimes interpreted as 1 million bits. Faster speeds are generally referred to in megabits rather than megabytes.
<b>Megabyte (MB)</b>	A data unit of 1,048,576 bytes, sometimes interpreted as 1 million bytes.
<b>Microwave</b>	Wireless transmission at very high frequency used to send and deliver audio and video signals through transmitters and receivers that must be aligned within sight of each other.
<b>Mobile phone</b>	Refers to a device which behaves as a normal telephone whilst being able to move over a wide area (compared with a cordless phone which acts as a telephone only within a limited range). Mobile phones allow connections to be made to the telephone network, normally by directly dialling the other party's number on an inbuilt keypad.
<b>Modem</b>	A device which connects the computer to a telephone system enabling communication between two computers.
<b>Non Dial-up connections</b>	Refers to permanent and 'always on' connections to the Internet via a variety of technologies including Integrated Services Digital Network (ISDN), Digital Subscriber Lines (DSL), Cable, Wireless, Satellite, dedicated data service, frame relay, etc.
<b>Not in the labour force</b>	See <i>Labour force status</i> .
<b>Person income</b>	Refers to Gross Personal income from all sources and includes government pensions/benefits, workers compensation, royalties, rent, etc. It excludes money from the sale of assets, gambling, lottery wins, gifts, bequests or lump sum settlements.
<b>Satellite</b>	A satellite stationed in geosynchronous orbit that acts as a microwave relay station, receiving signals sent from a ground based station, amplifying them, and re-transmitting them on different frequency to another ground-based station. Satellites can be used for high-speed transmission for computer data.
<b>Socio-demographic characteristics</b>	Includes variables such as sex, age, education, income, and labour force status.
<b>Software</b>	Computer instructions or data. Anything that can be stored electronically is software.
<b>Unemployed</b>	See <i>Labour force status</i> .

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