

6344.3

WORKING HOURS OF WAGE AND SALARY EARNERS QUEENSLA

QUEENSLAND

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For further information about these and related statistics, contact the National Information Service on 1300 135 070 or Lynne Peterson on Brisbane 07 3222 6207.

NOTES

ABOUT THIS PUBLICATION This publication contains results relating to the Survey of Working Hours of Wage and

Salary Earners conducted throughout Queensland in October 1999.

ABOUT THIS SURVEY Information was obtained from wage and salary earners about the hours they usually

work, the reasons they usually work those hours, whether paid or unpaid overtime is usually worked, whether they would prefer to work fewer hours and the reasons they do not do so. Membership of a trade union, educational qualifications, income level and

sources of income were also collected.

See Explanatory Notes on pages 13 and 14 for more information.

ROUNDING Where figures have been rounded, discrepancies may occur between sums of the

component items and totals. Published percentages are calculated prior to rounding of the figures and therefore some discrepancy may occur between these percentages and

percentages that could be calculated from the rounded figures.

Brian Doyle

Regional Director, Queensland

MAIN FEATURES

USUAL HOURS OF WORK

In October 1999 there were an estimated 1,256,200 Queensland wage and salary earners (or employees) who resided in private dwellings. There were 665,600 male employees who worked on average 41.5 hours per week, compared to the 30.9 hours per week worked by the 590,600 female employees. In total 384,800 employees (30.6%) usually work more than 40 hours per week. People with lower annual incomes work on average fewer hours than those with higher incomes.

When categorised by family relationship, husbands with dependants usually work the greatest number of hours on average, followed by husbands without dependants. Employees in the occupation category of Managers and administrators also reported working high average hours (48.1 hours per week). The industry in which employees reported working the highest number of hours per week was the mining industry, with an average 54.0 hours per week.

REASONS FOR USUAL HOURS OF WORK

The main reason given by people for working their usual number of hours was that they were 'standard, award or contract hours'. However for those working less than 16 hours per week, 'study commitments' was also a common reason. The two reasons 'expectation of the job' and 'to get the job done' were given commonly by those who worked 49 hours or more, and by those who usually worked some unpaid hours.

UNPAID HOURS OF WORK

Unpaid hours were usually worked by an estimated 242,200 (19.3%) employees. These employees worked on average 9.1 unpaid hours per week for males and 6.8 unpaid hours per week for females. Of those in the education industry, 46.7% usually worked some unpaid hours, on average 9.7 hours per week. When categorised by occupation, 50.6% of managers and administrators reported working unpaid hours, on average 11.2 hours per week, and 44.3% of professionals reported working an average 8.6 unpaid hours per week.

An estimated 18.5% of the 134,200 males and 9.5% of the 108,000 females who worked unpaid hours of work received an allowance for these hours in their salary package; a further 21.0% of males and 23.4% of females received time off in lieu.

Neither time off nor an allowance within their salary package was received by 149,200 (61.6%) of the wage and salary earners who usually work unpaid hours.

PAID OVERTIME

An average of 8.0 hours of paid overtime were included in the usual hours worked by $112,\!100$ males, representing 16.8% of all male employees. Similarly an average 4.8 hours were worked by $36,\!300$ (6.1%) females.

Approximately a quarter of persons in the occupation classifications of Intermediate production and transport workers and Tradespersons and related workers usually work some paid overtime each week (25.3% and 23.8% respectively). The industries within which a high percentage of employees usually work overtime are Transport and Storage (25.6%), Manufacturing (24.1%) and Communication services (23.4%).

PREFER FEWER HOURS

A preference for working fewer hours each week was reported by 395,000 people (28.8% of women and 33.8% of men). Of those who usually work some unpaid hours, 62.2% would prefer to work fewer hours.

MAIN FEATURES continued

PREFER FEWER HOURS continued

The most common reason given for preferring to work fewer hours was categorised as 'leisure/ more time for self/ lifestyle'. The main reason employees gave for not working fewer hours was 'no control over working hours'.



SELECTED CHARACTERISTICS, Wage and Salary Earners

| | BRISB DIVISI | ANE STAT | ISTICAL | BALANC QUEENS | | | TOTAL | | |
|---|-----------------|--------------|---------------|------------------|--------------|---------------|---------------|---------------|----------------|
| | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons |
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| • | • • • • • | • • • • • • | • • • • • • • | • • • • • • • | • • • • • • | • • • • • • • | • • • • • • • | • • • • • • | • • • • • • |
| Age groups | | | | | | | | | |
| 15–19 years | 28.0 | 32.8 | 60.8 | 31.9 | 36.8 | 68.7 | 59.9 | 69.6 | 129.5 |
| 20–24 years 25–34 years | 47.7 88.3 | 44.5 82.7 | 92.2 171.0 | 43.5 88.1 | 37.2 68.2 | 80.6 156.3 | 91.2 176.4 | 81.6 150.9 | 172.8 327.3 |
| 35–44 years | 76.1 | 72.3 | 148.4 | 82.5 | 71.4 | 153.9 | 158.7 | 143.7 | 302.3 |
| 45–54 years | 62.8 | 62.0 | 124.9 | 58.5 | 54.4 | 112.9 | 121.3 | 116.5 | 237.8 |
| 55 years or more | 30.3 | 16.5 | 46.7 | 27.8 | 11.9 | 39.7 | 58.1 | 28.3 | 86.4 |
| Annual income | | | | | | | | | |
| \$0 to less than \$10,000 | 44.4 | 59.1 | 103.5 | 51.7 | 63.8 | 115.5 | 96.1 | 122.9 | 219.0 |
| \$10,000 to less than \$20,000 | 27.5 | 71.3 | 98.8 | 31.8 | 67.6 | 99.4 | 59.3 | 138.9 | 198.2 |
| \$20,000 to less than \$30,000 | 73.6 | 73.1 | 146.7 | 79.2 | 81.7 | 160.9 | 152.8 | 154.8 | 307.6 |
| \$30,000 to less than \$40,000 | 76.4 | 57.9 | 134.3 | 72.1 | 41.3 | 113.4 | 148.5 | 99.2 | 247.7 |
| \$40,000 to less than \$50,000 | 40.3 | 27.4 | 67.7 | 41.0 | 14.6 | 55.6 | 81.3 | 42.0 | 123.3 |
| \$50,000 or more | 71.0 | 21.9 | 92.9 | 56.6 | 10.9 | 67.5 | 127.6 | 32.8 | 160.4 |
| Trade union or other association Belong to a trade union Belong to other employee | 98.6 | 86.9 | 185.5 | 97.5 | 66.5 | 164.0 | 196.1 | 153.5 | 349.5 |
| association | 10.9 | 12.3 | 23.2 | 11.3 | 9.5 | 20.8 | 22.3 | 21.8 | 44.0 |
| Does not belong to either | 218.7 | 206.0 | 424.7 | 213.4 | 199.0 | 412.5 | 432.1 | 405.0 | 837.1 |
| Highest educational qualification Still at school | 7.2 | 12.6 | 19.9 | 8.4 | 16.7 | 25.1 | 15.7 | 29.3 | 45.0 |
| Did not complete secondary school | 79.8 | 72.5 | 152.4 | 104.1 | 90.4 | 194.5 | 183.9 | 162.9 | 346.8 |
| Completed secondary school | 69.7 | 69.5 | 139.1 | 51.9 | 45.8 | 97.7 | 121.5 | 115.3 | 236.8 |
| Nursing qualification | *1.5 | 16.4 | 17.9 | **_ | 16.3 | 16.3 | *1.5 | 32.7 | 34.2 |
| Trade certificate/Apprenticeship | 67.2 | 7.8 | 75.0 | 84.8 | 8.8 | 93.6 | 152.0 | 16.6 | 168.5 |
| Technician's certificate/Advanced | | | | | | | | | |
| certificate | 5.9 | *2.0 | 8.0 | 6.9 | **1.2 | 8.2 | 12.9 | *3.3 | 16.1 |
| Certificate other than above | 17.9 | 43.8 | 61.6 | 26.2 | 47.4 | 73.6 | 44.1 | 91.1 | 135.2 |
| Associate diploma | 14.5 | 19.3 | 33.8 | 12.9 | 11.2 | 24.1 | 27.4 | 30.5 | 57.9 |
| Undergraduate diploma | *4.2 | 4.6 | 8.8 | *3.0 | 4.7 | 7.8 | 7.2 | 9.3 | 16.5 |
| Bachelor degree | 41.2 | 41.0 | 82.3 | 24.3 | 26.9 | 51.2 | 65.5 | 67.9 | 133.4 |
| Postgraduate diploma | 7.1 | 10.0 | 17.1 | 4.8 | 5.2 | 10.0 | 11.9 | 15.2 | 27.1 |
| Masters degree/Doctorate Other qualification | 13.2 *3.8 | 5.8 5.4 | 19.0 9.2 | *3.6 *1.5 | *1.9 *3.3 | 5.4 4.8 | 16.8 5.3 | 7.6 8.7 | 24.4 14.0 |
| · | 5.6 | 5.4 | 3.2 | 1.5 | 5.5 | 4.0 | 5.5 | 0.7 | 14.0 |
| Usual hours worked per week 0–15 hours | 19.7 | 51.4 | 71.1 | 19.8 | 57.5 | 77.3 | 39.5 | 108.9 | 148.5 |
| 16–34 hours | 24.7 | 83.4 | 108.1 | 22.7 | 87.5 | 110.2 | 47.4 | 170.9 | 218.2 |
| 35–40 hours | 151.0 | 116.2 | 267.2 | 144.5 | 92.9 | 237.5 | 295.6 | 209.1 | 504.7 |
| 41–48 hours | 67.6 | 37.9 | 105.5 | 61.9 | 25.7 | 87.6 | 129.5 | 63.6 | 193.1 |
| 49 hours or more | 70.2 | 21.9 | 92.1 | 83.4 | 16.2 | 99.6 | 153.6 | 38.1 | 191.7 |
| Paid overtime | | | | | | | | | |
| Paid overtime usually worked | 51.4 | 20.5 | 72.0 | 60.6 | 15.7 | 76.4 | 112.1 | 36.3 | 148.3 |
| Paid overtime not usually worked | 279.9 | 289.1 | 569.0 | 268.6 | 263.8 | 532.4 | 548.6 | 552.9 | 1 101.5 |
| Unpaid hours | | | | | | | | | |
| Unpaid hours usually worked | 69.9 | 59.2 | 129.1 | 64.2 | 48.8 | 113.1 | 134.2 | 108.0 | 242.2 |
| Unpaid hours not usually worked | 261.7 | 250.4 | 512.1 | 265.7 | 230.1 | 495.8 | 527.4 | 480.5 | 1 007.9 |
| Prefer more/fewer hours | | | | | | | | | |
| Prefer more hours | 13.8 | 22.7 | 36.6 | 16.5 | 28.7 | 45.3 | 30.3 | 51.5 | 81.8 |
| Usual hours okay | 195.6 | 184.7 | 380.3 | 198.8 | 174.9 | 373.7 | 394.4 | 359.6 | 754.0 |
| Prefer fewer hours | 119.0 | 98.4 | 217.4 | 106.0 | 71.6 | 177.6 | 225.0 | 170.0 | 395.0 |
| Total (including "Don't know") | 333.2 | 310.7 | 643.9 | 332.4 | 279.8 | 612.2 | 665.6 | 590.6 | 1 256.2 |

estimate has a relative standard error of between 25% and 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)

NUMBER OF PERSONS

| | Usually work 0–15 hours | Usually work 16–34 hours | Usually work 35–40 hours | Usually work 41–48 hours | Usually work 49 hours or more | Total persons | Average time per week |
|--|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|------------------|--------------------------------|
| | '000 | '000 | '000 | '000 | '000 | '000 | hours |
| | • • • • • • | | | | • • • • • • | • • • • • • • | |
| Males | | | | | | | |
| 15–19 years | 21.8 | 8.9 | 22.0 | *3.5 | *3.8 | 59.9 | 27.0 |
| 20–24 years | 6.7 | 10.1 | 44.2 | 15.4 | 14.9 | 91.2 | 39.3 |
| 25–34 years 35–44 years | *4.1 *2.6 | 6.1 7.2 | 80.5 67.6 | 39.1 37.6 | 46.6 43.6 | 176.4 158.7 | 43.7 44.5 |
| 45–54 years | **0.6 | 8.0 | 54.8 | 24.6 | 33.4 | 121.3 | 44.0 |
| 55 years or more | *3.8 | 7.0 | 26.5 | 9.4 | 11.4 | 58.1 | 39.5 |
| All ages | 39.5 | 47.4 | 295.6 | 129.5 | 153.6 | 665.6 | 41.5 |
| Females | | | | | | | |
| 15–19 years | 37.2 | 14.6 | 14.5 | *2.0 | **1.1 | 69.6 | 20.1 |
| 20–24 years | 11.2 | 19.1 | 36.8 | 11.4 | *3.1 | 81.6 | 32.9 |
| 25–34 years 35–44 years | 20.2 19.4 | 36.9 50.2 | 58.0 48.7 | 20.8 15.2 | 15.0 10.2 | 150.9 143.7 | 33.8 31.5 |
| 45–54 years | 14.5 | 40.7 | 43.3 | 10.2 | 7.8 | 116.5 | 32.0 |
| 55 years or more | 6.4 | 9.2 | 7.7 | *4.0 | **0.9 | 28.3 | 27.9 |
| All ages | 108.9 | 170.9 | 209.1 | 63.6 | 38.1 | 590.6 | 30.9 |
| Annual income | | | | | | | |
| \$0 to less than \$10,000 | 101.1 | 33.4 | 52.8 | 14.0 | 17.7 | 219.0 | 24.4 |
| \$10,000 to less than \$20,000 | 36.8 | 106.3 | 43.8 | 5.6 | 5.8 | 198.2 | 26.1 |
| \$20,000 to less than \$30,000 \$30,000 to less than \$40,000 | 7.0 *2.4 | 53.5 17.6 | 182.9 131.4 | 46.1 52.9 | 18.1 43.4 | 307.6 247.7 | 37.9 41.9 |
| \$40,000 to less than \$50,000 | **0.9 | *4.0 | 53.1 | 30.3 | 45.4 35.1 | 123.3 | 44.5 |
| \$50,000 or more | **0.3 | *3.5 | 40.7 | 44.2 | 71.7 | 160.4 | 48.6 |
| Trade union or other association | | | | | | | |
| Belong to a trade union | 18.9 | 59.3 | 162.7 | 65.8 | 42.8 | 349.5 | 38.1 |
| Belong to other employee association | 4.7 | 6.6 | 13.4 | 9.3 | 10.1 | 44.0 | 38.7 |
| Does not belong to either | 123.1 | 149.9 | 316.4 | 113.1 | 134.6 | 837.1 | 35.6 |
| Highest educational qualification | | | | | | | |
| Still at school | 42.0 | *3.0 | ** | ** | ** | 45.0 | 9.4 |
| Did not complete secondary school Completed secondary school | 34.2 36.5 | 72.9 43.2 | 156.5 96.9 | 38.1 33.1 | 45.2 27.1 | 346.8 236.8 | 36.1 34.5 |
| Extra qualification since school | 35.8 | 99.1 | 251.2 | 121.9 | 119.5 | 627.5 | 39.4 |
| Paid overtime | 00.0 | 00.1 | 201.2 | 121.0 | 110.0 | 02.10 | 00.1 |
| Paid overtime usually worked | **1.2 | 10.2 | 32.9 | 57.9 | 46.1 | 148.3 | 45.2 |
| Paid overtime not usually worked | 147.3 | 208.0 | 469.9 | 133.4 | 142.9 | 1 101.5 | 35.2 |
| Unpaid hours | | | | | | | |
| Unpaid hours usually worked | *4.4 | 20.6 | 51.2 | 81.6 | 84.4 | 242.2 | 45.4 |
| Unpaid hours not usually worked | 144.0 | 197.1 | 451.6 | 110.6 | 104.5 | 1 007.9 | 34.3 |
| Prefer more/fewer hours | | | | | | | |
| Prefer more hours | 33.3 | 46.1 | *1.8 | **0.3 | **0.3 | 81.8 | 18.8 |
| Usual hours Okay | 109.5 | 139.8 | 340.6 | 94.2 | 70.0 | 754.0 | 34.1 |
| Prefer fewer hours | *3.8 | 28.4 | 152.1 | 93.7 | 117.0 | 395.0 | 44.5 |
| Family relationship | E 4 | 10.0 | 44.4 | 04.0 | 40.0 | 00.7 | 40.0 |
| Person living alone Single head with/without dependants or | 5.1 | 10.6 | 44.1 | 21.0 | 18.9 | 99.7 | 40.2 |
| children | 15.5 | 17.1 | 25.0 | 7.9 | 5.1 | 70.6 | 30.9 |
| Husband with dependants | *3.2 | 6.8 | 96.4 | 54.4 | 68.8 | 229.5 | 45.1 |
| Wife with dependants | 31.7 | 72.6 | 50.2 | 10.7 | 9.3 | 174.6 | 28.7 |
| Husband without dependants | *3.8 | 11.4 | 72.1 | 34.5 | 38.4 | 160.3 | 42.6 |
| Wife without dependants Son/daughter full-time student (aged 15–24) | 12.3 55.8 | 42.5 11.7 | 61.4 *1.3 | 21.5 ** | 13.2 ** | 150.9 68.8 | 34.5 11.8 |
| Other son/daughter (aged 15+) | 7.3 | 24.7 | 79.0 | 18.9 | 17.0 | 146.9 | 37.8 |
| Non-family member living with non-relatives | 9.2 | 14.1 | 56.9 | 19.8 | 15.4 | 115.5 | 38.3 |
| Other | 4.6 | 6.6 | 18.2 | *4.4 | 5.8 | 39.6 | 36.8 |
| | | | | | | | |

 $^{^{\}star}$ $\,\,$ estimate has a relative standard error of between 25% and 50% and should be used with caution

 $^{^{\}star\star}$ $\,\,$ 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)

NUMBER OF PERSONS

| | Usually | Usually | Usually | Usually | Usually | | Average |
|---|-------------|-------------|-------------|-------------|-------------|-----------------|-----------|
| | work | work | work | work | work 49 | - | time |
| | 0–15 | 16–34 | 35–40 | 41–48 | hours or | Total | per |
| | hours | hours | hours | hours | more | persons | week |
| | '000 | '000 | '000 | '000 | '000 | '000 | hours |
| • | • • • • • • | • • • • • • | • • • • • • | • • • • • • | • • • • • • | • • • • • • • • | • • • • • |
| Industry | | | | | | | |
| Agriculture, Forestry and Fishing | *1.5 | *2.9 | 8.3 | *1.8 | 7.7 | 22.2 | 43.7 |
| Mining | ** | **0.3 | *1.8 | 5.7 | 8.9 | 16.7 | 54.0 |
| Manufacturing | *3.5 | 6.9 | 78.6 | 31.5 | 22.1 | 142.7 | 41.2 |
| Electricity, Gas and Water Supply | **0.6 | **0.3 | 7.8 | **0.8 | *1.8 | 11.4 | 39.6 |
| Construction | ** | *4.0 | 34.8 | 14.2 | 18.9 | 71.8 | 44.1 |
| Wholesale Trade | *2.3 | 5.2 | 27.0 | 15.6 | 13.1 | 63.3 | 41.6 |
| Retail Trade | 52.8 | 48.5 | 56.3 | 18.0 | 15.4 | 191.0 | 29.0 |
| Accomodation, Cafes and Restaurants | 11.9 | 23.9 | 22.3 | 5.4 | 7.3 | 70.9 | 31.2 |
| Transport and Storage | *1.7 | 4.6 | 26.3 | 8.5 | 12.9 | 54.0 | 42.5 |
| Communication Services | **1.2 | *3.2 | 11.5 | *3.8 | **0.6 | 20.4 | 36.8 |
| Finance and Insurance | **0.9 | 5.4 | 11.6 | 6.6 | *3.9 | 28.4 | 38.7 |
| Property and Business Services | 11.3 | 15.3 | 34.7 | 18.1 | 22.4 | 101.7 | 38.1 |
| Government Administration and | | | | | | | |
| Defence | *2.6 | 5.4 | 36.5 | 9.7 | 5.6 | 59.8 | 38.2 |
| Education | 9.8 | 21.6 | 28.6 | 17.1 | 19.6 | 96.7 | 37.0 |
| Health and Community Services | 16.2 | 40.5 | 54.5 | 13.6 | *4.5 | 129.2 | 32.3 |
| Cultural and Recreational Services | 5.3 | 5.5 | 10.0 | 4.7 | *2.8 | 28.3 | 32.3 |
| Personal and Other Services | *4.3 | 7.2 | 16.9 | 5.4 | 6.1 | 39.8 | 36.1 |
| Unknown | 22.6 | 17.3 | 37.3 | 12.7 | 18.0 | 107.8 | 34.0 |
| | | | | | | | |
| Occupation | | | 4.0 | 0.5 | 40.0 | 00.0 | 10.1 |
| Managers and Administrators | *3.1 | **0.6 | 4.8 | 8.5 | 19.6 | 36.6 | 48.1 |
| Professionals | 9.2 | 31.2 | 61.2 | 43.1 | 37.6 | 182.2 | 39.8 |
| Associate Professionals | *2.8 | 12.0 | 47.0 | 21.2 | 26.9 | 109.8 | 41.9 |
| Tradespersons and Related Workers | *3.6 | 10.1 | 84.6 | 28.0 | 26.6 | 152.8 | 41.2 |
| Advanced Clerical and Service Workers | *4.4 | 7.8 | 22.2 | 5.3 | *2.4 | 42.0 | 34.5 |
| Intermediate Clerical, Sales and | | | | | | | |
| Service Workers | 27.1 | 55.8 | 99.5 | 30.6 | 20.4 | 233.4 | 34.1 |
| Intermediate Production and Transport | | | | | | | |
| Workers | 6.6 | 9.9 | 48.4 | 19.5 | 27.2 | 111.5 | 41.9 |
| Elementary Clerical, Sales and Service | | | | | | | |
| Workers | 52.5 | 49.3 | 43.0 | 11.4 | 5.3 | 161.4 | 25.8 |
| Labourers and Related Workers | 19.1 | 24.9 | 56.8 | 13.0 | 8.0 | 121.9 | 33.2 |
| Unknown | 20.1 | 16.7 | 37.3 | 12.7 | 17.7 | 104.5 | 34.6 |
| Total (including "Don't know") | 148.5 | 218.2 | 504.7 | 193.1 | 191.7 | 1 256.2 | 36.5 |

^{*} estimate has a relative standard error of between 25% and 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)



MAIN REASON FOR WORKING USUAL HOURS, Wage and Salary Earners

| | Standard/ award/ contract hours | Expectation of the job | To get the job done | Income | Study com- mitments | Own choice | Family com- mitments | Other reason | Total (including "Don't know") |
|-----------------------------------|--|------------------------|---------------------------|---------------|---------------------------|---------------|----------------------------|-----------------|---|
| | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| | • • • • • • • | • • • • • • • • • | • • • • • • • | • • • • • • • | • • • • • • • • | • • • • • • • | • • • • • • • • | • • • • • • • | • • • • • • • |
| Sex | | | | | | | | | |
| Male | 349.5 | 111.4 | 115.3 | 37.6 | 15.9 | 12.5 | **0.8 | 21.9 | 665.6 |
| Female | 314.9 | 59.0 | 63.3 | 37.5 | 35.2 | 31.8 | 28.2 | 20.4 | 590.6 |
| Annual income | | | | | | | | | |
| \$0 to less than \$10,000 | 107.9 | 22.8 | 10.5 | 14.9 | 35.5 | 10.1 | 4.7 | 11.9 | 219.0 |
| \$10,000 to less than \$20,000 | 111.5 | 17.3 | 6.2 | 13.4 | 14.0 | 14.1 | 11.4 | 10.3 | 198.2 |
| \$20,000 to less than \$30,000 | 198.0 | 32.9 | 28.4 | 23.3 | **1.0 | 7.6 | 8.8 | 7.6 | 307.6 |
| \$30,000 to less than \$40,000 | 140.1 | 35.1 | 46.3 | 11.5 | **0.6 | 6.1 | *2.0 | 5.7 | 247.7 |
| \$40,000 to less than \$50,000 | 54.2 | 20.4 | 36.3 | 4.8 | ** | *3.8 | *1.8 | *2.2 | 123.3 |
| \$50,000 or more | 52.7 | 41.9 | 51.0 | 7.2 | **— | *2.6 | **0.3 | 4.7 | 160.4 |
| Trade union or other association | | | | | | | | | |
| Belong to a trade union | 208.2 | 40.9 | 49.5 | 18.3 | 7.8 | 10.0 | 8.0 | 6.9 | 349.5 |
| Belong to other employee | | | | | | | | | |
| association | 17.8 | 8.2 | 5.6 | *3.8 | *1.5 | *2.0 | *2.1 | *3.1 | 44.0 |
| Does not belong to either | 421.8 | 118.5 | 119.7 | 52.0 | 41.8 | 31.9 | 19.0 | 31.8 | 837.1 |
| Highest educational qualification | | | | | | | | | |
| Still at school | 17.3 | *2.4 | **1.0 | *3.8 | 18.7 | **0.9 | ** | **0.8 | 45.0 |
| Did not complete secondary | | | | | | | | | |
| school | 210.4 | 39.2 | 37.1 | 22.0 | *2.4 | 15.0 | 7.5 | 12.9 | 346.8 |
| Completed secondary school | 129.8 | 26.5 | 22.3 | 14.8 | 23.5 | 8.6 | 5.0 | 5.9 | 236.8 |
| Extra qualification since school | 306.9 | 102.3 | 118.2 | 34.5 | 6.5 | 19.7 | 16.6 | 22.6 | 627.5 |
| Usual hours worked per week | | | | | | | | | |
| 0–15 hours | 53.4 | 10.6 | *2.1 | 12.9 | 38.1 | 11.3 | 9.3 | 10.8 | 148.5 |
| 16–34 hours | 119.0 | 16.4 | 6.5 | 15.6 | 12.4 | 19.2 | 17.7 | 11.1 | 218.2 |
| 35–40 hours | 400.2 | 38.5 | 30.2 | 22.8 | **0.6 | 5.3 | *1.4 | 5.3 | 504.7 |
| 41–48 hours | 62.5 | 42.6 | 64.3 | 11.2 | ** | 4.9 | **0.6 | 6.8 | 193.1 |
| 49 hours or more | 29.3 | 62.4 | 75.4 | 12.6 | ** | *3.6 | ** | 8.3 | 191.7 |
| Paid overtime | | | | | | | | | |
| Paid overtime usually worked | 55.1 | 30.6 | 35.6 | 17.0 | **0.6 | *3.4 | *1.4 | 4.7 | 148.3 |
| Paid overtime usually worked | 606.9 | 138.0 | 142.1 | 57.7 | 50.5 | 40.8 | 27.4 | 37.3 | 1 101.5 |
| • | 000.0 | 100.0 | 1.2.1 | 01.1 | 00.0 | 10.0 | 2111 | 01.0 | 1 101.0 |
| Unpaid hours | F7.4 | 00.7 | 04.0 | | | 0.4 | **0.5 | 0.0 | 0.40.0 |
| Unpaid hours usually worked | 57.1 | 63.7 | 94.0 | 7.7 | *1.8 | 6.1 | *3.5 | 8.3 | 242.2 |
| Unpaid hours not usually worked | 604.6 | 105.8 | 83.2 | 67.4 | 49.3 | 38.1 | 25.5 | 33.5 | 1 007.9 |
| Prefer more/fewer hours | | | | | | | | | |
| Prefer more hours | 47.9 | 9.2 | *1.8 | 5.0 | 6.5 | **0.8 | **0.9 | 9.7 | 81.8 |
| Usual hours okay | 439.9 | 79.1 | 73.0 | 41.0 | 41.6 | 33.2 | 23.2 | 22.5 | 754.0 |
| Prefer fewer hours | 160.7 | 78.5 | 101.4 | 28.7 | *2.4 | 9.9 | *3.8 | 9.5 | 395.0 |
| Total (including "Don't know") | 664.4 | 170.5 | 178.6 | 75.1 | 51.1 | 44.2 | 29.0 | 42.3 | 1 256.2 |

^{*} estimate has a relative standard error of between 25% and 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)



NUMBER OF PERSONS

| | Usually worked unpaid hours | Not usually worked unpaid hours | Total (including "Don't know") | Usually worked unpaid hours | Average unpaid hours worked per week(a) |
|---|--------------------------------------|--|---|--------------------------------------|--|
| | '000 | '000 | '000 | % | hours |
| _ | • • • • • • | • • • • • • • • | • • • • • • • | • • • • • • | • • • • • • • • • • • |
| Sex | 1210 | E07.4 | CCE C | 00.0 | 0.4 |
| Male Female | 134.2 108.0 | 527.4 480.5 | 665.6 590.6 | 20.2 18.3 | 9.1 6.8 |
| | 106.0 | 480.5 | 590.0 | 10.5 | 0.8 |
| Family relationship Person living alone Single head with/without dependants | 23.7 | 75.7 | 99.7 | 23.8 | 8.3 |
| or children | 8.7 | 61.0 | 70.6 | 12.3 | 8.4 |
| Husband with dependants | 64.2 | 164.1 | 229.5 | 28.0 | 9.3 |
| Wife with dependants | 31.0 | 143.0 | 174.6 | 17.8 | 7.0 |
| Husband without dependants | 36.7 | 123.5 | 160.3 | 22.9 | 9.1 |
| Wife without dependants | 37.8 | 113.1 | 150.9 | 25.0 | 7.1 |
| Son/daughter full-time student (aged 15–24) | **0.9 | 67.9 | 68.8 | **1.3 | **3.0 |
| Other son/daughter (aged 15+) | 13.7 | 130.6 | 146.9 | 9.3 | 6.4 |
| Other relative | **1.2 | 18.2 | 19.4 | **6.2 | **3.0 |
| Non-family member living with | | | | | |
| non-relatives | 19.8 | 95.1 | 115.5 | 17.1 | 7.1 |
| Other | *4.4 | 15.7 | 20.2 | *22.0 | *7.7 |
| Industry | | | | | |
| Agriculture, Forestry and Fishing | *2.1 | 20.1 | 22.2 | *9.4 | *9.8 |
| Mining | *3.5 | 13.1 | 16.7 | *21.1 | *11.5 |
| Manufacturing | 19.6 | 123.1 | 142.7 | 13.8 | 8.5 |
| Electricity, Gas and Water Supply | *2.1 | 9.3 | 11.4 | *18.2 | *7.2 |
| Construction | 9.3 | 61.9 | 71.8 | 12.9 | 8.7 |
| Wholesale Trade | 17.6 | 45.7 | 63.3 | 27.7 | 8.2 |
| Retail Trade | 23.2 6.7 | 166.3 63.6 | 191.0 70.9 | 12.1 9.4 | 6.6 10.1 |
| Accomodation, Cafes and Restaurants Transport and Storage | 5.7 | 48.3 | 70.9 54.0 | 10.6 | 11.5 |
| Communication Services | *2.7 | 17.6 | 20.4 | *13.3 | *4.1 |
| Finance and Insurance | 8.4 | 20.0 | 28.4 | 29.7 | 8.3 |
| Property and Business Services Government Administration and | 27.9 | 73.8 | 101.7 | 27.4 | 9.5 |
| Defence | 13.1 | 46.7 | 59.8 | 22.0 | 6.7 |
| Education | 45.2 | 50.1 | 96.7 | 46.7 | 9.7 |
| Health and Community Services Cultural and Recreational Services | 24.5 5.5 | 104.2 22.8 | 129.2 28.3 | 18.9 19.5 | 4.0 5.2 |
| Personal and Other Services | 7.9 | 31.6 | 39.8 | 19.5 | 7.6 |
| Unknown | 17.1 | 89.7 | 107.8 | 15.9 | 8.4 |
| | | 331. | 20110 | 20.0 | 3. . |
| Occupation Managers and Administrators | 18.5 | 18.1 | 36.6 | 50.6 | 11.2 |
| Professionals | 80.7 | 99.7 | 182.2 | 44.3 | 8.6 |
| Associate Professionals | 30.7 | 79.0 | 109.8 | 28.0 | 9.2 |
| Tradespersons and Related Workers | 15.0 | 136.2 | 152.8 | 9.8 | 8.9 |
| Advanced Clerical and Service Workers | 8.5 | 33.5 | 42.0 | 20.3 | 4.7 |
| Intermediate Clerical, Sales and Service Workers | 45.1 | 187.7 | 233.4 | 19.3 | 6.5 |
| Intermediate Production and Transport | | | | | |
| Workers Elementary Clerical, Sales and Service | 9.1 | 102.4 | 111.5 | 8.2 | 6.6 |
| Workers | 12.6 | 147.9 | 161.4 | 7.8 | 4.9 |
| Labourers and Related Workers Unknown | 4.9 | 116.7 | 121.9 | 4.0 16.1 | 8.3 |
| | 16.9 | 86.7 | 104.5 | 16.1 | 8.4 |
| Total | 242.2 | 1 007.9 | 1 256.2 | 19.3 | 8.1 |

^{*} estimate has a relative standard error of between 25% and 50% and should be used with caution

 $^{^{**}}$ estimate has a relative standard error greater than 50% and is considered too unreliable for general use

 $[\]hbox{(a)} \quad \hbox{Per person who usually works unpaid hours, excluding those with unknown number of hours.}$



NUMBER OF PERSONS

| | Usually worked paid overtime | Not usually worked paid overtime | Total (including "Don't know") | Usually worked paid overtime | Average paid overtime worked per week(a) |
|---|---------------------------------------|---|---|---------------------------------------|---|
| | '000 | '000 | '000 | % | hours |
| • | • • • • • • • | • • • • • • • • | • • • • • • • • | • • • • • • • • | • • • • • • • • • • |
| Sex | | | | | |
| Male | 112.1 | 548.6 | 665.6 | 16.8 | 8.0 |
| Female | 36.3 | 552.9 | 590.6 | 6.1 | 4.8 |
| Family relationship | | | | | |
| Person living alone | 16.0 | 83.4 | 99.7 | 16.0 | 8.5 |
| Single head with/without dependants or children | 6.7 | 63.6 | 70.6 | 9.4 | 8.0 |
| Husband with dependants | 34.8 | 193.5 | 229.5 | 9.4 15.1 | 8.0 |
| Wife with dependants | 6.2 | 168.4 | 174.6 | 3.5 | 3.8 |
| Husband without dependants | 27.0 | 132.7 | 160.3 | 16.8 | 7.2 |
| Wife without dependants | 11.8 | 138.8 | 150.9 | 7.8 | 5.4 |
| Son/daughter full-time student (aged | | | | | |
| 15–24) | *1.5 | 67.3 | 68.8 | *2.2 | *2.7 |
| Other son/daughter (aged 15+) | 18.9 | 124.7 | 146.9 | 12.9 | 7.8 |
| Other relative | *1.8 | 17.6 | 19.4 | *9.0 | *5.4 |
| Non-family member living with | | | | | |
| non-relatives | 21.6 | 93.6 | 115.5 | 18.7 | 6.7 |
| Other | *2.2 | 18.0 | 20.2 | *11.0 | *8.8 |
| Industry | | | | | |
| Agriculture, Forestry and Fishing | *2.4 | 19.2 | 22.2 | *10.9 | *13.6 |
| Mining | *3.3 | 13.3 | 16.7 | *19.9 | *12.8 |
| Manufacturing | 34.4 | 108.0 | 142.7 | 24.1 | 7.0 |
| Electricity, Gas and Water Supply | **1.2 | 10.2 | 11.4 | **10.2 | **10.4 |
| Construction | 15.1 | 56.1 | 71.8 | 21.0 | 9.4 |
| Wholesale Trade | 8.9 | 54.4 | 63.3 | 14.0 | 6.5 |
| Retail Trade | 13.2 | 176.6 | 191.0 | 6.9 | 6.0 |
| Accomodation, Cafes and Restaurants | 7.7 | 62.6 | 70.9 | 10.9 | 6.2 |
| Transport and Storage | 13.8 | 38.9 | 54.0 | 25.6 | 9.5 |
| Communication Services | 4.8 | 15.6 | 20.4 | 23.4 | 7.1 |
| Finance and Insurance | *2.4 | 26.0 | 28.4 | *8.3 | *5.4 |
| Property and Business Services | 6.9 | 94.8 | 101.7 | 6.8 | 6.4 |
| Government Administration and | | | | | |
| Defence | *3.9 | 55.9 | 59.8 | *6.5 | *3.7 |
| Education | *1.4 | 95.3 | 96.7 | *1.5 | *4.7 |
| Health and Community Services Cultural and Recreational Services | 9.0 | 119.4 | 129.2 | 7.0 | 5.1 *4.4 |
| Personal and Other Services | *2.5 4.8 | 25.8 35.1 | 28.3 39.8 | *8.9 12.0 | 4.4 |
| Unknown | 12.8 | 94.1 | 107.8 | 11.9 | 7.5 |
| | 12.6 | 94.1 | 107.8 | 11.9 | 7.5 |
| Occupation | | | | | |
| Managers and Administrators | **0.9 | 35.3 | 36.6 | **2.5 | **10.0 |
| Professionals | 12.0 | 169.3 | 182.2 | 6.6 | 5.6 |
| Associate Professionals | 9.1 | 100.6 | 109.8 | 8.3 | 7.2 |
| Tradespersons and Related Workers Advanced Clerical and Service Workers | 36.4 *3.5 | 115.2 | 152.8 42.0 | 23.8 *8.4 | 7.8 |
| Intermediate Clerical, Sales and | ^3.5 | 38.5 | 42.0 | ^8.4 | *5.1 |
| Service Workers | 16.3 | 216.3 | 233.4 | 7.0 | 5.3 |
| Intermediate Production and Transport | 10.5 | 210.5 | 255.4 | 7.0 | 5.5 |
| Workers | 28.3 | 82.3 | 111.5 | 25.3 | 9.7 |
| Elementary Clerical, Sales and Service | 20.0 | 02.0 | 111.0 | 20.0 | 5.1 |
| Workers | 13.3 | 147.6 | 161.4 | 8.2 | 5.2 |
| Labourers and Related Workers | 15.8 | 105.5 | 121.9 | 12.9 | 6.5 |
| Unknown | 12.8 | 90.7 | 104.5 | 12.2 | 7.5 |
| | | | | | |
| Total | 148.3 | 1 101.5 | 1 256.2 | 11.8 | 7.2 |

^{*} estimate has a relative standard error of between 25% and 50% and should be used with caution

 $^{^{**}}$ estimate has a relative standard error greater than 50% and is considered too unreliable for general use

 $[\]hbox{(a)} \quad \text{Per person who usually works paid overtime hours, excluding those with unknown number of hours.}$

| | NUMBE | NUMBER OF PERSONS | | | | | |
|---|----------------------------------|-----------------------------------|-----------------------------------|--|--------------|--|--|
| | Usually work 0–34 hours | Usually work 35–40 hours | Usually work 41–48 hours | Usually work 49 hours or more | Total | | |
| | '000 | '000 | '000 | '000 | '000 | | |
| • | • • • • • • | • • • • • • | • • • • • • | • • • • • • • | • • • • • | | |
| Main reason would prefer fewer hours | | | | | | | |
| Job is too stressful/ too much work | **0.9 | 8.9 | 9.9 | 12.1 | 31.8 | | |
| Other work related reason | *1.5 | 6.8 | *4.3 | *3.7 | 16.2 24.4 | | |
| Prefer to look after child(ren) | 5.0 *2.0 | 14.7 18.3 | *2.9 17.2 | *1.8 24.4 | 24.4 61.9 | | |
| Other family/ childcare reason Attending an educational institution | *3.8 | *3.6 | **0.9 | **0.6 | 8.9 | | |
| Leisure/ more time for self/lifestyle | 17.5 | 91.9 | 56.8 | 72.2 | 238.4 | | |
| Other reason | *1.5 | 7.0 | *1.7 | *2.3 | 12.5 | | |
| Main reason does not work fewer hours | | | | | | | |
| No control over working hours | 9.2 | 75.5 | 56.7 | 69.8 | 211.2 | | |
| Income needs | 18.2 | 67.2 | 21.4 | 23.6 | 130.4 | | |
| Other reason | 4.8 | 8.2 | 14.4 | 23.3 | 50.7 | | |
| Work fower hours for loss now | | | | | | | |
| Work fewer hours for less pay Would work fewer hours for less pay | 8.0 | 34.8 | 22.2 | 23.4 | 88.4 | | |
| Would not work fewer hours for less pay | 5.7 | 46.8 | 48.0 | 66.7 | 167.2 | | |
| Not applicable (need income) | 18.2 | 67.2 | 21.4 | 23.6 | 130.4 | | |
| Sex | | | | | | | |
| Male | 5.6 | 72.4 | 55.7 | 91.4 | 225.0 | | |
| Female | 26.6 | 79.7 | 38.0 | 25.6 | 170.0 | | |
| | 20.0 | | 30.0 | 20.0 | 0.0 | | |
| Total employees who would prefer to | | | | | | | |
| work fewer hours | 32.2 | 152.1 | 93.7 | 117.0 | 395.0 | | |

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

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

COMPENSATION RECEIVED FOR UNPAID HOURS WORKED, Wage and Salary Earners

| | NUMBER OF PERSONS | | | | AVERAGE UNPAID HOURS WORKED PER WEEK(a) | | |
|--|-------------------|-------------|---------------|---------------|---|-----------|--|
| | Males | Females | Persons | Males | Females | Persons | |
| | '000 | '000 | '000 | hours | hours | hours | |
| • | • • • • • | • • • • • • | • • • • • • • | • • • • • • • | • • • • • • | • • • • • | |
| Time off in lieu received | | | | | | | |
| Allowance received for unpaid hours | 7.4 | *3.8 | 11.2 | 10.1 | *7.7 | 9.3 | |
| Allowance not received for unpaid hours | 28.1 | 25.2 | 53.4 | 7.0 | 5.2 | 6.1 | |
| Total (including "Don't know") | 35.6 | 29.6 | 65.2 | 7.6 | 5.5 | 6.7 | |
| Time off in lieu not received | | | | | | | |
| Allowance received for unpaid hours | 17.4 | 6.5 | 23.8 | 10.3 | 9.3 | 10.0 | |
| Allowance not received for unpaid hours | 78.6 | 70.6 | 149.2 | 9.5 | 7.1 | 8.4 | |
| Total (including "Don't know") | 98.3 | 77.9 | 176.1 | 9.6 | 7.3 | 8.6 | |
| Total who usually work unpaid hours (including "Don't know") | | | | | | | |
| Allowance received for unpaid hours | 24.8 | 10.3 | 35.1 | 10.3 | 8.7 | 9.8 | |
| Allowance not received for unpaid hours | 107.0 | 96.4 | 203.4 | 8.9 | 6.6 | 7.8 | |
| Total (including "Don't know") | 134.2 | 108.0 | 242.2 | 9.1 | 6.8 | 8.1 | |

^{*} estimate has a relative standard error of between 25% and 50% and should be used with caution

⁽a) Per person who usually works unpaid hours, excluding those with unknown number of hours.

EXPLANATORY NOTES

INTRODUCTION

- **1** This publication summarises the results of a survey of Working Hours of Wage and Salary Earners. It was conducted throughout Queensland during October 1999 as a supplement to the Australia-wide Monthly Population Survey (MPS) which is described in *Labour Force, Australia* (6203.0).
- 2 Information was obtained only for persons who were usual residents of private dwellings within Queensland and were wage and salary earners (or employees). If they had more than one job, only those who were a wage or salary earner in all of their jobs were included.
- **3** Information was obtained about number of hours usually worked; reasons for working these hours; number of paid hours of overtime worked; number of unpaid hours worked; if they receive any time off in lieu for these unpaid hours and/or a salary package allowance for these unpaid hours; the number of hours they would prefer to work; reasons for preferring to work fewer hours; reasons for not working fewer hours; and if they would be prepared to work fewer hours for less pay. Also collected was whether they were a member of a trade union or other employee association; age of leaving school and whether they completed secondary school; highest qualification completed since leaving school; annual income; sources of income and main source of income.

SURVEY METHODOLOGY

4 The survey was conducted thoughout Queensland except in sparsely populated areas, using a multi-stage area sample of approximately 4,540 private dwellings. Non-private dwellings such as hotels, hospitals, etc were excluded.

SCOPE

- **5** The survey questions were asked of all persons within the selected households who were aged 15 years or more and were wage and salary earners in all of their jobs, with the following exceptions:
 - visitors to the selected dwelling;
 - members of permanent defence forces;
 - certain diplomatic personnel of overseas governments, customarily excluded from censuses and surveys;
 - overseas residents in Australia; and
 - members of non-Australian defence forces (and their dependents) stationed in Australia.

COVERAGE

6 For the survey, coverage rules were applied which aimed to ensure that each person was associated with only one dwelling, and hence had only one chance of selection in the survey.

DATA COLLECTION

- 7 Information was obtained for the occupants of selected dwellings by personal or telephone interviews, conducted during the 2 weeks commencing 11 October 1999. Interviewers for the survey were obtained from a panel of trained interviewers who have extensive experience in conducting household surveys.
- 8 One responsible adult member of each selected household was interviewed, answering questions regarding themselves and/or other persons in scope within that household. It is possible that some answers supplied by the responding person may be different to what would have been answered by the in-scope person themselves. Therefore, care should be taken when interpreting the results of this survey, for although it is estimated this error is small, its impact has not been quantified. See Technical Notes paragragh 2 regarding non-sampling error.

EXPLANATORY NOTES continued

DATA COLLECTION continued

9 Industry and occupation of employment were not collected in this survey nor in the October 1999 labour force survey. However records from this supplementary survey were matched with the November 1999 labour force survey when questions regarding industry and occupation of employment were asked. Where there was no matching November record, industry and occupation were coded as 'unknown'.

ESTIMATION PROCEDURE

10 Survey results were weighted to obtain estimates for all wage and salary earners who are usually resident in private dwellings in Queensland. Estimates obtained from the survey are derived using a complex ratio estimation procedure that ensures that the survey estimates conform to an independently estimated distribution of the total population by age, sex and area, rather than to the age–sex–area distribution within the sample itself. This procedure compensates for under-enumeration in the survey and leads to more reliable estimates.

EFFECTS OF ROUNDING

11 Figures have been rounded and discrepancies may occur between totals and the sums of the component items.

RELATED PUBLICATIONS

12 Other ABS publications which include information on Wage and Salary Earners include:

Working Arrangements, Australia, August 1997 (6342.0) Wage and Salary Earners, Australia, December 1999 (6248.0) Underemployed Workers, Australia, September 1999 (6265.0) Labour Force, Queensland, August 1999 (6201.3) Labour Force, Australia, October 1999 (6203.0)

ADDITIONAL DATA

- **13** Additional available data for this survey of working hours of wage and salary earners include:
 - number of hours preferred to be worked;
 - sources of income (multiple response possible);
 - main source of income;
 - reasons for working usual hours (multiple response possible);
 - age left school; and
 - type of post-school qualification.
- **14** Subject to confidentiality and data quality restrictions, all data items can be cross-classified with person items available from the Monthly Population Survey, such as labour force region, household type and country of birth.
- **15** This additional data is available on a fee-for-service basis. For further information about this service, please contact ABS Queensland Statistical Consultancy on 07 3222 6155.

TECHNICAL NOTE DATA RELIABILITY

RELIABILITY OF THE ESTIMATES

NON-SAMPLING ERROR

SAMPLING ERROR

ESTIMATES OF SAMPLING ERROR

- **1** The estimates provided in this publication are based on information obtained from the occupants of a sample of dwellings, and may be subject to two types of error: sampling and non-sampling error.
- 2 Inaccuracies may occur because of imperfections in reporting by respondents, and errors made in the processing and coding of the data. These errors can occur whether the estimates are derived from a sample or a complete enumeration. Every effort is made to reduce non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and effective operating procedures.
- **3** The methodology employed for this survey of asking questions of one adult only within a household, who answers for all in-scope members of the household, is one possible source of non-sampling error. It is possible that some answers supplied by the responding person may be different to what would have been answered by the in-scope person themselves. Therefore, care should be taken when interpreting the results of this survey, for although it is estimated this error is small, its impact on each question has not been quantified.
- 4 This is the difference which would be expected between the estimate and the corresponding figure that would have been obtained if all dwellings had been included in the survey, using the same questionnaires and procedures.
- **5** One measure of the sampling error of a survey is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings had been included. There are about two chances in three that the sample estimate will differ by less than one SE from the figure that would have been obtained if all dwellings had been included and about 19 chances in 20 that the difference will be less than two SEs.
- **6** A standard error expressed as a percentage of the estimate is known as the relative standard error (RSE). For example if an estimate of 50,000 persons had a SE of 3,200 then the estimate has a RSE of (3,200/50,000) x 100 = 6.4%.
- **7** The following table gives approximate SEs for this survey, for general application to estimates of numbers of persons. These figures will not give a precise measure of the SE of a particular estimate, but they will provide an indication of its magnitude.
- **8** The size of the SE increases with the level of the estimate, so that the larger the estimate the larger is the SE. However, it should be noted that the larger the sampling estimate, the smaller will be the SE in percentage terms (RSE). Thus, estimates derived from a larger sample will be relatively more reliable than estimates derived from a smaller sample.
- **9** Estimates derived from very small sample sizes are subject to such high RSEs as to detract seriously from their value for most reasonable uses. Only estimates with an RSE less than 25% are considered sufficiently reliable for most purposes. In this survey, estimates between 4,536 and 1,287 have a RSE between 25% and 50% and have been indicated with the symbol *. Estimates with a RSE greater than 50% have been indicated with the symbol **.
- **10** The following is an example of the calculation and use of standard errors from table 1 (see page 5), an estimated 122,900 female employees in Queensland have an annual income less than \$10,000. Using the table of standard errors, this estimate of 122,900 (X_e) is between 100,000 (X_l) and 150,000 (X_u) and so has a SE

ESTIMATES OF SAMPLING ERROR continued

between 4,250 and 5,000. Using linear interpolation, the estimate has a SE of about 4,600.

- **11** This standard error of the estimate was determined as follows:
 - Firstly calculate the interpolation fraction

$$F = \frac{x_e - x_t}{x_u - x_t}$$

$$= \frac{122,900 - 100,000}{150,000 - 100,000}$$

$$= 0.458$$

• Secondly, use this result in the calculation of the standard error SE(Xe)

$$SE(X_e) = SE(X_l) + F[SE(X_u) - SE(X_l)]$$

= 4,250 + 0.458[5,000 - 4,250]
= 4,593.5 (approximately 4,600)

- **12** Thus the figure of 122,900 from Table 1 means there are about 2 chances in 3 (66.7%) that the number that would have been obtained if all dwellings had been included in the survey lies between (122,900 4,600) and (122,900 + 4,600) i.e. in the range 118,300 to 127,500. There are about 19 chances in 20 (95%) that the number lies between (122,900 2 x 4,600) and (122,900 + 2 x 4,600) i.e. in the range 113,700 to 132,100.
- **13** Particular care should be taken when comparing figures. It is not correct to assume that an apparent difference between figures is actually significant. Such an estimate is subject to sampling error. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

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

- **14** While this formula will only be exact for differences between separate and uncorrelated characteristics of sub-populations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.
- **15** Percentages formed from the ratio of two estimates of the same type (such as proportions) are also subject to sampling error. The size of the error depends on the accuracy of both the numerator (x) and the denominator (y). The formula for the RSE of a percentage is given below.

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

ESTIMATES OF SAMPLING ERROR continued

STANDARD ERRORS OF ESTIMATES

| Size of estimate (persons) | Standard error | Relative standard error |
|---|---|--|
| 1,000 | 570 | 57.3 |
| 1,500 | 690 | 46.0 |
| 2,000 | 790 | 39.3 |
| 2,500 | 850 | 34.8 |
| 3,000 | 950 | 31.4 |
| 3,500 | 1 000 | 28.9 |
| 4,000 | 1 050 | 26.8 |
| 5,000 | 1 200 | 23.7 |
| 7,000 | 1 350 | 19.6 |
| 10,000 | 1 600 | 16.0 |
| 15,000 | 1 900 | 12.7 |
| 20,000 | 2 150 | 10.8 |
| 30,000 | 2 550 | 8.6 |
| 40,000 | 2 900 | 7.3 |
| 50,000 | 3 200 | 6.4 |
| 100,000 150,000 200,000 300,000 500,000 1,000,000 2,000,000 | 4 250 5 000 5 650 6 650 8 100 10 650 13 850 | 4.2 3.3 2.8 2.2 1.6 1.1 |

GLOSSARY

Don't know On occasions when the 'any responsible adult' is unable to provide an answer to a

question on behalf of another resident in the household 'don't know' is recorded.

Employee Wage and salary earner.

Full-time workers Employed persons who usually work 35 hours or more per week.

Hours usually worked Number of hours in total usually worked in a week, in all present jobs, including

paid overtime, unpaid hours, work taken home and/or weekend work

Industry Classified according to the Australian and New Zealand Standard Industrial

Classification (ANZSIC) 1993 (1292.0)

Occupation Classified according to the Australian Standard Classification of Occupations,

Second Edition 1996 (1220.0)

Paid overtime Those hours that an employee works in excess of his/her perception of what they

should be expected to work on a regular basis as a normal part of their job. They

are specifically paid for these extra hours.

Part-time workers Employed persons who usually work less than 35 hours a week.

Son/daughter full-time student Son or daughter within the family who is either aged 15–19 and attending school

or is aged 15–24 years and attending full-time tertiary education.

Trade union or other Persons who did not belong to a trade union were asked if they belong to 'any

association other union or employee association'.

Unknown Industry and occupation of employment were not collected in this survey nor the

October 1999 labour force survey. However records from this supplementary survey were matched with the November 1999 labour force survey when questions regarding industry and occupation of employment were asked. Where there was no matching November record, industry and occupation were coded as

'unknown'.

Unpaid hours Those hours that an employee works in excess of his/her perception of what they

should be expected to work on a regular basis as a normal part of their job. They are not specifically paid for these hours, although they may receive an allowance

in their salary package or time off in lieu of these extra hours.

Wage and salary earner Persons who worked for an employer for wages or salary. Multiple job holders

were included in this survey only if they were a wage or salary earner in all of

their jobs.

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