



# Families, Incomes and Jobs, Volume 6



A Statistical Report on  
Waves 1 to 8 of the  
Household, Income and  
Labour Dynamics in  
Australia Survey



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is funded by the Australian Government Department of Families, Housing,  
Community Services and Indigenous Affairs

# Families, Incomes and Jobs, Volume 6:

## A Statistical Report on Waves 1 to 8 of the Household, Income and Labour Dynamics in Australia Survey

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# Introduction



**Roger Wilkins,**  
**HILDA Survey Deputy Director (Research)**

Commenced in 2001, the Household, Income and Labour Dynamics in Australia (HILDA) Survey is a nationally representative panel study of Australian households. The study was commissioned, and is funded by, the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research at the University of Melbourne. The Nielsen Company conducted the fieldwork from 2001 to 2008, since which time Roy Morgan Research has taken over as the fieldwork provider.

The HILDA Survey seeks to provide longitudinal data on the lives of Australian residents. It annually collects information on a wide range of aspects of life in Australia, including household and family relationships, employment, education, income, expenditure, health and wellbeing, attitudes and values on a variety of subjects, and various life events and experiences. Information is also collected at less frequent intervals on various topics, including household wealth, fertility-related behaviour and plans, relationships with non-resident family members and non-resident partners, health care utilisation, eating habits and retirement. The same households and individuals are interviewed every year, allowing us to see how their lives are changing over time. By design, the study can be infinitely lived, following not only the initial sample members for the remainder of their lives, but also the lives of their children and grandchildren, and indeed all subsequent descendants.

The HILDA Survey is therefore quite different to the cross-sectional household surveys regularly conducted by the Australian Bureau of Statistics. Cross-sectional data are of course very important, providing snapshots of the community at a given point in time—for example, the percentage of the people married, in employment, or with a disability. But such data also have important limitations for understanding economic and social behaviour and outcomes. Longitudinal data, by contrast, provide a much more complete picture because we can see the life-course a person takes. We can examine how they respond to life events, at the time of the event and down the track, we can examine how long they persist in certain modes of behaviour or activities and how persistently the outcomes are experienced.

Panel data tell us about *dynamics*—family, income and labour dynamics—rather than *statics*. They tell us about *persistence and recurrence*, for example about how long people remain poor, unemployed, or on welfare, and how often people enter and re-enter these states. Perhaps most importantly, panel data can tell us about the causes and consequences of life outcomes, such as poverty, unemployment, marital breakdown and poor health, because we can see the paths that individuals' lives took to those outcomes and the paths they take subsequently. Indeed, one of the valuable attributes of the HILDA panel is the wealth of information on a variety of life domains that it brings together in one dataset. This allows us to understand the many linkages between these life domains—to give but one example, we can examine the implications of health for risk of poor economic outcomes.

While in principle a cross-sectional survey can ask respondents to recall their life histories, in practice this is not viable. Health, subjective wellbeing, perceptions, attitudes, income, wealth, labour market activity—indeed most things of interest to researchers and policy-makers—are very difficult for respondents to recall from previous periods in their life. Respondents even have trouble recalling seemingly unforgettable life events such as marital separations. The only way to reliably obtain information over the life-course is to obtain it as people actually take that course.

For these reasons, panel data are vital for government and public policy analysis. Understanding the persistence and recurrence of life outcomes and their consequences is critical to appropriate targeting of policy, and of course understanding the causes of outcomes is critical to the form those policies take. For example, it is important to distinguish between short-term, medium-term and long-term poverty because it is likely that for each issue there are different implications for policy: the nature of the policy, the priority it is accorded, and the target group of the policy.

Panel data are also important because they permit causal inferences in many cases that are more credible than other types of data permit. In particular, statistical methods known as 'fixed effects' regression models can be employed to examine the effects of various factors on life outcomes such as

earnings, unemployment, income and life satisfaction. These models can control for the effects of stable characteristics of individuals that are typically not observed, such as innate ability and motivation, that confound estimates of causal effects in cross-sectional settings. For example, a cross-sectional model of the determination of earnings may find that undertaking additional post-school education has a large positive impact on earnings of older workers, but this may not be the case if it is simply that more able individuals, who earn more irrespective of additional education, are more likely to undertake additional education. In principle, a fixed-effects model can ‘net out’ the effects of innate ability and thereby identify the true effect of additional post-school education for these workers.

### The HILDA Survey sample

The HILDA Survey is a nation-wide household panel survey with a focus on issues relating to families, income, employment and wellbeing. It began in 2001 with a large national probability sample of Australian households occupying private dwellings. All members of those households form the basis of the panel to be interviewed in each subsequent wave. Note that, like virtually all sample surveys, the homeless are excluded from the scope of the HILDA Survey. Also excluded from the initial sample were persons living in institutions, but people who move into institutions in subsequent years remain in the sample.<sup>1</sup>

Table 0.1 summarises key aspects of the HILDA sample: the numbers of households, respondents and children under 15 years of age in each wave, wave-on-wave sample retention and Wave 1 sample retention.<sup>2</sup>

After adjusting for out-of-scope dwellings (e.g. unoccupied, non-residential) and households (e.g. all occupants were overseas visitors) and for multiple households within dwellings, the total number of households identified as in-scope in Wave 1 was 11,693. Interviews were completed with all eligible members (i.e. persons aged 15 and over) at 6,872 of these households and with at least

one eligible member at a further 810 households. The total household response rate was, therefore, 66 per cent. Within the 7,682 households at which interviews were conducted, there were 19,917 people, 4,787 of whom were under 15 years of age on 30 June 2001 and hence ineligible for interview. This left 15,127 persons, of whom 13,969 were successfully interviewed. Of this group, 11,993 were re-interviewed in Wave 2, 11,190 in Wave 3, 10,565 in Wave 4, 10,392 in Wave 5, 10,085 in Wave 6, 9,628 in Wave 7 and 9,354 in Wave 8; 8,034 have been interviewed in all eight waves.

The total number of respondents in each wave is greater than the number of Wave 1 respondents interviewed in that wave, for at least three reasons. First, some non-respondents in Wave 1 are successfully interviewed in later waves. Second, interviews are sought in later waves with all persons in sample households who turn 15 years of age. Third, additional persons are added to the panel as a result of changes in household composition. Most importantly, if a household member ‘splits off’ from his/her original household (e.g. children leave home to set up their own place, or a couple separates), the entire new household joins the panel. Inclusion of ‘split-offs’ is the main way in which panel surveys, including the HILDA Survey, maintain sample representativeness over the years.

### Making inferences about the Australian population from the HILDA Survey data

Despite the above additions to the sample, *attrition*—that is, people dropping out due to refusal, death, or our inability to locate them—is a major issue in all panel surveys. Because of attrition, panels may slowly become less representative of the populations from which they are drawn, although due to the ‘split-off’ method, this does not necessarily occur.

To overcome the effects of survey non-response (including attrition), the HILDA Survey data managers analyse the sample each year and produce *weights* to adjust for differences between the characteristics of the panel sample and the characteristics of the Australian population.<sup>3</sup> That is,

**Table 0.1: HILDA Survey sample sizes and retention**

	Sample sizes			Sample retention	
	Households	Persons interviewed	Children under 15	Previous-wave retention (%)	Number of Wave 1 respondents
Wave 1	7,682	13,969	4,784	–	13,969
Wave 2	7,245	13,041	4,275	86.8	11,993
Wave 3	7,096	12,728	4,089	90.4	11,190
Wave 4	6,987	12,408	3,887	91.6	10,565
Wave 5	7,125	12,759	3,897	94.4	10,392
Wave 6	7,139	12,905	3,756	94.8	10,085
Wave 7	7,063	12,789	3,692	94.7	9,628
Wave 8	7,066	12,785	3,575	95.2	9,354

*Note:* Previous-wave retention—the percentage of respondents in the previous wave in-scope in the current wave who were interviewed.

adjustments are made for non-randomness in the sample selection process that cause some groups to be relatively under-represented and others to be relatively over-represented. For example, non-response to Wave 1 of the survey was slightly higher in Sydney than in the rest of Australia, so that slightly greater weight needs to be given to Sydneysiders in data analysis in order for estimates to be representative of the Australian population.

The population weights provided with the data allow us to make inferences about the Australian population from the HILDA data. A population weight for a household can be interpreted as the number of households in the Australian population that the household represents. For example, one household (Household A) may have a population weight of 1,000, meaning it represents 1,000 households, while another household (Household B) may have a population weight of 1,200, thereby representing 200 more households than Household A. Consequently, in analysis that uses the population weights, Household B will be given 1.2 times (1,200/1,000) the weight of Household A. To estimate the mean (average) of, say, income of the households represented by Households A and B, we would multiply Household A's income by 1,000, multiply Household B's income by 1,200, add the two together, and then divide by 2,200.

The sum of the population weights is equal to the estimated population of Australia that is 'in-scope', by which is meant 'they had a chance of being selected into the HILDA sample' and which therefore excludes those that HILDA explicitly has not attempted to sample—namely, some persons in very remote regions, persons resident in non-private dwellings in 2001 and non-resident visitors. The weights in 2008 sum to 21 million.

As the length of the panel grows, the variety of weights that might be needed also grows, and this increasingly complicates analysis. For cross-sectional analysis, matters are more straightforward. We simply use the supplied cross-sectional weights. More complicated is longitudinal analysis, where to retain representativeness weights need to account for lack of representativeness in all of the waves being analysed. In principle, a set of weights will exist for every combination of waves that could be examined—Waves 1 and 2, Waves 5–8, Waves 2, 5 and 7, and so on. The longitudinal (multi-year) weights supplied with the Release 8 data allow population inferences for analysis using any two waves (i.e. any pair of waves) and analysis of any 'balanced panel' of a contiguous set of waves, such as Waves 1 to 6 or Waves 4 to 7. In this report, cross-sectional weights are always used when cross-sectional results are reported and the appropriate longitudinal weights are used when longitudinal results are reported. Thus, all statistics presented in this

report should be interpreted as estimates for the in-scope Australian population. That is, all results are 'population-weighted' to be representative of the Australian community.

A further issue that arises for population inferences is missing data for a household, which may arise because a member of a household did not respond or because a respondent did not report a piece of information. This is particularly important for components of financial data such as income, where failure to report a single component by a single respondent—for example, dividend income—will mean that a measure of household income is not available. To overcome this problem, the HILDA data managers impute values for various data items. Imputations are undertaken by drawing on responses by individuals and households with similar characteristics to the individuals and households with the missing data. Full details on the imputation methods are available in Watson (2004a), Hayes and Watson (2009) and Sun (2010). In this report, imputed values are used in all cases where relevant data is missing and an imputed value is available. This largely applies only to income and components of income.

The population weights and imputations allow inferences to be made from the HILDA Survey about the characteristics and outcomes of the Australian population. However, estimates based on the HILDA Survey, like all sample survey estimates, are subject to sampling error. Because of the complex sample design of the HILDA Survey, the reliability of inferences cannot be determined by constructing standard errors on the basis of random sampling, even allowing for differences in probability of selection into the sample reflected by the population weights. The original sample was selected via a process that involved stratification by region and geographic 'ordering' and 'clustering' of selection into the sample within each stratum. Standard errors (measures of reliability of estimates) need to take into account these non-random features of sample selection, which can be achieved by using *replicate weights*. Replicate weights are supplied with the unit record files available to the public for cross-sectional analysis and for longitudinal analysis of all balanced panels that commence with Wave 1 (e.g. Waves 1 to 4 or Waves 1 to 8). Full details on the sampling method for the HILDA Survey are available in Watson and Wooden (2002), while details on the construction, use and interpretation of the replicate weights are available in Hayes (2008).

In this volume, rather than report the standard errors for all statistics in this volume, we have adopted an ABS convention and marked with an asterisk (\*) tabulated results which have a standard error more than 25 per cent of the size of the result itself. Note that a relative standard error that is less than 25 per cent implies there is a greater

than 95 per cent probability the true quantity lies within 50 per cent of the estimated value. For example, if the estimate for the proportion of a population group that is poor is 10 per cent and the relative standard error of the estimate is 25 per cent (i.e. the standard error is 2.5 per cent), then there is a greater than 95 per cent probability that the true proportion that is poor lies in the range of 5 per cent to 15 per cent.

For regression model parameter estimates presented in this report, a similar approach is taken to that with respect to the descriptive statistics, with estimates that are not statistically significantly different from zero at the 10 per cent level marked with a 'plus' superscript (+). Estimates that are statistically significant at the 10 per cent level have a probability of not being zero that is greater than 90 per cent.

### The HILDA Survey Statistical Report

This is the sixth volume of the HILDA Survey Annual Statistical Report, and examines data from the first eight waves of the HILDA Survey, which were conducted between 2001 and 2008. As in previous volumes, Part A contains short articles providing an annual update on changes in key aspects of life in Australia that are measured by the HILDA Survey every year. Four broad and very much overlapping 'life domains' are covered: household and family life; incomes and economic wellbeing; labour market outcomes; and life satisfaction, health and wellbeing.

The second part of the report, Part B, contains articles on irregular topics, to a significant extent influenced by wave-specific questions included in the survey. In Wave 8, 'rotating' content in the interview component of the survey comprised questionnaire modules on fertility-related topics and non-co-residential family members, both of which were also administered in Wave 5, as well as a sequence of questions on job discrimination. Correspondingly, Part B contains articles on fertility intentions, use of birth control, non-co-resident partners, non-co-resident siblings and job discrimination. A further article draws on responses to the questions contained in the Wave-8 self-completion questionnaire on attitudes to work and family and to parenting and employment. All of these questions were previously included in Wave 5, and most were also included in Wave 1. Part B additionally contains articles on perceptions of financial wellbeing, job dismissal, couples' coordination of retirement, employment and parental leave before and after the birth of children, and labour force participation and wellbeing of working parents.

This annual Statistical Report has been prepared by a small team at the Melbourne Institute of Applied Economic and Social Research of the University of Melbourne. The report is not intended to be comprehensive. It focuses mainly

on panel results rather than cross-sectional results of the kind well covered by ABS surveys, and it seeks just to give a flavour of what the HILDA Survey is finding. Much more detailed analysis of every topic covered by this volume could be, should be, and in many cases, is being undertaken. It is hoped that some readers will conduct their own analyses, and in this context it should be mentioned that the HILDA Survey data are available at nominal cost to approved users.

### Disclaimer

This report has been written by the HILDA Survey team at the Melbourne Institute, which takes responsibility for any errors of fact or interpretation. Its contents should not be seen as reflecting the views of either the Australian Government or the Melbourne Institute of Applied Economic and Social Research.

### Acknowledgements

Thanks to FaHCSIA staff for comments on drafts of this report.

### Endnotes

- 1 See Watson and Wooden (2002) for full details of the sample design, including a description of the reference population, sampling units and how the sample was selected.
- 2 More detailed data on the sample make-up and in particular response rates can be found in the *HILDA User Manual*, available online at <[http://www.melbourneinstitute.com/hilda/doc/doc\\_hildamanual.htm](http://www.melbourneinstitute.com/hilda/doc/doc_hildamanual.htm)>.
- 3 Further details on how the weights are derived are provided in Watson and Fry (2002), Watson (2004b) and the *HILDA User Manual*.

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# A

## ANNUAL UPDATE

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# Households and Family Life

Every year, the HILDA Survey collects information on a variety of aspects of family life. These aspects comprise family and household structures; how parents cope with parenting responsibilities, including the care arrangements they use and the care-related problems they face; issues of work–family balance; perceptions of family relationships; and perceptions of and attitudes to roles of household members. Periodically, information is also obtained on other aspects of family life, such as fertility plans, relationships with parents, siblings, non-resident children, grandchildren and non-resident partners, marital relationship quality and use of domestic help.

In this section of the report, we present analyses for the 2001 to 2008 period of five aspects of family life: family structure dynamics; changes in marital status and satisfaction with marriage; family-related stresses and strains; child care issues and their persistence; and major life events in the last 12 months. Note also that Part B contains several feature articles on various aspects of family life, including attitudes to marriage and children and to parenting and employment, fertility and fertility intentions, non-co-residential relationships and non-resident siblings and parents.

## 1. Family dynamics: Changes in household structure, 2001 to 2008

Long-term trends in household structures in Australia are reasonably well understood. As de Vaus (2004), Australian Bureau of Statistics (2004) and others have shown, the average household size has declined over the last century and is projected to continue declining, and household types have in recent decades become increasingly diverse, with the traditional nuclear family accounting for an ever-decreasing proportion of households. The HILDA Survey data provide the opportunity to examine, within this broader context, the experiences at the individual level of household structure changes over time.

We begin, in Table 1.1, showing the proportion of individuals, including children, in each household type, from 2001 to 2008.<sup>1</sup> Looking at household

type on an individual level, approximately 52 per cent of all Australians were living in a ‘couple with children’ household each year, around 21 per cent were in ‘couple only’ households, 12 per cent were in lone-parent households and 10 per cent lived alone. It seems that group households have become less popular, with only 1 per cent of all individuals living in a group household in 2008, compared to 3 per cent in 2001.

### Changes in household structure

While the proportion of households of each type and the proportion of individuals in each household type remained quite stable over this eight-year period, for many individuals, their household structure would have changed at least once during

**Table 1.1: Household type of individuals (%)**

	2001	2003	2005	2007	2008
Couple family without children	20.8	21.1	21.4	20.9	21.5
Couple family with children	51.7	51.5	52.0	52.4	52.2
Couple family with children under 15	37.2	36.8	36.2	36.3	36.2
Couple family with children aged 15 or older	14.5	14.7	15.8	16.1	16.0
Lone-parent household	11.6	12.1	12.5	12.5	12.4
Lone parent with children under 15	7.4	7.2	7.3	6.5	6.3
Lone parent with children 15 or older	4.2	4.9	5.2	6.0	6.1
Lone person	9.8	9.8	9.6	9.6	9.4
Group household	2.5	1.5	1.2	1.2	1.1
Other related family	1.2	1.5	1.1	0.9	0.9
Multi-family household	2.4	2.5	2.2	2.5	2.5
Total	100.0	100.0	100.0	100.0	100.0

*Notes:* Couple families and lone-parent households with children under 15 may also have children aged 15 or older in the household, while couple families and lone-parent households with children aged 15 or older only have children aged 15 or older. ‘Other related’ families are households where there are relatives living in the same household, but no couple or parent–child relationships. This category most commonly includes adult siblings living in the same household without a parent. It should also be noted that in some cases, couple families and lone-parent households may also include other unrelated adults e.g. an adult boarder or housemate. Percentages may not add up to 100 due to rounding.

this time. Some may have had household members leave because of a relationship breakdown and some may have had adult children leave the family home. For others, the household structure may have changed due to the death of a household member. The household structure could also have changed as new members joined the household, for example, due to the birth of a baby, the adoption of a child, or a couple moving in together. The proportion of individuals whose 'household type' changed between 2007 and 2008 was 9.8 per cent. Table 1.2 shows the changes in the household type of individuals, including children, between 2007 and 2008.

Table 1.2 shows that couple families are the most stable, with 92 per cent of individuals who were in a couple-only household in 2007 remaining in that category in 2008, and 92 per cent of individuals in couple-with-children households in 2007 still in that household type in 2008. Of those who were no longer in couple-only households, the most common reason for the change was the addition of a child, with 5 per cent of individuals who were in couple-only households in 2007 changing to couple-with-children households in 2008.

Lone-parent households are also quite stable, with 87 per cent of individuals who were living in lone-parent households in 2007 still living in a lone-parent household in 2008. While 89 per cent of people who were living alone in 2007 were still doing so in 2008, 8 per cent had moved in with a partner; and of those 8 per cent, 30 per cent had either had a new baby or moved in with a partner who already had at least one child, thereby creating a 'couple with children' household.

More than 75 per cent of individuals who were in 'other related family' households in 2007 were still in this type of household in 2008, and almost 70 per cent of those who were living in a group household in 2007 were still in the same situation in 2008. Of all the household types, multi-family

households were the least static between 2007 and 2008. Only 62 per cent of individuals who were living in multi-family households in 2007 remained in a multi-family household in 2008, while 15 per cent had changed to couple-with-children households, 12 per cent to lone-parent households and 10 per cent to couple-only households.

Table 1.2 has shown the changes in household structure from one year to the next, but how much do households change over a longer period of time, say five years? A reasonable proportion of individuals (28 per cent) were living in a different household type in 2008 compared to 2003. Table 1.3 shows how the household structures of individuals changed between 2003 and 2008.

After five years, 75 per cent of individuals who were in couple-only households in 2003 remained in the same household structure in 2008, while 14 per cent were in couple-with-children households and 8 per cent were living alone. Almost 80 per cent of individuals who were part of a nuclear family (couple with a child or children) in 2003 were still living in a nuclear family in 2008; another 10 per cent were living in a couple-only household (either because all the children had left home or they had separated from their former partner and re-partnered); 6 per cent were living in lone-parent households; and 5 per cent were living alone.

Of those who were living in lone-parent households in 2003, 60 per cent were in the same situation in 2008, while 13 per cent were now living alone, 18 per cent were living in a couple-with-children household and 6 per cent were living in couple-only households. Almost three-quarters of people who were living alone in 2003 were still living alone in 2008, 11 per cent had moved into a couple-only household, 9 per cent were in couple-with-children households and 4 per cent were in lone-parent households. One possible explanation for lone person households being such a stable household structure is that this group

**Table 1.2: Changes in household structure, 2007 to 2008 (%)**

<i>Household type in 2007</i>	<i>Household type in 2008</i>							<i>Total</i>
	<i>Couple family without children</i>	<i>Couple family with children</i>	<i>Lone-parent household</i>	<i>Lone person</i>	<i>Group household</i>	<i>Other related family</i>	<i>Multi-family household</i>	
Couple family without children	91.7	5.0	*0.3	2.1	*0.2	*0.1	0.7	100.0
Couple family with children	3.0	92.1	2.4	1.6	*0.1	*0.1	0.8	100.0
Lone-parent household	2.0	5.2	87.2	4.0	*0.1	*0.3	1.1	100.0
Lone person	5.7	2.5	1.6	88.5	*0.9	*0.6	*0.3	100.0
Group household	13.0	*4.5	*2.3	*10.4	67.7	*2.1	*0.0	100.0
Other related family	*9.5	*2.2	*2.1	*8.6	*2.0	75.2	*0.4	100.0
Multi-family household	9.7	14.6	12.0	*0.9	*1.1	*0.0	61.7	100.0
Total	21.8	50.2	13.5	10.5	0.9	0.8	2.3	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 1.3: Changes in household structure, 2003 to 2008 (%)**

Household type in 2003	Household type in 2008							Total
	Couple family without children	Couple family with children	Lone-parent household	Lone person	Group household	Other related family	Multi-family household	
Couple family without children	75.3	14.0	0.8	8.4	*0.5	*0.2	0.7	100.0
Couple family with children	10.1	76.8	6.0	4.9	0.4	*0.2	1.5	100.0
Lone-parent household	6.4	18.0	59.5	13.0	*0.4	1.4	1.3	100.0
Lone person	11.1	8.8	3.5	74.9	*1.0	*0.4	*0.4	100.0
Group household	29.7	*13.0	*2.5	22.2	30.6	*2.1	*0.0	100.0
Other related family	24.2	*19.7	*2.6	26.0	*1.7	25.8	*0.0	100.0
Multi-family household	*7.5	21.7	14.1	*5.1	*0.0	*11.6	39.9	100.0
Total	23.5	47.6	11.6	13.7	0.8	0.9	2.0	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

consists of a high proportion of older people (42 per cent were over the age of 55 and 20 per cent were aged 70 or older in 2003), who presumably had no desire to change their living situation.

For most people in group households it is a temporary situation, possibly only while studying at university, or until they move in with a partner or are able to afford to live alone. Just over 30 per cent of people who were living in a group household in 2003 were still in a group household in 2008. Multi-family households also seem to be a temporary situation, with only 40 per cent of individuals who were living in a multi-family household in 2003 still in a multi-family household in 2008.

## Discussion

While the overall proportion of households of each type, and the proportion of individuals living in each type of household, changes very little from year to year, 10 per cent of individuals were living in a different type of household in 2008 compared to 2007, and 28 per cent had a different household arrangement in 2008 than they did in 2003.

In couple households, the most common changes in household structure are a result of adult children leaving home—resulting in a change from a couple-with-children household to a couple-only household—and new children entering the household, which changes a couple-only household into a couple-with-children household. Separation, divorce and being widowed are also common causes of changes in couple households, with 9 per cent of individuals who were in a couple-only household in 2003 and 11 per cent of those who

were living in a couple-with-children household in 2003 living in either a lone person or a lone-parent household by 2008. On the other hand, lone person households are very stable, with 75 per cent of those who were in lone person households in 2003 still living alone in 2008.

There is some evidence that for most people who live in a group household, it is a temporary situation, with only 31 per cent of individuals who were living in a group household in 2003 still in this type of household in 2008. It is also relatively uncommon for multi-family households and 'other related' households to continue for several years, with only 40 per cent of individuals who were living in a multi-family household and 26 per cent of individuals who were living in 'other related' households in 2003 still in the same household arrangement in 2008.

## Endnote

- 1 Results are presented in Table 1.1 for only a subset of waves for presentational reasons. The convention of omitting Waves 2, 4 and 6 is in fact adopted for a number of tables in this report since, with eight waves, tables can become too large (and repetitive) when all waves are included.

## References

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## 2. Changes in marital status

The HILDA Survey data shows that in 2008 approximately 60 per cent of Australians aged 15 years and over were legally or de facto married, just over a quarter had never been married and were not living with a partner, 8 per cent were separated or divorced and had not re-partnered and the remaining 5 per cent were widows or widowers.<sup>1</sup>

In 2008, there were 118,756 registered marriages in Australia—an increase of 2.1 per cent from 2007 (ABS, 2009). The number of divorces in 2008 in Australia was 47,209—a decrease of 1.6 per cent from 2007, and the seventh consecutive annual decrease since a high of 55,330 divorces in 2001 (ABS, 2009). Table 2.1 summarises the changes in marital status among HILDA Survey respondents who were interviewed in both 2007 and 2008.

Most people (98 per cent) who were married in 2007 were still married in 2008. Of those who were in a de facto relationship in 2007, 11 per cent had married and 10 per cent were no longer living with a partner by 2008. A small proportion (6 per cent) of people who were divorced in 2007 were now in a de facto relationship, as were 6 per cent of those who had never married and were not in a de facto relationship in 2007.<sup>2</sup> While things remained relatively stable during this 12-month

period, a lot more happened over the five years from 2003 to 2008, as shown in Table 2.2.

In the five years from 2003 to 2008, the most stable group was the widowed, with 97 per cent retaining that status in 2008. Of those who were married in 2003, 92 per cent were still married in 2008—to the same person in 98 per cent of cases. Of those whose marital status in 2003 was divorced, 7 per cent had re-married by 2008 and a further 10 per cent were living in a de facto relationship. More than one-quarter of people who were never married and not living with a partner in 2003 were living with a spouse or partner in 2008: 16 per cent had moved into a de facto relationship and 12 per cent were married.

The most volatile groups seem to be separated people and those in de facto relationships. However, most of the separated people who had changed marital status after 2003 had proceeded with a divorce, and a large proportion (65 per cent) of the 50 per cent of de factos who changed status after 2003 got married, 74 per cent of them marrying the person they were living with in 2003. Furthermore, among those who were in de facto relationships in both 2003 and 2008, 69 per cent were still living with the same partner.

**Table 2.1: Changes in marital status, 2007 to 2008 (%)**

<i>Marital status in 2007</i>	<i>Marital status in 2008</i>						<i>Total</i>
	<i>Legally married</i>	<i>De facto</i>	<i>Separated</i>	<i>Divorced</i>	<i>Widowed</i>	<i>Never married and not de facto</i>	
Legally married	98.2	*0.1	1.1	*0.0	0.6	–	100.0
De facto	11.1	79.4	*1.0	1.2	*0.2	7.1	100.0
Separated	*4.1	6.1	75.9	13.3	*0.7	–	100.0
Divorced	*0.5	6.1	*2.3	90.3	*0.8	–	100.0
Widowed	*0.6	*0.6	*0.2	*0.7	98.0	–	100.0
Never married and not de facto	1.0	5.7	*0.5	*0.0	*0.0	92.8	100.0
Total	51.7	9.9	2.6	5.5	5.2	25.0	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 2.2: Changes in marital status, 2003 to 2008 (%)**

<i>Marital status in 2003</i>	<i>Marital status in 2008</i>						<i>Total</i>
	<i>Legally married</i>	<i>De facto</i>	<i>Separated</i>	<i>Divorced</i>	<i>Widowed</i>	<i>Never married and not de facto</i>	
Legally married	91.9	1.1	2.6	1.4	3.0	–	100.0
De facto	32.7	50.2	2.4	3.0	*0.7	11.0	100.0
Separated	12.0	16.0	41.8	26.4	*3.7	–	100.0
Divorced	6.5	9.8	*2.0	78.2	3.4	–	100.0
Widowed	*1.2	*0.6	*0.3	*1.1	96.8	–	100.0
Never married and not de facto	11.6	15.6	*0.9	*0.1	*0.0	71.9	100.0
Total	56.1	10.0	3.1	6.1	6.1	18.6	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

### Who gets married and who separates?

Are people with particular personal characteristics more likely to get married than others? What factors are associated with marital separation? The differences in the probability of getting married in the year between 2007 and 2008 and in the five years from 2003 to 2008, for men and women who were not married at the time of their 2003 and 2007 interviews respectively, are shown in Table 2.3.

Approximately 3 per cent of men and women who were not married at the time of their 2007 interview

were married by 2008. The probability of getting married was considerably higher among men and women aged between 25 and 34 compared to individuals in other age groups, and also among those who were living with a partner in 2007.

There were also differences in the likelihood of getting married according to whether or not the person had children. The probability being married by 2008 was higher among men who had children under 15 in 2007 than for those who did not have any children—7 per cent of men with children under 15 got married, compared to only

**Table 2.3: Probability of getting married, 2007 to 2008 and 2003 to 2008 (%)**

	<i>Persons not married in 2007: Percentage marrying by 2008</i>		<i>Persons not married in 2003: Percentage marrying by 2008</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
All	3.2	2.9	15.2	13.3
<b>Age group</b>				
15–24	1.8	1.7	11.8	15.5
25–34	6.5	8.3	27.9	27.8
35–44	4.2	4.2	15.9	13.5
45–54	*2.9	*1.8	11.7	7.8
55 and over	*1.5	*0.6	*4.3	*1.0
<b>Children</b>				
No children	2.8	3.5	15.2	16.9
Youngest child aged 0–14	6.7	4.1	20.7	3.6
Youngest child aged 15+	*2.1	*1.3	9.4	3.6
<b>Country of birth</b>				
Australia	3.3	3.0	14.8	13.4
Mainly English-speaking	*3.7	*4.1	16.9	13.5
Non-English-speaking	*2.7	*1.6	17.2	12.8
<b>Highest level of education</b>				
Year 11 or below	1.3	1.0	6.9	6.9
Year 12	2.7	2.2	15.3	15.0
Certificate or diploma	3.5	4.4	19.1	15.8
Bachelor degree or higher	8.1	6.1	28.9	24.6
<b>Annual income</b>				
Lowest quartile	*0.3	*0.0	*4.5	*8.0
Second quartile	*1.5	2.0	7.0	9.5
Third quartile	2.6	2.9	12.8	13.4
Highest quartile	6.4	5.6	27.0	20.8
<b>Employment status</b>				
Employed full-time	4.9	6.0	23.4	19.7
Employed part-time	*2.2	2.0	7.1	14.0
Unemployed	*1.4	*0.7	*6.7	*14.0
Not in the labour force	*0.7	*1.0	5.0	7.6
<b>Previously married</b>				
Yes	3.1	1.7	15.5	6.7
No	3.8	3.7	14.4	18.0
<b>Parents divorced or separated</b>				
Yes	*3.9	*5.5	21.4	17.3
No	3.8	2.7	16.2	12.8
<b>Cohabiting in 2007/2003</b>				
Yes	11.1	10.7	32.4	32.9
No	1.1	1.0	11.0	8.4

Note: \* Estimate not reliable.

3 per cent of men without children. For women, the probability of getting married was 4 per cent for those who had children under 15, and also for those who did not have any children. The likelihood of getting married was slightly lower for people who had been married previously than for men and women who had never married, with 4 per cent of men and women who had never been married before getting married between 2007 and 2008, compared to 3 per cent of men and 2 per cent of women who had previously been married.

Men and women with post-school qualifications were more likely to have married between 2007 and 2008 than those whose highest educational qualification was Year 12 or lower. Among men and women who had a certificate or diploma, 4 per cent had married during this period, and 8 per cent of men and 6 per cent of women who had a university degree got married during this time. For both men and women, the likelihood of getting married increased with income, from less than 2 per cent of men and women in the lowest half of the income distribution to 3 per cent for men and women in the third quartile, and 6 per cent for men and women in the highest quartile of (individual) annual income. It follows that those working full-time were more likely to have married than those who were working part-time, unemployed, or out of the labour force—5 per cent of men and 6 per cent of women who were in full-time work in 2007 had married by 2008.

Focusing now on the five-year period from 2003 to 2008, 15 per cent of men and 13 per cent of women who were not married at the time of their 2003 interview were married by 2008. As was the case for the one-year period, the probability of getting married was highest among men and women who were aged between 25 and 34 in 2003, the likelihood of getting married increased with income and education level and was considerably higher among those who were in full-time employment in 2003 and those who were cohabiting in 2003.

For men, having children and having been married previously does not appear to have a negative effect on the likelihood of getting married. However, this is not the case for women. The proportion of men who had never been married in 2003 who were married by 2008 was 14 per cent, compared to 16 per cent of men who had been married before. For women, only 7 per cent of those who had been previously married were remarried by 2008, compared to 18 per cent of women who had never married. While 15 per cent of men who did not have any children in 2003 and 21 per cent of men whose youngest child was under the age of 15 in 2003 were married by 2008, only 4 per cent of women who had a child under the age of 15 in 2003 had married by 2008, compared to 17 per cent of women who did not have any children in 2003.

For women, there appears to be no significant difference in the probability of marriage by cultural background over this five-year period. For men, however, the likelihood of getting married was slightly higher among those who were not born in Australia. One might think that individuals whose parents had divorced or separated would be less likely to marry, but it seems that this is not the case. Among those whose parents had divorced or separated, 21 per cent of men and 17 per cent of women had married since 2003, compared to 16 per cent of men and 13 per cent of women whose parents had not separated or divorced.

Table 2.4 examines the characteristics of those who were married in 2003, but had separated or divorced by 2008.<sup>3</sup> Among those who were married in 2003, 3 per cent of men and 4 per cent of women reported being either separated or divorced in 2008. The probability of marriage breakdown decreased with age, from 7 per cent of men and women who were aged between 25 and 34 in 2003 to 2 per cent of men and 4 per cent of women who were in the 45 to 54 age group in 2003. Men and women who had children under the age of 15 in 2003 were more likely to have ended their marriage by 2008 than those who had children over the age of 15; and those in couples where the husband was two to four years older than the wife were less likely to have separated than couples for whom the age difference was less than two years. The probability of separation or divorce was higher among those who had lived together before marrying compared to those who had not; and was also higher for men and women who had been married previously and for those whose parents had divorced or separated.<sup>4</sup>

The probability of separation or divorce was slightly lower for men and women whose highest level of education was Year 11 or below, than for those with high school and tertiary level qualifications. For women, the probability of their marriage ending increased with their annual income, from 3 per cent for women in the second income quartile to 6 per cent for those in the highest quartile of annual income. For men, the probability of separation or divorce is highest in the third quartile of income, and the difference between income quartiles is relatively small.

Not surprisingly, the likelihood of a marriage ending is higher among those who reported low levels of relationship satisfaction in the previous year. This is particularly true for women. Less than 3 per cent of men and women who rated their satisfaction with their relationship at 8 or higher out of 10 in 2003 were separated or divorced by 2008, compared to 7 per cent of men and women who rated their relationship satisfaction at 5 to 7 out of 10, and 13 per cent of women whose relationship satisfaction in 2003 was less than 5 out of 10.

## Conclusion

Between 2007 and 2008, the number of couples who got married increased by 2.1 per cent, and at the

**Table 2.4: Probability of separation or divorce, 2003 to 2008 (%)**

	<i>Proportion who separated or divorced after 2003</i>	
	<i>Men</i>	<i>Women</i>
All persons	2.9	4.0
<b>Age group</b>		
15–24	*9.6	*8.4
25–34	6.7	7.3
35–44	3.9	5.2
45–54	2.4	3.7
55 and over	*1.0	*0.8
<b>Children</b>		
No children	*5.0	*5.4
Youngest child aged 0–14	4.4	6.2
Youngest child aged 15 or more	1.2	1.8
<b>Income</b>		
Lowest quartile	*3.3	*1.4
Second quartile	*2.3	3.1
Third quartile	3.7	3.5
Highest quartile	2.8	6.4
<b>Employment status</b>		
Employed full-time	3.4	5.5
Employed part-time	*1.7	4.4
Unemployed	*6.0	*9.2
Not in the labour force	*1.8	2.5
<b>Educational attainment</b>		
Year 11 or below	2.3	3.4
Year 12	*3.7	4.5
Certificate or diploma	3.1	4.0
Bachelor degree or higher	3.1	4.7
<b>Place of birth</b>		
Australia	3.3	4.7
Main English-speaking countries	*1.9	*4.2
Non-English-speaking countries	*2.3	*1.4
<b>Relationship satisfaction</b>		
Low (0–4)	*7.0	12.9
Medium (5–7)	7.1	6.5
High (8–10)	2.1	2.7
<b>Previously married</b>		
Yes	4.4	5.4
No	2.7	3.7
<b>Parents divorced or separated</b>		
Yes	3.8	5.3
No	2.9	4.0
<b>Cohabited before marriage</b>		
Yes	4.9	6.4
No	1.8	2.5
<b>Age difference</b>		
Less than 2 years	3.6	5.0
Husband 2 – < 5 years older	1.7	3.1
Husband 5+ years older	3.9	3.0
Wife 2 – < 5 years older	*2.3	*3.9
Wife 5+ years older	*3.2	*9.2
<i>Note:</i> * Estimate not reliable.		

same time, the number of divorces fell by 1.6 per cent (ABS, 2009). Descriptive evidence indicates that the men and women who are aged between 25 and 34, and those who have higher levels of education and income are more likely to have gotten married in the period between 2003 and 2008. For women, but not for men, having been married previously and having children under the age of 15 reduces the likelihood of marriage. The probability of marriage breakdown decreased with age and was higher among couples who had cohabited before marriage and for those who reported low or medium levels of relationship satisfaction.

### Endnotes

- 1 Previous volumes of this report have shown that there has been very little change in these proportions over the period spanned by the HILDA Survey.
- 2 This refers to all those whose marital status in 2007 was divorced, not people whose divorce was finalised in 2008.
- 3 There are too few cases of separation or divorce over the one year period from 2007 to 2008 for reliable estimates of the probability of separation or divorce for each of the demographic groups listed in Table 2.4.
- 4 Many studies (e.g. de Maris and Rao, 1992; Hall and Zhao, 1995; de Vaus et al., 2003) have found that cohabitation increases the risk of marriage breakdown and attributed this difference to a selection effect. That is, those who do not cohabit before marriage are more conventional in their attitudes towards marriage and therefore also less likely to separate or divorce. Hewitt and de Vaus (2009) find that, as cohabiting before marriage has become much more commonplace, the difference in the likelihood of separation between those who do not live together before marrying and those who do has become less significant, and for marriages that occurred after 1988, non-cohabitators have an increased risk of separation.

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### 3. Parenting stress and work–family stress

While many parents will tell you that their family is the most important thing in their life, the majority would also agree that being a parent can sometimes be stressful. This stress may be a result of juggling work and family arrangements, finding adequate child care, taking care of ill children or children with disability, parenting adolescents or teenagers, troubles getting along with step-children, restrictions on the amount of time available for socialising and leisure activities without the children, or just the daily stresses associated with being a parent.

In each year of the HILDA Survey, individuals with parenting responsibilities for children aged 17 or younger are asked how strongly they agree or disagree with statements related to *parenting stress* like, *'I feel trapped by my responsibilities as a parent'* and *'I find that taking care of my child is much more work than pleasure'*. The response scale runs from 1 (strongly disagree) to 7 (strongly agree). Table 3.1 compares the distribution of responses to the questions about parenting stress in 2008 for lone parents and parents who have a spouse or partner.

It is much more common for women than men to agree with the statements *'Being a parent is harder than I thought it would be'* and *'I often feel tired,*

*worn out or exhausted from meeting the needs of my children'*, and, compared to mothers who had a spouse or partner, it is more common for lone mothers to agree with these statements. Although the proportion of parents who reported strong agreement with the statements *'I feel trapped by my responsibilities as a parent'* and *'I find that taking care of my child/children is much more work than pleasure'* is relatively small, a higher proportion of lone parents agreed with the statements.

In previous HILDA Statistical Reports, it was found that, based on a measure of parenting stress calculated by taking the average of the responses to the four statements in Table 3.1, the majority of parents fall into the category of 'medium' parenting stress—3 to 5 out of 7—and lone parents report higher levels of parenting stress than parents who are married or in a de facto relationship. Table 3.2 shows the proportion of parents who reported high levels of parenting stress—6 or 7 out of 7—between 2001 and 2008.

The proportion of parents who reported high levels of parenting stress has decreased considerably since 2001, from 11 per cent in 2001 to 6 per cent in 2007 and 7 per cent in 2008. In 2008, 12 per cent

**Table 3.1: Parenting stress, 2008 (%)**

	Stress level							Total	Mean
	Strongly disagree					Strongly agree			
	1	2	3	4	5	6	7		
<b><i>Being a parent is harder than I thought it would be</i></b>									
Lone mothers	7.6	10.8	10.4	15.2	18.3	22.6	15.1	100.0	4.5
Partnered mothers	7.0	10.7	9.6	15.6	22.6	20.1	14.4	100.0	4.5
Lone fathers	*13.0	17.3	*12.1	22.4	18.9	*8.4	*7.9	100.0	3.7
Partnered fathers	8.4	17.6	12.9	21.0	20.5	14.9	4.8	100.0	3.9
Total	7.9	13.9	11.2	18.1	21.1	17.7	10.1	100.0	4.2
<b><i>I often feel tired, worn out or exhausted from meeting the needs of my children</i></b>									
Lone mothers	4.6	13.8	8.2	19.0	20.0	20.4	14.1	100.0	4.5
Partnered mothers	4.5	12.8	10.2	16.5	24.6	19.1	12.2	100.0	4.5
Lone fathers	16.8	16.4	17.6	17.8	14.5	*8.1	*8.8	100.0	3.6
Partnered fathers	7.9	20.0	15.9	20.5	20.2	12.1	3.5	100.0	3.8
Total	6.4	16.1	12.7	18.5	21.8	15.8	8.6	100.0	4.0
<b><i>I feel trapped by my responsibilities as a parent</i></b>									
Lone mothers	27.1	24.4	13.3	15.8	9.0	*6.3	*4.2	100.0	2.9
Partnered mothers	30.3	28.1	14.9	11.3	7.4	5.7	2.3	100.0	2.6
Lone fathers	30.2	23.2	*11.8	18.9	*5.2	*4.2	*6.6	100.0	2.9
Partnered fathers	25.4	33.3	15.6	12.8	6.8	4.6	1.5	100.0	2.6
Total	27.9	29.7	14.9	12.7	7.3	5.2	2.3	100.0	2.7
<b><i>I find that taking care of my child/children is much more work than pleasure</i></b>									
Lone mothers	21.2	25.3	15.8	17.4	10.9	*3.8	5.5	100.0	3.1
Partnered mothers	27.0	31.0	15.3	13.5	6.2	4.2	2.8	100.0	2.7
Lone fathers	29.1	25.7	17.1	13.8	*3.7	*6.7	*4.0	100.0	2.7
Partnered fathers	22.9	33.2	17.2	14.3	7.2	3.5	1.8	100.0	2.7
Total	24.7	31.1	16.2	14.3	7.0	4.0	2.7	100.0	2.7

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 3.2: Proportion of parents with high levels of parenting stress (6 or 7 out of 7), by sex and marital status (%)**

	2001	2003	2005	2007	2008
Lone mothers	17.1	16.7	16.7	10.9	11.7
Partnered mothers	13.6	9.6	9.1	7.8	8.7
Lone fathers	11.9	*6.7	*8.6	*5.2	*6.3
Partnered fathers	7.5	4.9	4.4	4.1	4.1
Total	11.4	8.3	8.0	6.4	7.0

Note: \* Estimate not reliable.

of lone mothers reported high levels of parenting stress, compared to 9 per cent of partnered mothers and only 4 per cent of fathers who were living with a spouse or partner. Each year, women reported substantially higher levels of parenting stress than men, lone mothers had higher stress levels than partnered mothers and lone fathers reported higher levels of stress than partnered fathers.

### How does the number and age of children affect parenting stress?

How does the age of the children in the household affect parenting stress? Is parenting stress higher for people with young children, or are teenagers the most troublesome? The HILDA Survey data indicate that in 2008, the proportion of parents with high levels of parenting stress—6 or 7 out of 7—was slightly higher among parents whose youngest child was under the age of five, with around 8 per cent of parents whose youngest child was under two, and 8 per cent of parents whose youngest child was aged between two and four reporting high levels of parenting stress, compared to 6 per cent of parents whose youngest child was over the age of four.

One would also expect that the level of stress that parents feel would be higher if they have more than one child. Table 3.3 shows that the

**Table 3.3: Proportion reporting high levels of parenting stress by number of children, 2008 (%)**

	Number of children under 6	Number of children under 18
0	6.0	—
1	7.3	6.5
2	7.6	5.8
3 or more	*12.2	8.8

Note: \* Estimate not reliable.

proportion of parents who reported high levels of parenting stress generally increased with the number of resident children.

Only 6 per cent of parents with one or two children under the age of 18 in 2008 reported high levels of parenting stress, compared to 9 per cent of parents with three or more children under 18. Parenting stress was slightly higher for parents with children under the age of 6. The proportion of parents with one child under six who reported high levels of parenting stress was 7 per cent, and 8 per cent of parents with two children under six reported high levels of parenting stress, compared to only 6 per cent of parents whose children were all aged six or older. Table 3.4 shows the correlation between parenting stress and the age of the youngest child, as well as the correlations between parenting stress and the number of children aged five and under, and the number of children under 18.<sup>1</sup>

Table 3.4 shows a weak negative correlation between parenting stress and the age of the youngest child. In other words, as the age of the youngest child increases, parenting stress decreases slightly. On the other hand, there is a weak positive correlation between levels of parenting stress and the number of children under the age of 18, particularly for mothers. Parenting stress also increases slightly with the number of children aged five or younger.

### Work–family stress

Parents in paid work are also asked how strongly they agree or disagree with statements relating to *work–family stress*. Table 3.5 compares the average responses to the questions about work–family stress in 2008 for lone parents and parents who have a spouse or partner, according to whether they work full-time or part-time.

Lone parents who are working full-time have the highest levels of work–family stress. On the other

**Table 3.4: Parenting stress by age of youngest child and number of children—Correlations by sex and marital status, 2008**

	Age of youngest child	Number of children under 6	Number of children under 18
Lone mothers	−0.129+	0.090+	0.128+
Partnered mothers	−0.098+	0.106+	0.111+
Lone fathers	0.020	−0.023	0.077
Partnered fathers	−0.121+	0.115+	0.075+
Total	−0.100+	0.097+	0.097+

Note: + indicates correlation is not significantly different from zero at the 10 per cent level.

hand, partnered parents working part-time have the lowest average work–family stress levels. It is slightly more common for fathers working full-time and lone mothers working part-time to say that they have turned down work opportunities because of family responsibilities. Compared to parents who work part-time, it is more common for parents who are in full-time work to say that they miss out on family activities because of the requirements of their job, and that family time is less enjoyable and more pressured because of their work requirements.

Looking at average levels of work–family stress does not reveal much variation between the stress

levels of parents who work full-time or part-time, or differences between men and women. Table 3.6 shows the proportion of parents who reported high levels of work–family stress—6 or 7 out of 7—between 2001 and 2008.

Overall, the proportion of parents with high levels of work–family stress has dropped slightly since 2001. Each year, it was more common for parents who work full-time to report high levels of stress than parents who work part-time. This is particularly the case for partnered mothers. In 2008, 11 per cent of partnered mothers who worked full-time reported high levels of work–family stress, compared to 5 per cent of partnered mothers who were working part-time.

**Table 3.5: Work–family stress, 2008 (means)**

	<i>Because of my family responsibilities, I have to turn down work activities or opportunities that I would prefer to take on</i>	<i>Because of my family responsibilities, the time I spend working is less enjoyable and more pressured</i>	<i>Because of the requirements of my job, I miss out on home or family activities that I would prefer to participate in</i>	<i>Because of the requirements of my job, my family time is less enjoyable and more pressured</i>	<i>Overall work–family stress</i>
<b>Employed full-time</b>					
Lone mothers	3.3	3.2	4.2	3.6	3.7
Partnered mothers	3.2	3.3	4.1	3.5	3.6
Lone fathers	3.5	3.3	4.1	3.5	3.7
Partnered fathers	3.1	3.2	4.2	3.4	3.6
<b>Employed part-time</b>					
Lone mothers	3.5	3.4	3.7	3.3	3.6
Partnered mothers	3.4	3.1	3.2	2.7	3.2
Lone fathers	*3.3	*3.2	*3.4	*2.9	*3.5
Partnered fathers	3.5	3.2	3.8	2.6	3.4
Total	3.2	3.2	4.0	3.2	3.5
<i>Notes: The response scale runs from 1 (strongly disagree) to 7 (strongly agree). * Estimate not reliable.</i>					

**Table 3.6: Proportion of parents with high levels of work–family stress by sex, marital status and working hours (%)**

	<i>2001</i>	<i>2003</i>	<i>2005</i>	<i>2007</i>	<i>2008</i>
<b>Employed full-time</b>					
Lone mothers	*11.1	*14.5	*16.0	*7.8	*10.1
Partnered mothers	9.6	9.5	8.6	9.6	10.5
Lone fathers	*8.1	*7.5	*12.6	*3.3	*5.6
Partnered fathers	6.7	5.5	6.9	5.7	5.9
<b>Employed part-time</b>					
Lone mothers	*8.0	*7.4	*7.8	*5.2	*7.2
Partnered mothers	5.1	4.9	3.4	5.9	4.5
Lone fathers	*10.6	*0.0	*9.2	*9.2	*0.0
Partnered fathers	*9.8	*5.7	*7.1	*0.5	*5.3
<b>All employed</b>					
Lone mothers	9.8	10.9	11.5	*7.1	*8.8
Partnered mothers	7.1	6.8	5.5	7.4	6.8
Lone fathers	*8.8	*5.9	*11.6	*3.8	*4.7
Partnered fathers	7.3	5.5	6.8	5.3	6.0
Total	7.5	6.4	6.9	6.2	6.5
<i>Notes: The response scale runs from 1 (strongly disagree) to 7 (strongly agree). * Estimate not reliable.</i>					

### Persistence of family-related stress, 2003 to 2008

In previous HILDA statistical reports, it was found that while some parents manage to reduce their parenting stress, for others the problem persists for a fairly long time. For example, 25 per cent of men and 30 per cent of women who had high parenting stress in 2001 still had high levels in 2006. Tables 3.7 and 3.8 compare the levels of parenting stress and work–family stress in 2007 and 2008 for people who had parenting responsibilities in both years.

Of those parents who reported high levels of parenting stress in 2007, 38 per cent of fathers and 48 per cent of mothers also reported high parenting stress levels in 2008. This suggests that parenting stress does persist for some time, particularly for mothers. Around 80 per cent of parents who reported medium levels of parenting stress—3 to 5 out of 7—in 2007 also reported medium levels in 2008, while 44 per cent of fathers and 40 per cent of mothers who reported low levels of parenting stress in 2007 had medium levels of stress by 2008.

In terms of work–family stress, medium levels of stress continued for at least a year for the majority

of mothers and fathers, with approximately 80 per cent of those who reported medium levels of work–family stress in 2007 also reporting medium levels of stress in 2008. However, among those who reported high levels of work–family stress in 2007, only 43 per cent of the mothers and 32 per cent of fathers also reported high levels of stress in 2008. While more than half of the parents who reported low levels of work–family stress in 2007 also reported low levels in 2008, 40 per cent of mothers and 46 per cent of fathers whose work–family stress was low in 2007 had medium levels of stress in 2008.

Of course, the household situation may have changed during this time. Parents may have separated or had a new baby, causing higher levels of stress for one or both parents. On the other hand, the stress may have eased for parents whose children are now school age and more able to look after themselves. Parents' working hours may also have changed—increased work hours of either parent may increase levels of work–family stress, while reducing work hours may have the opposite effect.

Tables 3.7 and 3.8 show that it is more common for women than men to experience high levels of

**Table 3.7: Persistence of parenting stress, 2007 to 2008 (%)**

Parenting stress in 2007	Parenting stress in 2008			Total
	Low (1–2)	Medium (3–5)	High (6–7)	
<b>Males</b>				
Low (1–2)	55.1	44.3	*0.6	100.0
Medium (3–5)	16.7	79.2	4.1	100.0
High (6–7)	*2.0	60.2	37.8	100.0
Total	27.5	68.2	4.3	100.0
<b>Females</b>				
Low (1–2)	59.1	39.4	*1.5	100.0
Medium (3–5)	9.3	83.1	7.7	100.0
High (6–7)	*2.5	50.1	47.4	100.0
Total	19.0	71.6	9.4	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 3.8: Persistence of work–family stress, 2007 to 2008 (%)**

Work–family stress in 2007	Work–family stress in 2008			Total
	Low (1–2)	Medium (3–5)	High (6–7)	
<b>Males</b>				
Low (1–2)	50.5	46.2	*3.3	100.0
Medium (3–5)	12.1	83.6	4.3	100.0
High (6–7)	*10.3	57.3	32.4	100.0
Total	19.9	74.3	5.8	100.0
<b>Females</b>				
Low (1–2)	59.8	39.6	*0.6	100.0
Medium (3–5)	14.9	78.8	6.3	100.0
High (6–7)	*1.0	55.9	43.1	100.0
Total	25.2	67.3	7.5	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

parenting stress and work–family stress that continue for at least one year, but Tables 3.9 and 3.10, which compare the levels of parenting stress and work–family stress over the five-year period from 2003 to 2008, show that most parents are able to reduce their stress in the longer term.

While very few parents who reported high levels of parenting stress in 2003 had reduced their stress levels to low by 2008, 78 per cent of men and 65 per cent of women who reported high levels of parenting stress in 2003 had medium levels of parenting stress in 2008. Almost 80 per cent of parents who said their parenting stress was medium in 2003 also reported medium levels in 2008, while 17 per cent of men and 15 per cent of women had gone from having medium levels of parenting stress in 2003 to low levels in 2008. More than half of the parents who reported low levels of parenting stress in 2003 also reported low levels in 2008, and while just over 40 per cent of this group reported medium levels of parenting stress in 2008, very few had gone from low levels of parenting stress in 2003 to high parenting stress in 2008.

Of those who reported high levels of work–family stress in 2003, very few had been able to reduce

their stress to low. However, 75 per cent of men and 58 per cent of women had lowered their level of work–family stress to a medium level. Over 80 per cent of fathers and almost 75 per cent of mothers who reported medium levels of work–family stress in 2003 still had medium stress levels in 2008, while 12 per cent of fathers and 19 per cent of mothers had reduced their stress levels to low. As was the case with parenting stress, it was very uncommon for parents who reported low levels of work–family stress in 2003 to have high levels of stress in 2008. Just over half of the parents whose level of work–family stress in 2003 was low had medium levels of work–family stress in 2008.

These results suggest that while many are able to reduce their levels of parenting stress and work–family stress to some extent, ‘medium’ levels of stress seem to persist for several years, and high levels of parenting stress and work–family stress are more persistent for mothers than for fathers.

#### Endnote

- 1 There are too few cases to break down these figures by sex and marital status; hence, correlations are shown.

**Table 3.9: Persistence of parenting stress, 2003 to 2008 (%)**

Parenting stress in 2003	Parenting stress in 2008			Total
	Low (1–2)	Medium (3–5)	High (6–7)	
<b>Males</b>				
Low (1–2)	57.0	42.9	*0.2	100.0
Medium (3–5)	16.7	78.9	4.4	100.0
High (6–7)	*6.1	78.3	15.6	100.0
Total	26.2	70.1	3.7	100.0
<b>Females</b>				
Low (1–2)	52.9	44.8	*2.3	100.0
Medium (3–5)	14.9	78.9	6.2	100.0
High (6–7)	*6.0	65.1	28.9	100.0
Total	20.8	71.2	7.9	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 3.10: Persistence of work–family stress, 2003 to 2008 (%)**

Work–family stress in 2002	Work–family stress in 2007			Total
	Low (1–2)	Medium (3–5)	High (6–7)	
<b>Males</b>				
Low (1–2)	47.9	52.1	*0.0	100.0
Medium (3–5)	11.8	81.0	7.2	100.0
High (6–7)	*2.1	74.6	23.3	100.0
Total	18.0	75.2	6.7	100.0
<b>Females</b>				
Low (1–2)	45.3	53.3	*1.3	100.0
Medium (3–5)	19.1	74.4	6.5	100.0
High (6–7)	*3.7	57.7	38.6	100.0
Total	24.8	68.0	7.2	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

## 4. Child care: Issues and persistence of problems

Issues related to child care have become more important over the last two decades. Changes in female employment patterns and changes in family structures—a growing number of lone-parent families—have created a growing need for child care that is both accessible and affordable. Most Australian families are eligible for some form of subsidy towards the cost of child care, either in the form of the Child Care Benefit, a means-tested benefit which directly reduces the cost of child care, or the Child Care Tax Rebate, which allows parents who meet the work or study criteria to claim back a proportion of their out-of-pocket child care expenses each quarter.<sup>1</sup>

Table 4.1 shows the proportion of households with children under the age of 15, the proportion of households who had used, or had considered using, child care in the 12 months prior to their interview, as well as the proportion who actually

used work-related or non-work-related child care.<sup>2</sup> Work-related child care is more common than non-work-related child care. In 2008, 42 per cent of couple households and 37 per cent of lone-parent households with children under 15 regularly used work-related child care, and 22 per cent of households with children under 15 used child care while the parents did non-work activities (including study).

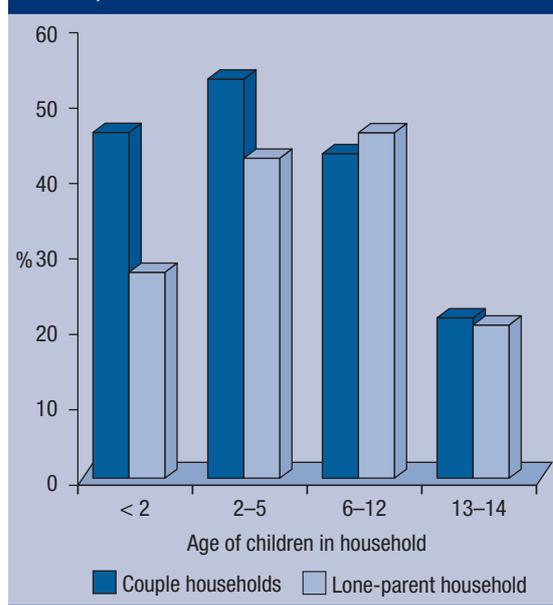
Each year, approximately 28 per cent of households had at least one child under the age of 15 living in the household. In those households with children under 15, the proportion who used some type of child care while the parents were at work increased from 40 per cent of households in 2002 to 44 per cent in 2007, before dropping back to 41 per cent in 2008. In contrast, the proportion of households with children under the age of 15 who used child care while the parents were not at work

**Table 4.1: Child care use (%)**

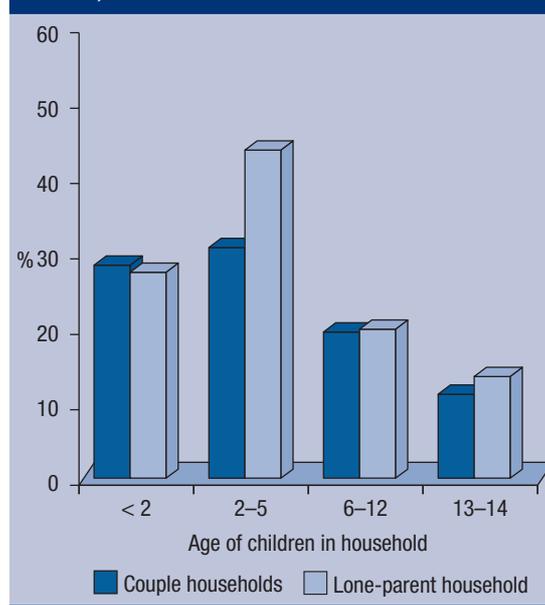
	2002	2003	2005	2007	2008
Proportion of households with children under 15	28.9	28.6	28.3	27.8	27.8
<b>Of those with children under 15...</b>					
<i>Proportion who used work-related child care in the past 12 months</i>					
Couple households	41.2	40.8	42.5	45.0	42.2
Lone-parent households	39.3	41.2	36.5	41.0	37.2
Total	40.3	40.9	41.3	43.5	40.6
<i>Proportion who used non-work-related child care in the past 12 months</i>					
Couple households	25.4	27.2	24.5	22.9	21.8
Lone-parent households	28.6	26.2	25.1	23.1	20.2
Total	26.4	26.6	28.4	23.1	21.6

*Note:* In each year, over 80 per cent of lone parents are female.

**Figure 4.1: Work-related child care use, by age of children, 2008**



**Figure 4.2: Non-work-related child care use, by age of children, 2008**



declined slightly, from 26 per cent of households in 2002 to 22 per cent of households in 2008.

### Child care in 2008

In previous volumes of the HILDA Statistical Report, it was found that use of child care is most common in households with children aged between two and five years. Figures 4.1 and 4.2 show the proportion of households with children under the age of 15 who used child care in 2008, broken down by type of household (couple household or lone-parent household) and the age of the children in the household.

In general, work-related child care is more commonly used than non-work-related child care. The only exception is in lone-parent households with children aged between two and five—42 per cent of these households reported regular use of work-related child care in 2008 and 44 per cent said they regularly used non-work-related child care. In couple households, use of both work-related and non-work-related child care was most common in households with at least one child between the ages of two and five. In lone-parent households, non-work-related child care was also most common when children were aged between two and five, while work-related child care was most common in households with children aged between six and 12.

### Work-related child care

Table 4.2 describes the types of child care used, and the average number of hours spent per week in each type of child care for school-aged children and children who are not yet at school in households where work-related child care was used.<sup>3</sup>

Of those households where child care was used for school-aged children while the parents were at work, 59 per cent used informal child care only, 26 per cent only used formal child care and 15 per cent used a combination of formal and informal child care. Overall, just over 74 per cent of households who used work-related child care for their school-aged children used informal child care, and 41 per cent used some type of formal child care. School-aged children spent an average of 8.8 hours a week in child care while their parents were at work. In terms of informal care, grandparents (either resident or non-resident) were the most common providers of child care. School-aged children look after themselves while their parents are at work in 17 per cent of households, 13 per cent are cared for by an older brother or sister, 33 per cent are cared for by a grandparent, 16 per cent are looked after by another relative and 15 per cent by a friend or neighbour. The most common type of formal work-related child care used for school-aged children is formal outside of school hours care, which was used by 33 per cent

**Table 4.2: Types of work-related child care used by households, 2008 (households where child care is used while parents are at work)**

	<i>Children not yet at school</i>		<i>School-aged children</i>	
	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
<b>Informal child care</b>				
The child's brother or sister	*1.1	*16.5	13.0	5.1
Child looks after self <sup>a</sup>	–	–	16.8	4.7
Child comes to my (or my partner's) workplace	–	–	*2.0	*2.6
Child's grandparent	40.5	12.6	32.6	8.3
Other relative	13.2	8.9	15.6	10.9
A friend or neighbour	7.1	6.4	14.4	3.5
Child's other parent not living in household	*0.0	–	*0.8	–
Total—informal child care	52.1	13.2	74.2	7.8
<b>Formal child care</b>				
A paid sitter or nanny	7.5	11.8	*4.3	*6.6
Family day care <sup>b</sup>	23.0	17.8	*4.5	*10.9
Private or community long day care centre <sup>c</sup>	44.0	19.9	–	–
Kindergarten or preschool	14.0	11.9	–	–
Formal outside of school hours care	–	–	32.9	6.9
Total—formal child care	75.1	20.4	41.1	7.4
Total—formal and/or informal child care	100.0	22.2	100.0	8.8

*Notes:* Multiple-response question; columns do not add to 100. Respondents are asked the usual number of hours each child spends in each type of child care in a week while parents are working. Hours were not asked for care by child's other parent not living in household. \* Estimate not reliable. <sup>a</sup> Note that 99 per cent of households in which the child looked after themselves had at least one child aged between 10 and 14. <sup>b</sup> Family day care is home-based child care, in the home of a registered child care provider. <sup>c</sup> Includes long day care centres at the parents' workplace.

of households where child care was used for school-aged children. Other types of formal child care, such as family day care or a paid sitter or nanny, are quite uncommon.

Compared to school-aged children, child care arrangements for children who are not yet old enough to attend school are quite different. It is much more common for children who are not of school age to be in formal child care. Of those households where work-related child care is used for children who are not old enough to go to school, 52 per cent only used formal child care, 25 per cent only used informal child care and 27 per cent used a combination of formal and informal care.

In 2008, children who were not yet school age who were in child care while their parents were working spent an average of 22 hours per week in child care. The likely explanation for the difference in hours of child care used for younger children and school-aged children is that children who are not yet school age need extra child care for the hours when the school-aged children are in school. It is also quite common for parents to change their working hours when the youngest child starts school. For children who are not old enough to go to school, the most common type of informal child care arrangement is being cared for by a grandparent, with 41 per cent of children who have not yet started school being cared for by a grandparent while their parents are at work.<sup>4</sup> The most common form of formal child care for children who are not of school age is a private or community long day care centre, with 44 per cent attending this type of child care while their parents are at work.

### Non-employment-related child care

In 2008, non-employment-related child care—child care used while parents were not at work—was less common than work-related child care, particularly for school-aged children. Table 4.3 shows the types of non-work-related child care used for children who have not yet started school and school-aged children, and the average number of hours children spent in non-employment-related child care in a usual week.

Of those households where non-employment-related child care was used for school-aged children, 83 per cent used informal care only, 12 per cent only used formal child care, and 5 per cent used a combination of formal and informal care. Like work-related child care, the majority of non-work-related child care used for school-aged children was informal, and children were most commonly cared for by a grandparent. The average amount of (regular) informal non-work-related child care for school-aged children was 8.5 hours per week, slightly higher than the average amount of time school-aged children spent in informal child care while their parents were at work (7.8 hours per week).

In 2008, 63 per cent of households where child care was used for children who were not of school age while the parents were not at work used some type of informal child care, and 46 per cent used some type of formal child care. The most common type of child care used for children who had not yet started school while parents were undertaking non-work activities was a grandparent, with 44 per cent of households who regularly used non-work-related child care using this option. The number of

**Table 4.3: Types of non-work-related child care used by households, 2008 (households where child care is used while parents are not at work)**

	<i>Children not yet at school</i>		<i>School-aged children</i>	
	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
<b>Informal child care</b>				
The child's brother or sister	*1.7	*2.2	18.4	5.2
Child's grandparent	43.5	7.2	37.9	6.1
Other relative	21.2	8.0	29.2	11.1
A friend or neighbour	10.0	3.8	18.9	4.8
Total—informal child care	63.1	8.2	87.7	8.5
<b>Formal child care</b>				
A paid sitter or nanny	*5.6	*4.6	*6.4	*4.6
Family day care	15.0	16.0	*2.8	*20.0
Private or community long day care centre	18.6	12.9	*0.0	*36.0
Kindergarten or preschool	10.0	14.0	–	–
Formal outside of school hours care	–	–	*7.6	*6.5
Total—formal child care	46.3	13.9	16.8	8.0
Total—formal and/or informal child care	100.0	11.6	100.0	8.8

*Notes:* Multiple-response question; columns do not add to 100. \* Estimate not reliable.

hours that children who were not yet in school spend in non-work-related child care varies somewhat between formal and informal child care types. The average time spent in informal child care was 8.2 hours per week, but those who spent time in formal child care spent an average of 13.9 hours per week in non-work-related care.

Overall, Tables 4.2 and 4.3 show that, for both work-related and non-work-related child care, it is more common for younger children to be in formal child care such as family day care or a private or community long day care centre, while informal care is more commonly used for school-aged children.

### Difficulties with child care

Each year, parents in households that had used or considered using child care are asked about the difficulties they have encountered. They are asked to rate the level of difficulty they have with various aspects of child care on a scale from 0 to 10, with 0 being 'no problem at all' and 10 being 'very much a problem'. Table 4.4 shows the distribution of responses to these questions for couple and lone-parent households in 2008.

The most common problem encountered is finding care for a sick child, with 24 per cent of couple households and 41 per cent of lone-parent households rating the level of difficulty with this aspect of child care as 8 or higher out of 10 in 2008.

Apart from problems such as the lack of care available for sick children and the exclusion of sick children from child care, this type of child care would have to be arranged at very short notice, so in that sense would be more difficult than problems that can be sorted out over time. Finding care for a sick child at short notice is more of a problem for lone-parent households than couple households, possibly because lone parents do not have a resident partner to rely on in these emergencies, although other factors may also be important, such as having lower incomes and less flexible work arrangements.

It is also quite common for parents to report difficulties with the cost of child care, with around 20 per cent of households reporting high levels of difficulty in 2008. Difficulties getting care for the hours needed and finding a place at the child care centre of their choice were more common in lone-parent households than in couple households, with around 23 per cent of lone parents reporting high levels of difficulty with these aspects of child care, compared to around 15 per cent of couple households.

In Table 4.5, the aspects of child care listed in Table 4.4 are grouped into three categories: 'availability', 'quality' and 'cost', and the proportion of couple and lone-parent households reporting difficulty levels of 5 or higher out of 10 are compared across years.<sup>5</sup>

**Table 4.4: Households experiencing difficulties with child care, 2008 (%)**

	0	1-4	5-7	8-10	Total
<b>Couple households</b>					
Finding good quality child care	32.8	37.5	16.8	12.9	100.0
Finding the right person to take care of your child	32.6	37.4	16.5	13.6	100.0
Getting care for the hours you need	29.8	37.4	17.4	15.3	100.0
Finding care for a sick child	26.7	31.3	17.9	24.1	100.0
Finding care during school holidays	38.2	32.7	16.8	12.3	100.0
The cost of child care	22.0	26.4	30.4	21.1	100.0
Juggling multiple child care arrangements	33.7	32.8	19.4	14.1	100.0
Finding care for a difficult or special needs child	58.9	*17.6	*10.5	*13.0	100.0
Finding a place at the child care centre of your choice	44.0	28.9	11.4	15.6	100.0
Finding a child care centre in the right location	43.5	32.6	10.1	13.9	100.0
Finding care your child/children are happy with	38.4	35.8	17.1	8.7	100.0
<b>Lone-parent households</b>					
Finding good quality child care	34.2	29.8	21.3	14.8	100.0
Finding the right person to take care of your child	29.8	35.7	19.7	14.7	100.0
Getting care for the hours you need	34.3	24.8	17.9	23.0	100.0
Finding care for a sick child	20.3	18.2	20.3	41.3	100.0
Finding care during school holidays	33.3	34.3	15.8	16.6	100.0
The cost of child care	22.7	24.4	31.1	21.8	100.0
Juggling multiple child care arrangements	32.4	30.7	20.3	*16.6	100.0
Finding care for a difficult or special needs child	49.1	*18.3	*16.4	*16.2	100.0
Finding a place at the child care centre of your choice	46.1	20.3	*9.8	23.8	100.0
Finding a child care centre in the right location	47.1	23.2	16.1	13.6	100.0
Finding care your child/children are happy with	35.2	36.3	15.6	12.9	100.0
<i>Note: * Estimate not reliable.</i>					

**Table 4.5: Households experiencing difficulties (5 or more out of 10) with child care (%)**

	2001	2003	2005	2007	2008
<b>Couple households</b>					
Availability	69.8	59.0	78.9	65.7	72.5
Quality	48.4	35.9	49.0	35.5	45.9
Cost	40.4	40.7	48.4	37.6	49.9
Any problems	76.4	68.2	82.3	70.0	79.0
<b>Lone-parent households</b>					
Availability	59.5	58.7	61.5	56.0	59.8
Quality	38.3	37.3	37.3	35.8	37.6
Cost	41.5	43.7	47.7	47.3	48.5
Any problems	67.3	68.8	69.0	67.8	71.1

In couple households, the proportion reporting difficulties with these three aspects of child care varies considerably from year to year. The proportion reporting difficulties with the availability of child care ranges from 59 per cent of couple households in 2003 to 73 per cent in 2008; and the proportion reporting difficulties with child care quality ranges from 36 per cent in 2003 and 2007 to 49 per cent in 2001 and 2005. Unlike couple households, the proportion of lone-parent households reporting difficulties with these aspects of child care remained quite stable from year to year. Each year, around 60 per cent of lone-parent households reported difficulties with child care availability and approximately 37 per cent reported difficulties with the quality of child care, while the proportion of lone parents reporting difficulties with the cost of child care increased from 42 per cent in 2001 to 49 per cent in 2008.

#### How persistent are problems with child care?

In previous HILDA Statistical Reports, it was found that difficulties with child care usually did not persist for more than one year. The only problem that was likely to persist for several years was finding care for a sick child. Table 4.6 shows the proportion of households for whom difficulties with child care persisted for one or two years.<sup>6</sup> For example, of the 70 per cent of couple households who reported difficulties with the availability of child care in 2001, 43 per cent also reported difficulties with the availability of child care in 2002 and for 26 per cent of these households, difficulties with availability persisted for two years.

In couple households, difficulties with all three aspects of child care appear to have become more persistent over time. For example, only 29 per cent of couple households who reported difficulties with the quality of child care in 2001 also reported difficulties in 2002. However, 50 per cent of the couple households who reported difficulties with child care quality in 2006 also reported quality problems in 2007 and 31 per cent still had difficulties with the quality of child care in 2008.

Difficulties with all three aspects of child care also appear to have become more persistent in lone-parent households, with 62 per cent of those who reported availability difficulties in 2006 also having problems with child care availability in 2007 and 40 per cent still having difficulties in 2008. Almost 60 per cent of lone-parent households who reported problems with the quality of child care in 2006 still had difficulties in 2007 and for 36 per cent of these households the problem persisted until 2008. Similarly, of those lone-parent households where the cost of child care was a problem in 2006, 47 per cent also reported difficulties with the cost of child care in 2007 and almost a quarter also reported difficulties in 2008.

#### Endnotes

- 1 When the CCTR was introduced in July 2004, parents were able to claim back 30 per cent of their child care expenses. On 1 July 2008, the CCTR was increased to 50 per cent of out of pocket expenses for approved child care costs, capped at \$7,500 per child per year for eligible families.

**Table 4.6: Persistence of difficulties with child care (%)**

	2001		2003		2006	
	1 year	2 years	1 year	2 years	1 year	2 years
<b>Couple households</b>						
Availability	42.7	26.1	55.2	38.1	55.6	32.7
Quality	29.1	14.2	40.6	18.0	50.1	30.5
Cost	36.2	22.6	51.5	32.3	56.5	32.2
<b>Lone-parent households</b>						
Availability	45.0	25.0	42.8	33.4	62.1	40.3
Quality	30.1	12.4	34.1	20.2	58.2	36.0
Cost	24.6	10.4	31.5	10.3	46.6	24.0

- 2 'Work-related child care' is defined as child care used while parents are at work. 'Non-work-related child care' is child care used while parents are undertaking activities other than work, including study. Respondents are asked about child care used in a 'usual week'. In 2001, the format of the child care questions was different to that from 2002 onwards. Therefore, results for 2001 are not reported.
- 3 The person who answers the child care questions is asked whether there are any children in the household aged 14 or less who attend school. If yes, the respondent is then asked specific questions about child care for their school-aged children. The respondent is then asked if there are any children who are not yet at school and if so, a separate set of questions is asked about these children.
- 4 Using the *Growing Up in Australia: The Longitudinal Study of Australian Children* study, Gray and Sanson (2005) found that, in 2004, 18 per cent of infants (defined as under three) were regularly cared for by grandparents, typically one or two days a week, averaging 12 hours a week.
- 5 The category of 'quality' includes finding good quality child care, finding the right person to take care of your child, and finding care your child(ren) are happy with. With the exception of the cost of child care, all other difficulties listed in Table 4.4 are grouped into the 'availability' category.
- 6 Given that child care needs change as children grow from babies, to toddlers, pre-school age and then school age and high school age, it is not sensible to restrict the sample only to households where child care was used in all seven years from 2001 to 2008. Therefore, for the purpose of looking at persistence of child care difficulties, only those households where child care had been used or considered in each of the three years from 2006 to 2008 have been included. Also note that there were too few cases to separate the table into couple households and lone-parent households and still obtain statistically reliable estimates.

### Reference

Gray, M. and Sanson, A. (2005) 'Growing Up in Australia: The Longitudinal Study of Australian Children', *Family Matters*, no. 72, pp. 4–9.

## 5. Life events in the past 12 months

Specific events in life can have a substantial impact on an individual's wellbeing. For example, positive events such as getting married or getting promoted at work are likely to cause an increase in life satisfaction, at least for a reasonable amount of time. On the other hand, negative events, such as being the victim of physical violence are very

likely to have a negative effect on both physical and mental wellbeing.

A series of questions about major life events was introduced into the HILDA Survey in 2002. Respondents were asked whether they had experienced events such as getting married, the birth of

**Table 5.1: Life events (%)**

	2002	2003	2005	2007	2008
Got married	2.5	2.4	3.3	2.4	2.6
Separated from spouse or long-term partner	4.4	4.2	3.8	3.4	3.4
Got back together with spouse or long-term partner after a separation	1.4	1.0	1.0	1.0	0.7
Pregnancy or pregnancy of partner	5.2	4.7	5.0	4.8	4.5
Birth or adoption of new child	3.3	3.4	3.2	3.3	3.2
Serious personal injury or illness to self	8.4	9.3	8.5	7.6	8.0
Serious injury or illness to a close relative or family member	17.2	18.1	16.6	14.4	15.3
Death of spouse or child	1.1	0.9	0.9	0.7	0.8
Death of other close relative or family member	11.5	10.9	12.3	10.7	11.0
Death of a close friend	11.2	11.1	10.3	10.2	10.7
Victim of physical violence	2.0	1.9	1.5	1.4	1.5
Victim of a property crime	6.8	6.2	4.2	3.5	3.8
Detained in jail	0.2	0.2	0.2	0.2	0.2
Close family member detained in jail	1.0	1.1	1.3	1.5	1.2
Retired from the workforce	2.8	2.9	1.9	2.5	2.8
Fired or made redundant by employer	3.5	3.1	2.5	2.8	2.6
Changed jobs	12.8	12.9	13.6	14.1	13.4
Promoted at work	6.1	6.3	6.5	6.8	7.0
Major improvement in financial situation (e.g. won lottery, received an inheritance)	3.4	3.1	2.9	3.0	2.6
Major worsening in finances (e.g. went bankrupt)	3.3	3.3	2.8	2.2	3.5
Changed residence	15.2	15.0	13.9	13.4	13.0

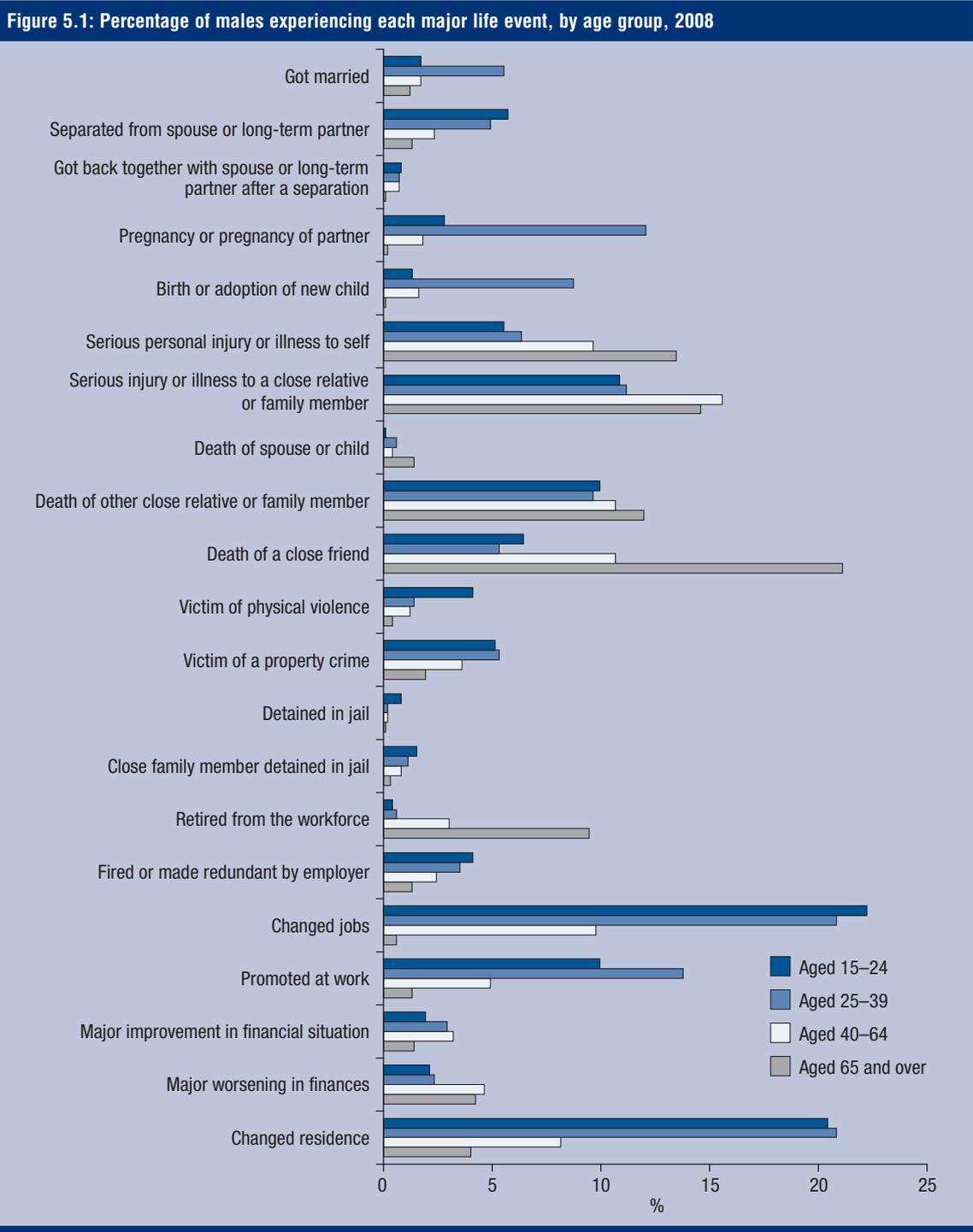
a child, the death of a family member or close friend, or being the victim of physical violence or property crime in the 12 months prior to their interview. Table 5.1 provides an overview of the prevalence of particular life events in selected years over the period from 2002 to 2008.

The most common life event, experienced each year by between 14 per cent and 18 per cent of Australians over the age of 15, is serious injury or illness of a close relative or family member, while around 8 per cent had a serious injury or illness themselves. Changing jobs is the next most common life

event, followed by moving house. Other relatively common events, experienced by at least 5 per cent of people each year, include promotion at work, death of a close relative or family member (not including their spouse or children) and death of a close friend.

**Life events, by age and sex**

Of course, certain life events are more likely to happen to people with specific characteristics, such as sex, age and the area they live in. For example, males are much more likely than females to have been detained in a jail, and the likelihood of retiring



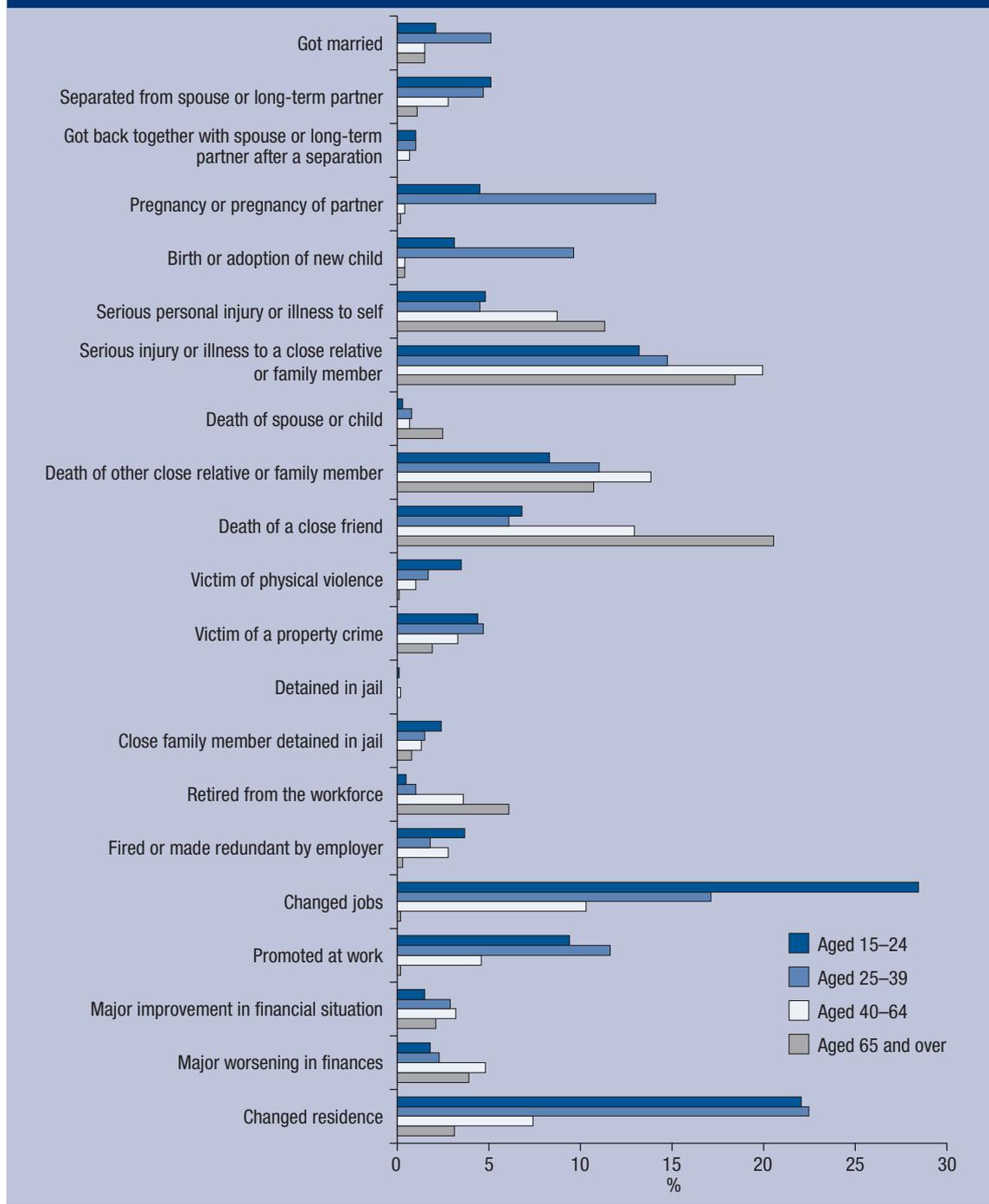
from the workforce increases with age.<sup>1</sup> Figures 5.1 and 5.2 show the proportion of men and women who experienced specific life events in 2008, broken down by broad age groups.

As one would expect, marriage is more common among males in the 25–39 years age range than among males in other age groups. However, males under 25 are actually more likely than males aged between 25 and 39 to experience separation from a spouse or partner—although typically they are not married to the partner from whom they separate. In 2008, 12 per cent of males aged between 25 and 39

had experienced the pregnancy of a partner; and 9 per cent of males in this age group either had a partner who had given birth to a new baby, or adopted a child. Moving house is most common for males aged between 25 and 39, with 21 per cent of males in this age group changing residence at least once in the 12 months prior to their 2008 interview, compared to 20 per cent of males under the age of 25, 8 per cent of males aged between 40 and 64 and only 4 per cent of males aged 65 or older.

The proportion of males experiencing a serious personal injury or illness in the past 12 months is

**Figure 5.2: Percentage of females experiencing each major life event, by age group, 2008**



higher in the two older age groups, as is the proportion who experienced a serious injury to a close relative or family member and the death of a close friend. As expected, retirement is more common for older men; while changing jobs, being promoted and fired or made redundant are all more common among men under the age of 40.

Having been the victim of property crime is most common among males in the 25 to 39 age group, while having been the victim of physical violence is most common among younger males, with 5 per cent of males aged between 15 and 24 reporting having been the victim of physical violence in the 12 months prior to their 2008 interview.

As is the case for males, getting married is most common for females aged between 25 and 39, and separating from a spouse or partner is most common for females under the age of 25. In 2008, 5 per cent of females under the age of 25 and 14 per cent of females aged between 25 and 39 had been pregnant (or were pregnant at the time of their 2008 interview), and 3 per cent of females under 25 and 10 per cent of females between the ages of 25 and 39 had either given birth to a baby or adopted a child. The proportion of females who had moved house at least once in the 12 months prior to their 2008 HILDA Survey interview was highest for females aged between 25 and 39: 23 per cent, compared to 22 per cent of females aged between 15 and 24, 7 per cent of females aged between 40 and 64 and only 3 per cent of females who were 65 or older.

The proportion of females experiencing a serious illness or injury is lowest for females under the age of 40 and highest for females aged 65 or older, while the proportion of females who experienced the serious illness or injury of a close relative or family member was highest among those aged between 40 and 64. Having been the victim of property crime or physical violence is more common for younger females than for older females, with 3.5 per cent of females aged under 25 saying that they had been the victim of physical violence in the past 12 months, and 4.4 per cent of females in this age group saying they had been the victim of property crime.

Very few females under the age of 40 reported having retired from the workforce in the 12 months prior to their 2008 interview, while 4 per cent of females aged between 40 and 64 and 6 per cent of females aged 65 or over had recently retired. Having been fired or made redundant is most common among younger females, and it is also much more common for younger females to have changed jobs. Females under the age of 40 were more likely than older women to have been promoted at work in the last 12 months, with 9 per cent of women under the age of 25 and 12 per cent of women aged between 25 and 39 reporting being promoted.

#### Prevalence of life events over a five-year period

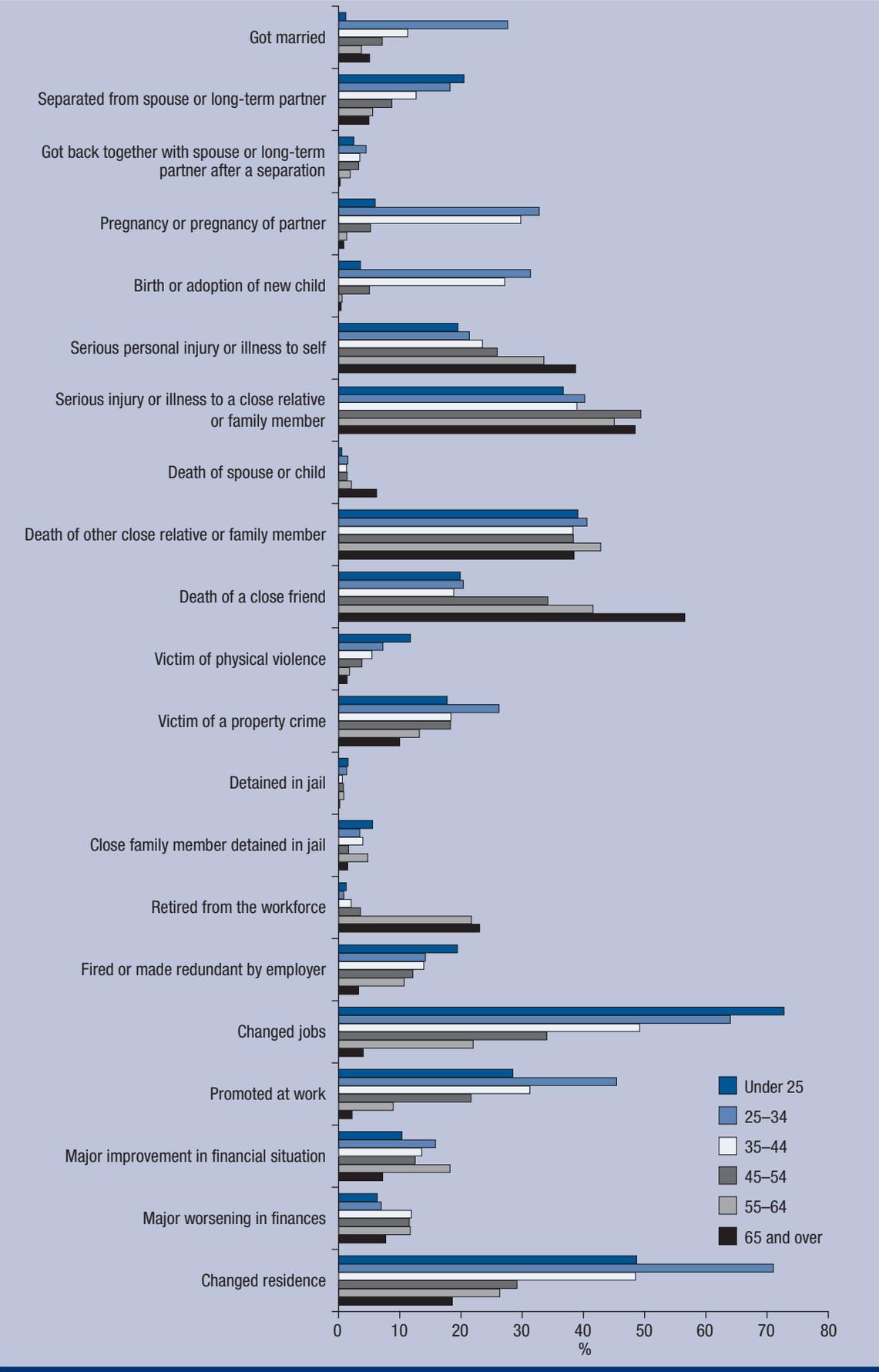
While the proportion of individuals who experience any particular life event in any one year is

**Table 5.2: Life events over the five-year period from 2004 to 2008 (%)**

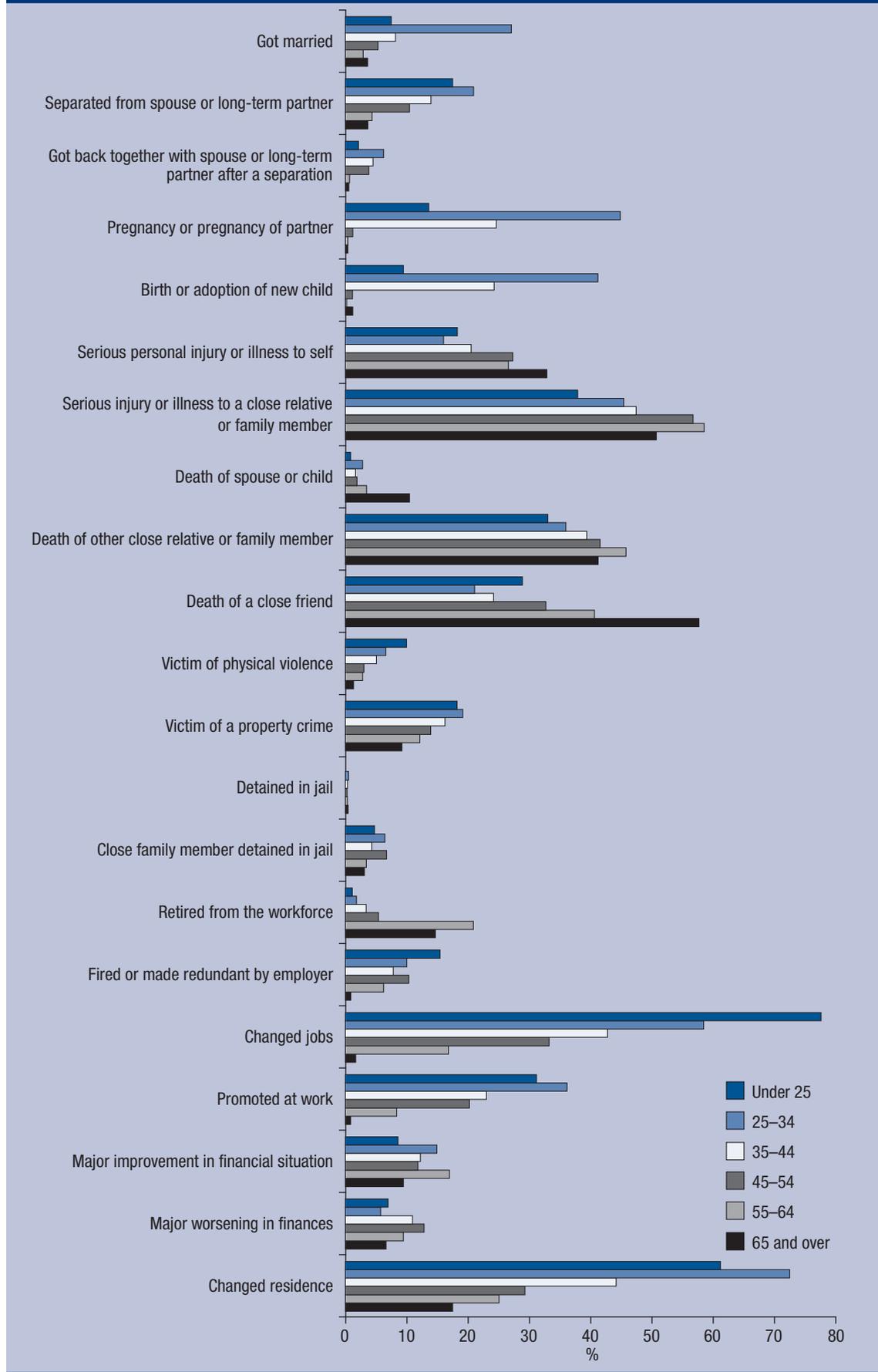
	<i>Men</i>	<i>Women</i>	<i>Total</i>
Got married	8.8	8.1	8.5
Separated from spouse or long-term partner	10.4	10.8	10.6
Got back together with spouse or long-term partner after a separation	2.6	2.9	2.7
Pregnancy or pregnancy of partner	11.7	12.3	12.0
Birth or adoption of new child	10.6	11.6	11.1
Serious personal injury or illness to self	28.2	24.7	26.4
Serious injury or illness to a close relative or family member	44.2	50.9	47.7
Death of spouse or child	2.4	3.7	3.1
Death of other close relative or family member	39.5	40.4	40.0
Death of a close friend	34.0	35.5	34.8
Victim of physical violence	4.4	4.1	4.2
Victim of a property crime	16.6	14.2	15.4
Detained in jail	0.8	*0.3	0.5
Close family member detained in jail	3.2	4.7	4.0
Retired from the workforce	9.9	8.5	9.2
Fired or made redundant by employer	11.4	7.6	9.5
Changed jobs	36.1	33.5	34.7
Promoted at work	20.9	18.0	19.4
Major improvement in financial situation (e.g. won lottery, received an inheritance)	13.0	12.4	12.7
Major worsening in finances (e.g. went bankrupt)	9.9	9.2	9.5
Changed residence	37.0	37.8	37.4

*Note:* \* Estimate not reliable.

**Figure 5.3: Percentage of males experiencing each major life event in the last five years by age group in 2008**



**Figure 5.4: Percentage of females experiencing each major life event in the last five years by age group in 2008**



relatively small, the proportion who experience these events at least once in a five-year period is substantially larger. Table 5.2 shows the proportion of men and women who experienced these life events at least once during the five-year period between 2004 and 2008.<sup>2</sup>

As was the case with life events over a one year period, the most commonly occurring life event over this five-year period was the serious injury or illness of a close relative or family member, with almost 50 per cent of people reporting having experienced this event at least once in the last five years. A relatively high proportion (40 per cent) of men and women experienced the death of a close relative or family member during this period, and 35 per cent experienced the death of a close friend. Changing jobs and moving house were also common events, with 37 per cent of men and 38 per cent of women changing residence at least once between 2004 and 2008, and 36 per cent of men and 34 per cent of women changing jobs during this period.

Figure 5.3 shows that for men, the likelihood of separating from a spouse or partner, being the victim of physical violence, changing jobs and being fired or made redundant decreased with age. Other events, such as getting married, the birth of a child, being promoted at work, changing residence and having been the victim of a property crime were much more common among men who were aged between 25 and 34 in 2008. The proportion of men who reported experiencing a major worsening in finances during the five-year period to 2008 was quite similar among men aged between 30 and 64, with 12 per cent of men aged between 35 and 44, 45 and 54 and 55 to 64 reporting a worsening in finances. Presumably many of these men experienced a sharp drop in the value of their superannuation holdings or other investments as a result of the global financial crisis. On the other hand, 18 per cent of men aged between 55 and 64 reported a major improvement in financial situation, compared to 15 per cent of men aged between 25 and 34, 14 per cent of men aged 35 to 44 and 13 per cent of men aged between 45 and 54.

For women, as was the case for men, events such as getting married, separating from a partner, having a baby, changing residence, being promoted at work and being the victim of a property crime are much more common among women who were aged between 25 and 34 in 2008 (Figure 5.4). The proportion of women who experienced a serious injury or illness, the serious injury or illness of a close friend or relative, or the death of a close friend, relative or family member generally increased with age. Again, as expected, the proportion of women who retired from the workforce increased with age, although retirement was more common among women aged between 55 and 64 than those aged 65 and over; and the proportion who changed jobs or were fired or made redundant decreased with age. The proportion of women who reported a major improvement in their financial situation was higher for women in the 25 to 34 and 55 to 64 age groups.

### Concluding points

The most commonly occurring major life events in any one year period are changing jobs, moving house, the serious injury or illness of a close relative or family member, the death of a close relative or family member and the death of a close friend. Over a five-year period, more than 30 per cent of individuals over the age of 15 experienced these events at least once. Of course, some life events are more common among men and women in particular age groups, for example, getting married, separating from a spouse or partner, having a baby, changing jobs and being promoted at work are more common among men and women in their twenties and thirties.

### Endnotes

- 1 As of 30 June 2007, females accounted for 7 per cent of the total Australian prisoner population (ABS, 2008).
- 2 The sample is restricted to individuals who responded to the questions about life events in each year between 2004 and 2008.

### Reference

Australian Bureau of Statistics (2008) *Prisoners in Australia, 2008*, ABS Catalogue No. 4517.0, Canberra.

# Incomes and Economic Wellbeing

Study of the distribution of incomes, and how incomes of individuals change over time, is integral to understanding the economic fortunes of the Australian population. As has been detailed in previous volumes of the Statistical Report, the HILDA Survey has the capacity to provide more information on this key dimension of economic life in Australia than any other data source. The Survey attempts to gather detailed annual income information from each individual sample member, and attempts to do so every year, resulting in a comprehensive picture of individuals' and households' incomes over an increasingly long time frame.

This is not to argue that the HILDA Survey provides the best evidence about *current levels* and *recent trends* in incomes. The regular income surveys conducted by the Australian Bureau of Statistics include very detailed questions on individual and household incomes and also have very high response rates. For example, the percentage of households approached that responded in full or in part to the Survey of Income and Housing was 78 per cent in 2003–2004, 81 per cent in 2005–2006 and 84 per cent in 2007–2008 (ABS 2008, 2009, 2010). As explained in the introduction to this report, the HILDA Survey has a slightly lower response rate and unavoidably suffers some respondent attrition. HILDA questions on income are much more detailed than in most academic surveys, but are less detailed than the questions in the ABS income surveys. The small biases in HILDA Survey results on income, and the extent to which respondent attrition is related to income, are analysed in Watson and Wooden (2004). Note that household incomes, as measured in the HILDA Survey, are somewhat higher on average than in ABS surveys, although it is not clear that HILDA is less accurate.

In addition to detailed income data, the HILDA Survey regularly collects other information relevant to assessment of economic wellbeing. In every wave, the HILDA Survey has collected information on components of household expenditure, although it was not until Wave 5, when a battery of expenditure questions were included in the self-completion questionnaire, that relatively comprehensive household expenditure data was collected, facilitating estimates of household consumption expenditure. These questions were modified in Wave 6 and have since been administered in every wave. As with income, the ABS collects more comprehensive expenditure data in its five-yearly Household Expenditure Survey, but the HILDA Survey provides the only nationally representative longitudinal data on household expenditure in Australia. Completing the set of households' 'financial accounts' is the four-yearly collection of wealth data. First obtained in 2002, household wealth data is currently available for 2002 and 2006, with data for 2010 to become available in late 2011. In addition to objective financial data, information on the experience of financial stress, on the ability to raise \$2,000 at short notice and the perceived adequacy of household income has been collected in the self-completion questionnaire in every wave. Furthermore, respondent assessments of their satisfaction with their financial situation have been obtained in the personal interview in every wave to date.

As in previous volumes of the Statistical Report, in Part A of this report we present analyses of the income distribution, income poverty, welfare reliance, experience of financial stress and consumption expenditure. New to this volume, we also examine (in Part B) responses to the self-completion questionnaire question on adequacy of income and the Person Questionnaire question on satisfaction with financial situation, in particular focusing on how responses relate to household income and the composition of the household.

## References

- Australian Bureau of Statistics (2008) *Household Expenditure Survey and Survey of Income and Housing: User Guide, Australia, 2003–04*, ABS Catalogue No. 6503.0, Canberra.
- Australian Bureau of Statistics (2009) *Information Paper: Survey of Income and Housing, User Guide, Australia, 2005–06*, ABS Catalogue No. 6553.0, Canberra.
- Australian Bureau of Statistics (2010) *Information Paper: Survey of Income and Housing, User Guide, Australia, 2007–08*, ABS Catalogue No. 6553.0, Canberra.
- Watson, N. and Wooden, M. (2004) 'Assessing the Quality of the HILDA Survey Wave 2 Data', HILDA Project Technical Paper Series No. 5/04, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.

## 6. Income levels and income mobility

### Income levels and living standards

Mean and median household annual disposable incomes in each year of the HILDA Survey are presented in Table 6.1, adjusted for inflation using the Consumer Price Index to be expressed in December quarter 2008 prices. The household is the unit of observation, meaning that each household contributes one ‘observation’ to the calculation of the mean and the median. Note that, as is the case elsewhere in this report, when referring to annual periods, the relevant period is the financial year that ended in the indicated year. For example, annual income estimates for 2001 relate to the 2000–01 financial year.

Average household incomes have grown quite strongly for the in-scope population over the entire period spanned by the HILDA Survey, even after the effects of inflation are removed. Growth has been particularly strong since 2004, with mean

household annual disposable income expressed at December 2008 prices increasing by approximately \$12,400 to 2008, or \$3,100 per year, and the median increasing by \$10,900. In the absence of substantial changes to household composition over the period—and the last two columns of Table 6.1 would indicate there has been little change—this translates to a significant increase in average material living standards.

The third column of Table 6.1 shows the estimated number of households in Australia in Wave 8 is 8.17 million. Multiplying this by the mean household income implies total household disposable income of approximately \$594 billion in the 2007–08 financial year. Australian Bureau of Statistics national accounts data for this period put household disposable income at approximately \$679 billion at December 2008 prices. The difference between the two data sources is to some extent accounted for by differences in the in-scope population. The HILDA figures relate to 21 million persons, whereas the total Australian population was 21.7 million at the time Wave 8 was conducted.<sup>1</sup>

#### Household income

The main household income measure examined in this report is ‘real household annual disposable income’. Household annual disposable income is the combined income of all household members after receipt of government pensions and benefits and deduction of taxes in the financial year ended 30 June of the year of the wave (e.g. 2001 in Wave 1). This is then adjusted for inflation—the rise in the general price level in the economy—using the Australian Bureau of Statistics Consumer Price Index, so that income in all waves is expressed at December 2008 prices, to give *real* income. Since prices tend to rise over time, the income statistics we present for Waves 1–7 are higher than what would be obtained by using incomes actually reported by sample members.

Table 6.2 considers the distribution of household income, taking into account potential changes to household composition by examining ‘equivalised’ income per person. Equivalised income is obtained by dividing household disposable income by the ‘modified Organisation for Economic Co-operation and Development (OECD)’ equivalence scale, which is equal to 1 for the first household member, plus 0.5 for each additional household member over 15 years of age, plus 0.3 for each child under 15. For example, income is divided by 1.5 for a couple with no children, by 1.8 for a couple with one child under 15 and by 2.1 for a couple with two children under 15.

#### Equivalised income

Equivalised income is a measure of material living standards, obtained by adjusting household disposable income for the household’s ‘needs’. Most obviously, a household of four persons will require a higher household income than a lone-person household for each household member to achieve the same living standard as the lone-person household. There are, however, many factors other than household size that could also be taken into account in determining need. These include the age and sex of household members, health and disability of household members (since poor health and/or disability increase the costs of achieving a given standard of living), region of residence (since living costs differ across regions) and home-ownership status (since the income measure does not usually include imputed rent for owner-occupiers).

In practice, it is common for adjustment of income to be based only on the number of adult and child household members, achieved by an equivalence scale. In this report, we have used the ‘modified OECD’ scale (Hagenaars et al., 1994), which divides household income by 1 for the first household member plus 0.5 for each other household member over 15 years of age, plus 0.3 for each child under 15. A family comprising two adults and two children under 15 years of age would therefore have an equivalence scale of 2.1 (1 + 0.5 + 0.3 + 0.3), meaning that the family would need to have an income 2.1 times that of a lone-person household in order to achieve the same standard of living. This scale recognises that larger households require more income, but it also recognises that there are economies of scale in ‘household production’—for example, the rent on a two-bedroom flat is typically less than twice the rent on an otherwise comparable one-bedroom flat—and that children require less than adults. Each member of a household is assigned the same equivalised income, the implicit assumption being that all household income is pooled and then shared equally.

As well as presenting estimates for equivalised income, Table 6.2 also differs from Table 6.1 by treating the individual as the unit of observation. Every person is assigned an income—the equivalised income of that person's household—and the distribution of incomes across all individuals is examined. Persons from the same household are assigned the same equivalised income, on the implicit assumption that income is equally shared among household members. The result is that a four person household contributes four observations, whereas a two person household only contributes two observations. The rationale for this approach is that what matters for understanding the distribution of individuals' access to economic resources is not the distribution of income across households, but rather the distribution of income across people. For example, if the poor tend to live in larger households, the proportion of households that are poor will be lower than the proportion of persons that are poor. It is the latter quantity that is relevant, since our interest is in the wellbeing of people rather than households.

Average income levels are described by the mean and median, while inequality in the income distribution is described by the ratio of the 90th percentile to the median ( $p_{90}/p_{50}$ ), the ratio of the median to the 10th percentile ( $p_{50}/p_{10}$ ) and the Gini coefficient. The 90th percentile is the income of the individual who has 10 per cent of individuals with higher incomes and 90 per cent with lower incomes. The 10th percentile is the income of the individual who has 90 per cent of individuals with higher incomes and 10 per cent with lower incomes. The Gini coefficient is an overall measure of inequality that ranges from 0,

where everyone has the same income, to 1, where one individual has all the income.

As expected, growth in the average level of incomes is robust to the move to equivalised incomes and the individual as the unit of analysis, as there will have been only modest changes in household composition of the population over this period. Up until 2006, income growth appears to have been something of a 'rising tide lifting all boats', with the three measures of inequality presented in Table 6.2 remaining essentially unchanged; that is, income growth has applied equally to low-, middle- and high-income persons. However, in the two years prior to 2008, the ratio of the median to the 10th percentile increased, as did the Gini coefficient. While the Gini coefficient was still not much above its 2001 and 2002 level, the ratio of the median to the 10th percentile was considerably higher in 2008 than at any time since the commencement of the HILDA Survey. The ratio was approximately 10 percentage points higher than its level in all preceding years up to 2006—indicating those towards the bottom of the income distribution have fallen further behind middle- and upper-income households.

Figure 6.1 compares median incomes across eight family types—a non-elderly couple, defined to be a couple without dependent children and with at least one member of the couple under 60 years of age; a couple with at least one dependent child living with them; a lone parent living with at least one dependent child; non-elderly single males (aged under 60 years); non-elderly single females; an elderly couple, where both persons are over 60 years of age; elderly single males (aged 60 years

**Table 6.1: Household annual disposable incomes (December 2008 prices)**

	<i>Mean (\$)</i>	<i>Median (\$)</i>	<i>Number of households</i>	<i>Number of persons</i>
2001	57,853	49,884	7,425,697	18,986,818
2002	58,520	50,431	7,535,509	19,218,072
2003	58,186	50,552	7,630,313	19,454,807
2004	60,330	52,249	7,696,203	19,684,566
2005	63,644	56,122	7,792,815	19,955,825
2006	66,031	57,701	7,929,607	20,265,834
2007	69,033	59,925	8,055,759	20,619,722
2008	72,706	63,179	8,169,672	20,998,129

**Table 6.2: Distribution of individuals' equivalised household disposable income (December 2008 prices)**

	<i>Mean (\$)</i>	<i>Median (\$)</i>	<i>p<sub>90</sub>/p<sub>50</sub></i>	<i>p<sub>50</sub>/p<sub>10</sub></i>	<i>Gini coefficient</i>
2001	34,511	30,685	1.92	2.14	0.302
2002	34,960	30,947	1.89	2.10	0.301
2003	34,728	31,074	1.86	2.12	0.297
2004	35,964	32,711	1.81	2.13	0.290
2005	37,879	34,389	1.84	2.16	0.294
2006	39,302	35,195	1.88	2.11	0.292
2007	41,143	36,517	1.90	2.19	0.304
2008	43,042	38,340	1.87	2.25	0.305

and over); and elderly single females. Note that some households will contain multiple ‘families’. For example, a household containing a non-elderly couple living with a non-dependent male child will contain a non-elderly couple family and a non-elderly single male. All members of this household will, of course, have the same equivalised income.

A reasonably consistent ordering of median incomes by type of family is evident across the eight waves of the survey, ranging from single elderly persons at the bottom to non-elderly couples without dependent children at the top. It also appears that there are three broad ‘clusters’ of family types: non-elderly couples, who have the highest incomes; couples with children and non-elderly single persons, who have middle-level incomes; and lone parent families and elderly couples and single persons, who have low incomes. All family types have experienced growth in median incomes over the full period, although the extent of growth varies somewhat.

**Moving towards ‘permanent’ income**

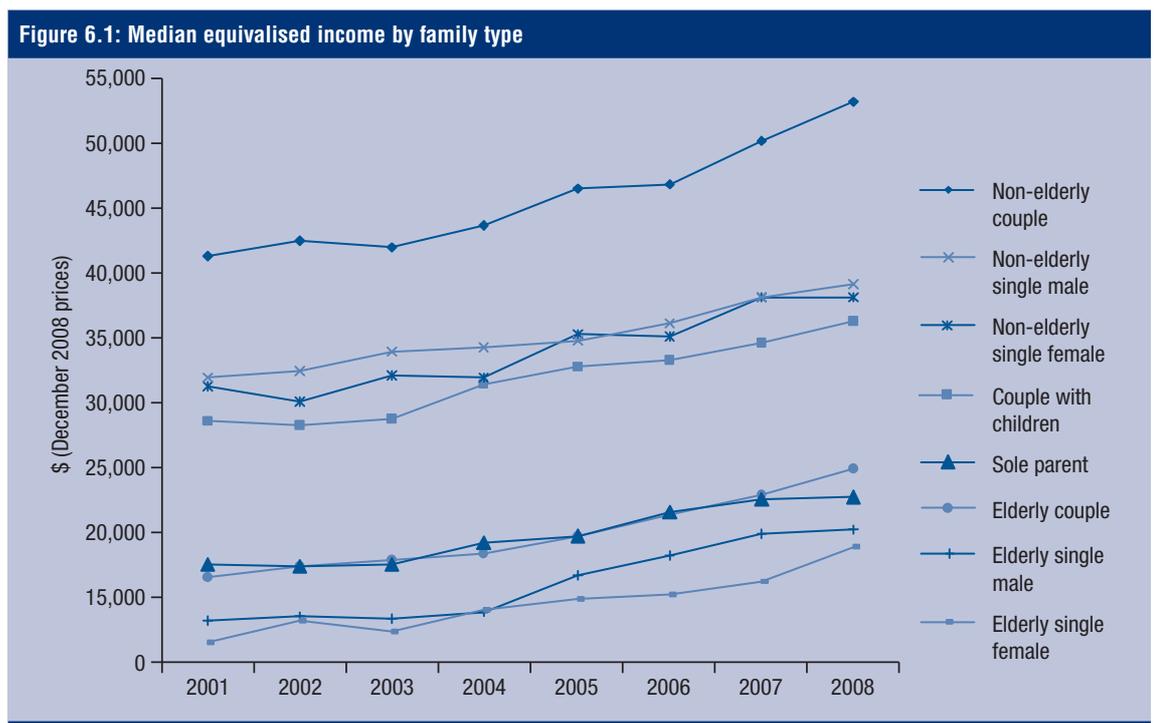
Friedman’s (1957) permanent income hypothesis implies that what is important to an individual’s living standard is not current income, but rather ‘permanent’ or (anticipated) lifetime income. Current income is affected by lifecycle stage and by transitory fluctuations and therefore is often not a good measure or reflection of permanent income. Of course, in practice, the stage of life at which income is received also matters, particularly since there is always uncertainty about future income streams. But the permanent income concept is nonetheless relevant and implies that even income measured over a one-year interval may

provide a misleading picture because of short-term fluctuations. Income may be temporarily high or—likely more often—temporarily low.

We can go some way to overcoming the limitations of current income using the HILDA data. The longitudinal structure of the data allows us to construct measures of income over longer intervals of time than is typically possible using cross-sectional household surveys. We can potentially obtain a much clearer picture of the resources to which an individual has access by examining income over multiple years.

In Table 6.3, the distributions of two-, four- and eight-year equivalised incomes are presented. Income is calculated for each individual as the mean of equivalised income (adjusted for inflation) over the relevant interval. This has the effect of allowing for changes to household composition over time—for example, if total household income over the period was divided by the equivalence scale that prevailed in the first year, it could be misleading if the individual’s household changed during the period examined. A further possible adjustment is to apply a discount rate to income, since a dollar received today is worth more than a dollar received tomorrow. This is not undertaken.

Consistent with the presence of temporary fluctuations, and lifecycle trends in incomes, there is less inequality in the distribution of income the longer the time-frame over which income is measured. Nonetheless, the degree of inequality in eight-year income is only marginally less than inequality in annual income. There are thus many persistently high income and many persistently low income persons. Study of the characteristics



**Table 6.3: Distribution of income measured over time-frames longer than one year (December 2008 prices)**

	Mean (\$)	Median (\$)	p90/p50	p50/p10	Gini coefficient
<b>Two-year income</b>					
2001 and 2002	34,742	31,080	1.84	2.06	0.286
2003 and 2004	35,248	31,967	1.79	2.06	0.279
2005 and 2006	38,408	34,557	1.84	2.05	0.282
2007 and 2008	41,944	37,126	1.87	2.13	0.292
<b>Four-year income</b>					
2001–2004	35,142	31,879	1.77	1.99	0.271
2005–2008	40,050	36,188	1.79	2.00	0.279
<b>Eight-year income</b>					
2001–2008	37,818	34,614	1.73	1.97	0.266

of those with low income over the full eight-year period would in particular reveal important information about the identities of the long-term poor.

### Income changes and income mobility

#### Income changes

The cross-sectional snapshots considered in Tables 6.1 and 6.2 and Figure 6.1, and even Table 6.3, tell us little about what is happening to individuals over time. While many people must be experiencing increases in income, it may also be that some people have experienced declines in income, or at least only small increases. The longitudinal structure of the HILDA Survey allows us to directly examine individuals' experiences of income changes. We do this in Table 6.4, which presents median changes in income by initial location in the income distribution. To do this, we divide the population into equal 20 per cent groupings such that quintile 1 is the lowest income group and quintile 5 the highest income group. We then calculate the median change in income for individuals in each of these quintiles. Median changes are expressed as percentages of the median of the initial quintile. For example, the median change in income of those initially in the first quintile is expressed as a percentage of the 10th percentile, which is the mid-point of the first quintile.

Considerable effort is made to collect accurate income data in the HILDA Survey, reflecting the importance of income to living standards. However, this does not mean all components of income are measured, or that those components that are measured are done so without error. Although measurement error in income afflicts all household income surveys, in longitudinal data it poses a particular problem that does not arise in cross-sectional snapshots—namely, the 'regression-to-the-mean' phenomenon. Under- or over-reporting income in one year increases the chances an individual will be located at an extremity of the income distribution. If that individual in the next year accurately reports income, it is likely they will be located closer to the middle of the income distribution in that year. A misleading picture of income mobility can then ensue. Specifically, the

apparent changes for individuals at high and low initial incomes will be too large; they will appear to have 'regressed' or moved back towards the mean.

There is no single agreed solution to problems arising from regression-to-the-mean. One simple partial remedy is to focus study on changes of those not initially at an extremity of the income distribution—although this confronts the problem that we are often most interested in people at the extremities, particularly those with low initial incomes. The analysis presented in Table 6.4 does not explicitly exclude those at the bottom and top extremities of the income distribution, but extreme changes of those in the top and bottom quintiles are effectively excluded by our focus on the median change in each quintile, which necessarily excludes the largest half of the changes in the top and bottom quintiles.

A further common partial remedy, also used here, is to calculate changes in income after first combining years. In Table 6.4, we combine Waves 1 and 2 and Waves 7 and 8, and also combine Waves 1, 2 and 3 and Waves 6, 7 and 8. For the analysis that combines two waves, we have:

*Change in income equals the mean of equalised incomes in 2007 and 2008, minus the mean for 2001 and 2002.*

This averaging procedure reduces regression-to-the-mean by ensuring that our measure of change is less affected by one-off 'errors' due to misreporting or exceptional temporary fluctuations. It is nevertheless probable that the results given in Table 6.4 for those who started at the very top or very bottom ends of the distribution in 2001 to 2002 exaggerate the changes in income which actually occurred by 2007 to 2008. But note, also, that we would expect *real* change to be smaller when we combine waves, because we are removing some real effects of transitory fluctuations in income.

Table 6.4 shows income growth to be clearly ordered by initial location in the income distribution. The strength of the relationship diminishes as we average over more waves, but it remains present even when averaging over three waves. We cannot know the extent to which observed differences by

initial location in the distribution are real versus artefacts of measurement error, but it seems very unlikely to be entirely attributable to measurement error. This is because there are ‘real’ reasons to expect such a pattern. For example, we might expect many high-income earners to be approaching retirement and many low-income earners to be at early stages of the lifecycle. Income growth would in general be expected to be low for the former group and high for the latter group, which would help produce the ordering of income growth found in Table 6.4. This example illustrates that we cannot infer that income growth has been pro-poor, at least from a permanent income standpoint. Rather, it highlights that a cross-sectional snapshot tends to overstate the degree of inequality in incomes over the lifecycle.

Table 6.5 considers differences in household income growth between 2001 and 2008 for individuals classified according to their type of family in 2001. It shows the median change in equivalised income, and the median change expressed as a percentage of the median income of the family type in 2001. Growth has been lowest for childless couples, whether elderly or not, and strongest for families with dependent children, whether couple or sole parent families. This may in part reflect growth in government family payments between 2001 and 2008. However, these differences could in part also reflect changes in family type between 2001 and 2008. For example, if a lone parent partners between Waves 1 and 8, equivalised income can rise with no change in actual income of each family member. Conversely, a childless couple may have given birth to one or more children, lowering equivalised income even if personal income of each member of the couple does not change. As the last column of Table 6.5 shows, significant numbers of individuals change family type between 2001 and 2008, particularly among the non-elderly.

### *Income mobility*

We now turn to household income mobility, by which we mean the extent to which household incomes change *relative to each other*. So the question here is not whether individuals’ household incomes were rising or falling, but the extent of mobility up and down the distribution. Do most individuals scarcely change their relative position in the distribution, or is it quite common to move from low points in the distribution into the top half, and vice versa? How far do people move, and how does this depend on the time frame over which we examine mobility?

To analyse income mobility, we first in Table 6.6 examine mobility over the full period covered by the HILDA Survey. Panel A1 presents summary measures of the extent of mobility, as measured by the change in each individual’s percentile rank between 2001 and 2008. An individual’s percentile rank gives their location in the income distribution. For example, someone at the first percentile has 99 per cent of individuals with higher incomes, while a person at the 99th percentile has only 1 per cent of individuals with higher incomes. In aggregate, the mean change in percentile rank across all individuals must be zero—if one person moves up one place in the ranking, one other person must move down one place in the ranking—so Panel A1 presents the mean *absolute* change in rank, as well as the proportions in each of four groups for change in percentile rank—up more than 20 percentiles, up between 0 and 20 percentiles (including 0), down between 0 and 20 percentiles (excluding 0), and down more than 20 percentiles.

On average, individuals moved 19.5 percentiles, or slightly less than two deciles, between 2001 and 2008. One quarter of people moved up more than 20 percentiles, and 19 per cent moved down more

**Table 6.4: Median percentage change in income by initial quintile of the income distribution (December 2008 prices)**

	<i>Overall</i>	<i>Bottom quintile</i>	<i>2nd quintile</i>	<i>3rd quintile</i>	<i>4th quintile</i>	<i>Top quintile</i>
2001 to 2008	18.7	44.1	35.5	22.0	13.3	-5.9
2001–2002 to 2007–2008	15.9	31.9	23.8	22.3	12.1	1.1
2001–2003 to 2006–2008	13.8	23.1	20.7	17.7	10.0	5.3

**Table 6.5: Median change in income 2001 to 2008, by family type in 2001 (December 2008 prices)**

	<i>Median 2001 (\$)</i>	<i>Median change (\$)</i>	<i>Median change (%)</i>	<i>Percentage in the same family type in 2008</i>
Non-elderly couple	42,746	2,018	4.7	41.4
Couple with children	31,714	8,012	25.3	61.4
Lone parent	21,979	8,121	36.9	41.8
Non-elderly single male	35,976	5,698	15.8	52.6
Non-elderly single female	33,819	7,042	20.8	42.7
Elderly couple	20,889	1,210	5.8	68.5
Elderly single male	18,467	1,800	9.7	64.2
Elderly single female	16,599	1,674	10.1	79.5

than 20 percentiles. Thus, mobility is evident, but whether this is regarded as high is a matter of subjective assessment. That, over seven years, 56 per cent of people stayed within 20 percentiles of where they were in the income distribution, might be regarded as indicative of low mobility; but equally, that 44 per cent moved more than 20 percentiles might be regarded as indicative of high mobility.

In Panel A2, we consider mobility by initial location in the income distribution. We divide equivalised incomes in 2001 into quintiles and assign each individual to one of those quintiles. We then similarly divide equivalised incomes in 2008 into quintiles and, for each quintile in 2001, find the percentage of individuals ending up in each of the 2008 quintiles. For example, in the first row of Panel A2, we see that 58.4 per cent of those in the bottom quintile in 2001 were also in the bottom quintile in 2008; 22.6 per cent were in the second quintile, 10 per cent were in the third quintile, 5.3 per cent were in the fourth quintile and 3.7 per cent were in the top quintile. The diagonal element in bold shows the percentage remaining in the same quintile. As might be expected based on the Panel A1 results, relatively few people move more than one quintile. Significantly, and consistent with this pattern, the proportions remaining in the top and bottom quintiles are relatively high, in excess of 50 per cent in both cases.

In Panels B1 and B2 of Table 6.6 we consider two-year incomes, examining mobility between location in the distribution of 2001 and 2002 income and location in the distribution of 2007 and 2008 income. As might be expected, the extent of income mobility tends to be less for two-year incomes.

How has income mobility changed over the HILDA Survey period? We can of course consider changes in income mobility in only a limited way over the eight-year span of the data. We do this in Table 6.7 by comparing mobility from one year to the next in four pairs of years: 2001 to 2002, 2003 to 2004, 2005 to 2006 and 2007 to 2008. Aside from 2001 to 2002 appearing to have slightly higher mobility, no clear pattern in changes in mobility over time is evident over the HILDA Survey period. For example, the mean absolute change in percentile rank is just under 12 in all of the last three year-pairs.

Income mobility over time is something of a ‘zero-sum game’ at the aggregate level, so it is not generally appropriate to make assessments of whether mobility over time has been ‘good’ or ‘bad’ at this level. This is not the case when we consider mobility for individual groups in the community. It is possible for changes in location in the income distribution to be favourable for some groups and not so for others. In Table 6.8 we consider differences

**Table 6.6: Income mobility between 2001 and 2008**

<b>A1. Percentile in 2001 and 2008</b>						
	<i>Mean absolute change</i>	<i>Percentage going up more than 20 percentiles</i>	<i>Percentage going up 0–20 percentiles</i>	<i>Percentage going down 0–20 percentiles</i>	<i>Percentage going down more than 20 percentiles</i>	
	19.49	24.7	27.6	28.6	18.8	
<b>A2. Quintile in 2001 and 2008</b>						
	<i>Q1 in 2008</i>	<i>Q2 in 2008</i>	<i>Q3 in 2008</i>	<i>Q4 in 2008</i>	<i>Q5 in 2008</i>	<i>Total</i>
Q1 in 2001	<b>58.4</b>	22.6	10.0	5.3	3.7	100.0
Q2 in 2001	26.6	<b>32.5</b>	20.7	14.5	5.7	100.0
Q3 in 2001	13.5	21.4	<b>29.7</b>	22.8	12.6	100.0
Q4 in 2001	8.7	12.3	21.0	<b>34.0</b>	24.0	100.0
Q5 in 2001	4.3	8.0	14.8	22.2	<b>50.6</b>	100.0
<b>B1. Percentile in 2001–2002 and 2007–2008</b>						
	<i>Mean absolute change</i>	<i>Percentage going up more than 20 percentiles</i>	<i>Percentage going up 0–20 percentiles</i>	<i>Percentage going down 0–20 percentiles</i>	<i>Percentage going down more than 20 percentiles</i>	
	17.27	20.3	31.1	31.3	17.1	
<b>B2. Quintile in 2001–2002 and 2007–2008</b>						
	<i>Q1 in 2007–2008</i>	<i>Q2 in 2007–2008</i>	<i>Q3 in 2007–2008</i>	<i>Q4 in 2007–2008</i>	<i>Q5 in 2007–2008</i>	<i>Total</i>
Q1 in 2001–2002	<b>63.9</b>	22.7	7.5	3.8	2.1	100.0
Q2 in 2001–2002	29.5	<b>33.2</b>	20.8	12.0	4.5	100.0
Q3 in 2001–2002	10.5	24.8	<b>29.3</b>	24.8	10.7	100.0
Q4 in 2001–2002	5.7	10.4	24.4	<b>35.9</b>	23.5	100.0
Q5 in 2001–2002	3.7	6.1	13.2	21.2	<b>55.8</b>	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 6.7: Year to year income mobility—Change in percentile rank**

	<i>Mean absolute change</i>	<i>Percentage going up more than 20 percentiles</i>	<i>Percentage going up 0–20 percentiles</i>	<i>Percentage going down 0–20 percentiles</i>	<i>Percentage going down more than 20 percentiles</i>
2001 to 2002	13.4	12.1	39.2	36.7	11.4
2003 to 2004	11.8	13.2	37.7	39.4	9.0
2005 to 2006	11.9	13.0	37.0	39.9	9.4
2007 to 2008	11.9	12.5	40.3	37.7	8.6

**Table 6.8: Income mobility between 2001 and 2008, by family type in 2001**

	<i>Mean absolute change in percentile rank</i>	<i>Mean change in percentile rank</i>	<i>Proportion going up (%)</i>	<i>Proportion going up more than 20 percentiles (%)</i>	<i>Proportion going down more than 20 percentiles (%)</i>
Non-elderly couple	22.8	−9.6	39.2	16.9	31.0
Couple with children	18.8	0.4	53.7	21.3	17.8
Lone parent	19.4	5.5	59.5	27.8	12.2
Non-elderly single male	21.9	−1.9	49.7	26.4	21.1
Non-elderly single female	21.4	0.5	50.0	28.2	18.7
Elderly couple	17.2	−8.7	45.0	23.4	20.2
Elderly single male	14.8	−6.2	57.2	37.6	13.0
Elderly single female	13.5	−5.5	46.1	26.3	10.9

in income mobility by type of family (the initial family type of the individual). Substantial differences in the extent and nature of mobility are evident across the family types distinguished in the table. Mobility is relatively low for elderly persons and, among the non-elderly, is particularly high among persons without dependent children (whether single or partnered). Mobility is most likely to be in a downward direction for non-elderly couples without children. This may in part be because some *became* couples with children between 2001 and 2008, which can lower gross income because of reduced labour force participation of one member (usually the mother) and can further lower *equivalised* income because of the extra mouth(s) to feed. Also likely to contribute to this pattern is the retirement between 2001 and 2008 of the older members of the ‘non-elderly couples’ group, since retirement is usually associated with a decline in income. Mobility also tends

to be in a downward direction for elderly persons. Lone parents are the most likely to subsequently improve their ranking in the income distribution, on average moving up 5.5 percentiles.

#### Endnote

- 1 National accounts data on household disposable income is obtained from ABS Catalogue No. 5204.0, Table 14. Household disposable income is equal to gross household disposable income less consumption of fixed capital (or, equivalently, household consumption expenditure plus household net saving). Population data come from ABS Catalogue No. 3101.0.

#### References

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## 7. Relative income poverty

Although the term ‘poverty’, as it applies to material living standards, would seem to be widely understood, interpretations of what constitutes poverty vary greatly. As a consequence, a wide variety of definitions or measures of poverty, or material deprivation, have been employed by economic and social researchers. While recognising this diversity of potential measures, in this report we focus on the most commonly employed definition applied to the study of poverty in developed countries, which conceives of poverty as *relative* deprivation or socio-economic disadvantage, and which measures deprivation in terms of inadequacy of *income*. According to this definition, a person is in poverty if the income of that person’s household is less than a fixed proportion of the median household income, where all incomes are adjusted for household needs using an equivalence scale.<sup>1</sup>

For many years the Organisation for Economic Co-operation and Development (OECD) and other international bodies defined relative income poverty as having a household income below 50 per cent of median income. More recently, the European Union and some member governments moved to a poverty line set at 60 per cent of median income. Survey evidence tends to suggest that a threshold set at 50 per cent of median income is in fact consistent with community perceptions of what it means to be poor (Citro and Michael, 1995). In this article, we adopt the older 50 per cent line, which has been regularly used by Australian researchers. While based on a degree of public and researcher consensus, it should nonetheless be acknowledged that there is an element of arbitrariness to this—or any other—definition of relative poverty.

### Relative income poverty

A person is in relative income poverty if they are unable to afford the goods and services needed to enjoy a normal or mainstream lifestyle in the country in which they live. In this report, we define a person to be in relative income poverty if household equivalised income is less than 50 per cent of the median household equivalised income.

One implication of this approach to defining poverty is that, as societies have grown richer, so has the income required to avoid a situation of poverty. How can we defend such a notion of poverty? The argument is that, as average living standards improve, so do the community’s perceptions of what constitutes a minimum acceptable standard of living. One hundred years ago, access to running water and electricity were not considered necessities of life, but a person unable to afford such things in modern society would be

regarded by most people as suffering material deprivation, or in other words, living in poverty.<sup>2</sup>

Notwithstanding the arguments in favour of relative poverty thresholds or lines, often there is interest in holding the purchasing power of the poverty line constant over time to provide a gauge of society’s progress for which ‘the goalposts are not moving’. Typically, this is achieved by holding constant the real value of the poverty line at the value of the relative poverty line in the base year—in our case, 2001. Such a threshold is known as an absolute poverty line, differentiated from the relative poverty line by its constancy over time, irrespective of changes to average living standards. We produce poverty estimates of this kind also.

### Absolute poverty lines

An absolute poverty line is an income poverty threshold which has its real value held constant over time rather than adjusted for changes in average living standards. It is ‘absolute’ in the sense that the *purchasing power* of the poverty line—the basket of goods and services that it can purchase—remains fixed over time. The level at which an absolute poverty line is set may nonetheless be based on the level of a relative poverty line obtained at a particular point in time, for example the beginning of the time period under study.

Irrespective of whether a relative or absolute poverty standard is adopted, income poverty measures have several limitations and many critics. The main limitations are that access to material resources is sometimes not well captured by contemporaneous income, for example, because the individual has substantial wealth; and the not unrelated problem that income is often not well measured. Income measurement is problematic on two main fronts. First, household surveys do not usually attempt to measure non-cash income, which can be a substantial part of the ‘effective’ income of a household. Non-cash income can include services provided by housing and consumer durables owned by the household, unrealised capital gains, government-provided or subsidised goods and services, and gifts and other in-kind transfers from other households. Second, cash income can be poorly measured in some circumstances. In particular, some people under-report income, and may therefore be incorrectly found to be below the poverty line.

Despite these inadequacies, and in part reflecting the complexity of and lack of consensus on proposed alternatives, income poverty measures remain useful indicators of material deprivation and are regularly produced in most parts of the world where household income data are available.<sup>3</sup>

### Cross-sectional poverty rates

Figure 7.1 presents relative and absolute poverty rates in each year covered by the HILDA Survey. The relative poverty line is set at half the median household income and the absolute poverty line is the 2001 relative poverty line, adjusted for inflation to maintain its purchasing power over the 2001 to 2008 period. As in Chapter 6, our income measure is annual disposable household income adjusted for household composition using the OECD equivalence scale. Thus, the poverty lines presented at the bottom of Figure 7.1 can be interpreted as the annual income after taxes and government benefits that a single-person household would require to avoid relative poverty. Poverty rates refer to the proportion of persons (not households) living in poverty.

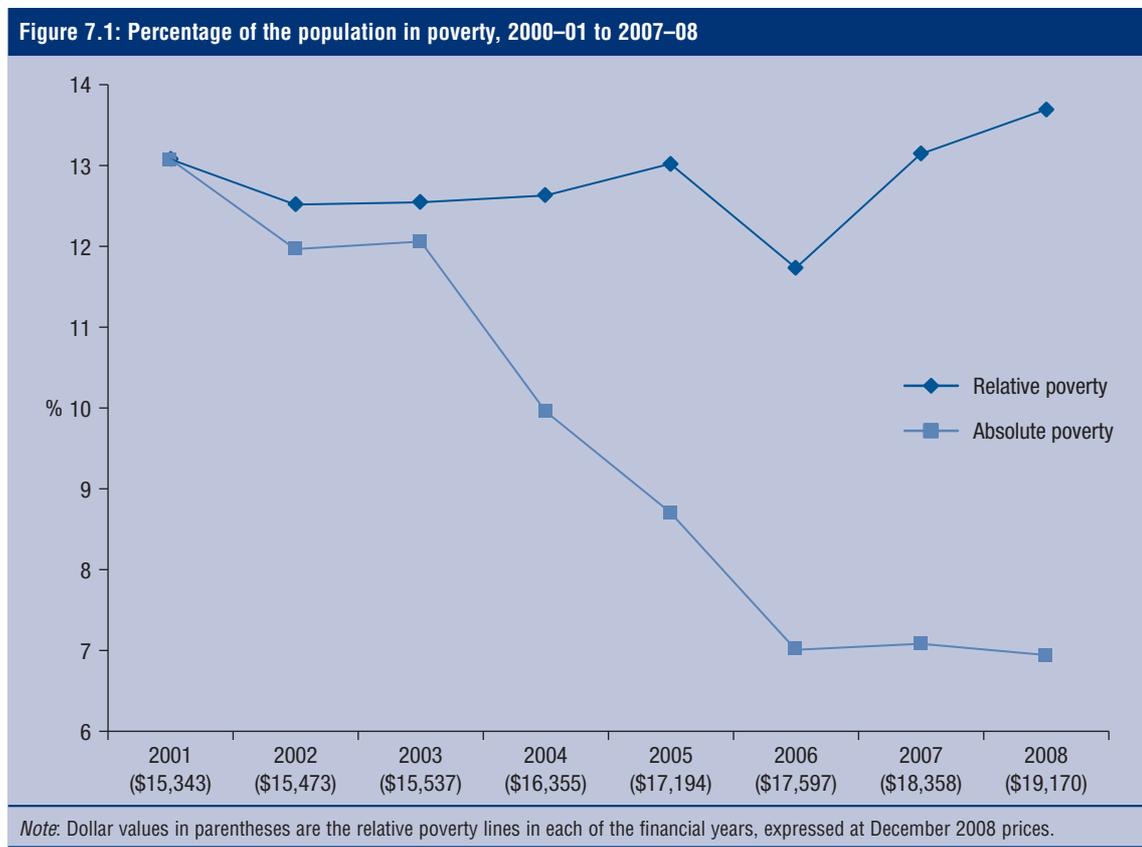
Reflecting the high rate of household income growth that has occurred over the 2001 to 2008 period, the relative poverty line has increased substantially, from \$15,343 to \$19,170 expressed at December 2008 prices. The proportion of the population below this poverty line has fluctuated over time, with an especially large dip evident in 2006, since which time the poverty rate has increased sharply. Indeed, the proportion of the population in relative income poverty in 2008 was the highest it has been in the eight-year period, reaching 13.9 per cent. Note, however, that the relatively large changes in the proportion of the population below the poverty line to a significant extent reflect that

many welfare recipients in Australia have incomes quite close to 50 per cent of median income, so that relatively small movements in government benefits or the median can bring about sizeable changes in the poverty rate.

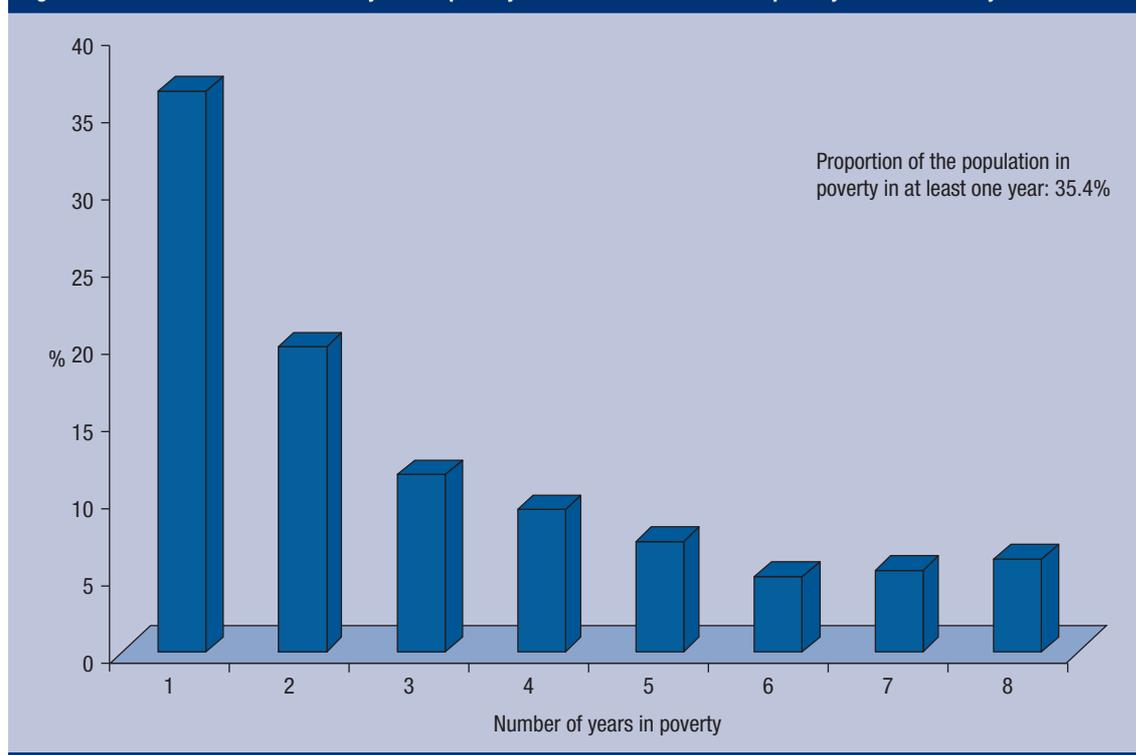
While the growth in relative income poverty would be regarded by many, if not most, people as undesirable, concern may be tempered by the poverty estimates obtained when the real value of the poverty line is maintained at its 2001 level of \$15,343 (at December 2008 prices). For this absolute poverty line, the proportion of the population below the poverty line drops from 13.2 per cent in 2001 to 7 per cent in 2008. It is therefore clear that, even among the poor, average living standards have increased over the full eight-year period. Nonetheless, it is also true that, even for this absolute poverty measure, there has been some increase in poverty since 2006.

### Poverty over the medium term

The true value of the HILDA data for the study of income poverty in Australia comes from its longitudinal structure. In Figure 7.2, we make use of all eight years of the survey to examine the amount of time people spend in (relative) poverty over the medium term. For people who were in poverty in at least one of the eight years, it presents the proportion in each category of 'number of years spent in poverty', which can range from 1 (only in poverty in one of the eight years) to 8 (in poverty



**Figure 7.2: Distribution of number of years in poverty 2001 to 2008—Persons in poverty in at least one year**



in all eight years). Also indicated in the figure is that, according to the HILDA Survey, 35.4 per cent of the Australian population has been in poverty at some stage during the 2001 to 2008 period. Of these individuals, 36.4 per cent were in poverty in only one year and a further 19.6 per cent were in poverty in only two of the eight years. The persistently poor constitute only a small fraction of all those to experience poverty over the medium term. Nonetheless, they represent a significant number of people: 23.2 per cent of those to experience poverty between 2001 and 2008, or 8.2 per cent of all people, were in poverty for at least five of the eight years spanned by the survey. Indeed, 2.1 per cent of the population were in poverty for the entire period, which translates to approximately 450,000 people permanently in poverty between 2001 and 2008.

**Persistence and recurrence of poverty**

Of perhaps as much interest as the extent of poverty in the community are the ‘dynamic prop-

erties’ of individuals’ experiences of poverty—that is, how persistent poverty is and, for those who exit poverty, how many return to poverty. Table 7.1 takes one possible approach to examining persistence in poverty, and also allows consideration of whether the degree of persistence has been changing over the HILDA Survey period. It does this by considering only persistence from one year to the next. For each of four year-pairs, the proportions that were out of poverty in both years, in poverty in only the first year, in poverty in only the second year, and in poverty in both years, are reported. The estimates indicate that approximately 5 to 6 per cent of persons enter poverty in any given year, and a similar proportion exit poverty each year. A further 7 to 8 per cent are in poverty in both years of any two-year period.

In terms of identifying changes over time in the extent of persistence in poverty, we see that transitions into poverty were fewer in 2003–2004 than in 2001–2002 and were fewer again in 2005–2006,

**Table 7.1: Two-year poverty status (%)**

	2001 and 2002	2003 and 2004	2005 and 2006	2007 and 2008
Not in poverty in either year	80.7	82.4	82.1	81.4
Out of poverty in first year and in poverty in second year	6.0	5.3	4.8	5.5
In poverty in first year and out of poverty in second year	6.3	5.3	5.9	4.6
In poverty in both years	7.1	7.0	7.2	8.5
Total	100.0	100.0	100.0	100.0

*Note:* Percentages may not add up to 100 due to rounding.

indicating a declining rate of inflow into poverty. However, the inflow rate increased slightly in 2007–2008. More significantly, the outflow rate decreased to its lowest level in 2007–2008, with only 4.6 per cent of people in poverty in 2007 and out of poverty in 2008. This translates to a notable increase in poverty persistence in 2007 and 2008, with the proportion in poverty in both years increasing to 8.5 per cent, compared with approximately 7 per cent in previous years.

In Table 7.2 we consider persistence beyond one year. Each column presents the proportion of those in poverty in the base year (2001, 2003, 2005 or 2007) that was also in poverty in each successive year. There is evidence of a relatively high degree of persistence and/or recurrence of poverty. Of those in poverty in 2001, 55 per cent were in poverty in 2002, 49 per cent were in poverty in 2003, 47 per cent were in poverty in 2004 and, even in 2008, 46 per cent were in poverty. To the extent ascertainable given the shorter time frames

available, similar patterns are evident in the other columns—although, consistent with the findings in Table 7.1, persistence of poverty into the next year is, at 65 per cent, approximately 10 percentage points higher in 2007 than in the earlier years.

Table 7.3 explicitly focuses on poverty recurrence, reporting the percentage of people that re-enter poverty within two years of exit. The first row shows that 41 per cent of people who exited poverty in 2002 (i.e. were not in poverty in 2002 after having been in poverty in 2001) re-entered poverty within the next two years, 57 per cent re-entered poverty within four years of exit, and 64 per cent re-entered within six years of exit. This would seem to be a high rate of recurrence. The rate of recurrence appears to have declined for those exiting up until 2004, with only 30 per cent of those who exited in 2004 re-entering poverty within two years, and 42 per cent re-entering poverty within four years. However, since then, poverty recurrence seems to

**Table 7.2: Poverty persistence (%)**

<i>Also in poverty in...</i>	<i>Persons in poverty in 2001</i>	<i>Persons in poverty in 2003</i>	<i>Persons in poverty in 2005</i>	<i>Persons in poverty in 2007</i>
2002	55.4	–	–	–
2003	48.8	–	–	–
2004	47.4	56.2	–	–
2005	49.4	49.2	–	–
2006	43.7	44.6	54.2	–
2007	46.0	43.9	53.7	–
2008	45.9	43.4	52.3	65.0

**Table 7.3: Poverty recurrence**

	<i>Percentage re-entering poverty in the two years after exit</i>	<i>Percentage re-entering poverty in the four years after exit</i>	<i>Percentage re-entering poverty in the six years after exit</i>
Exit in 2002	41.3	56.9	64.0
Exit in 2003	33.0	46.2	–
Exit in 2004	30.4	42.4	–
Exit in 2005	33.0	–	–
Exit in 2006	52.2	–	–

*Notes:* 'Exit in 2002' applies if an individual was in poverty in 2001 and not in poverty in 2002. Poverty recurrence in two years after exit occurs if the individual is in poverty in 2003 or 2004. Estimates for all other cells are analogous.

**Table 7.4: Poverty rates by family type (%)**

	<i>2001</i>	<i>2003</i>	<i>2005</i>	<i>2007</i>	<i>2008</i>
Non-elderly couple	8.8	6.7	6.4	7.1	6.1
Couple with children	7.0	7.5	7.3	7.8	7.9
Lone parent	22.2	22.3	24.6	26.3	26.7
Non-elderly single male	11.2	11.7	11.9	9.4	11.0
Non-elderly single female	13.8	15.1	15.0	14.4	14.0
Elderly couple	26.3	21.2	26.8	26.6	30.2
Elderly single male	38.6	40.5	39.6	34.7	37.0
Elderly single female	46.0	43.1	39.6	38.7	40.4

have increased, particularly for those who exited poverty in 2006, 52 per cent of whom re-entered poverty in 2007 or 2008.

### Poverty by family type

Table 7.4 shows that poverty rates vary substantially by family type. Rates are consistently high among the elderly, particularly elderly single persons. Note, however, that elderly people are more likely to own their own house than are younger people, and our income poverty measure does not account for in-kind services provided by owner-occupied housing. The income poverty rates for the elderly are therefore likely to overstate the extent of their relative deprivation.<sup>4</sup> Poverty rates are also high, and growing, for lone-parent families, with over one-quarter of individuals living in lone parent families in poverty in 2008. Non-elderly couples, whether with or without dependent children, have consistently low poverty rates.

Poverty over the medium term broken down by family type (in 2001) is considered in Table 7.5. Poverty is clearly more persistent for the elderly than for other family types. Particularly notable is that, while a high proportion of persons in lone-parent families in 2001 experience at least one year in poverty, few—only 4 per cent—were in poverty for five or more of the eight years spanned by the HILDA Survey.

### Child poverty

Child poverty is a particular concern for policy makers, both because children in poverty are unambiguously ‘innocent victims’ who cannot be said to have in any way contributed to their predicament, and perhaps more importantly because of the damage poverty may do to children’s future productive capacity and life prospects more generally. Successive governments in Australia have made concerted efforts to improve child living standards, resulting in significant inroads into child poverty in recent decades (Abello and Harding, 2004), but continued monitoring of child poverty, and more particularly its dynamic features, of course remains important.

Child poverty rates presented in Table 7.6 show an increase in child poverty between 2001 and 2008. The child poverty rate is consistently lower—albeit only slightly—than the community-wide poverty rate. It would therefore seem that policy efforts in this area have had some success. However, as the second panel of Table 7.6 shows, there is still much room for improvement among sole parent families, with around 25 to 30 per cent of children in such families below the poverty line. Table 7.6 also shows that poverty rates tend to be higher for younger children, irrespective of whether they are living with one or both parents. This is likely to reflect the higher

**Table 7.5: Years in poverty by family type in 2001 (%)**

	<i>0 years</i>	<i>1 or 2 years</i>	<i>3–4 years</i>	<i>5–8 years</i>	<i>Total</i>
Non-elderly couple	73.3	15.6	5.1	3.4	100.0
Couple with children	74.0	17.8	4.7	2.0	100.0
Lone parent	45.7	26.7	19.5	4.0	100.0
Non-elderly single male	68.1	19.7	6.1	2.9	100.0
Non-elderly single female	65.2	20.1	7.2	4.2	100.0
Elderly couple	36.0	30.4	11.7	11.8	100.0
Elderly single male	36.2	22.1	13.3	17.6	100.0
Elderly single female	28.7	22.5	11.6	24.2	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 7.6: Rates of child poverty—Children under 18 years of age (%)**

	<i>2001</i>	<i>2003</i>	<i>2005</i>	<i>2007</i>	<i>2008</i>
<b><i>Live with both parents</i></b>					
Aged 0–5	7.1	8.8	8.2	8.5	10.4
Aged 6–11	7.3	8.4	9.0	9.4	8.2
Aged 12–14	6.9	5.1	7.5	7.8	8.3
Aged 15–17	8.3	8.1	6.6	7.6	7.1
All ages	7.3	7.9	8.2	8.6	8.8
<b><i>Live with one parent</i></b>					
Aged 0–5	26.9	26.3	25.7	32.0	32.4
Aged 6–11	24.0	24.5	28.0	28.1	29.3
Aged 12–14	23.9	14.0	20.4	26.3	26.6
Aged 15–17	17.8	28.0	24.6	24.7	26.4
All ages	23.9	23.3	25.3	27.8	28.9
All children	11.0	11.4	12.4	12.6	13.2

care requirements of young children, which restrict the ability of primary caregivers to participate in the labour market, as well as the younger average age of parents with young children, which translates to lower average levels of work experience and thus lower earnings.

The distribution of the number of years children were poor over the 2001 to 2008 period is provided in Table 7.7 for children under 12 years of age in Wave 1 (and therefore no older than 18 years of age in 2008). Overall, persistence in child poverty appears similar to that evident for the population as a whole. However, associated with the higher incidence of poverty among children living in lone parent families is a relatively high incidence of persistent poverty, with 8.8 per cent of children under 12 and living in this family type in 2001 experiencing five or more years of poverty in the eight-year period.

### Subjective income poverty

An alternative approach to the ‘objective’ half-median-income approach to identifying material deprivation is to simply ask people if they are experiencing such deprivation. The HILDA Survey in fact does this every year by virtue of the following question in the self-completion questionnaire:

*Given your current needs and financial responsibilities, would you say that you and your family are (1) Prosperous; (2) Very comfortable; (3) Reasonably comfortable; (4) Just getting along; (5) Poor; or (6) Very poor?*<sup>5</sup>

The first row of Table 7.8 presents estimates of the prevalence of ‘subjective poverty’ based on responses to this question, on the assumption that responses of ‘poor’ or ‘very poor’ correspond to a

situation of poverty. For comparison purposes, the proportion classified as poor based on the half-median-income definition of poverty is presented in the second row of Table 7.8. Note that, for both poverty measures, the sample is restricted to respondents to the self-completion questionnaire, all of whom are aged 15 years and over. The estimates show that the proportion of the population who perceive themselves to be poor is much lower than the proportion classified as poor on the basis that their income is less than half of median income. Approximately 3–4 per cent of persons over 15 years of age report being poor or very poor, while approximately 13 per cent of persons over 15 years of age are classified as poor based on their household income. However, it is notable that the two poverty measures do tend to change in a similar manner over the 2001 to 2008 period, decreasing over much of the period before increasing slightly in 2008.

Also presented in Table 7.8 is information on the association between the objective and subjective poverty measures. The second panel presents the proportions in each combination of reporting being poor (‘perceived’ poor) and being classified as poor. Given the much lower incidence of perceived poverty, it follows that most people classified as poor do not regard themselves as poor. However, we also find that the majority—about two-thirds—of the perceived poor are not classified as poor. This lack of intersection between the two measures possibly reflects, at least in part, cost of living differences not captured by the equivalence scale. For example, some people not classified as poor may have health conditions that increase their daily living costs, leading them to report being poor. Conversely,

**Table 7.7: Medium-term child poverty: Years in poverty 2001 to 2008 of children under 12 years of age in 2001—Percentage in each category**

	0 years	1 or 2 years	3 or 4 years	5–8 years	Total
Lived with both parents in 2001	73.2	18.0	4.4	4.3	100.0
Lived with one parent in 2001	43.9	26.0	21.4	8.8	100.0
Total	67.7	87.2	7.6	5.2	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 7.8: Subjective income poverty—Persons aged 15 years and over**

	2001	2003	2005	2007	2008
Perceived poor (%)	4.2	3.5	2.8	3.0	3.5
Classified as poor (%)	13.7	13.0	13.1	12.8	13.5
Perceived and classified as poor (%)	1.4	1.2	0.9	1.1	1.4
Perceived, but not classified as, poor (%)	2.8	2.3	1.9	1.9	2.1
Not perceived, but classified as, poor (%)	12.3	11.9	12.2	11.7	12.0
Not perceived or classified as poor (%)	83.5	84.6	84.9	85.3	84.4
Total (%)	100.0	100.0	100.0	100.0	100.0
Correlation coefficient	0.121	0.117	0.098	0.123	0.157

*Note:* Percentages may not add up to 100 due to rounding.

some people classified as poor may have relatively high wealth in the form of housing, cars and other consumer durables, leading them to report not being poor.

**Endnotes**

- 1 In Chapter 21 we consider a broader concept of socio-economic disadvantage, social exclusion.
- 2 Note that there is an important distinction between not being able to afford goods and services and choosing not to have them. It is the former criterion that determines poverty status.
- 3 Note, however, that no Australian Government has ever adopted an official poverty line.

- 4 We also note that the payment rates for the Age Pension were increased significantly in September 2009, which may decrease the prevalence of measured income poverty among the elderly from Wave 10.
- 5 Further analysis drawing on responses to this question are presented in Chapter 22 in Part B of this report.

**References**

Abello, A. and Harding, A. (2004) ‘The Dynamics of Child Poverty in Australia’, NATSEM Discussion Paper No. 60, Canberra.

Citro, C.F. and Michael, R.T. (1995) *Measuring Poverty: A New Approach*, National Academic Press, Washington, DC.

## 8. Welfare reliance

As in many developed countries, the extent of dependence on welfare has been a significant concern for policy-makers in Australia for some decades now. Whiteford and Angenent (2002) show that the proportion of persons aged 15–64 receiving welfare at any one point in time rose from 3 per cent in 1970 to 18 per cent in 1999. Rising welfare dependence is widely regarded as having adverse consequences, for both welfare recipients and the community at large. Welfare dependence is associated with significant demands on government budgets and reduced economy-wide market output, and individuals’ reliance on welfare is often associated with long-term poverty, social exclusion and other adverse outcomes for them and their children. It is therefore not surprising that recent years have seen several rounds of welfare reforms aimed at reducing the extent of welfare reliance in Australia.

Welfare payments in Australia are known as income support payments, which are benefits paid to Australian residents that are intended to represent the primary source of income of recipients. Studies of welfare reliance in Australia correspondingly focus on receipt of income support payments, although supplementary government benefits, known as non-income support payments, are typically included by studies when determining the extent of welfare reliance of those who have received income support payments. Income support payments include the Age Pension, Disability Support Pension, Carer Payment, Parenting Payment (Single and Partnered), Newstart Allowance, Youth Allowance and Department of Veterans’ Affairs Service Pension, as well as several other smaller payment types. Non-income support payments include Family Tax Benefit (Parts A and B), the Baby Bonus and Carer Allowance.

Gottschalk and Moffitt (1994), investigating welfare reliance in the United States, identify three main classes of measure of welfare reliance: (i) benefit

spell duration (length of time continuously on benefits); (ii) the proportion of time spent on benefits in a given interval of time; and (iii) the proportion of income received from benefits in a given interval of time. In Australia, a number of studies have investigated the first two ‘time-based’ dimensions using welfare payments administration data on welfare recipients (e.g. Barrett, 2002; Gregory and Klug, 2002; Tseng and Wilkins, 2003; Tseng et al., 2008). Administrative data sets provide complete information on individuals’ welfare payments, but do not contain any information on individuals when they are not on payments. Thus, while time spent on payments can be described using administrative data, income-based measures of reliance cannot be produced, because non-welfare income of individuals when they are not on payments is not known.

The HILDA Survey has the key advantage of providing complete income information, at the household level, which allows us to examine ‘income-based’

**Welfare reliance**

While a person may be regarded as to some extent reliant on welfare if *any* welfare payments are received by that person’s household, welfare reliance is usually conceived as a situation in which welfare represents the primary or main source of income. In this report, two alternative specific definitions of welfare reliance are adopted:

- (i) The household received income support payments and more than 50 per cent of household income came from income support and non-income support payments.
- (ii) The household received income support payments and more than 90 per cent of household income came from income support and non-income support payments.

measures of welfare reliance of the household over extended periods. While Australian Bureau of Statistics income surveys allow cross-sectional snapshots of the proportion of income from welfare (e.g. Tseng and Wilkins, 2003), the HILDA Survey is the only data source that makes possible longitudinal study of income-based welfare reliance. Thus, in addition to presenting cross-sectional information on rates of receipt and the proportion of household income derived from welfare payments, we examine persistence and recurrence of welfare reliance.

We adopt two alternative definitions of welfare reliance. Under the first definition, a person is welfare reliant if more than half of household income comes from government benefits in the form of income support and non-income support payments. Under the second definition, a person is only welfare reliant if more than 90 per cent of household income comes from government benefits. There is some degree of arbitrariness in determining the threshold at which an individual's household is deemed welfare reliant. The 50 per cent threshold accords with the intuition that a person is welfare reliant if the majority of household income comes from welfare. The 90 per cent threshold applies if welfare reliance is viewed as a situation in which almost all income comes from welfare.<sup>1</sup> We examine reliance both at the time of the interview ('current week') and in the financial year preceding the interview.<sup>2</sup> While reliance is defined in terms of household income and welfare receipt, our analysis is of individuals; that is, our analysis is of the number of *individuals* who are welfare reliant, not the number of households that are welfare reliant.

### Extent of welfare reliance

Table 8.1 presents cross-sectional estimates of welfare receipt and reliance for selected years, in the top panel for all persons, and in the bottom panel for 'workforce age' persons (aged 15–64 years). In

2008, 36 per cent of persons were living in a household in receipt of income support at the time of interview, and 39 per cent lived in households that had received income support payments at some stage in the preceding financial year. Rates of receipt are somewhat lower among workforce-age persons, at 30 per cent for the current week and 34 per cent for the preceding financial year. Significantly, there has been a substantial decline in the rate of receipt of income support payments since 2001. For example, the proportion of people in households currently receiving income support payments declined from 42 per cent in 2001 to 36 per cent in 2008.

As would be expected, the proportion of the population classified as welfare reliant depends on whether the 50 per cent or 90 per cent threshold is employed, with reliance lower adopting the 90 per cent threshold. Both series exhibit similar patterns of change between 2001 and 2008, however. Taking the 50 per cent threshold as our core definition of welfare reliance, we see that welfare reliance declined from 18.8 per cent of the population in 2001 to 16.4 per cent in 2008. Among those aged 15–64, reliance declined from 12.2 per cent to 10.3 per cent—albeit after increasing to 12.9 per cent in 2003. Welfare reforms of recent years—most particularly, the reforms introduced in July 2006—may therefore be having the desired effects. However, economic growth and declining unemployment over the 2001 to 2008 period is also likely to have been a contributing factor.

Focusing now on annual measures of reliance and on workforce-age persons, Table 8.2 presents the distribution of the number of years on welfare and the number of years welfare reliant. This provides a better picture of the extent of individuals' welfare reliance by considering the totality of the period spanned by the HILDA Survey. The sample is restricted to persons of workforce age for the entire eight-year period, which translates to persons aged 15–57 years in Wave 1 (and

**Table 8.1: Measures of welfare reliance (%)**

	2001	2003	2005	2007	2008
<b>All persons</b>					
<i>Current weekly welfare receipt</i>					
Proportion on welfare	42.3	38.8	39.3	37.2	36.3
<i>Financial year welfare receipt</i>					
Proportion on welfare	45.7	43.7	43.0	40.3	39.2
Proportion reliant (50% threshold)	18.8	19.5	18.2	17.3	16.4
Proportion reliant (90% threshold)	11.0	11.2	10.2	9.7	8.6
<b>Persons aged 15–64</b>					
<i>Current weekly welfare receipt</i>					
Proportion on welfare	36.7	32.9	33.0	30.8	30.1
<i>Financial year welfare receipt</i>					
Proportion on welfare	40.3	38.0	37.3	34.4	33.5
Proportion reliant (50% threshold)	12.2	12.9	11.4	10.7	10.3
Proportion reliant (90% threshold)	7.3	7.3	6.5	6.1	5.3

**Table 8.2: Number of years welfare reliant, 2001 to 2008 (%)**

	<i>Received welfare</i>	<i>More than 50% of income from welfare</i>	<i>More than 90% of income from welfare</i>
0 years	35.1	72.9	80.1
1 year	14.0	6.3	5.7
2–4 years	22.7	9.6	7.2
5–7 years	14.9	7.7	5.4
8 years	13.3	3.5	1.6

*Note:* Sample comprises persons aged 15–57 years in 2001.

22–64 years in Wave 8). The first column indicates that more people than not—65 per cent—were at some stage of the 2001 to 2008 period living in a household that received income support payments in the preceding financial year. Fully 13 per cent of individuals lived in households that received income support payments in all eight years, while 14 per cent lived in households that received income support payments in only one year. Adopting the 50 per cent threshold for defining welfare reliance, 27 per cent of individuals of workforce age were reliant on welfare at some stage between 2001 and 2008. Individuals are relatively more likely to be reliant in only one year, but there are still significant numbers in all of the categories (welfare reliant for between two and eight years). On the basis of Table 8.2, welfare reliance therefore cannot be characterised as usually highly persistent or usually transitory—it can be either, or anything in-between. Nonetheless, it is clear that for many people welfare reliance is indeed a highly persistent phenomenon.

### Persistence and recurrence of welfare reliance

In Table 8.3 we directly consider the extent of persistence in welfare reliance among workforce-age persons, as well as how persistence has been changing over time. Each column presents the proportion of persons who were welfare reliant in the base year (2001, 2003, 2005 or 2007) who were also reliant in each subsequent year. For this

table, a person is defined to be welfare reliant if more than 50 per cent of household annual income came from welfare payments. Taking this approach, we see that welfare reliance is highly persistent. Of those welfare reliant in 2001, 79 per cent were still reliant in 2002, 73 per cent were reliant in 2003, 69 per cent were reliant in 2004, 63 per cent were reliant in 2005, 58 per cent were reliant in 2006, 57 per cent were reliant in 2007 and 53 per cent were reliant in 2008. Overall, persistence of welfare reliance appears to have declined slightly over the HILDA Survey period. For example, examining persistence from one year to the next, the proportion remaining reliant is 79.4 per cent in 2001, 78.7 per cent in 2003, 77.8 per cent in 2005 and 75.8 per cent in 2007. A similar overall pattern is evident for two-year and three-year persistence when comparing 2001 with 2005. Four-year persistence also declines slightly when comparing 2001 with 2003. The exception to this trend pattern is that five-year persistence is slightly higher among those on welfare in 2003 than among those on welfare in 2001.

Consistent with this pattern of declining persistence, in Table 8.4 we see that recurrence of welfare reliance—defined as re-entry to welfare reliance within two years of exiting welfare reliance—has declined among workforce-age people. The decline is particularly large towards the end of the survey period. Of those who exited welfare reliance in 2002, 45 per cent became welfare reliant again within two years, compared with

**Table 8.3: Persistence of welfare reliance (%)**

	<i>Persons welfare reliant in 2001</i>	<i>Persons welfare reliant in 2003</i>	<i>Persons welfare reliant in 2005</i>	<i>Persons welfare reliant in 2007</i>
Welfare reliant in 2002	79.4	–	–	–
Welfare reliant in 2003	72.8	–	–	–
Welfare reliant in 2004	68.6	78.7	–	–
Welfare reliant in 2005	63.1	68.1	–	–
Welfare reliant in 2006	57.8	66.0	77.8	–
Welfare reliant in 2007	56.7	61.2	67.6	–
Welfare reliant in 2008	52.9	59.7	67.2	75.8

*Notes:* Sample in column 1 comprises persons aged 15–58 years in 2001; sample in column 2 comprises persons aged 15–60 years in 2003; sample in column 3 comprises persons aged 15–62 years in 2005; sample in column 4 comprises persons aged 15–63 years in 2007. A person is defined to be welfare reliant if more than 50 per cent of household annual income came from welfare.

40 per cent of those who exited welfare reliance in 2005, and 30 per cent of persons who exited welfare reliance in 2006. While the reasons for this decline are not explored in this article, we note that the Welfare-to-Work reforms introduced in July 2006 may have contributed to this decline in re-entry.

**Welfare reliance by family type**

Figure 8.1 shows that welfare reliance is very much a function of lifecycle stage and family type. Throughout the 2001–2008 period, over half of single elderly persons were welfare reliant and over 40 per cent of elderly couples and persons in lone-parent families were welfare reliant. Non-elderly couples, with or without children, have comparatively low rates of welfare reliance—always less than 10 per cent. Non-elderly single persons have higher rates of welfare reliance than non-elderly couples, but much lower rates than elderly persons and lone parent families.

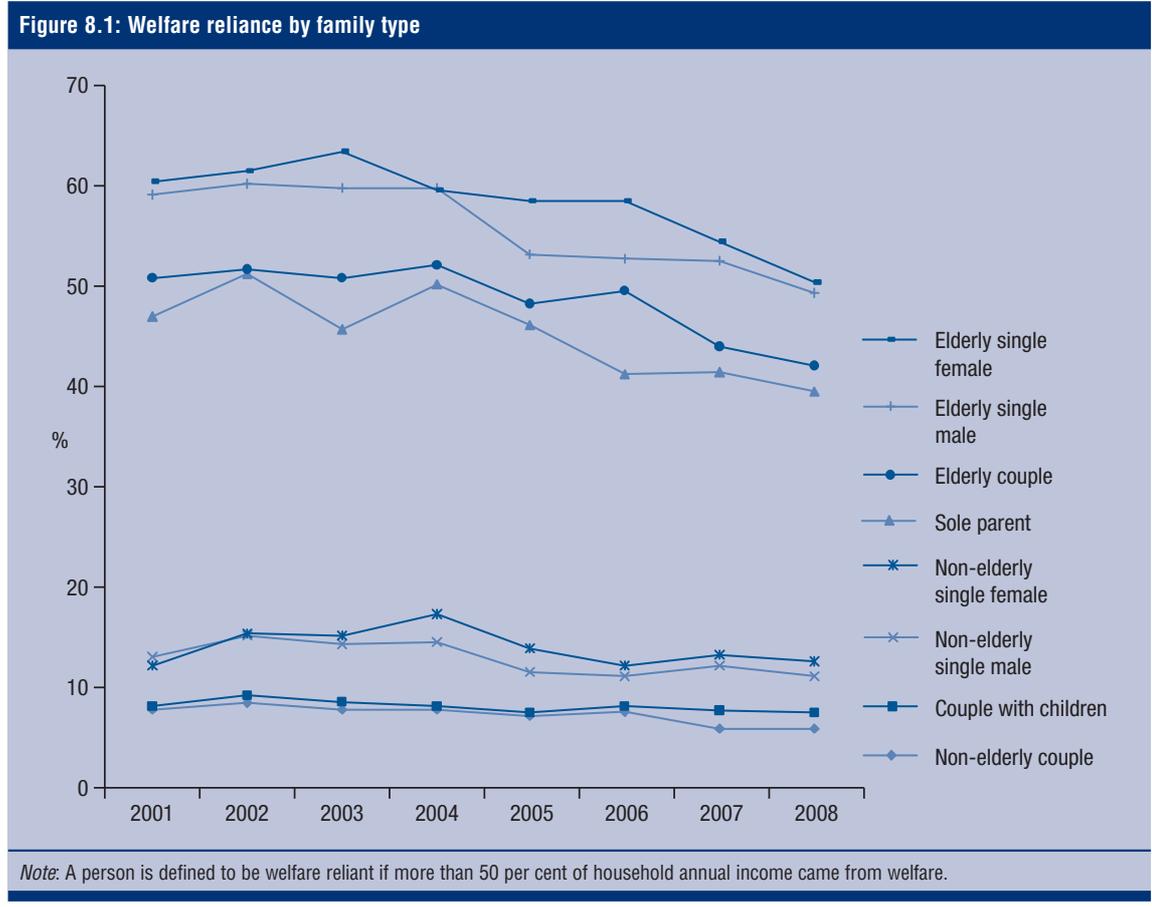
Since 2004, rates of welfare reliance have declined substantially for elderly persons, possibly reflecting greater reliance on superannuation among more recent birth cohorts. Welfare reliance has also declined substantially for lone-parent families, perhaps in part because of welfare reforms encouraging increased labour market participation by lone parents. Welfare reliance among other

	<i>Percentage becoming welfare reliant again within two years of exit</i>
Exit in 2002	45.2
Exit in 2003	40.9
Exit in 2004	40.9
Exit in 2005	40.4
Exit in 2006	29.7

*Notes:* Sample comprises persons aged 16–62 years in the year of exit from welfare reliance. A person is defined to be welfare reliant if more than 50 per cent of household annual income came from welfare.

family types has remained relatively stable between 2001 and 2008.

Differences in the extent of welfare reliance by family type (in 2001) over the full 2001 to 2008 period are considered in Table 8.5. Reliance is highly persistent for the elderly, particularly those in lone-person households. Lone parents have a high rate of experience of any welfare reliance over the eight-year period, but—consistent with what was found in Chapter 7—a relatively high proportion were welfare reliant for between one and four of the eight years.



**Table 8.5: Years welfare reliant by family type in 2001, 2001–2008**

	0 years	1 year	2–4 years	5–7 years	8 years
Non-elderly couple	73.9	4.7	8.3	8.3	4.8
Couple with children	78.2	5.9	8.8	5.2	2.0
Lone parent	34.4	10.2	24.2	21.7	9.5
Non-elderly single male	68.1	7.2	10.6	8.8	5.4
Non-elderly single female	62.0	7.7	11.8	12.2	6.3
Elderly couple	24.2	6.2	10.4	20.6	38.6
Elderly single male	19.9	6.7	7.7	18.4	47.2
Elderly single female	19.2	4.2	7.9	22.3	46.4

*Note:* A person is defined to be welfare reliant if more than 50 per cent of household annual income came from welfare.

### Endnotes

- 1 The 90 per cent threshold was adopted by the Reference Group on Welfare Reform (2000) in its report on the Australian welfare system.
- 2 Note, however, the ‘current week’ reliance is based only on employment earnings and government benefits excluding Family Tax Benefit. This is because other income components are only reported or imputed as annual amounts for the previous financial year.

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## 9. Financial stress

While income approaches remain the most widely accepted basis for defining and measuring inadequacy in material living standards, other measures also potentially provide useful information on individuals’ economic wellbeing. Measures of ‘financial stress’ provide one such piece of supplemental information.

Experience of financial stress refers to an inability to meet basic financial commitments because of a shortage of money. Measures of financial stress therefore provide direct evidence on the adequacy of economic resources of individuals and households. The HILDA Survey obtains information from all respondents on inability to pay bills, having to dispose of possessions, going without meals, being unable to heat the home and obtaining material help from others, which facilitate the construction of measures of financial stress.

In all of the eight waves conducted to date, HILDA Survey respondents have been asked if, since the

beginning of that year, because of a shortage of money they:

1. *Could not pay electricity, gas or telephone bills on time.*
2. *Could not pay the mortgage or rent on time.*
3. *Pauped or sold something.*
4. *Went without meals.*
5. *Were unable to heat the home.*
6. *Asked for financial help from friends or family.*
7. *Asked for help from welfare/community organisations.*

In Table 9.1 we first directly report the incidence of the above seven indicators of financial stress. Results are given for individuals, but it should be noted that there was a high incidence of partners in couple households giving contradictory reports in answering these apparently more or less ‘factual’ questions. In fact, over half of couples ‘disagreed’ with each other in their reports of each of the

financial problems listed in Table 9.1. Possible reasons for these contradictions are discussed in Breunig et al. (2005). Couples experiencing very severe financial hardship were somewhat less likely to disagree, but it also appears that couples can have quite different perceptions and levels of information about what is happening to them financially and what steps were taken to deal with problems.

We should also note that the incidence of financial stress is quite divergent from the incidence of income poverty. A number of persons in poverty do not report experience of financial stress, and some people who report financial problems have moderate to high incomes. This suggests that, for some people, experience of financial problems reflects a budgeting or money management problem, rather than inadequacy of income. However, we should not exclude the possibility that expenses to meet basic needs can vary substantially across individuals. For example, a person with a long-term health condition may genuinely experience financial hardship without being classified as income poor or being a bad manager of money. Similarly, certain significant life events—and in particular unforeseen adverse events such as injury—may result in financial problems for people who are not classified income poor.

Levels of financial stress appear to have fallen substantially between 2001 and 2008. For each indicator of financial stress, the proportion of individuals reporting having the financial problem indicated steadily fell over the period. The lower panel of

Table 9.1 shows that 28.2 per cent of respondents reported one or more of the indicators of stress in 2001. By 2008, this had fallen to 17.8 per cent. The continued decline in the incidence of financial stress since 2006 is notable for its contrast with the increase in relative income poverty between 2006 and 2008 shown in Chapter 7.

In most years, the most commonly reported financial problem was inability to pay utility bills on time, which was reported by 17.7 per cent of respondents in 2001, 14.2 per cent in 2003, 12.3 per cent in 2005, 11.3 per cent in 2007 and 10.3 per cent in 2008. Needing to ask for financial help from friends or family is also very common, reported by 15.9 per cent in 2001, 13.3 per cent in 2003, 12.2 per cent in 2005, 11.7 per cent in 2007 and 10 per cent in 2008. The next most commonly reported problem is inability to pay the mortgage or rent on time, followed by pawning or selling a possession. Until 2005, asking for help from a welfare or community organisation was the next most-common indicator, but since 2006 it has been more common for individuals to report going without meals. The least frequently reported problem is inability to heat the home, although this is relatively more common among persons living in regions with colder winter climates. This notwithstanding, the ordering to a large extent reflects the individuals' prioritisation of expenses. For example, given the choice, individuals are likely to delay paying a utilities bill rather than go without meals.

Figure 9.1 shows, for each wave, the percentage of individuals in each of seven family types who reported one or more symptoms of financial stress. Differences in the incidence of financial stress across families are only partly in line with poverty estimates obtained earlier in this report. Lone-parent households have a high incidence of income poverty and they also report the highest incidence of financial stress. However, elderly people, and single elderly people in particular, have high rates of poverty, yet they have the lowest reported rates of financial stress. This outcome may in part be because elderly people tend to have lower living expenses: they are more likely to own their homes outright, most are

#### Financial stress

A person or household is considered to be under financial stress if, *due to a shortage of money*, it is not possible for them to meet basic financial commitments. The measure of financial stress used in this report is based on questions about inability to pay utility bills on time, inability to pay the mortgage on time, having to pawn or sell possessions, going without meals, being unable to heat the home, asking for financial help from friends or family, or asking for help from a welfare or community organisation.

**Table 9.1: Financial stress (%)**

	2001	2003	2005	2007	2008
Unable to pay utility bills on time	17.7	14.2	12.3	11.3	10.3
Asked family or friends for help	15.9	13.3	12.2	11.7	10.0
Unable to pay rent or mortgage on time	8.5	6.7	6.3	6.0	5.1
Had to pawn or sell something	6.2	4.7	3.7	3.6	3.1
Asked welfare agency for help	4.9	3.5	2.9	2.7	2.7
Went without meals	4.4	3.5	2.8	3.0	2.8
Unable to heat home	3.4	2.5	2.0	2.0	1.9
<b>Percentage of persons with...</b>					
One or two indicators of financial stress	19.4	16.6	14.8	14.1	12.9
Three or more indicators of financial stress	8.8	6.6	5.8	5.5	4.9

eligible for heavily subsidised medications, and most do not have to bear the costs of employment, such as commuting and dressing appropriately for work. Elderly persons are also more likely to have financial assets they can draw on if necessary, and they are likely to have more certainty in their income streams (e.g. the Age Pension is more certain than labour market earnings, particularly when one considers the potential for unemployment), making budgeting easier. However, it may also be that elderly persons tend to be better at budgeting.

All family types exhibit declines in financial stress between 2001 and 2008, although the incidence of financial stress among single elderly females increased from 2007 to 2008. Declines in the incidence of financial stress have been greater for the family types with the highest rates of financial stress. There has thus been some degree of con-

vergence in the incidence of financial stress across family types in 2008.

How persistent is financial stress from one year to the next? Do the same individuals tend to report stress every year, or do most people apparently manage to solve their financial problems? And has the degree of persistence in financial stress changed since 2001? In Table 9.2, we present the percentage of those who reported financial stress in one year who also reported financial stress in the next year. A person is defined to report financial stress if one or more of the seven indicators applies. For all seven year-pairs examined in Table 9.2, approximately half of those who reported financial stress in one year reported financial stress in the following year. This is a relatively high degree of persistence. However, there are indications that persistence has declined between 2001 and 2008, especially with the drop in year-on-year persistence to 45 per cent in 2007–2008.

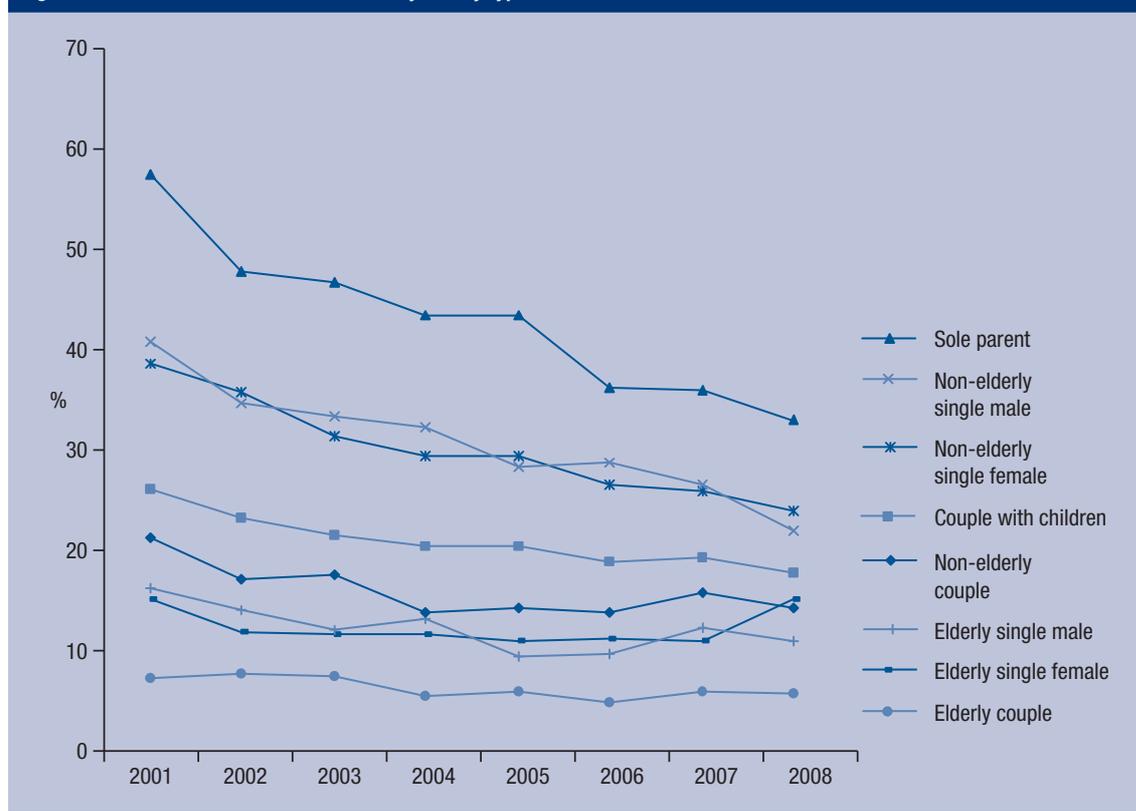
**Table 9.2: Year-on-year persistence of financial stress (%)**

<i>Proportion remaining in financial stress</i>	
2001 to 2002	54.1
2002 to 2003	52.6
2003 to 2004	53.4
2004 to 2005	51.5
2005 to 2006	49.8
2006 to 2007	51.7
2007 to 2008	45.1

**Does financial stress destabilise families?**

One potential adverse consequence of financial stress is destabilisation of families—in particular, it may contribute to family breakdown (marital separation). Stability in terms of living arrangements may also be adversely affected. In Table 9.3, we consider these potential adverse effects on couples and lone parent families. The table shows, by level of financial stress reported in the current wave (none, one or two indicators, three or more indicators): the

**Figure 9.1: Incidence of financial stress by family type**



**Table 9.3: Changes experienced in the year of or following report of experience of financial stress—Couples and lone parents aged 25–59 years, 2001–2008 (all years combined)**

	<i>Mean change in marital satisfaction (0–10 scale)</i>	<i>Separated from spouse (PQ) (%)</i>	<i>Separated from spouse (SCQ) (%)</i>	<i>Changed residence (%)</i>
<b>Number of indicators of financial stress</b>				
0	–0.11	2.3	3.3	18.5
1–2	–0.21	5.1	8.5	27.5
3 or more	–0.32	8.7	15.1	36.1

*Notes:* Column (1) applies to persons partnered with the same person in both the previous and current wave. Columns (2) and (3) apply to persons partnered in the previous wave. Column (4) applies to all couples and lone parent families.

mean change in reported satisfaction with one's partner from the last wave to the current wave (for those partnered with the same person in both the previous and current waves); the percentage reporting separation from a partner in the year of or following the report of level of financial stress; and the percentage moving residence in the year of or following the report of level of financial stress. Two alternative sources of information on separations are used, the first based on responses in the Person Questionnaire (PQ) and the second based on reported life events in the self-completion questionnaire (SCQ). The PQ measure is based on partner status at the time of interview, and will therefore not identify temporary separations between interviews—that is, where the partners have separated after the last interview and then reconciled before the next interview. The SCQ measure should in principle identify all separations, including short-term separations. We should therefore expect the SCQ measure to produce higher estimates. The results presented in Table 9.3 are for all waves combined.

Consistent with de-stabilising effects of financial stress, clear and strong orderings by level of finan-

cial stress are evident. The mean change in marital satisfaction is more negative the greater the reported financial stress, while the proportions separating and moving residence are higher the greater the reported financial stress. For example, among persons partnered in the previous wave, 15.1 per cent of those reporting three or more indicators of financial stress also report in the SCQ separating from their partner in that year or the next. By contrast, of those reporting no experience of financial stress, only 3.3 per cent report separating in the year up to or following completion of the SCQ. Thus, while the findings presented in Table 9.3 are not *conclusive* evidence of an adverse causal effect of financial stress on family stability—indeed, instability in families can itself be a cause of financial stress—they are entirely consistent with the presence of such an effect.

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## 10. Household consumption expenditure

The HILDA Survey has, from its inception, collected information on household expenditure. However, it was only in Wave 5 that a relatively extensive battery of items about household expenditure was first collected. Most of the information is collected in the self-completion questionnaire (SCQ). Wave 5 was regarded as an experimental phase for the collection of expenditure data and indeed a number of changes were made to the expenditure questions in Wave 6. Furthermore, since Wave 6, only persons with responsibility for paying household bills have been asked to complete the household expenditure section of the SCQ. Longitudinal analysis of expenditure is therefore best restricted to Waves 6 to 8.

The items measured in the HILDA Survey since Wave 6 comprise expenditure on: groceries, alcohol;

tobacco; taxis and public transport; child care; meals eaten out; motor fuel; men's clothing; women's clothing; children's clothing; telephone and internet services; holidays; education fees; health care; medicines; health insurance; other insurance; utilities; motor vehicle repairs and maintenance; home repairs and renovations; new cars; used cars; computers and related devices; home audio-visual equipment; household appliances; household furniture; rent on primary residence; and mortgage repayments.

As long as this list is, the HILDA Survey does not attempt to measure all components of household expenditure, and therefore does not provide a comprehensive picture of household expenditure decisions. Wilkins and Sun (2010) show that, from Wave 6 onwards, the HILDA Survey in principle

### Who in the household answers the expenditure questions?

Since Wave 6, only respondents to the self-completion questionnaire (SCQ) who indicate they '...have any responsibility for payment of household bills, such as electricity, gas, water and council rates' are asked to report the amount of household expenditure on each of the 25 expenditure items collected in the SCQ. In 2008, 65.7 per cent of responding households had two or more SCQ respondents. Of these households, 63.3 per cent had at least one person who did not complete the expenditure questions and, indeed, 2.7 per cent had no one complete the expenditure questions. In total, 36.6 per cent of SCQ respondents in 2008 did not answer the expenditure questions. Clearly, many people do not regard themselves as having any responsibility for payment of household bills.

Table 10A provides some insight into who, among multiple-respondent households, responds to the household expenditure questions. It compares response rates to the SCQ household expenditure questions across individuals with different characteristics. The response rates are for individuals living in households with more than one SCQ returned and are presented separately for individuals in each of three household types: couple with children, couple without children and 'other'.

Overall, females are more likely to respond than males, although this is not the case in couple households without children. People aged 15–24 are unlikely to respond to the expenditure questions, which is unsurprising, as they will often be dependent children. Indeed, in the household type in which they cannot be a dependent child—a couple household without children—their response rates are similar to those of older persons. Differences in response rates by labour force status are not large, but overall full-time employed people are most likely to respond, followed by non-employed people and then part-time employed people. There is a strong ordering of response rates by educational attainment, but this is likely to be at least partly due to the lack of qualifications of dependent children aged 15–24. Supporting this, the last panel of the table, which examines response rates by position in the family, shows that children have very low response rates.

**Table 10A: Household expenditure response rates of persons in households with more than one SCQ respondent, 2008 (%)**

	<i>Couple with children</i>	<i>Couple</i>	<i>Other</i>	<i>All households</i>
Females	58.2	71.3	64.5	63.5
Males	45.6	74.6	44.2	55.5
Aged 15–24	6.3	71.8	17.8	15.2
Aged 25–54	65.4	77.0	69.6	68.6
Aged 55 and over	66.0	70.6	83.0	71.1
Employed full-time	54.6	76.7	65.7	62.6
Employed part-time	51.2	77.1	41.4	55.5
Not employed	47.3	68.7	54.9	58.4
Hold bachelor's degree	65.4	78.7	72.6	70.8
Holds other post-school qualification	59.0	73.2	74.4	66.0
Has no post-school qualifications	42.2	70.1	46.0	51.5
Male parent	61.7	–	80.9	62.3
Female parent	75.8	–	85.9	77.5
Child	4.6	–	21.0	9.2
Other household member	38.7	73.0	70.2	72.1

captures between 77 per cent and 80 per cent of total household expenditure on goods and services. Notable exclusions are: entertainment expenses (such as movies, museums, gambling and performances); books, music, magazines, newspapers and online subscriptions; non-fee education expenses (e.g. text books); sport and recreation (e.g. sports equipment, club memberships); gardening products; gifts and donations; council rates; water and sewage; personal and household services (such as provided by cleaners, hairdressers, massage therapists and beauticians); health and beauty products; ornaments, art and jewellery; and bank fees and other financial service charges. Comparing the HILDA Survey with the ABS Household Expenditure Survey conducted in 2003–04, Wilkins and Sun (2010) furthermore find evidence of under-reporting of ‘big ticket’ items that are irregularly purchased, which mostly comprise consumer durables—home repairs and renovations, cars, computers and related devices, home audio-visual equipment, household appliances and household furniture.

These limitations notwithstanding, it is likely the household expenditure data collected by the HILDA Survey can provide insights into economic wellbeing beyond those insights obtainable from looking at income. A number of studies have advocated the value of examining the distribution of household consumption expenditure, even when the data collected is incomplete (e.g. Barrett et al., 1999; Crossley and Pendakur, 2006). At the core of the argument in favour of examining expenditure is that consumption is closer to the concept of material wellbeing that concerns economists than is income, or indeed, earnings, which are often studied by researchers. Crossley and Pendakur (2006) demonstrate this by presenting the following chain link from wages (earnings per hour of work) through to material wellbeing:

*Wages → Earnings → Income → Consumption →  
Material wellbeing*

While interest in household expenditure as a measure of economic wellbeing stems from its correspondence to the level of consumption of goods and services by household members, the correspondence is in practice far from exact. Many expenditure items are quite ‘lumpy’, meaning that current expenditure alone on those items is a poor measure of the actual consumption of those items; that is, in any given week, people ‘consume’ the services provided by various products that were not purchased in that week, and also purchase products in that week that are not completely consumed within the week. Most important in this regard is housing of owner-occupiers, who in most years do not buy a house, yet still consume housing services in those years; and in those years that a house is purchased, they do not ‘consume’ the entire house in that year. Other items in this category include motor vehicles and consumer

durables. Indeed, for any item that typically lasts beyond one year, expenditure on that item in any given year will be an inaccurate indicator of consumption of that item.

In principle, to measure economic wellbeing, what is sought is the household’s purchases of non-durable goods and services in the period under study, plus the household’s consumption in that period of services delivered by durable goods and services (such as housing, cars, household appliances and furniture). However, following the approach of Crossley and Pendakur (2006), and reflecting the limitations of the data, the consumption measure adopted in this article approximates consumption expenditure as equal to the sum of expenditures on groceries, alcohol, tobacco, taxis, public transport, child care, meals eaten out, motor fuel, clothing, telephone and internet services, holidays, education fees, health care, insurance, utilities, motor vehicle repairs and maintenance and rent.<sup>1</sup> To these items we additionally add imputed rent on owner-occupied housing. Different approaches to imputing rent are possible. We take an approach that is common when home values are available in the data, which is to impute annual rent as a fixed proportion of the home value, usually between 4 per cent and 6 per cent (e.g. Smeeding et al., 1993; Frick and Grabka, 2002). We impute rent as equal to 5 per cent of the value of the home.<sup>2</sup> As per Crossley and Pendakur, no attempt is made to estimate consumption of durables other than housing, since all that is known about the durables for which expenditure data are gathered is the reported value of those purchased in the last year, which—even if not under-reported—will in general be a poor guide to consumption of services of durables. We therefore refer to this measure as ‘non-durable consumption’ expenditure, even though it contains consumption of one durable, housing.

#### **Household expenditure and consumption**

Households spend money on both non-durable and durable goods and services. Non-durables—goods and services consumed fairly soon after purchase—include such items as groceries, fuel and holiday expenditures. Durables, by contrast, are typically consumed over long periods of time, and include such items as housing, cars, household appliances and furniture. To measure non-durable consumption of a household during a particular period, it is generally sufficient to measure expenditure on non-durables in that period. However, measuring durables consumption is more difficult. First, the full stock of durables held by the household needs to be known—some durables may have been purchased in the period being examined, but most will have been purchased previously. Second, we need to estimate the value of the consumption services delivered by those durables in the period—for example, impute a rental value for owner-occupied housing—something that is inherently difficult to do.

To utilise the full set of expenditure information provided by the HILDA Survey data, we also present estimates on the distribution of expenditure for an additional measure which we label 'total consumption expenditure'. This is an expanded consumption measure that includes all consumption expenditure items collected by the HILDA Survey, adding home repairs and renovations, new cars, used cars, computers and related devices, home audio-visual equipment, household appliances and household furniture to the non-durable consumption measure. All of these additions are consumer durables.

Non-durable consumption expenditure will generally provide a reasonable estimate of the actual level of consumption of the items included in the measure. The total consumption expenditure measure will not correlate so well with consumption because of the lumpy nature of expenditures on the additional items included. For most of the analysis, we equalise household expenditure in the same manner as income was equalised earlier in this report, for the same reasons as apply to income. The HILDA Survey obtains usual weekly expenditure on groceries, alcohol, tobacco, taxis and public transport, child care and meals eaten out, usual monthly expenditure on motor fuel, clothing and telephone and internet services, and total annual expenditure on all other items. Rental payments are reported for the time-frame chosen by the respondent. For all analysis, expenditure items are converted to annual amounts by multiplying weekly expenditures by 52.14, monthly expenditures by 12 and quarterly expenditures by four. As with income, all dollar values are expressed in December quarter 2008 prices.

**Household expenditure over the 2006 to 2008 period**

In Table 10.1, expenditure distributions are described for non-durable consumption expenditure and total consumption expenditure. We examine household expenditure of *individuals*—thus, the household expenditure of a four-person household is included four times, whereas that of a one-person household is included only once. The table contains mean (unequalised) household expenditure and summary statistics on the distribution of equalised household expenditure. Estimates are presented for annual expenditure in each year from

2006 to 2008 as well as for total expenditure over the entire three-year period.

Mean household non-durable consumption expenditure, expressed in December 2008 prices, increased from \$51,374 in 2006 to \$58,104 in 2008. By construction, the total consumption expenditure of each household exceeds non-durable consumption expenditure, increasing from \$60,499 to \$66,807. For both the non-durable and total consumption measures, equalising almost halves mean expenditure. Dispersion or inequality in equalised expenditure is higher for total consumption expenditure than non-durable consumption expenditure, with the ratio of the 90th percentile to the median (p90/p50), the ratio of the median to the 10th percentile (p50/p10) and the Gini coefficient all greater. This is largely due to the infrequent and irregular nature of purchases of durable consumption goods. For example, only some households will purchase a new car in a given year. These households will have relatively high total expenditure in that year compared with households that do not purchase a new car, which will translate into greater dispersion in the distribution of total expenditure compared with the distribution of non-durable consumption expenditure, which contains only items regularly purchased by most households.

Table 10.1 makes use of the longitudinal expenditure data by examining consumption expenditure over the totality of the three-year period from 2006 to 2008. This three-year expenditure is derived by adding together the individual's three annual values of equalised household consumption expenditure. As expected, there is less dispersion in total expenditure over three years than in a single year, since there is less variation across households in purchases of durables. For example, more households will purchase a new car over a three-year period than do over a one-year period. However, inequality in non-durable consumption expenditure is also lower over the three-year period, albeit only slightly, with the Gini coefficient decreasing from 0.263 for one-year expenditure to 0.245 for three-year expenditure.

Focusing on non-durable consumption expenditure, we see that inequality in expenditure is considerably less than is inequality in income. In all years, the ratios of the 90th percentile to the

Table 10.1: Distribution of household equalised expenditure (December 2008 prices)								
	Non-durable consumption expenditure				Total consumption expenditure			
	2006	2007	2008	2006–2008	2006	2007	2008	2006–2008
Mean unequalised (\$)	51,374	54,135	58,104	166,975	60,499	63,392	66,807	193,595
Mean (\$)	26,876	28,254	30,294	87,994	31,725	33,061	34,866	102,349
Median (\$)	23,951	25,198	27,185	78,498	27,187	28,297	29,913	90,525
p90/p50	1.77	1.77	1.78	1.73	1.91	1.95	1.94	1.81
p50/p10	1.79	1.78	1.80	1.67	1.89	1.87	1.87	1.78
Gini coefficient	0.263	0.263	0.263	0.245	0.296	0.293	0.290	0.263

**Table 10.2: Median equivalised non-durable expenditure by family type (December 2008 prices)**

	2006	2007	2008
Non-elderly couple	28,025	28,492	31,749
Couple with children	23,761	24,699	26,479
Lone parent	18,709	20,351	21,192
Non-elderly single male	22,886	23,894	26,491
Non-elderly single female	24,003	24,934	26,861
Elderly couple	24,392	26,411	29,501
Elderly single male	22,307	22,747	25,178
Elderly single female	22,004	24,057	24,386

50th percentile and the 50th percentile to the 10th percentile are equal to or just under 1.8, while the Gini coefficient is 0.263. These compare with respective estimates for equivalised income of 1.88, 2.11 and 0.292 in 2006, 1.90, 2.19 and 0.304 in 2007 and 1.87, 2.25 and 0.305 in 2008.

Differences in equivalised non-durable consumption expenditure levels by family type are compared in Table 10.2. Median consumption expenditure is consistently lowest for lone-parent households and highest for non-elderly couples. However, differences in median expenditure across family types are not particularly large, especially when compared with income (see Figure 6.1). Most notably, elderly couples have reasonably high average levels of non-durable consumption, despite having low average incomes. To a significant extent, this reflects high rates of (outright) home-ownership among the elderly, and possibly relatively high stocks of consumer durables, leaving more income free to be spent on non-durables. Elderly lone males and females similarly have relatively high average levels of non-durable consumption expenditure, although they are not as well off as elderly couples.

How well does consumption expenditure correlate with income? Table 10.3 shows the association is not as strong as might be expected. Correlation coefficients for annual income and consumption expenditure are positive, but below 0.5. The imperfect correlation between household income and consumption expenditure implies that household income is not always a good indicator of access to economic resources. This may be in part because measured income does not capture all elements of actual income, such as income from inter-household transfers. However, it may also in part reflect consumption smoothing behaviour achieved by saving more when income is higher and saving less, running down accumulated savings and even accumulating debt when income is low. Indeed, consistent with consumption smoothing behaviour, the correlation coefficient between income and consumption expenditure is somewhat higher when income and consumption are measured over three years, when observed income is less affected by temporary shocks—for example, a given period of low income will be a

**Table 10.3: Correlation between equivalised consumption expenditure and equivalised household income**

	Non-durable consumption expenditure	Total consumption expenditure
2006	0.405	0.382
2007	0.424	0.421
2008	0.442	0.414
2006–2008	0.507	0.513

smaller component of a three-year period than of a one-year period. Nonetheless, the correlation coefficients for three-year income and consumption are still only 0.51.

### Longitudinal analysis of changes in household expenditure

The availability of comparable expenditure data in every wave since Wave 6 means new possibilities for longitudinal analysis of household expenditure in Australia are beginning to emerge. At this stage, with only three years of data available, only short-run consumption expenditure dynamics can be investigated, but it is nonetheless illuminating to be able for the first time to examine changes in individual household's consumption patterns over time. Table 10.4 presents statistics on the distribution of *changes* in individuals' equivalised household expenditure from 2006 to 2007, from 2007 to 2008 and from 2006 to 2008. The mean change in equivalised non-durable consumption expenditure was \$1,722 from 2006 to 2007 and \$1,886 from 2007 to 2008. The median change was somewhat lower, at \$1,340 from 2006 to 2007 and \$1,494 from 2007 to 2008. These are of course average changes, and there is considerable variation in changes across individuals. The 10th percentile of changes is an approximate \$6,000 decrease from one year to the next and the 90th percentile of changes is an approximate \$10,500 increase. Mean and median changes in the total expenditure measure are similar to those for the non-durable consumption measure, but the degree of variation in changes is greater. This is consistent with the 'lumpy' nature of expenditure on the durable items included in the total consumption measure. For example, if a person bought a car in 2006,

**Table 10.4: Change in household equivalised consumption expenditure (December 2008 prices)**

	<i>Non-durable consumption expenditure</i>			<i>Total consumption expenditure</i>		
	<i>2006 to 2007</i>	<i>2007 to 2008</i>	<i>2006 to 2008</i>	<i>2006 to 2007</i>	<i>2007 to 2008</i>	<i>2006 to 2008</i>
Mean	1,722	1,886	3,754	1,864	1,464	3,610
Median	1,340	1,494	2,893	1,361	1,132	2,620
10th percentile	-6,276	-6,004	-5,365	-11,353	-12,067	-10,652
90th percentile	10,447	10,771	14,169	15,972	14,832	19,855

**Table 10.5: Absolute percentage changes: Equivalised expenditure and income compared**

	<i>2006 to 2007</i>	<i>2007 to 2008</i>	<i>2006 to 2008</i>
<b><i>Non-durable consumption</i></b>			
Mean	23.3	22.5	29.3
Median	15.1	14.9	19.2
10th percentile	2.6	2.5	3.6
90th percentile	50.4	48.2	62.6
<b><i>Total expenditure</i></b>			
Mean	31.4	28.9	36.7
Median	20.5	18.9	23.8
10th percentile	3.7	3.0	4.1
90th percentile	67.0	60.3	77.9
<b><i>Income</i></b>			
Mean	30.8	34.3	39.9
Median	15.3	15.3	20.7
10th percentile	2.1	2.1	3.2
90th percentile	60.0	65.2	71.5

they were less likely to buy one in 2007 and were therefore more likely to have a decrease in expenditure; while a person who did not buy a car in 2006 was more likely to buy one in 2007 and as a consequence have an increase in expenditure.

In Table 10.5, absolute percentage changes in consumption expenditure are compared with absolute percentage changes in income. The mean absolute percentage change in equivalised non-durable consumption from one year to the next is 23 per cent, with the change for 80 per cent of individuals lying between 2.5 per cent and approximately 50 per cent. By comparison, the mean absolute percentage change in annual equivalised income was 31 per cent from 2006 to 2007 and 34 per cent from 2007 to 2008, with the change for 80 per cent of individuals lying between 15 per cent and 60 per cent from 2006 to 2007 and between 15 per cent and 65 per cent from 2007 to 2008. There is therefore considerably

more variability in individuals' income from one year to the next than there is in their non-durable consumption expenditure. This is to be expected, since households will tend to save more when income is temporarily higher and save less (and even deplete savings) when income is temporarily low. We also see in Table 10.5 that total expenditure is considerably more variable from one year to the next than non-durable consumption expenditure, and indeed is similar to income in this respect. This may in part reflect the greater sensitivity of durables expenditure to income—that is, individuals may increase expenditure on durables rather than non-durables in response to an increase in income, and decrease expenditure on durables in response to a decrease in income. However, as has been discussed, there is also greater inherent volatility in durables expenditure irrespective of changes in income.

Table 10.6 explicitly focuses on the association between expenditure and income changes, examining the correlation between changes in individuals' expenditure and changes in their income. The correlation coefficients are all positive, but they are very close to zero. Quite simply, changes in income from one year to the next, or even over a two-year period, have only limited implications for changes in either non-durable consumption expenditure or total expenditure. This suggests that income approaches to assessing economic wellbeing overstate changes in economic wellbeing

**Table 10.6: Correlation between expenditure and income changes**

	<i>Non-durable consumption expenditure</i>	<i>Total consumption expenditure</i>
2006–2007	0.036	0.022
2007–2008	0.032	0.032
2006–2008	0.033	0.019

from one year to the next. Note also that the correlation coefficients for income and total expenditure imply that the greater volatility of total expenditure from year to year derives primarily from the inherent volatility of durables expenditure rather than from responses of durables expenditure to income changes.

### Endnotes

- 1 Respondents are asked for their household's expenditure on items over time-frames that vary: weekly expenditure is obtained for groceries, alcohol, tobacco, public transport and taxis, and meals eaten out; monthly expenditure is obtained for petrol, clothing, and telephone and internet charges; and annual expenditure is obtained for all other items.
- 2 We do not impute rent for non-home-owners paying no rent or public housing tenants receiving subsidised rents.

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# Labour Market Outcomes

A primary focus of the HILDA Survey is the labour market activity of household members. In each wave, detailed information is obtained from respondents to ascertain their labour force status, their earnings—both current and in the immediately preceding financial year—hours worked, the type of work undertaken, employer characteristics and a host of other work-related aspects. Perceptions and attitudes on a range of labour market issues, such as satisfaction with the current main job, likelihood of retaining the current job and preferred hours of work, are also collected every year. Periodically, additional information is gathered on retirement intentions, attitudes to work and, more recently, work-related training and experience of job-related discrimination.

Such an emphasis on the labour market reflects the pivotal role employment plays in determining economic and social wellbeing—not only is it the key determinant of the majority of households' incomes, it is key to participation in society both economically and socially. Understanding individuals' labour market outcomes, and the causes and consequences of those outcomes, is correspondingly core to the purpose of the HILDA Survey.

In this section, we present brief overviews of some of the key labour market dimensions on which the HILDA Survey provides unique information in the Australian context, examining: transitions in labour force status; wage progression over time; movements between jobs; changes over time in preferred and actual hours of work; the rate and persistence of jobless and 'job-poor' households; and dimensions of job satisfaction and the factors associated with greater overall job satisfaction. Part B of this report additionally contains several articles on topics related to the labour market, including job-related discrimination, job dismissal, retirement co-ordination of couples, working hours and wellbeing of parents, and employment and parental leave before and after the birth of children.

## 11. Mobility in labour force status

Standard statistical summaries divide the working-age population into three groups: those who are employed, either full-time or part-time; and two groups of non-employed people—the unemployed who are actively looking for work, and persons not in the labour force who are not actively seeking work. The HILDA Survey collects data from the same respondents every year, putting us in a position to assess many aspects of mobility in labour force status—that is, movements over time between different labour force states. For example, the data allow consideration of the extent of mobility of the Australian labour force, and more specifically, whether the same

people remain in jobs year after year while others are persistently unemployed, or whether there is a high degree of movement into and out of unemployment and other labour market states.

Table 11.1 shows that, in the eight years from 2001 to 2008, there was very little change in the proportion of people in each labour force state. The proportion of males who were employed each year was approximately 70 per cent, and for females the proportion who were in paid work ranged from 53 per cent in 2001 to 59 per cent in 2008.

Overall, the proportion of people working full-time did not change much during this period. The

### Labour force status

In this report, insofar as is possible, we follow international and Australian Bureau of Statistics conventions in determining an individual's labour force status. In particular:

- A person is classified as employed if that person had a job, business or farm in the week leading up to the interview, and had either worked in the last four weeks or had not worked but: had been in paid work for any part of the last four weeks; or had been on worker's compensation and expected to return to work for the same employer; or had not worked because of a strike or lock out.
- An employed person is classified as part-time employed if usual weekly hours of work in all jobs total less than 35. Otherwise, an employed person is classified as full-time employed.
- A non-employed person is classified as unemployed if that person had actively looked for work at any time in the four weeks preceding the interview and was available to start work in the week preceding the interview; or if that person was waiting to start a new job within four weeks from the date of interview and could have started in the week preceding the interview if the job had been available. Otherwise, a non-employed person is classified as not in the labour force.

proportion of males employed full-time ranged from 57 per cent in 2001 to 60 per cent in 2008, and for females from 28 per cent in 2001 to 32 per cent in 2008. In all eight years around 11–12 per cent of males and 25–28 per cent of females were employed part-time, while unemployment dropped from 5 per cent for males and 4 per cent for females in 2001 to 3 per cent for males and females in 2008. In all eight years, approximately 27 per cent of males were not in the labour force and not looking for work. The proportion of females who were not in the labour force was around 43 per cent between 2001 and 2004, but subsequently dropped to 41 per cent in 2005 and 39 per cent in 2007 and 2008.

### Changes in labour force status, 2003 to 2008

Table 11.2 provides an overview of movements between labour force states by showing what had happened in the one, three and five years prior to 2008.<sup>1</sup> Almost 90 per cent of those who were employed full-time in 2007 were still working full-time one year later, 6 per cent had reduced their working hours to part-time, 3 per cent were no longer in the labour force and the remaining 1 per cent were unemployed. Of those who were working part-time in 2007, 66 per cent were still in part-time work in 2008, while 21 per cent had moved to full-time work, 11 per cent were out of the labour force and 3 per cent were unemployed.

**Table 11.1: Labour force status of the population aged 15 years and over (%)**

	2001	2003	2005	2007	2008
<b>Males</b>					
Employed	67.1	68.9	69.6	70.2	70.4
Employed full-time	56.7	57.1	58.6	58.4	59.6
Employed part-time	11.2	11.8	11.1	11.8	10.8
Unemployed	5.3	4.1	3.4	2.9	2.9
Not in the labour force	26.8	27.0	26.9	26.9	26.7
Total	100.0	100.0	100.0	100.0	100.0
<b>Females</b>					
Employed	53.3	53.9	56.1	57.7	58.6
Employed full-time	28.1	27.5	28.4	31.0	31.7
Employed part-time	25.2	26.4	27.7	27.2	26.9
Unemployed	3.5	3.0	2.9	2.6	2.8
Not in the labour force	43.3	43.1	41.0	39.2	38.6
Total	100.0	100.0	100.0	100.0	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 11.2: Labour force status mobility: Changes between 2003 and 2008 (%)**

	Labour force status in 2008				Total
	Employed full-time	Employed part-time	Unemployed	Not in the labour force	
<b>Labour force status in 2007</b>					
Employed full-time	89.9	6.1	1.0	2.9	100.0
Employed part-time	20.6	65.5	2.8	11.1	100.0
Unemployed	22.4	25.3	20.6	31.7	100.0
Not in the labour force	3.8	7.5	3.6	85.1	100.0
Total	45.9	18.7	2.7	32.6	100.0
<b>Labour force status in 2005</b>					
Employed full-time	85.0	8.4	1.2	5.4	100.0
Employed part-time	29.4	52.1	2.8	15.7	100.0
Unemployed	37.5	25.1	19.8	17.6	100.0
Not in the labour force	7.2	10.7	2.9	79.2	100.0
Total	46.3	18.3	2.7	32.7	100.0
<b>Labour force status in 2003</b>					
Employed full-time	79.8	10.1	1.5	8.7	100.0
Employed part-time	37.6	43.4	2.5	16.5	100.0
Unemployed	41.2	25.7	6.9	26.2	100.0
Not in the labour force	11.1	12.4	2.0	74.6	100.0
Total	47.1	17.8	2.0	33.1	100.0

*Note:* Percentages may not add up to 100 due to rounding.

Almost 50 per cent of those who were unemployed in 2007 were working either full-time or part-time in 2008, while 32 per cent were no longer in the labour force and just over 20 per cent were still unemployed. The majority (85 per cent) of those who were not in the labour force in 2007 were still out of the labour force in 2008: 4 per cent were employed full-time, 8 per cent were working part-time and 3 per cent were unemployed.

Looking at changes in labour force status over the three-year period from 2005 to 2008 shows even greater mobility. Among those who were working full-time in 2005, 85 per cent were still in full-time employment in 2008, while 8 per cent had reduced their working hours to part-time, 5 per cent had left the labour force and 1 per cent were unemployed. Almost half of those who were working part-time in 2005 were no longer working part-time in 2008: 29 per cent had moved to full-time work, 16 per cent had left the labour force and 2 per cent were unemployed. Among those who were unemployed at the time of their 2005 interview, only 20 per cent were unemployed in 2008: 63 per cent were employed either full-time or part-time and 18 per cent had left the labour force. Most of the individuals (79 per cent) who were not in the labour force in 2005 were also out of the labour force in 2008: 7 per cent were working full-time, 11 per cent were working part-time and 3 per cent were looking for work.

Looking at labour force states five years apart indicates even greater mobility over the medium-term. Among those who were working full-time in 2003, 80 per cent were employed full-time in 2008, while 10 per cent had changed to part-time work and 9 per cent had left the labour force. Only 43 per cent of those who were working part-time in 2003 were in part-time work in 2008: 38 per cent had increased their working hours to full-time, 17 per cent had left the labour force and 3 per cent were unemployed. Three-quarters of the men and

women who were not in the labour force in 2003 remained in that category in 2008, while 24 per cent were working and 2 per cent were unemployed. By contrast, among those who were classified as unemployed in 2003, only 7 per cent were unemployed in 2008. Almost 70 per cent had found a job (62 per cent of whom were working full-time), and 26 per cent were no longer looking for work.

### Mobility in labour force status of the prime-age population

Having provided an overview of the labour force status mobility of the entire adult population, it is useful to confine the remaining analysis to persons of prime working age (25 to 54). Table 11.3 shows the changes in labour force status for prime-age males and females between 2007 and 2008.<sup>2</sup> Most (96 per cent) of the males who were working full-time in 2007 were still in full-time work in 2008. Only 3 per cent had moved to part-time work and 1 per cent had left the labour force. Of those males who were working part-time in 2007, only 46 per cent were still working part-time in 2008 and 38 per cent were in full-time work. Almost half of the males who were unemployed in 2007 had jobs in 2008, with most working full-time, while just over one quarter of males who were not in the labour force in 2007 had re-entered the labour force in 2008.

As was the case for males, most females (85 per cent) who were in full-time work in 2007 were still working full-time in 2008: 10 per cent had changed from full-time to part-time work and 4 per cent had left the labour force. Females were, however, more likely to remain in part-time employment than males, with 73 per cent of females who were working part-time in 2007 still in part-time work in 2008, and only 17 per cent moving from part-time to full-time work. As was the case for prime-age men, almost half of the

**Table 11.3: Changes in labour force status, prime-age population, 2007 to 2008 (%)**

Labour force status in 2007	Labour force status in 2008				Total
	Employed full-time	Employed part-time	Unemployed	Not in the labour force	
<b>Males</b>					
Employed full-time	95.7	2.5	*0.8	1.0	100.0
Employed part-time	37.6	45.6	*4.7	*12.1	100.0
Unemployed	40.9	*7.1	*21.8	*30.2	100.0
Not in the labour force	18.9	*7.6	*7.9	65.6	100.0
Total	83.0	6.5	2.2	8.2	100.0
<b>Females</b>					
Employed full-time	85.3	10.2	*0.9	3.6	100.0
Employed part-time	16.7	72.6	1.8	8.9	100.0
Unemployed	*17.7	29.9	*21.7	30.7	100.0
Not in the labour force	4.0	15.9	6.0	74.1	100.0
Total	43.1	31.2	2.9	22.9	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 11.4: Changes in labour force status, prime-age population, 2003 to 2008 (%)**

Labour force status in 2003	Labour force status in 2008				Total
	Employed full-time	Employed part-time	Unemployed	Not in the labour force	
<b>Males</b>					
Employed full-time	92.1	3.4	1.9	2.6	100.0
Employed part-time	45.6	39.7	4.4	10.4	100.0
Unemployed	71.2	10.6	5.6	12.6	100.0
Not in the labour force	33.2	7.1	9.1	50.5	100.0
Total	83.3	6.6	2.7	7.3	100.0
<b>Females</b>					
Employed full-time	72.0	18.3	1.1	8.6	100.0
Employed part-time	30.2	57.8	1.1	11.0	100.0
Unemployed	24.9	39.8	8.6	26.7	100.0
Not in the labour force	15.4	31.2	2.9	50.5	100.0
Total	41.9	34.2	1.8	22.1	100.0

*Note:* Percentages may not add up to 100 due to rounding.

prime-age women who were unemployed in 2007 had a job in 2008. Almost 20 per cent of the females who were not in the labour force in 2007 were employed in 2008: 16 per cent were working part-time, 4 per cent were employed full-time and a further 6 per cent were looking for work.

Table 11.4 shows the changes in labour force status of prime-age males and females between 2003 and 2008. Among prime-age males, 95 per cent of those who had jobs (either full-time or part-time) in 2003 were employed in 2008, and for females, the comparable figure is 89 per cent. While 92 per cent of males who were working full-time in 2003 were still in full-time work in 2008, only 40 per cent of males who were working part-time in 2003 were still in part-time work five years later. It is much more common for females to remain in part-time work, with 58 per cent of prime-age females who were working part-time in 2003 still in part-time work in 2008, and 18 per cent of prime-age females who were working full-time in 2003 moving to part-time work by 2008.

Of the prime-age males who had been unemployed in 2003, 82 per cent were employed in 2008, and of those males who had moved from unemployment to employment, 87 per cent were in full-time work. Similarly, 65 per cent of prime-age females who were unemployed in 2003 were working in 2008. However, 62 per cent of the females who had moved from unemployment in 2003 to employment in 2008 were working part-time, possibly because of a preference for part-time work. The relatively high percentage (20 per cent) of prime-age individuals who moved from unemployed in 2003 to not in the labour force in 2008 may be an indicator that there are some 'discouraged workers', that is, people who have left the

labour force because they have given up trying to find a job.<sup>3</sup>

Almost half of the prime-age men and women who were not in the labour force in 2003 had re-entered the work force by 2008. Of the prime-age males who were not working or looking for work in 2003, 40 per cent were employed in 2008 and a further 7 per cent were looking for work. Similarly, 47 per cent of prime-age females had moved from being out of the labour force in 2003 to being employed in 2008: 31 per cent were working part-time, 15 per cent were working full-time and 3 per cent were looking for work. It is likely that many of these females had returned to the labour force after taking time out to have children—72 per cent of females who were not in the labour force in 2003 and working in 2008 were aged between 30 and 45 in 2008, and 74 per cent of these had a child under the age of 15.

### Endnotes

- 1 This is the labour force status at the time of interview and does not capture mobility in between interviews. The best source for accurate measurement of labour force transitions is the ABS Labour Force Survey: see ABS (2008).
- 2 In Tables 11.3 and 11.4 the population includes only those men and women who were in the prime age group in both years.
- 3 While some may have given up looking for work because they had no success in finding a job, others may have left the labour force for personal reasons, including attending full-time education, child raising or caring responsibilities.

### Reference

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## 12. Wages and wage changes

Wage rates represent a key dimension of labour market outcomes. A worker's wage per hour measures the rate at which his or her labour is rewarded in the labour market. A worker's wage is also an important contributor to his or her economic wellbeing (along with many other factors, not least of which is the number of hours worked). The HILDA Survey data allow us to not only examine workers' wages at a point in time, and track movements in overall wage levels, but also to track individual workers' wage progression over time. What is the nature of individual workers' wage changes? Which workers have had wage growth and which workers have not? These are some of the questions which are important to our understanding of the Australian labour market and its evolution over time.

The HILDA Survey does not ask respondents to report their hourly wage; rather, usual weekly gross earnings and usual weekly hours of work are obtained from everyone who is employed. Hourly rates of pay can then be calculated from

this information. The hourly rate of pay so obtained is 'current usual earnings per hour worked'. While the hourly wage rate is the appropriate focus when interest is in the rate at which labour is rewarded, one concern that arises in hourly wage rate analysis is that additional measurement error is introduced by dividing reported weekly earnings by reported weekly hours of work. This provides one rationale for examining weekly earnings, at least as an addition to the study of hourly earnings. Another reason to examining weekly earnings is that, for full-time employees who are paid a salary, the notion of an hourly wage is less relevant. For example, a full-time employee may report working more than 40 hours per week, but is implicitly only paid for 40 hours. Possibly, the longer hours of work reflect a preference of the worker to work longer hours at a lower intensity per hour. We consequently examine both weekly and hourly earnings.

In the following analysis of wages, we exclude the self-employed and employers, whose earnings are

**Table 12.1: Distribution of weekly earnings (December 2008 prices)**

	2001	2003	2005	2007	2008
<b>Full-time employees</b>					
Mean (\$)	1,047	1,058	1,101	1,142	1,160
Median (\$)	919	930	959	1,011	1,000
10th percentile (\$)	539	535	551	574	580
90th percentile (\$)	1,693	1,693	1,764	1,850	1,899
Gini coefficient	0.271	0.268	0.271	0.270	0.275
Mean weekly hours of work	43.7	43.7	43.4	43.4	43.2
<b>Part-time employees</b>					
Mean (\$)	361	360	383	401	401
Median (\$)	306	320	331	339	350
10th percentile (\$)	74	72	80	85	83
90th percentile (\$)	705	697	716	778	757
Gini coefficient	0.405	0.386	0.387	0.400	0.395
Mean weekly hours of work	17.8	17.8	18.1	18.4	18.2

**Table 12.2: Distribution of hourly earnings (December 2008 prices)**

	2001	2003	2005	2007	2008
<b>Full-time employees</b>					
Mean (\$)	23.53	23.80	24.85	25.83	26.31
Median (\$)	21.15	21.33	22.05	23.19	23.42
10th percentile (\$)	12.26	12.68	13.14	13.82	13.89
90th percentile (\$)	36.78	37.20	38.62	40.59	41.88
Gini coefficient	0.250	0.248	0.251	0.249	0.254
<b>Part-time employees</b>					
Mean (\$)	21.27	19.85	21.19	21.60	21.60
Median (\$)	16.84	17.44	17.97	18.44	18.33
10th percentile (\$)	8.36	8.56	8.73	8.70	8.64
90th percentile (\$)	32.49	32.31	33.44	34.56	35.19
Gini coefficient	0.366	0.303	0.326	0.324	0.316

often confounded with returns on capital invested in the business (either because reported earnings include a return on capital, or because reported capital income includes a component that is actually a return on labour). In the case where a respondent holds more than one job, we restrict analysis to earnings and hours worked in the respondent's main job. All wages are expressed at December quarter 2008 prices to remove the effects of inflation.

We begin by describing the earnings distribution in each year, presenting cross-sectional snapshots in order to provide an overall picture of earnings outcomes and changes over the period spanned by the HILDA Survey. Table 12.1 presents summary measures of the distribution of weekly earnings among employees in five of the eight waves, for full-time and part-time employees separately.<sup>1</sup> Mean weekly hours of work is also presented in the table to aid comparisons between full-time and part-time workers. Real earnings have grown reasonably steadily over the 2001 to 2008 period. Mean earnings of full-time employees grew from \$1,047 in 2001 to \$1,160 in 2008, a real (inflation-adjusted) increase of 10.8 per cent. Earnings growth was also experienced by part-time workers, among whom mean weekly earnings increased by 11.1 per cent from \$361 in 2001 to \$401 in 2008.

The growth in weekly earnings has not been restricted to a particular part of the distribution—that is, earnings have 'shifted up' at all levels. This is indicated by the fact that the weekly wages at the 10th percentile, at the 50th percentile (the median) and at the 90th percentile all grew. However, among full-time employees, wages have grown somewhat more strongly for high earners. In 2008, a full-time employee at the bottom end of the distribution—with 90 per cent of full-time employees having higher earnings—earned 7.6 per cent more than an employee in the same position in 2001; a full-time employee in the middle of the distribution earned 8.8 per cent more in 2008 than a full-time employee in the middle of the distribution in 2001; and a full-time employee at the top end of the distribution in 2008—with 90 per cent of full-time employees having lower earnings—earned 12.2 per cent more than a worker in the same position in 2001.

Despite the slightly more favourable changes for high-wage full-time employees than low-wage full-time employees, the Gini coefficient, which provides a summary measure of overall inequality, has remained essentially unchanged over the eight-year period. There is thus no strong evidence that the labour market has become more unequal since 2001, although of course such cross-sectional analysis does not tell us how individual workers have fared.

Weekly earnings patterns over time can be influenced by changes in hours worked, not only

among part-time workers, but also among full-time workers. While weekly earnings are clearly a key concern for workers, labour economists studying earnings—as opposed to incomes—have primarily been interested in the 'rate' at which labour is rewarded in the labour market—its 'price'—and correspondingly have generally focused on hourly earnings.

According to the HILDA data (Table 12.2), in 2008 the mean hourly earnings of full-time employees was \$26.31 and the median was \$23.42. The differences between part-time and full-time hourly earnings are much smaller than the differences in weekly earnings, reflecting the longer average hours worked by full-time employees. Nonetheless, hourly earnings are on average lower for part-time employees: in 2008, mean hourly earnings of part-time employees were \$21.60 and median earnings \$18.33. Changes between 2001 and 2008 are of a very similar nature to the changes evident for weekly earnings. The growth in weekly earnings is therefore not attributable to increases in hours worked; similarly, the stability in earnings inequality is robust to controlling for the effects of changes in hours worked.

### Longitudinal changes in wages

We now turn to the relative strength of HILDA: the ability to examine wage *progression* of individual employees. Because we are interested in changes in individuals' wage *rates* (not their income), and individuals' hours of work are highly susceptible to change from year to year, we consider only hourly wages here. This also allows us to consider full-time and part-time employees collectively, in so doing also avoiding problems caused by employees switching between part-time and full-time employment from one year to the next.

The top panel of Table 12.3 presents information on the wage changes experienced by employees. Only persons who were employees in all of the waves over which changes are measured are included in producing the estimates. Most striking is that there is a great deal of diversity in wage changes at the individual level. When changes from one wave to the next are ordered from lowest to highest, the worker with the change at the 10th percentile (who has 90 per cent of workers with higher wage changes) is found to experience a reduction in real hourly earnings of at least 26 per cent. The worker at the 90th percentile experiences an increase of at least 47 per cent. Also striking is the large mean wave-on-wave growth of 11.6 per cent or more. Median growth is substantially lower, at around 1–3 per cent, indicating that the high mean growth in part derives from a relatively small number of workers experiencing very high growth. Nevertheless, the average person who is an employee in successive years has experienced significant real hourly wage growth. People who remained employees over the

**Table 12.3: Percentage changes in individuals' wages (December 2008 prices)**

	2001 to 2002	2003 to 2004	2005 to 2006	2007 to 2008	2001 to 2004	2004 to 2008	2001 to 2008
<b>All employees</b>							
Mean	13.44	11.55	14.18	11.80	21.26	28.15	44.60
Median	1.43	3.14	3.57	2.55	8.46	13.85	20.23
10th percentile of changes	-28.90	-26.33	-27.54	-27.89	-26.58	-22.64	-20.39
90th percentile of changes	51.66	47.23	51.33	49.69	68.32	83.22	115.10
<b>Employees who remained in the same job</b>							
Proportion of employees	82.5	83.0	81.6	82.3	67.0	66.5	52.5
Median percentage change	1.3	2.6	3.0	2.4	7.2	10.3	15.1
<b>Employees who changed jobs</b>							
Proportion of employees	17.5	17.0	18.4	17.7	33.0	33.5	47.5
Median percentage change	2.3	5.8	8.1	4.7	12.0	23.9	28.4
<i>Note:</i> Estimates in each column are for persons who were employees in all of the waves spanned by the column heading. For example, in column 1, a person had to be an employee in both Waves 1 and 2.							

2001 to 2004 period had median real wage growth of 8.5 per cent over the three years, and people who remained employees over the 2004 to 2008 period had median real wage growth of 13.9 per cent over the four years. Employees in all eight waves had very healthy median real wage growth of 20.2 per cent between 2001 and 2008. At first glance, these estimates are surprisingly high, especially in the context of the lower rates of growth in cross-sectional estimates of median hourly wages. As Table 12.2 shows, between 2001 and 2008, the median hourly wage grew by 10.7 per cent for full-time employees and 8.8 per cent for part-time employees.

How do we reconcile the differences between the longitudinal changes and the smaller cross-sectional changes? Cross-sectional changes are influenced by exits from and entries to employment. For example, young people will be entering the labour market, typically at relatively low wages, while older people, who often have relatively high earnings, will be exiting the labour market. Such entries and exits tend to dampen earnings growth compared with longitudinal analysis that restricts attention to individuals employed in all the periods under study. The longitudinal analysis captures the increases associated with both movement through the lifecycle and the overall increase in average wages.

In the bottom two panels of Table 12.3, the distinction is drawn between employees who remained in the same job and employees who changed jobs. As Dickens et al. (2008) note, the processes determining wage changes for those who change jobs are quite different from those who remain in the same job. For those who remain in the same job, we observe how wages evolve over time in that job as the worker's career progresses (or fails to progress). By contrast, for those who change jobs, wage changes will reflect the effects of potentially a multitude of factors, including changed employer, occupation, location, tasks,

responsibilities and hours of work. Furthermore, job changes will in many situations reflect an attempt by the worker and/or the original employer to find a better firm-worker match, and is therefore perhaps expected to be associated with a greater increase in wages than occurs for those who remain with the same employer.

We see in Table 12.3, for the 2001 to 2002, 2003 to 2004, 2005 to 2006 and 2007 to 2008 wave-pairs, that approximately 82 per cent of persons who were employees in two successive years remained in the same job, while the remaining 18 per cent changed jobs. Of those who remained in the same job, the median percentage change in hourly earnings from one year to the next fluctuated between 1.3 per cent and 3.0 per cent. For those who changed jobs, the median percentage change was, in each of the four wave-pairs, approximately twice as high, which is consistent with job changes resulting in improved employer-employee matches. This is a pattern that also holds over longer time-frames. Among those employed in all waves, the median real wage change between 2001 and 2004 was 7.2 per cent for the 67 per cent of employees who did not change jobs over that period and 12.0 per cent among the 33 per cent who did change jobs over that period. Similarly, over the 2004 to 2008 period, the median change was 10.3 per cent for those who did not change jobs and 23.9 per cent for those who did change jobs. Over the full 2001 to 2008 period, the median change was 15.1 per cent for the 52.5 per cent of employees who did not change jobs and 28.4 for the remaining 47.5 per cent who did change jobs. Job changes can therefore be seen as, on average, having a positive effect on earnings progression.

### Have wage changes been greater for high wage earners?

Who has experienced the largest wage gains? Have high wage earners experienced greater gains or lower gains than low wage earners? We can consider

**Table 12.4: Median percentage change in real hourly wage by initial quintile of the wage distribution**

	2001–2002 to 2004–2005	2004–2005 to 2007–2008	2001–2002 to 2007–2008
Bottom quintile	35.2	38.7	65.7
2nd quintile	10.4	12.1	19.2
3rd quintile	5.7	8.4	14.2
4th quintile	4.0	6.6	10.7
Top quintile	2.1	2.7	3.8

this issue by first grouping employees based on their initial position in the wage distribution, and then comparing changes in wages for each of these groups. This is undertaken in Table 12.4, which presents median changes in wages for each quintile (20 per cent) of the initial wage distribution.

As noted in Chapter 6 in respect of the analysis of income mobility, measurement error will exist and poses the particular problem of ‘regression-to-the-mean’ for this type of longitudinal analysis—whereby those with initially low wages tend to have (big) increases and those with initially high wages tend to have (big) decreases in wages. We adopt the same partial remedy as for the analysis of income mobility, calculating changes in wages after first combining years. In Table 12.4, we combine Waves 1 and 2, Waves 4 and 5 and Waves 7 and 8.

From this table, it is evident that the percentage wage change is decreasing in the initial wage rate. For employees in the bottom 20 per cent of the Waves 1–2 wage distribution, the median wage growth to Waves 7–8 was 65.7 per cent, compared with 19.2 per cent for the next lowest 20 per cent, 14.2 per cent for the middle 20 per cent, 10.7 per cent for the second highest 20 per cent and 3.8 per cent for the top 20 per cent. It is likely this pattern is not particular to the 2001 to 2008 period in Australia, but rather is, at least to some extent, an ever-present phenomenon that is a function of the lifecycle stages of the lowest and highest wage earners. Many low-wage employees are young and/or relatively new entrants to the labour market who tend to experience quite rapid wage growth as they acquire work experience. Conversely, many high-wage employees are older, more established labour market participants who have already achieved, or nearly achieved, their peak earning capacity.

### Wage changes for different groups of employees

We can directly consider the characteristics of the employees who have experienced the greatest and smallest wage increases by examining wage changes for employees with different characteristics. In Table 12.5, differences in median wage changes by sex, age, educational attainment and occupation are considered. Consistent with the

**Table 12.5: Median percentage change in real hourly wages by sex and age, educational attainment and initial occupation**

	2001 to 2002		2003 to 2004		2005 to 2006		2007 to 2008		
	Median initial wage (\$)	Median change (%)							
<b>Males</b>									
Aged 15–24 years	13.64	3.3	14.17	13.2	16.17	9.3	15.88	8.3	
Aged 25–44 years	22.48	1.4	23.22	2.6	23.51	4.2	24.88	2.5	
Aged 45–64 years	24.52	0.6	24.91	1.9	26.09	–0.2	26.07	0.8	
<b>Females</b>									
Aged 15–24 years	14.47	5.1	14.53	6.4	14.55	8.6	14.55	11.3	
Aged 25–44 years	20.08	1.2	20.62	1.8	21.58	2.6	22.15	2.4	
Aged 45–64 years	20.23	0.9	20.26	1.6	21.45	2.2	22.02	0.3	
<b>Educational attainment</b>									
Degree or higher	27.00	1.6	26.97	2.3	27.56	4.3	29.42	4.2	
Diploma or Certificate III/IV	20.84	1.4	21.14	2.9	22.05	2.7	22.78	0.8	
High school	18.39	2.0	18.60	2.6	18.95	3.6	19.67	3.9	
Certificate I/II	17.51	1.1	16.42	7.5	17.54	1.2	18.18	2.7	
No qualifications	18.39	0.7	18.16	2.8	18.74	2.5	19.12	0.6	
<b>Initial occupation</b>									
Managers	25.75	2.2	26.42	4.0	28.70	5.5	27.89	4.2	
Professionals	26.58	1.9	27.12	1.9	27.69	3.2	28.80	4.7	
Technicians and trades workers	19.47	1.1	19.88	6.0	19.87	4.9	21.26	3.3	
Community and personal service workers	17.90	–1.7	17.82	2.6	18.79	4.0	19.70	–2.1	
Clerical and administrative workers	19.36	2.9	20.08	1.8	20.30	4.5	21.43	0.9	
Sales workers	15.76	2.5	15.50	5.3	16.53	3.8	16.31	3.7	
Machinery operators and drivers	18.36	0.0	19.55	4.8	20.94	0.9	20.32	0.9	
Labourers	16.00	0.1	16.18	4.1	16.53	2.0	17.63	2.1	

explanation for the strong relationship between rate of wage growth and initial wage rate provided above, initial wage levels and rates of wage growth are consistently ordered by age for both males and females—that is, older employees have higher initial wages and experience lower proportionate growth. There is no clear pattern to the relationship between wage growth and educational attainment. Disaggregation by occupation indicates a considerable degree of fluctuation in median wage changes from year to year for each occupation. However, managers, technicians and trades workers, and sales workers have tended to have greater growth than workers in other occupations.

### Discussion

Significant earnings growth is evident across the seven-year period spanned by the first eight waves of the HILDA Survey. Earnings inequality has also remained relatively stable over this period, implying the growth in earnings has been shared by most employees. This stability in inequality has been maintained despite the substantial employment growth that has occurred over the survey period, which has seen increasing numbers of lower-skilled—and therefore lower-wage—employees obtain employment.

Study of individual-level wage changes shows that the aggregate-level stability belies the substantial dynamism of wage changes from year to year experienced by individual employees. Many employees have experienced large increases in their rate of pay from one year to the next, and a number have experienced significant decreases. Some of this can be thought of as essentially random fluctuation, and indeed will partly be due to measurement error, but a significant component of the disparity in wage changes is systematic, and in particular, is due to differences in employees' lifecycle stages.

### Endnote

1 Full-time employment is defined to be a situation in which usual weekly hours of work are 35 or more.

### Reference

Dickens, W., Goette, L., Groshen, E., Holden, S., Messina, J., Schweitzer, M., Turunen, J. and Ward, M. (2008) 'How Wages Change: Micro Evidence from the International Wage Flexibility Project', *Journal of Economic Perspectives*, vol. 21, no. 2, pp. 195–214.

## 13. Job mobility

Integral to understanding labour market dynamics is knowledge of the extent and nature of job changes, including how often people change jobs, what sort of jobs they leave, what sort of jobs they go to, why they change jobs and the outcomes experienced by people who change jobs. By its nature, the HILDA Survey is well placed to contribute useful insights into this aspect of the labour market.

Movements between jobs can occur for a wide variety of reasons, but ultimately the key driver is the desire by employers and employees to find better matches between workers and jobs. Mobility is therefore neither inherently good nor bad. It is good from the perspective that it facilitates improved firm–worker matches, but it is bad from the perspective that the need for it only arises because of the existence of 'inferior' matches. Note that a match between a worker and an employer will often initially be good, but as circumstances change—for example, as the skills of the worker increase, the nature or size of the firm's business changes, or new outside opportunities for the employer or employee develop—better potential matches may arise.

In the context of the interpretation of job mobility as the outcome of a 'match-making' exercise, it is valuable to understand its pervasiveness, the characteristics of the workers and jobs associated with

the most mobility, and the underlying reasons for the initial mismatches (in the origin jobs) or new improved matches (in the destination jobs). The HILDA Survey produces comprehensive information on job changes via the employment and education 'calendar' that is obtained from each respondent for at least the 12 months leading up to the date of interview. This calendar provides a complete picture of the respondent's labour force and education participation status in each third of each month since July 2000, and also records, to the nearest third of a month, the start and end dates of all jobs in the HILDA Survey sample period, allowing all job changes to be identified.

Table 13.1 presents information on job-holding and job mobility in each year derived from the employment and education calendar. It shows, for people employed at some stage in the financial year immediately preceding the wave, the means of number of jobs held, number of job starts and number of job ends, as well as the percentage of workers who changed jobs once and the percentage of workers who changed jobs twice or more in that financial year. For example, the last row shows that the mean number of jobs held in the 2007–08 financial year by people employed at some stage of that year was 1.27, the mean number of job starts was 0.18 and the mean number of job ends was 0.24, while 9.8 per cent of people

employed in that year changed jobs once and 1.9 per cent changed jobs twice or more.<sup>1</sup> These figures are in fact reasonably representative of the entire HILDA Survey period. Thus, approximately 12 per cent of workers change jobs each year, with approximately 2 per cent doing so more than once within a year. The higher rate of job ends than job starts is somewhat puzzling, and would appear to reflect recall bias, whereby there is a tendency to report jobs as starting at or prior to the beginning of the reference period (the previous financial year), leading to understatement of job starts within that financial year.

To further investigate the nature and consequences of job mobility, we restrict our analysis to job changes from one wave to the next. Specifically, a job change is only defined to occur if the employer in the respondent's current main job (at the time of interview) changes from one wave to the next. This is because it is only for jobs held at the time of interview that we have information such as occupation, hours, wage and industry, and contemporaneous information about other aspects of the respondent's life, such as family situation, health and income. We therefore essentially ignore within-wave job transitions when a person changes jobs more than once from one wave to the next. However, as Table 13.1 shows, relatively few people appear to change jobs more than once per year, and so there is relatively little information loss from this necessary restriction on the analysis.<sup>2</sup>

When examining intervals longer than two years, in addition to the job changes identified above, we

also assume that if a person was employed in one wave, not employed in the next wave, and then employed in a subsequent wave, that the individual has changed jobs. In some cases, individuals will be returning to the same job, but it is generally not possible to identify these cases.

Table 13.2 shows the prevalence of job changing between Waves 1 and 2, between Waves 3 and 4, between Waves 5 and 6 and between Waves 7 and 8. The first row of each panel shows the proportion of persons aged 15 years and over who were employed at the time of interview in both of the waves indicated by the column heading. For example, the upper left cell indicates that 62.8 per cent of males aged 15 and over were employed at the time of interview in both Wave 1 and Wave 2. The next row shows the percentage of all persons aged 15 years and over who were observed to change jobs, and the third row shows the percentage of all persons aged 15 years and over who remained employed in the same job.

Approximately 11 per cent of males are observed to change jobs each year, which translates to just over one-in-six employed males changing jobs. Females have a lower rate of job changing, at approximately 8–9 per cent, but this reflects a lower rate of employment rather than a lower propensity to change jobs. The proportion of employed females changing jobs each year is on average the same as for males. Significantly, for both males and females, the rates of job changing are actually higher than those implied by the estimates reported in Table 13.1, based on the job

**Table 13.1: Job transitions in the previous financial year—Persons employed in the previous financial year**

	<i>Mean number of jobs</i>	<i>Mean number of job starts</i>	<i>Mean number of job ends</i>	<i>Percentage who changed jobs once</i>	<i>Percentage who changed jobs twice or more</i>
2001	1.24	0.13	0.24	7.2	1.4
2002	1.29	0.19	0.27	10.1	2.3
2003	1.29	0.18	0.25	10.2	2.0
2004	1.27	0.17	0.23	9.3	1.8
2005	1.29	0.19	0.25	9.8	2.3
2006	1.26	0.17	0.23	9.3	1.9
2007	1.27	0.18	0.23	10.1	2.0
2008	1.27	0.18	0.24	9.8	1.9

**Table 13.2: Prevalence of job changing among persons aged 15 years and over (%)**

	<i>2001 and 2002</i>	<i>2003 and 2004</i>	<i>2005 and 2006</i>	<i>2007 and 2008</i>
<b>Males</b>				
Employed in both years	62.8	62.3	63.4	63.9
Changed jobs	10.9	10.9	10.9	10.4
Did not change jobs	51.9	51.4	52.4	53.6
<b>Females</b>				
Employed in both years	47.0	47.1	48.7	51.4
Changed jobs	8.0	7.9	8.7	8.9
Did not change jobs	39.0	39.2	40.1	42.5

calendar. This suggests that many respondents fail to (correctly) recollect job starts and ends.

An alternative way of interpreting the figures presented in Table 13.2 is that, on average, employed persons change jobs every six years. Of course, some workers will change jobs more frequently than others, so we cannot infer how many workers will actually change jobs within a six-year time frame. Furthermore, job changes can arise via an employed person leaving employment, potentially for an extended period, and then returning to employment. Many of these job changes—in particular, those where the period of non-employment straddles the time of interview—will not be identified from examination of transitions from one wave to the next.

In Table 13.3, medium-term job mobility is considered by describing the prevalence of job changing over three-year spans (2001 to 2004 and 2005 to 2008), and also over the full eight waves of the HILDA data. For this analysis, a job change is defined to occur whenever a person reports being in a different job to that when last interviewed, or is observed to be employed in one wave, not employed in the next wave and then employed in a subsequent wave. ‘Employed in at least two years’ gives the proportion employed in at least two of the waves indicated in the column heading. For example, 71.4 per cent of males were employed in at least two of the four waves from 2001 to 2004. This can be thought of as the proportion of males potentially observed to change jobs.

Over one-quarter of males, and over one-fifth of females, change jobs over a three-year period. For both males and females, this corresponds to approximately 38 per cent of employed persons. Over the entire HILDA sample period, 42.6 per cent of all males—56.2 per cent of males employed in at least two waves—and 38.3 per cent of all females—59.7 per cent of females employed in at least two waves—changed jobs.

Among those employed in all eight waves, 48.6 per cent of males changed jobs and 45.6 per cent of females changed jobs. Thus, 51.4 per cent of males employed every wave, and 44.4 per cent of females employed every wave, remained in the one job over the entire eight years.

### What changes about the job when a worker changes job?

In Tables 13.4 and 13.5 we examine the nature of job changes, focusing on the relatively immediate transitions that are observed from one wave to the next. Table 13.4 compares changes in job characteristics of workers who did not change jobs to changes in job characteristics of workers who did change jobs.

The top panel examines changes in occupation. ‘Reported changing occupations’ is the proportion responding in the affirmative to a direct question of whether the respondent has changed occupations since the date of last interview. ‘Classified as changing occupations’ is the proportion classified as employed in a different Australian and New Zealand Standard Classification of Occupations (ANZSCO) First Edition (2006) two-digit level occupation based on the respondent’s job title and main duties in his or her current main job. Over 60 per cent of job changers reported that their occupation had changed, which matched the percentage classified as working in a different two-digit occupation. As would be expected, those who did not change jobs had low rates of reporting a different occupation, at approximately 8 per cent. However, approximately 30 per cent were *classified* as working in a different occupation, even at the fairly aggregated two-digit level. This reflects inherent variability in how respondents describe their occupations more than true variation in occupations.

About one-quarter of job changes involve a change in full-time/part-time employment status,

**Table 13.3: Prevalence of job-changing over the medium-term (%)**

	2001–2004	2005–2008	2001–2008
<b>Males</b>			
Employed in at least two years	71.4	70.5	75.8
Changed jobs	26.9	26.0	42.6
Did not change jobs	44.5	44.5	33.2
Employed in all years	56.2	56.0	47.3
Changed jobs	18.8	18.7	23.0
Did not change jobs	37.4	37.3	24.3
<b>Females</b>			
Employed in at least two years	57.4	58.5	64.2
Changed jobs	21.9	23.3	38.3
Did not change jobs	35.5	35.2	25.9
Employed in all years	39.5	40.9	30.9
Changed jobs	12.7	13.8	14.1
Did not change jobs	26.9	27.1	16.8

which is about three times the rate of change among workers who do not change jobs. The proportion of job changers moving from part-time to full-time employment is approximately 50 per cent higher than the proportion moving from full-time to part-time employment, so job-changing more often facilitates a transition from part-time employment to full-time employment than the reverse. In contrast, persons who remain in the same job are about equally likely to move from part-time to full-time employment as from full-time to part-time employment. Consistent with the higher rate of change in part-time/full-time status, weekly working hours are more likely to change (by more than 5) for job-changers. Over half of those who change jobs significantly change their hours of work, compared with less than 30 per cent of those who remain in the same job.

The last panel of Table 13.4 considers changes in real (inflation-adjusted) weekly earnings. Workers who change jobs are just as likely to experience a decline in earnings as those who do not change jobs, but they are considerably more likely to have a substantial—greater than 10 per cent—increase in earnings. The proportion experiencing substantial pay increases has grown for both job stayers and job changers over the 2001 to 2008 period, but it is consistently higher for job changers. For example, 52.3 per cent of workers who changed jobs between 2007 and 2008 had pay increases in excess of 10 per cent, compared with 39.2 per cent of other workers.

Table 13.5 considers changes in outcomes that by definition should not change for those who remain

in the same job, namely industry and employee/employer status. It also summarises the reasons job changers left the last job. Approximately 60 to 64 per cent of job changes involve a change in industry (at the Australian and New Zealand Standard Industrial Classification (ANZSIC), Second Edition (2006) two-digit level, at which 86 industries are distinguished). For most job changes the worker was an employee before and after the job change. The number of job changes involving a switch between employee and employer/self-employed status—and in particular *from* employee *to* employer or self-employed—is not insignificant, although seems to have decreased since peaking in 2003–2004.

Most job changes are precipitated by workers quitting, and the proportion has increased over the HILDA Survey period. Job changes precipitated by dismissal or retrenchment declined from 21.2 per cent in 2001–2002 to 12.1 per cent in 2007–2008, most likely reflecting the strength of the Australian economy and labour market over this period. (Note that, in Part B of this report, we examine the prevalence of all job dismissals and the types of workers and jobs most prone to dismissal.) Consistent with the ‘improved firm–worker match’ hypothesis, respondents most commonly report that the reason for leaving the last job was to go to (or get) a better job. A small proportion—up to 7 per cent—stop work because of sickness, pregnancy, caring responsibilities, desire to retire or study.<sup>3</sup> A similar proportion quit for other reasons, including closure of own business and spouse or partner being transferred.

**Table 13.4: Changes in employment outcomes from one year to the next—Job changers compared with job stayers (%)**

	2001 to 2002		2003 to 2004		2005 to 2006		2007 to 2008	
	No job change	Job change						
<b>Occupation</b>								
Reported changing occupations	8.4	61.2	7.3	59.3	8.7	60.9	10.7	64.3
Classified as changing occupations	31.0	64.2	29.7	62.1	27.1	59.7	30.6	63.7
<b>Part-time/full-time status</b>								
Remained employed part-time	22.3	21.0	23.4	21.4	22.7	19.6	22.3	17.7
Moved from part-time to full-time employment	4.3	14.5	4.0	15.3	3.9	15.8	4.7	16.8
Remained employed full-time	69.6	54.6	69.0	55.1	69.5	56.2	69.2	57.1
Moved from full-time to part-time employment	3.8	9.9	3.6	8.2	3.8	8.4	3.8	8.4
<b>Weekly working hours</b>								
Increased by more than 5 hours	15.3	31.1	14.2	31.8	14.1	32.0	14.1	32.4
Decreased by more than 5 hours	14.1	24.4	13.4	20.7	13.3	20.5	12.8	20.5
Did not change by more than 5 hours	70.6	44.5	72.4	47.5	72.6	47.4	73.1	47.1
<b>Earnings</b>								
Pay went up more than 10%	37.3	46.9	39.3	50.6	40.4	51.2	39.2	52.3
Pay went up 0–10%	19.6	9.6	20.5	10.3	19.0	9.0	19.1	9.6
Pay went down	43.1	43.5	40.2	39.1	40.6	39.8	41.7	38.1
<i>Notes: A job changer is employed in different jobs in the two waves indicated by the column heading; a job stayer is employed in the same job in both waves. ‘Classified occupation changes’ are based on two-digit level classification.</i>								

### Outcomes following job changes

In Table 13.6 we consider how various life outcomes differ depending on whether a worker remains in the same job, changes job voluntarily or changes job as a result of being dismissed or retrenched from their job. The table presents, for three wave-pairs—2001–2002, 2004–2005 and 2007–2008—the mean level in the initial wave and the mean change from the first to the second wave, in measures of household income, general health, mental health, life satisfaction and job satisfaction. The estimates are presented separately for (i) persons who remained in the same job in both waves, (ii) persons employed in the first wave who quit

that job and held a new job in the second wave, and (iii) persons employed in the first wave who were dismissed from that job and held a new job in the second wave. Note that this analysis excludes persons who were not employed in the second of the two waves (whether due to quitting or dismissal) and so does not show the implications of these forms of job loss on the outcomes examined. Rather, the comparison is of job changers with job stayers, with job changers distinguished by whether the change was voluntary or not.

For 2001 to 2002 and 2004 to 2005, income, health and life satisfaction do not appear to differ substantially across the three groups. Both initial levels

**Table 13.5: Nature of job changes (%)**

	2001 to 2002	2003 to 2004	2005 to 2006	2007 to 2008
Changed industry	64.2	62.1	59.7	63.7
<b>Employee/employer status</b>				
Remained employee	81.9	80.9	85.8	88.0
Moved from employee to employer/self-employed	8.0	9.7	7.4	5.3
Remained employer/self-employed	4.8	4.0	2.6	1.9
Moved from employer/self-employed to employee	5.3	5.4	4.1	4.8
<b>Reason left last job</b>				
Dismissed by employer	21.2	14.8	13.4	12.1
Quit to get better job	56.2	65.3	68.4	69.9
Quit to stop work	5.1	5.1	6.8	5.7
Quit for other reasons	8.3	6.9	5.1	8.1
Other reasons	9.2	7.9	6.3	4.2

*Notes:* Figures represent the proportion of job changes for which the change indicated by the row heading is applicable. The reason for leaving last job 'Dismissed by employer' comprises 'got laid off/no work available/retrenched/made redundant/employer went out of business/dissolved etc'. 'Quit for other reasons' comprises 'Holiday job', 'Self-employed: business closed down or sold for other reasons', 'Spouse/partner transferred' and 'Migrated to a new country'. 'Other reasons' comprise 'Job was temporary or seasonal' and 'Self-employed: business closed down for economic reasons (went broke/liquidated/no work/not enough business)'.

**Table 13.6: Income, health and subjective wellbeing, by whether changed jobs**

	<i>No job change</i>		<i>Voluntary job change</i>		<i>Involuntary job change</i>	
	<i>Mean initial level</i>	<i>Mean change</i>	<i>Mean initial level</i>	<i>Mean change</i>	<i>Mean initial level</i>	<i>Mean change</i>
<b>2001 and 2002</b>						
Household equivalised income (\$)	42,421	1,252	41,607	1,643	41,894	-775
General health (0–100 scale)	73.5	-0.6	74.6	-0.1	73.8	0.6
Mental health (0–100 scale)	75.8	-0.08	72.7	2.2	74.3	0.5
Life satisfaction (0–10 scale)	7.9	-0.13	7.7	0.1	7.6	*0.0
Job satisfaction (0–10 scale)	7.8	-0.2	6.7	0.9	7.2	0.2
<b>2004 and 2005</b>						
Household equivalised income (\$)	43,631	2,993	42,087	1,236	41,826	2,680
General health (0–100 scale)	72.8	-0.5	71.2	0.4	69.1	2.1
Mental health (0–100 scale)	76.0	-0.2	73.4	0.8	75.3	-0.5
Life satisfaction (0–10 scale)	7.9	-0.1	7.8	*0.0	7.8	-0.3
Job satisfaction (0–10 scale)	7.8	-0.2	6.9	0.6	7.0	0.4
<b>2007 and 2008</b>						
Household equivalised income (\$)	49,436	3,001	45,764	1,433	46,328	-3,686
General health (0–100 scale)	72.9	-0.8	71.4	1.0	71.7	-4.0
Mental health (0–100 scale)	76.5	-0.2	72.9	1.1	75.4	-3.4
Life satisfaction (0–10 scale)	7.9	*0.0	7.7	0.1	7.8	-0.1
Job satisfaction (0–10 scale)	7.8	-0.2	6.9	0.7	7.1	0.6

*Note:* \* Estimate not reliable.

and changes do not systematically differ by whether workers changed jobs or not, irrespective of whether the change was voluntary. However, this is not the case for 2007 to 2008, where we see relatively unfavourable changes in income, health and life satisfaction for involuntary job changers. We do not investigate here why this change may have occurred, but our suspicion is that it is linked to the economic downturn that commenced towards the end of 2008. We should further note that the failure to find adverse changes for involuntary job changes in the earlier sub-periods is likely to in part reflect the fact that we are restricting to persons who actually managed to obtain another job reasonably quickly. Not all persons dismissed from a job are successful in (quickly) obtaining another job, and we would expect adverse consequences to follow for such individuals.

While patterns with respect to income, health and life satisfaction differ in 2007–2008 compared with the two earlier sub-periods, a clear pattern is evident across all three sub-periods for job satisfaction. Both voluntary and involuntary job changers have substantially lower average job satisfaction in their initial job than job stayers. Both groups of job changers do, however, show sizeable growth in mean job satisfaction from the first wave to the second, compared with a slight decline in average satisfaction for those who remain in the same job. The increase in mean job satisfaction occurs irrespective of whether the change in jobs was voluntary or involuntary, but is slightly greater for voluntary job changers.

### Discussion

While there are costs of job mobility to both employers and workers, it is also important to the

efficient functioning of the labour market. In particular, as the evidence from the HILDA data suggests, improved firm–worker matches will generally be the outcome of job mobility. Movements between jobs more often represent a move from part-time to full-time employment than the reverse, and substantial earnings increases are more prevalent for workers who change jobs than workers who do not. Changes in job are also associated with increases in job satisfaction. Together, these findings support the contention that job mobility leads to better labour market outcomes for the workers concerned.

### Endnotes

- 1 The number of job changes made by a worker is not always well defined in the case where jobs are held concurrently. For example, a worker may have two jobs during the year with one job starting some months before the other job ends. We make the simple (although not always correct) assumption that a job change occurs if one job ended in the year and another job started in the year. The number of job changes is equal to the minimum of the number of job starts and the number of job ends.
- 2 Also (necessarily) ignored are job changes where the respondent does not change employers. For example, a public servant may move to a different government department or agency, yet will be classified as not changing jobs, even if the nature of the work has changed substantially and/or the respondent has a new employment contract.
- 3 The proportion of all workers leaving a job for these reasons is considerably higher than for the proportion of workers who change jobs from one wave to the next, because most are not employed at the time of the next wave's interview.

## 14. Hours worked, hours preferred and individual-level changes in both

Each year, the HILDA Survey obtains from all employed persons not only their usual weekly hours of work, but also their *preferred* hours of work. This facilitates examination of a variety of aspects of working hours, including how hours worked and preferred by individuals change over time.

Table 14.1 provides information on working hours, showing the average of usual weekly hours (in all jobs) of employed persons in each wave, disaggregated by sex and age group. Average weekly hours worked remained fairly stable during this period, at around 42 hours per week for males and 32 hours per week for females. For males who were working full-time, average working hours dropped from 47.8 hours per week in 2001 to 46.3 hours per week in 2008, and for females working full-time, average weekly work hours also dropped slightly, from 43.3 hours per week in 2001 to 42.5 hours per week in 2008. For males who were working part-time (less than 35 hours per week), average weekly working hours increased slightly, from 17.7 hours per week in 2001 to 18.3 hours per week in 2008, and for females who worked part-time, average weekly working hours also increased slightly—from 18.4 hours per week in 2001 to 18.9 hours per week in 2008.

In 2008, as in previous years, males aged between 35 and 54 work the longest hours—45 hours per week on average. Employed males aged 15–24 years, many of whom will still be in full-time education, average 33 hours of work per week, and employed males aged over 65 years, many of whom will be in partial retirement, average 29 hours per week. Females aged between 25 and 34 average around 35 hours of work per week, compared to around 26 hours per week for females aged between 15 and 24, 31 hours per week for females aged between 55 and 64 and around 21 hours per week for females aged 65 and over.

### Individual changes in working hours

How much do working hours change from one year to the next? Table 14.2 shows the changes in working hours from 2007 to 2008. The single most common outcome in 2008 was for individuals to be in the same hours category as they were in 2007. However, large proportions do change hours categories—albeit often by increasing or decreasing hours worked only enough to move one category up or down. Those working part-time and those working long (over 45) hours are particularly likely to change hours categories. Most commonly, the change is an increase in hours for

**Table 14.1: Mean usual weekly hours of work in all jobs, by sex, age and employment status**

	2001	2003	2005	2007	2008
<b>Males</b>					
All males	42.8	42.3	42.1	41.7	42.0
<b>Age group</b>					
15–24	31.6	31.8	32.5	32.9	33.5
25–34	44.6	43.8	43.9	43.4	44.1
35–44	46.2	45.8	46.0	45.4	45.2
45–54	46.6	46.4	44.9	44.8	45.4
55–64	42.9	42.6	41.6	40.6	41.5
65 and over	33.0	33.9	31.8	30.6	28.6
<b>Employment status</b>					
Full-time	47.8	47.3	46.6	46.4	46.3
Part-time	17.8	18.0	18.0	18.4	18.3
<b>Females</b>					
All females	31.7	31.1	31.2	31.8	31.7
<b>Age group</b>					
15–24	26.4	24.7	26.5	26.0	26.2
25–34	33.7	33.4	33.9	34.8	35.2
35–44	31.8	32.1	31.4	31.6	32.0
45–54	34.7	33.8	33.6	35.0	33.7
55–64	30.9	30.6	30.5	31.4	31.3
65 and over	22.8	18.6	21.3	23.3	21.3
<b>Employment status</b>					
Full-time	43.3	43.3	43.2	42.9	42.5
Part-time	18.4	18.4	18.8	19.1	18.9

persons employed part-time and a decrease in hours for persons working long hours. For example, almost half of the males who were working fewer than 10 hours per week in 2007 had increased their working hours by 2008, and over 30 per cent of those who increased their working hours were working between 10 and 19 hours per week. Of those working 55 to 64 hours per week in 2007, 45 per cent of males and 65 per cent of females were working fewer than 55 hours per week in 2008.

### Preferred hours of work

Are most people happy with the hours they work? Figure 14.1 shows the proportion of prime-age employees who were working their preferred hours, and those who were not, in 2008.<sup>1</sup>

#### Preferred hours of work

A difficulty in eliciting individuals' preferred hours of work is that many people are inclined to say that they would like to not work at all, despite clearly choosing work over non-work. To overcome this problem, the HILDA Survey asks respondents the number of hours per week they would like to work, *taking into account the effect this would have on their income.*

Approximately 60 per cent of prime-age employees were content with their working hours in 2008. Among full-time employees, males are more likely to be satisfied with their working hours than are females, but among part-time employees, females

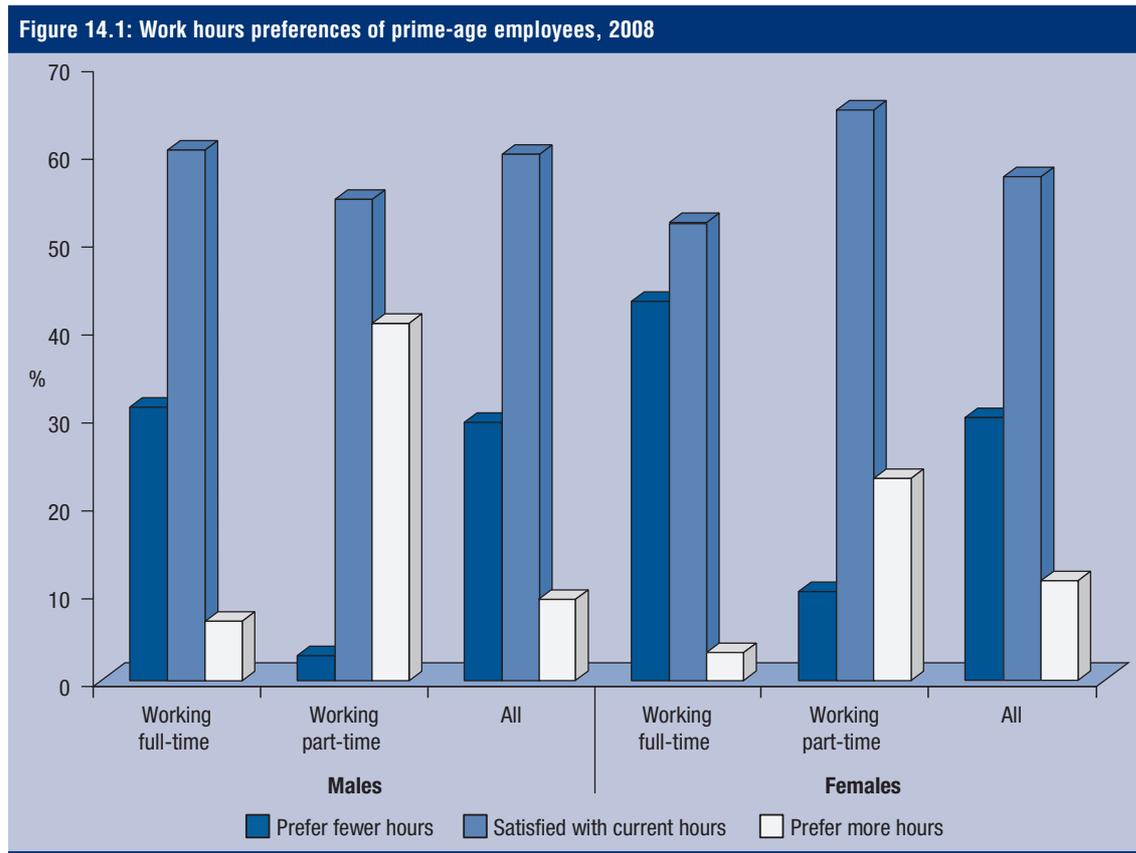
are more likely to be satisfied with their working hours. In particular, 44 per cent of female full-time employees prefer fewer hours, compared with 32 per cent of male full-time employees, whereas 42 per cent of male part-time employees prefer greater hours, compared with only 24 per cent of female part-time employees. Do people who are not working their preferred hours eventually get what they want? Using the HILDA Survey data to compare working-time preferences in 2002 and 2004, Wooden (2006) found that while in any year 40–45 per cent of employees were not working their preferred hours, many were working preferred hours a few years later. He found, however, that over-employment—a preference for fewer hours—was more persistent than underemployment—a preference for more hours.

Table 14.3 shows the working-time preferences in 2008 of prime-age individuals, according to their preferences in 2007. This allows examination of the proportions of those with mismatches between preferred and actual working-time in 2007 who had resolved their mismatches by 2008—be this by changing hours worked and/or changing their preferred hours—as well as the proportions of those without mismatches in 2007 for whom mismatches arose in 2008. Note that all prime-age men and women are included in the sample—those who are unemployed or marginally attached are considered to prefer more hours, and those who were not in the labour force and not marginally attached are considered to be satisfied with their (zero) working hours.

**Table 14.2: Changes in usual weekly working hours (in all jobs), 2007 to 2008 (%)**

Work hours in 2007	Work hours in 2008								Total
	0	1–9	10–19	20–34	35–44	45–54	55–64	65+	
<b>Males</b>									
0	84.7	2.2	2.5	2.6	5.5	1.3	*0.7	*0.5	100.0
1–9	20.8	37.7	14.8	*9.2	14.3	*2.6	*0.7	*0.0	100.0
10–19	21.6	9.1	31.8	12.9	17.9	*4.5	*1.7	*0.5	100.0
20–34	16.5	*1.6	6.0	39.8	22.6	12.0	*1.0	*0.5	100.0
35–44	3.0	*0.2	*0.4	4.1	73.0	16.0	2.1	*1.1	100.0
45–54	3.0	*0.1	*0.4	*1.7	25.9	53.6	12.2	3.1	100.0
55–64	*3.5	*0.0	*0.3	*1.3	9.6	30.7	45.5	9.1	100.0
65+	*2.4	*0.0	*0.4	*1.4	*4.9	12.9	29.6	48.3	100.0
Total	29.1	2.0	2.8	5.6	30.9	18.5	7.7	3.4	100.0
<b>Females</b>									
0	87.0	2.7	4.0	3.1	2.8	*0.3	*0.1	*0.0	100.0
1–9	15.3	38.7	31.1	8.9	*3.6	*1.7	*0.6	*0.0	100.0
10–19	17.2	8.4	44.6	18.7	9.0	*1.7	*0.2	*0.2	100.0
20–34	7.3	2.3	10.6	56.4	17.7	4.4	*1.0	*0.3	100.0
35–44	6.3	*0.4	2.0	10.4	70.3	8.9	1.3	*0.3	100.0
45–54	*4.3	*0.6	*1.2	4.7	31.4	47.3	8.7	*1.8	100.0
55–64	*2.8	*0.6	*2.7	*3.8	23.7	31.0	29.0	*6.4	100.0
65+	*2.0	*0.0	*0.0	*13.4	*14.8	*9.5	*28.8	*31.6	100.0
Total	41.5	3.9	8.8	14.0	22.4	6.7	2.0	0.6	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.



In general, Table 14.3 indicates that the most difficult working-time preference problem to resolve is a preference for fewer hours. More than 60 per cent of males and 55 per cent of females who preferred fewer hours in 2007 were in the same situation in 2008. More readily resolved is the problem of unemployment or underemployment, whether by increasing actual hours or decreasing preferred hours. Among those who had a preference for more hours in 2007, only 46 per cent of males and 45 per cent of females were still in that situation in 2008, with 45 per cent of males and 46 per cent of females satisfied with their working hours in 2008.

Table 14.4 examines how working hours change from one year to the next—specifically, whether they decreased, increased or stayed the same—for different groups based on their working-time preferences in both years. The groups comprise every combination of whether working hours were greater than, equal to or less than preferred hours in each of 2007 and 2008. For example, the first row comprises males who preferred fewer hours (overemployed) in both 2007 and 2008, the second row comprises males who were overemployed in 2007 and satisfied with their hours in 2008, and the third row comprises males who were overemployed in 2007 and preferred more

**Table 14.3: Changes in preferred working hours of prime-age persons, 2007 to 2008 (%)**

Preferences in 2007	Preferences in 2008			Total
	Prefer fewer hours	Prefer current hours	Prefer more hours	
<b>Males</b>				
Prefer fewer hours	61.7	33.1	5.3	100.0
Prefer current hours	16.3	74.1	9.6	100.0
Prefer more hours	9.5	44.8	45.7	100.0
Total	28.2	58.6	13.2	100.0
<b>Females</b>				
Prefer fewer hours	54.9	40.8	4.3	100.0
Prefer current hours	14.6	72.2	13.3	100.0
Prefer more hours	9.0	45.6	45.4	100.0
Total	22.9	60.2	16.9	100.0

*Note:* Percentages may not add up to 100 due to rounding.

hours (underemployed) in 2008. The table also examines changes in working hours for groups defined only by working time preferences in 2007—that is, irrespective of preferences in 2008. This is given by the ‘total’ row of each panel. Table 14.4 therefore provides information on how dissatisfaction with working time is resolved (by examining the changes in working time for those dissatisfied in 2007 and satisfied in 2008), how dissatisfaction arises (by examining the changes in working time for those satisfied in 2007 and dissatisfied in 2008), and how working time changes for those who remain dissatisfied.

Among those who were overemployed in 2007, only 46 per cent of males and 49 per cent of females were working fewer hours in 2008. Similarly, only 47 per cent of males and 42 per cent of females who were underemployed in 2007 were working longer hours in 2008 than they were in 2007. Furthermore, among those who were satisfied with

their hours of work in 2007, only 42 per cent of males and 47 per cent of females were still working the same hours in 2008.

For those who were dissatisfied with their working hours in 2007 but satisfied in 2008, ‘hours mismatch’ problems were most commonly resolved by increasing or reducing working hours. For example, 56 per cent of males and 63 per cent of females who had a preference for fewer hours in 2007 and were satisfied with their working hours in 2008 had reduced their hours of work and 63 per cent of males who expressed a preference for more hours of work in 2007 and were satisfied with their working hours in 2008 had increased their working hours. However, among females who were underemployed in 2007 and satisfied with their hours of work in 2008, less than half were working longer hours in 2008, with 42 per cent not changing their working hours at all and 12 per cent working fewer hours in 2008 than they

**Table 14.4: Changes in actual working hours of prime-age persons, 2007 to 2008 (%)**

<i>Preferences in 2007 and 2008</i>	<i>Change in working hours</i>			<i>Total</i>
	<i>Hours decreased</i>	<i>No change in hours</i>	<i>Hours increased</i>	
<b>Males</b>				
<b>Prefer fewer hours in 2007</b>				
Still prefer fewer hours in 2008	36.7	34.8	28.5	100.0
Satisfied with working hours in 2008	55.6	29.1	15.3	100.0
Prefer more hours in 2008	97.8	*0.0	*2.2	100.0
Total	46.2	31.1	22.7	100.0
<b>Happy with working hours in 2007</b>				
Prefer fewer hours in 2008	18.9	27.8	53.2	100.0
Satisfied with working hours in 2008	26.2	44.3	29.5	100.0
Prefer more hours in 2008	40.3	43.2	16.5	100.0
Total	26.4	41.5	32.1	100.0
<b>Prefer more hours in 2007</b>				
Prefer fewer hours in 2008	*2.8	*9.5	87.7	100.0
Satisfied with working hours in 2008	12.3	25.2	62.5	100.0
Prefer more hours in 2008	27.1	49.2	23.7	100.0
Total	18.1	34.7	47.2	100.0
<b>Females</b>				
<b>Prefer fewer hours in 2007</b>				
Still prefer fewer hours in 2008	35.1	29.6	35.3	100.0
Satisfied with working hours in 2008	63.2	17.2	19.6	100.0
Prefer more hours in 2008	94.6	*3.6	*1.8	100.0
Total	49.1	23.4	27.5	100.0
<b>Happy with working hours in 2007</b>				
Prefer fewer hours in 2008	17.0	26.5	56.5	100.0
Satisfied with working hours in 2008	23.0	50.4	26.6	100.0
Prefer more hours in 2008	32.9	52.3	14.8	100.0
Total	23.4	47.2	29.4	100.0
<b>Prefer more hours in 2007</b>				
Prefer fewer hours in 2008	*3.8	*0.7	95.4	100.0
Satisfied with working hours in 2008	11.6	41.7	46.7	100.0
Prefer more hours in 2008	20.4	53.3	26.2	100.0
Total	14.9	43.3	41.8	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

were in 2007. This result suggests that for females, problems of overemployment were more commonly resolved by a change in preferences rather than a change in working hours.

Less than half of the prime-age individuals who were satisfied with their working hours in 2007 were still working the same number of hours in 2008. For those who were happy with their working hours in 2007 and expressed a preference for fewer hours in 2008, it appears that this dissatisfaction has arisen mainly as a result of an increase in working hours, with 53 per cent of males and 57 per cent of females in this group working longer hours in 2008 than they were in 2007. Problems of underemployment in 2008 for those satisfied with their working hours in 2007, however, seem to be a result of either a reduction in hours, with 40 per cent of males and 33 per cent of females working fewer hours in 2008, or a change in preferences—43 per cent of males and 52 per cent of females who were now underemployed had not changed their working hours between 2007 and 2008.

Among those who were overemployed in both years, 37 per cent of males and 35 per cent of females had reduced their hours, but not enough to be satisfied with their working time, while 35 per cent of males and 30 per cent of females had not been able to change their working hours at all, and the remaining 29 per cent of males and 35 per cent of females were actually working more hours in 2008 than they did in 2007. Around half of the individuals who were underemployed in both years were working the same number of hours in 2008 as they did in 2007—approximately one quarter had increased their working hours since 2007, but not enough to resolve the problem, and 27 per cent of males and 20 per cent of females were working fewer hours in 2008 than they did in 2007.

It is interesting to note that among those who expressed a preference for fewer (or more) hours in 2007 and then expressed the opposite preference

in 2008, a very high proportion had actually changed their working hours in a way that would seem to resolve their problem, but had changed their preference by 2008. For example, 98 per cent of males and 95 per cent of females who had a preference for fewer hours in 2007 but wanted more hours in 2008 were working fewer hours in 2008 than they did in 2007. Similarly, 88 per cent of males and 95 per cent of females who wanted more hours in 2007, but had a preference for fewer hours in 2008 had increased their working hours since 2007. It may be the case that they actually got the hours they had a preference for in 2007 but then changed their working-time preference; or, they were not able to negotiate with their employer to get the exact number of hours they desired and had to settle for a change in working hours that they were not entirely satisfied with.

### Is underemployment less persistent than unemployment?

Underemployment would seem to be inherently a less intransigent problem than unemployment. The underemployed have secured a foothold in the labour market and should be better placed than the unemployed to achieve a satisfactory employment situation. But is it really the case that the problem of underemployment is more readily resolved? Table 14.5 shows the proportion of males and females who were unemployed or underemployed in 2007 that remained in those states in 2008.

Between 2007 and 2008, underemployment was in fact slightly more persistent than unemployment. Among those who were underemployed in 2007, 24 per cent of males and 23 per cent of females were still underemployed in 2008. For unemployment, 24 per cent of males and 17 per cent of females who were unemployed in 2007 were still unemployed in 2008. Note, however, that 35 per cent of those who were unemployed in 2007 were either underemployed or marginally attached to

**Table 14.5: Persistence in unemployment and underemployment, 2007 to 2008 (%)**

Situation in 2007	Situation in 2008						Total
	Prefer more hours			Prefer current hours		Prefer fewer hours	
	Employed	Unemployed	Marginally attached	Employed	NLF		
<b>Males</b>							
Unemployed	15.9	23.5	19.2	20.7	*12.5	*8.1	100.0
Underemployed	24.2	9.2	13.8	33.7	11.9	7.2	100.0
<b>Females</b>							
Unemployed	23.1	17.4	12.7	22.5	19.0	*5.4	100.0
Underemployed	22.5	8.2	12.7	29.8	20.3	6.6	100.0
<b>All</b>							
Unemployed	19.3	20.6	16.1	21.6	15.6	6.8	100.0
Underemployed	23.3	8.7	13.2	31.6	16.3	6.9	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

the labour force in 2008; in total, therefore, 56 per cent of those unemployed in 2007 still did not have sufficient employment in 2008. The corresponding figure for those underemployed in 2007—that is, the proportion underemployed, unemployed or marginally attached in 2008—was somewhat lower at 45 per cent.

### Endnote

- 1 People who were self-employed were excluded from the analysis of hours preferences, as it is assumed that

they ultimately have control over their own working hours. The analysis is further restricted to prime-age persons to avoid the complication of younger people moving from part-time work (and full-time education) to full-time work, and older people reducing their working hours as part of a transition to retirement.

### Reference

- Wooden, M. (2006) 'Working Time: Insights from HILDA', Presentation at the Melbourne Institute Public Economics Forum, Hyatt Hotel Canberra, 21 September.

## 15. Jobless households and 'job-poor' households

In the mid-1990s attention was drawn by researchers to a significant and apparently growing phenomenon in Australia of jobless households (Gregory and Hunter, 1995; Dawkins, 1996). The research highlighted that joblessness, as distinct from unemployment, was particularly prevalent among households with dependent children. This raised the specific concern that, if children grow up in households in which there is no role model in the world of work, they may be more likely to become jobless themselves (Gregory and Hunter, 1995; Headey and Verick, 2005).

With eight years of data now available, the HILDA Survey provides unique evidence for Australia about medium-term persistence and recurrence of household joblessness. Prior to the arrival of the HILDA Survey, nearly all evidence was cross-sectional, providing no information on the extent and nature of the more serious policy issue of long-term joblessness. Long-term jobless families probably tend to suffer not only material deprivation, but also some degree of social exclusion. Adverse implications for children living in long-term jobless households also seem likely, with available evidence suggesting intergenerational transmission of joblessness and welfare dependence is a significant problem (e.g. Gottschalk, 1992; Blanden and Gibbons, 2006; Jenkins and Siedler, 2008).

Measures of household joblessness are constructed for both the 'current' period—essentially describing the household's situation at the time of interview—and the (entire) financial year immediately preceding the interview. However, the majority of the results presented are for the current measures. The advantages of the current measure are that it is less subject to recall bias and that it more clearly relates to the household as it is currently structured. Household composition can change over the course of a year, making annual measures less straightforward to construct and interpret. The main weakness of a current measure is that some households that are only temporarily jobless are classified as jobless, and some households that are usually jobless may be classified as not jobless.

In addition to joblessness, we also examine households that are 'job-poor'. For the current measure, this is defined as a situation in which household total usual weekly hours of work are less than 35. The 35-hour threshold corresponds to minimum hours of full-time employment, the implicit premise being that a household without the equivalent of one full-time employed person is at greater risk of poor economic outcomes.<sup>1</sup> For the financial year measure, job poverty is defined as a situation where the sum across all members of the household of the proportion of the year in employment is less than 100 per cent—that, is the equivalent of one full-time job. Thus, for example, a household is not job poor if it had two individuals employed for 50 per cent of the year, even if they were employed for the same half of the year and even if they were only employed part-time. The reason for this approach is that full-time/part-time employment status cannot be established for the financial year—it can only be established for the current period (at the time of interview).

Job-poor households are clearly of less policy concern than jobless households, but are nonetheless of concern, since typically a job-poor household will not generate enough labour income to support the household. Many, if not most, job-poor households will receive income support payments. It should be noted, however, that in some instances it may be preferable—from both an individual and a societal perspective—for the household to be 'job-poor'. For example, an elderly person may be transitioning to retirement by working part-time, and a lone parent may combine caring for children with part-time employment.

Household joblessness is similarly not an issue for certain households—it is primarily an issue for households in which the societal expectation is that someone in the household works. In particular, there is not a widespread expectation that elderly people and people with severe or profound disabilities should be employed. We do not attempt to identify and exclude households containing only people with severe or profound disabilities, but we

do restrict all analysis in this article to persons under 65 years of age and allow a household to be classified as jobless or job-poor only if the household contains at least one member aged 15–64 who is not a dependent.

**Trends in household joblessness, 2001 to 2008**

Figure 15.1 presents alternative cross-sectional estimates of the percentage of persons living in jobless and job-poor households. To more closely align the reference periods of the year and current measures, the year estimates are ‘shifted back’ one year. For example, the estimates obtained from Wave 1 are presented for 2000–01 for the year measure and 2001–02 for the current measure. This means that the year estimates start one year earlier and finish one year earlier than the current estimates.

The year measures produce lower rates of joblessness and job poverty than the current measures. In the case of joblessness, this is to be expected, since the year measure requires no one in the household be employed for an entire year, whereas the current measure only requires no one be employed at the time of the interview. For the job-poor measures, the year and current measures are quite different in nature, and so it is unsurprising the two measures produce quite different estimates—although it was not necessarily to be expected that the year measure would produce lower estimates.

Despite the differences in levels, all four measures follow quite similar paths over the HILDA Survey sample period. In Wave 1, 17 per cent of people in non-elderly households lived in currently-jobless

**Jobless household**

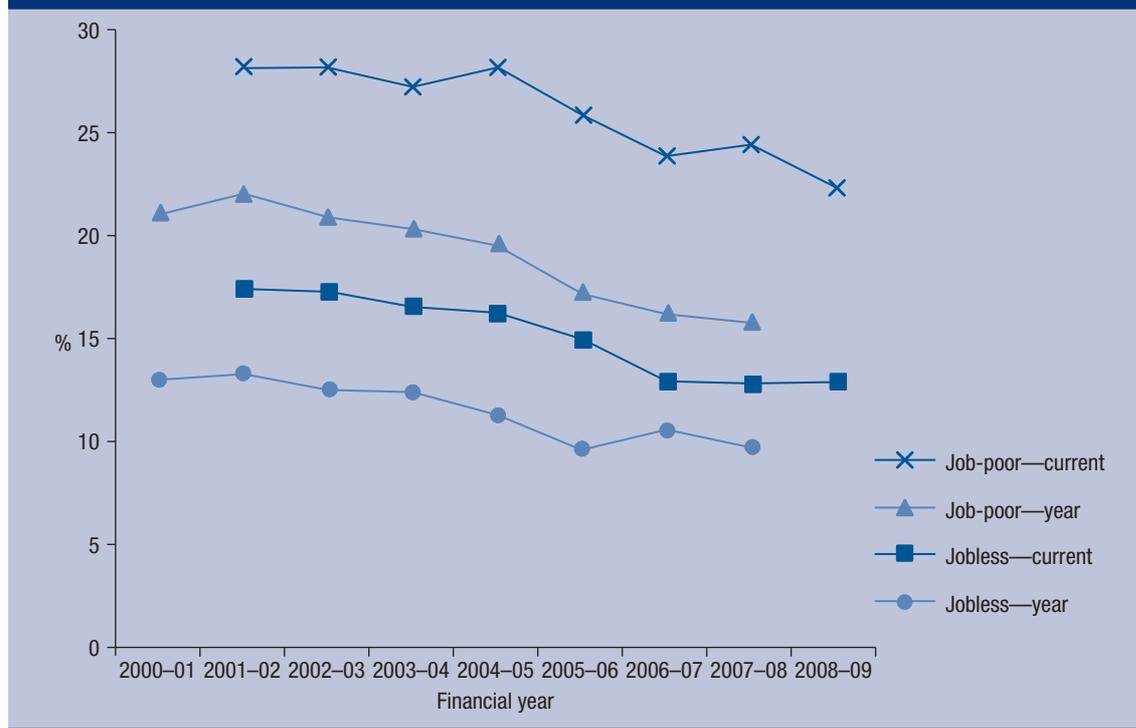
In this report, two alternative definitions of a jobless household are employed. The first definition, ‘current’ joblessness, relates to the household’s employment status at the time of the HILDA Survey interview, whereby a household is jobless if no household member was in paid employment (or on paid leave from employment) at the time of interview. The second definition, ‘financial year’ joblessness, relates to the household’s employment status over the course of the financial year immediately preceding the HILDA Survey interview, whereby a household is jobless if no household member was in paid employment (or on paid leave from employment) at any time in that year.

**Job-poor household**

There is no accepted standard for determining whether a household is ‘job-poor’. In this report, a household is defined to be currently job-poor if total usual hours of paid employment of all household members combined are less than 35 hours per week. A financial year measure is also employed, whereby a household is job-poor if the sum across all members of the household of the proportion of the year in employment is less than 100 per cent.

households, while the rate of year-long joblessness for the preceding financial year was 13 per cent. Since Wave 1, the trend has been for a steady decline in the rate of household joblessness. By Wave 8, the current jobless rate was 13 per cent and the year-long jobless rate for the previous financial year was 10 per cent. Significantly more households are classified as job-poor on either current or yearly bases, but the trend decline is still

**Figure 15.1: Household job poverty—Persons under 65 years of age**



evident for both measures. In Wave 1, 28 per cent of persons under the age of 65 years were in currently job-poor households, and 21 per cent were classified as job-poor for the previous financial year. In Wave 8, 22 per cent were currently job-poor and 16 per cent were job-poor for the previous financial year.

While the year and current measures of joblessness and job poverty are clearly quite different, given that patterns over time are quite similar and that the current measures have advantages over the year measures, the remaining analysis is restricted to current measures. Figure 15.2 disaggregates jobless and job-poor rates by type of household. Societal expectations about (non-elderly) childless households and couple households are unambiguous: at least one member of the household should be in paid employment. Expectations about lone-parent households are more mixed, but are probably moving towards the expectation that the parent undertake part-time employment, at least once the youngest child has reached school age. Both reflecting and driving this changing expectation, in recent years the Australian Government has progressively increased requirements on lone-parent income support recipients to participate in employment or education, with the most significant changes occurring in July 2006. Figure 15.2 clearly shows that, while lone parents—most of whom are women—have the highest jobless rate, it has fallen sharply over the 2001 to 2006 period, from 37 per cent in 2001 to 27 per cent in 2006. The proportion of persons in lone-parent households that are job-poor has also declined, from 58 per cent in 2001 to 47 per cent in 2007, implying many lone parents have moved into full-time work. There was, however, an upward spike in joblessness and job-poverty among lone-parent households towards the end of the sample period, the jobless

rate rising to 29 per cent and the job-poor rate rising to 49 per cent. This increase was not shared by other household types, and it is not clear why only lone parents should have experienced a rise in joblessness.

After lone-parent households, the next highest rate of joblessness is for ‘other’ household types, which primarily comprise lone person households. As for sole parents, the jobless and job-poor rates have declined since 2001, but without the upward spike in 2008. Couples without children have the next highest jobless and job-poverty rates, followed lastly by couples with dependent children. Both household types have also experienced declines in joblessness and job poverty between 2001 and 2008. It should be noted that, in part, the higher rates of jobless and job-poor households for lone-parent and single-person households are deterministic functions of the smaller number of working-age people in each of these households. For example, if everyone had an equal chance of being non-employed or part-time employed, jobless and job-poor rates would be lower for couple households because there are two household members with a chance of being employed, and either one (or both combined) can lift the household out of joblessness or job poverty. Lone parent and single person households have only one person who can do this.<sup>2</sup>

In Figure 15.3, household joblessness by age of the household members is examined. Six age groups are distinguished: under 15 years, 15–24 years, 25–34 years, 35–44 years, 45–54 years and 55–64 years. All age groups exhibit sizeable decline in joblessness and job-poor rates between 2001 and 2008. The jobless and job-poor rates are consistently highest for people aged 55–64 years, which is unsurprising given that many people in this age group will have retired. Nonetheless, it is significant that, even among this age group,

Figure 15.2: Proportion of persons living in jobless and job-poor households, by type of household

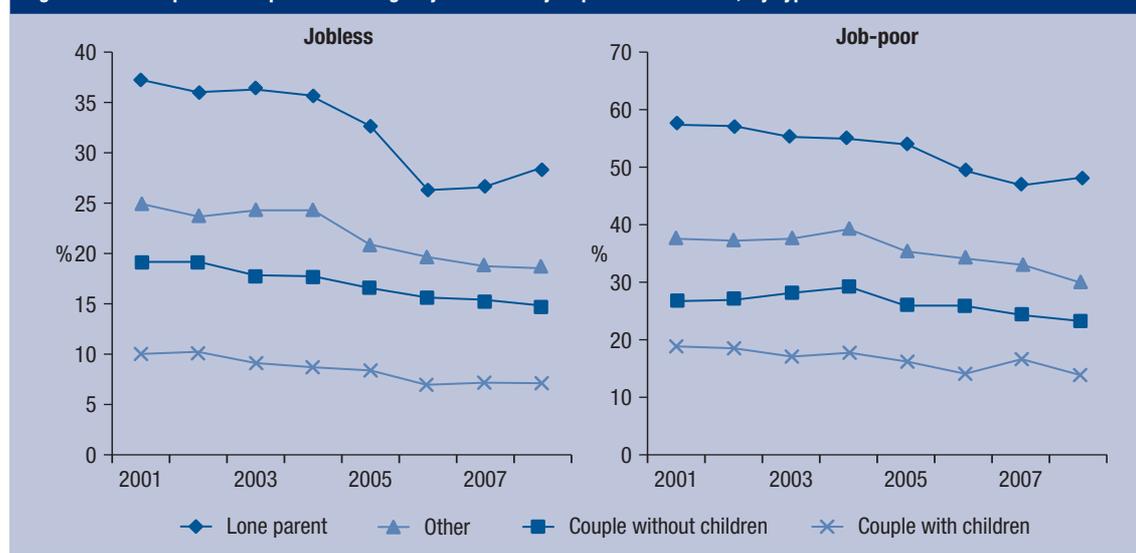
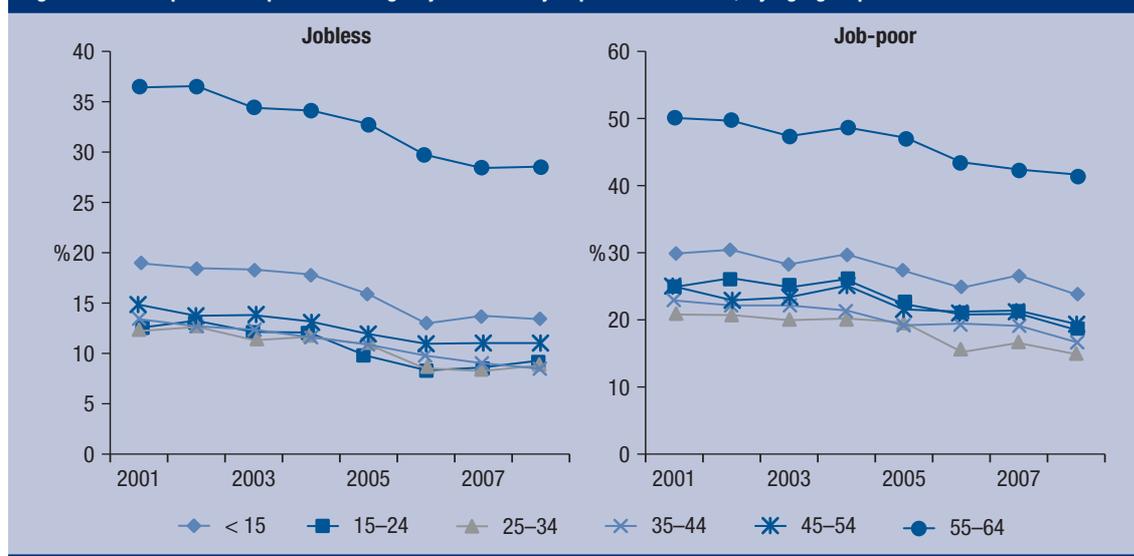


Figure 15.3: Proportion of persons living in jobless and job-poor households, by age group



joblessness has declined. Among the remaining age groups, children under 15 years of age have the highest rates of household joblessness and job poverty. The evidence in Figure 15.2 is that these high rates to a significant extent reflect outcomes for lone-parent households.

#### Longer-term household joblessness

While short-term joblessness is a concern, medium-term to long-term joblessness is a more serious policy issue because of the implications for a family's long-term income, wealth, health and social exclusion. Table 15.1 presents information on the number of years households were jobless and job-poor. Among all members of the population under 65 years of age for the entire sample period, 72 per cent have not been in a jobless household in any of the eight years, and 13.3 per cent were in a jobless household in just one or two years. The remaining 14.7 per cent were in a jobless household in three or more years, and are fairly evenly distributed over the three to eight years range. For persons in this group, joblessness is a persistent and/or recurrent problem.

Living in a job-poor household is experienced by more people and also appears to be more likely to be long-term than joblessness. Of the 45.8 per cent of people who experienced at least one year in a job-poor household, 27 per cent—over half—were in a job-poor household for three or more years. A sizeable 7.4 per cent were in a job-poor household in all eight years.

The last four columns of Table 15.1 focus on children living in jobless households, distinguishing lone-parent and couple households (based on household situation in 2008). Household joblessness for children is very much associated with residing in a lone-parent household: 79.1 per cent of children with both parents present in 2008 were not in a jobless household in any of the eight waves up to that point in time, compared with 37.0 per cent of children with only one parent present in the household in 2008. More importantly, 47.7 per cent of children in lone-parent households were in jobless households for three or more years, and 29.8 per cent were in jobless households for five or more years. These figures will, furthermore, tend to understate the association

Table 15.1: Protracted household joblessness—Years in jobless/job-poor household 2001–2008 (%)

Number of years	All persons		Children			
	Jobless	Job-poor	Jobless		Job-poor	
			Couple	Lone parent	Couple	Lone parent
0	72.0	54.2	79.1	37.0	63.6	14.1
1–2	13.3	18.8	13.0	15.4	17.6	14.1
3–4	5.5	8.8	3.1	17.9	6.7	18.5
5–7	6.3	10.8	3.6	25.0	7.7	26.2
8	2.9	7.4	1.2	4.8	4.4	27.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: All persons comprise those aged 0–64 for the entire eight-year period (i.e. aged 0–57 in 2001). Children comprise those under the age of 18 years for the entire eight-year period (i.e. aged 0–10 years in 2001) and are classified according to their household type in 2008.

**Table 15.2: Persistence of joblessness—Proportion of those initially in jobless/job-poor households who were jobless/job-poor in each subsequent year (%)**

<i>Jobless in...</i>	<i>Proportion jobless...</i>				
	<i>1 year later</i>	<i>2 years later</i>	<i>3 years later</i>	<i>5 years later</i>	<i>7 years later</i>
2001	69.7	61.3	55.1	43.9	40.8
2003	72.8	64.0	53.0	47.8	–
2005	65.6	60.7	56.3	–	–
2007	76.2	–	–	–	–
<i>Job-poor in...</i>	<i>Proportion job-poor...</i>				
	<i>1 year later</i>	<i>2 years later</i>	<i>3 years later</i>	<i>5 years later</i>	<i>7 years later</i>
2001	73.5	65.4	62.3	51.7	47.2
2003	79.3	68.4	62.0	55.6	–
2005	76.5	69.7	64.7	–	–
2007	77.2	–	–	–	–

between household joblessness and the presence of both parents. This is because some children in couple households in 2008 will have previously lived in lone-parent households, and some children in lone-parent households in 2008 will have previously lived in couple households.

### Persistence of joblessness

Table 15.1 presents evidence on the combined effects of persistence and recurrence of household joblessness. In Table 15.2, we focus on persistence of joblessness by presenting, for those initially jobless, the proportion jobless in each subsequent year. This is presented for four initial periods: 2001, 2003, 2005 and 2007, which allows us to consider changes in the degree of persistence over the HILDA Survey period. The same information is presented for job-poor households in the lower panel of the table. Perhaps somewhat surprising in light of Table 15.1, is that a relatively high degree of persistence in joblessness is evident. For those found to be in jobless households in 2001, 69.7 per cent were in jobless households one year later, 55.1 per cent were in jobless households three years later, and 40.8 per cent were in jobless households seven years later. As expected based on the Table 15.1 results, persistence in job-poverty is greater, with 47.2 per cent of people in job-poor households in 2001 also in job-poor households in 2008.

Tracking down the two panels of Table 15.2 allows us to consider in a limited fashion changes over time in the degree of persistence in joblessness and job poverty. As the time-span of the HILDA Survey grows in the future, it will be possible to consider more fully trends in persistence. In fact, no clear trends in persistence of joblessness or job poverty are evident, both seemingly fluctuating rather unpredictably from year to year. For example, the proportion of those in jobless households in 2001 who were in jobless households one year later was 69.7 per cent in 2001, 72.8 per cent in 2003, 65.6 per cent in 2005 and 76.2 per cent in 2007. Similarly, the proportion of

those in job-poor households in 2001 who were in job-poor households one year later was 73.5 per cent in 2001, 79.3 per cent in 2003, 76.5 per cent in 2005 and 77.2 per cent in 2007.

### Discussion

Household joblessness declined substantially as an economic and social issue for Australia over the 2001 to 2008 period. However, the recent economic downturn, most of the effects of which will be post-Wave 8, is likely to have arrested this trend. Furthermore, even in the climate of declining unemployment that prevailed from 2001 to 2008, job-poor households continued to account for a large proportion of households, and persistence in joblessness remained high. Perhaps most important is that the incidence of children growing up in jobless households, while declining, remained a significant feature of Australian society in 2008. The issue of intergenerational transmission of joblessness is therefore still an important policy issue for Australia. One caveat to the contention that should be noted, however, is that most children living in jobless households are in lone-parent households. The lone-parent household jobless rate may overstate the number of children lacking an employed role model, since children may still have regular contact with an employed non-resident parent.

### Endnotes

- 1 The choice of this threshold nonetheless has some degree of arbitrariness—in particular, reasonable arguments could be mounted for lower thresholds. It is also arguable that the threshold should vary according to the number of adult household members, since the scope for employment is greater the larger the number of adults. However, the essence of the issue on which we wish to focus is the absence of substantial household engagement with the labour market, rather than market underutilisation of household labour more generally. We therefore retain the simple and intuitive 35-hour threshold for defining job-poor households.
- 2 This is a point well made by Gregg et al. (2005).

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## 16. Job satisfaction

In every year of the HILDA Survey, individuals who are employed at the time of interview are asked to rate how satisfied they are with their job on a scale of 0 to 10, with 0 being 'totally dissatisfied' and 10 being 'totally satisfied'. In addition to overall job satisfaction, respondents are also asked about their satisfaction with particular aspects of the job, including the pay, job security, the hours they work and the flexibility available to balance work and non-work commitments. Table 16.1 shows that the average levels of these different aspects of job satisfaction changed very little between 2001 and 2008.

Overall, most people are quite satisfied with their jobs. Average job satisfaction is around 7.6 out of 10 for males and slightly higher for females, who have average job satisfaction of around 7.7 out of 10. The aspect of their job with which respondents are, on average, most satisfied, is job security. For

males, average levels of satisfaction with job security rose from 7.5 out of 10 in 2001 to 8.1 in 2007. For females, average job security satisfaction also rose slightly—from 7.9 out of 10 in 2001 to 8.1 out of 10 in 2007. While average satisfaction with job security has been high across the entire survey period, it is perhaps significant that, for both males and females, mean satisfaction declined slightly from 2007 to 2008—from 8.1 to 8.0. This decline is most likely attributable to the increased economic uncertainty that accompanied the collapse of Lehmann Brothers in October 2008 and the subsequent 'Global Financial Crisis', since most interviews were conducted in October and November 2008. It should be emphasised, however, that the decrease is very slight.

Aspects of the job with which people are least satisfied (although scores still average close to 7) are their pay and the hours they work. Satisfaction with

**Table 16.1: Job satisfaction, 2001 to 2008 (means)**

	2001	2003	2005	2007	2008
<b>Males</b>					
Satisfaction with total pay	6.7	6.8	6.8	6.9	7.0
Satisfaction with job security	7.5	7.8	7.8	8.1	8.0
Satisfaction with the work itself	7.6	7.6	7.6	7.6	7.6
Satisfaction with hours of work	7.0	7.0	7.1	7.1	7.2
Satisfaction with flexibility to balance work and non-work commitments	7.2	7.3	7.4	7.4	7.4
Overall job satisfaction	7.5	7.6	7.5	7.6	7.6
<b>Females</b>					
Satisfaction with total pay	6.7	6.7	6.9	7.0	7.0
Satisfaction with job security	7.9	8.0	8.0	8.1	8.0
Satisfaction with the work itself	7.7	7.6	7.6	7.6	7.7
Satisfaction with hours of work	7.3	7.3	7.3	7.3	7.3
Satisfaction with flexibility to balance work and non-work commitments	7.6	7.6	7.5	7.6	7.5
Overall job satisfaction	7.8	7.8	7.7	7.7	7.7

total pay rose slightly over the eight-year period, from 6.7 out of 10 in 2001 to 7.0 out of 10 for in 2008 for both males and females. There are few gender differences in job satisfaction, but females—more of whom hold part-time jobs—are more satisfied than males with their working hours and ability to balance work and non-work commitments.

**Persistence and recurrence of low job satisfaction**

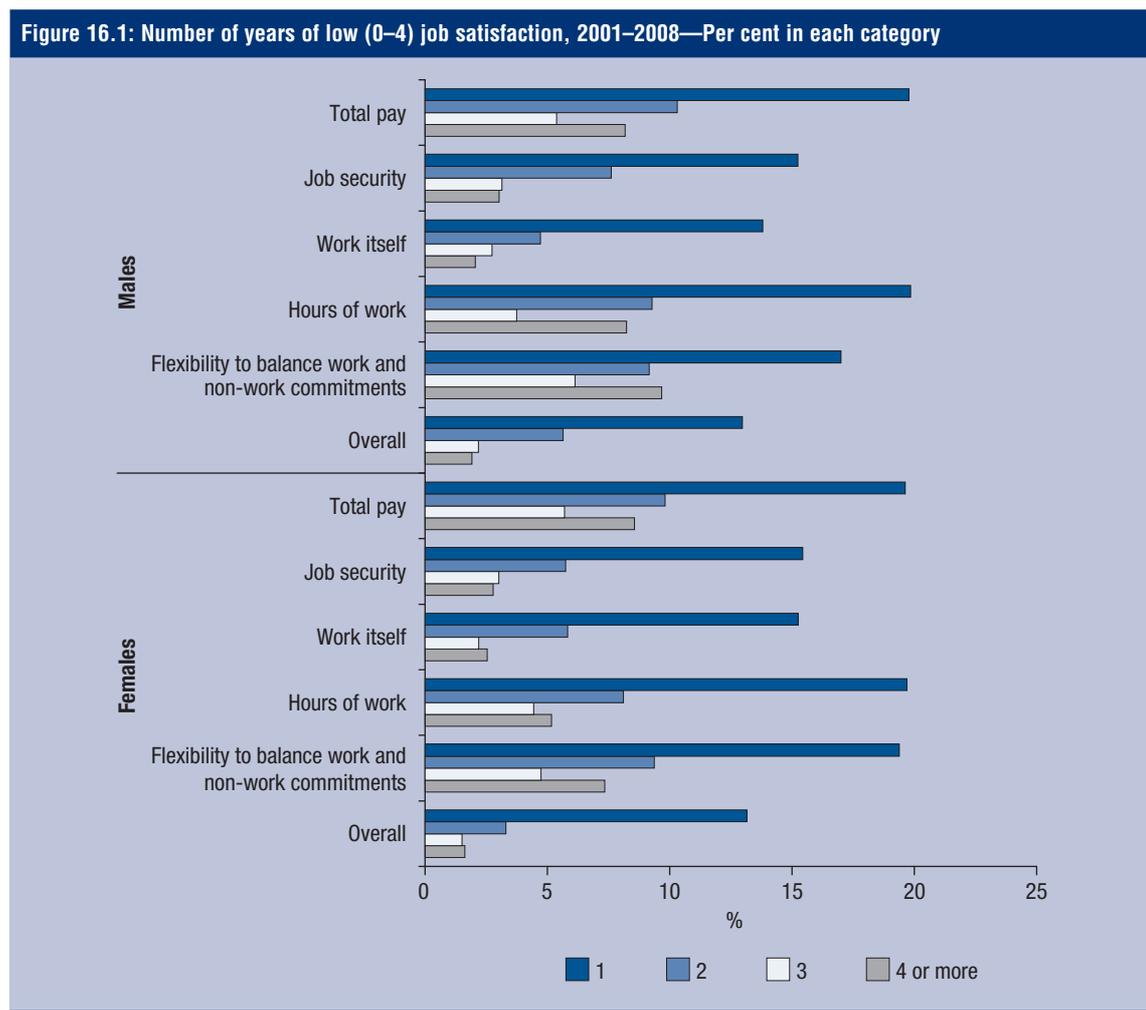
In Volume 1 of the HILDA Statistical Report, it was found that while 11 per cent of workers had experienced low levels of job satisfaction (0–4 out of 10) in one out of three years from 2001 to 2003, it was very unusual for low job satisfaction to persist for more than one year. Either the person leaves the job that is causing dissatisfaction, or there is some improvement that causes their job satisfaction to increase. The same can be said for job security—it was rare for feelings of dissatisfaction relating to job security to persist for more than one year. However, dissatisfaction with total pay, hours of work and job flexibility appear to be on-going problems for some people.

In Figure 16.1 we consider how long these problems persist. The figure shows, for people who

were employed at the time of interview in all eight years from 2001 to 2008, the proportion expressing dissatisfaction with the various aspects of their job once, twice, three times and four or more times in the eight-year period.

While around 20 per cent of employees experience low overall job satisfaction in at least one of the eight years, it is very unusual for it to persist for more than one year. Only 10 per cent of males and 6 per cent of females report low overall job satisfaction in two or more of the eight years. On the other hand, dissatisfaction with total pay is an on-going problem for some people, with 8 per cent of males and 9 per cent of females expressing dissatisfaction with their total pay in at least four years and a further 5 per cent of males and 6 per cent of females expressing dissatisfaction in three of the eight years.

It is slightly more common for males than females to experience on-going dissatisfaction with their working hours—7 per cent of males were dissatisfied with their working hours in four or more of the eight years, compared to 5 per cent of females. It is also more common for males to experience continuing dissatisfaction with flexibility to balance work and non-work commitments, with 8 per cent



reporting low levels of satisfaction in at least four of the eight years, compared with 5 per cent of females. On the other hand, it is slightly more common for females to express continued dissatisfaction with the work itself—11 per cent of females and 9 per cent of males report satisfaction levels of 4 out of 10 or lower in two or more of the eight years.

**Persistence of high job satisfaction**

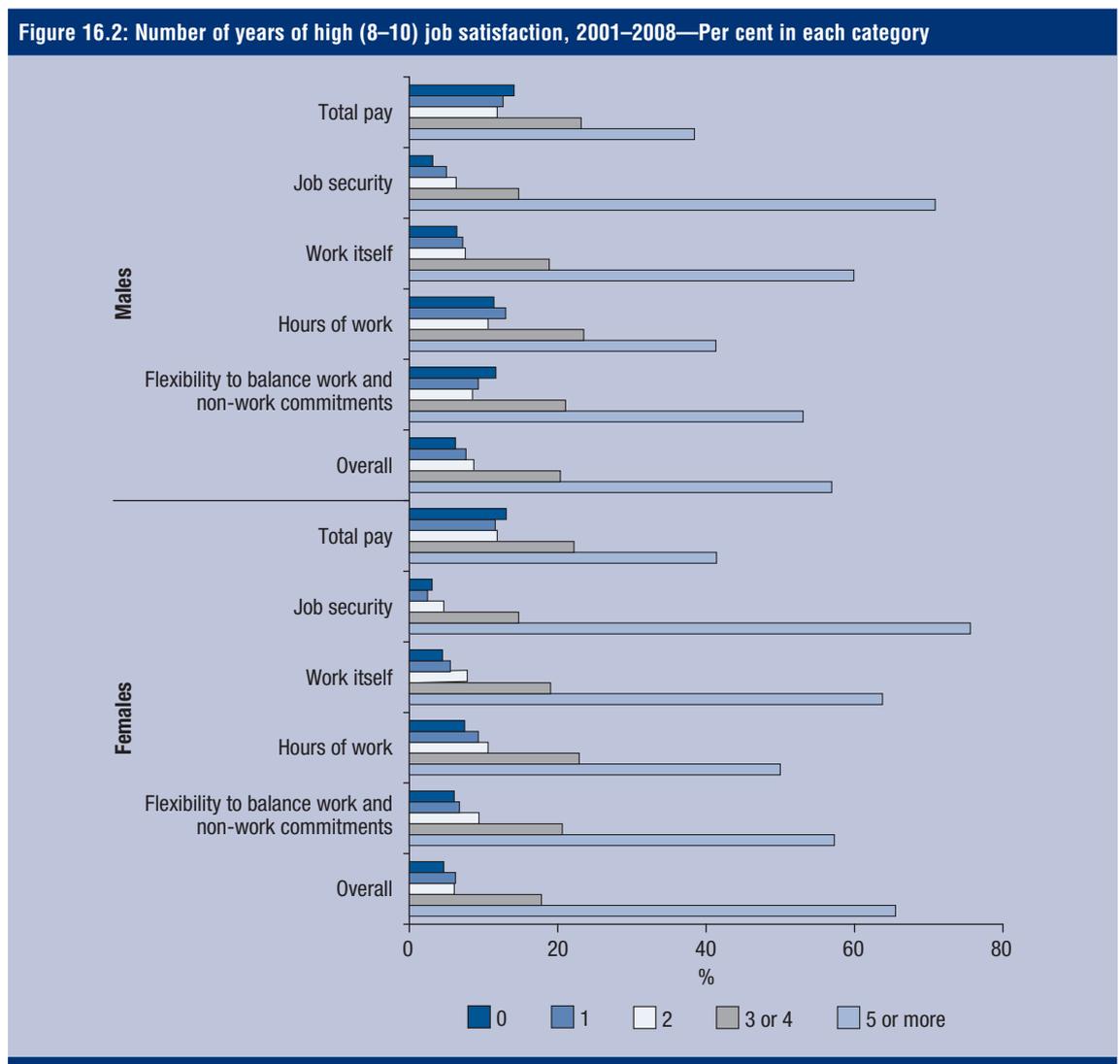
It may be that some individuals who report high levels of job satisfaction are just more optimistic, seeing life more as ‘glass half full’ than ‘glass half empty’. Figure 16.2 shows the number of years that individuals reported high levels of satisfaction (8 or higher out of 10) with various aspects of their job, during the eight years from 2001 to 2008.

It is quite common for high levels of overall job satisfaction to continue for several years—57 per cent of males and 66 per cent of females reported high levels of overall job satisfaction in at least five of the eight years, and a further 21 per cent of males and 18 per cent of females had high levels of overall job satisfaction in three or four of the eight years. High

levels of satisfaction with job security were very persistent, with 71 per cent of males and 76 per cent of females highly satisfied with the security of their jobs in five or more of the eight years. High levels of satisfaction with the work itself were also quite persistent, with over 60 per cent of employees reporting high levels of satisfaction in at least five out of the eight years. Similarly, 53 per cent of males and 57 per cent of females reported high levels of satisfaction with flexibility to balance work and non-work commitments in five or more of the eight years. Persistently high levels of satisfaction with total pay and working hours are less common—only 38 per cent of males and 41 per cent of females had high levels of satisfaction with their total pay in five or more of the eight years, and while 50 per cent of females reported high levels of satisfaction with their working hours in at least five of the eight years, the corresponding figure for males is only 41 per cent.

**Perceptions of job security**

In addition to rating satisfaction with job security, employee respondents are also asked each wave to



provide an assessment of the percentage chance that, within the next 12 months, they will be dismissed, retrenched or not have their contract renewed. They are then asked for the percentage chance they would be able to find a job that is as good as their current job in terms of benefits and wages, should they lose their current job within the next 12 months. Table 16.2 shows the average percentage chance of job loss, by age and gender.

For those who were employees at the time of interview in any given year, it appears that average levels of job insecurity decreased between 2001 and 2007, and rose slightly in 2008. The Wave 8 data, mostly collected from September to December 2008, pre-date most of the rise in unemployment that occurred in the wake of the Global Financial Crisis, however, most respondents would have been aware of the crisis at this time, and it appears that the change in economic climate has had some impact on perceptions of job security. Among male employees, the average percentage chance of losing their job dropped from 16 per cent in 2001 to 10 per cent in 2005 and 2007, and rose to 10.4 per cent in 2008. For female employees, the average percentage chance of job loss dropped from 13 per cent in 2001 to 9 per cent in 2005 and 2007, and rose to 10 per cent in 2008.

On average, females are less likely than males to see themselves as being at risk of losing their job. However, this gender gap in average levels of job insecurity has become smaller over time. Differences in average levels of job security by age group varied considerably from year to year. For example, in 2001 males over the age of 65 had the highest average levels of job insecurity; but in 2005, average levels of job insecurity for males in this age group was lower than that of males in all other age groups. Similarly, in 2003 and 2005, average job insecurity was lowest among females

aged between 55 and 64, but in 2007 and 2008, females in this age group had the highest average levels of job insecurity.

While Table 16.2 shows that there is no clear difference in average levels of job insecurity by age, Table 16.3 shows that people's confidence in their ability to find another job, which is as good as their current job, declines with age.

Overall, the average reported percentage chance of finding a job as good as one's current job increased between 2001 and 2007 and fell slightly in 2008. In each year, this figure declined considerably with age. For example, in 2008, the average percentage chance of finding another job as good as the current job was 73 per cent for males and 74 per cent for females aged between 15 and 24, but 56 per cent for males and females aged between 55 and 64.

Are part-time employees and employees in non-standard jobs more insecure about losing their jobs? One would expect that people who were employed on a permanent or ongoing basis would report lower chances of losing their jobs than casual employees and employees on fixed term contracts, particularly in the lead up to the Global Financial Crisis. Table 16.4 shows that casual employees and those on fixed-term contracts generally report higher levels of job insecurity than those who are employed on a permanent basis. However, in the period between 2007 and 2008, average levels of job security (in terms of average percentage chance of job loss) among males in part-time casual jobs and females in full-time casual jobs increased, while the job security of those in permanent positions decreased.

Between 2007 and 2008, job insecurity among men in full-time casual jobs increased by 2 percentage points, by 1 percentage point for men in full-time permanent jobs and by almost 5 percentage points

**Table 16.2: Percentage chance of losing job, by age and gender (means)**

	2001	2003	2005	2007	2008
<b>Males</b>					
15–24	17.8	10.6	9.5	10.7	10.7
25–34	14.2	11.2	10.6	10.8	11.1
34–44	15.4	12.6	9.3	9.2	9.8
45–54	14.9	12.4	8.5	9.3	10.7
55–64	21.1	11.7	13.2	8.1	8.6
65 and over	22.2	12.1	6.2	11.6	11.8
Total	16.0	11.7	9.8	9.8	10.4
<b>Females</b>					
15–24	12.8	10.2	9.3	9.0	8.8
25–34	12.7	10.0	10.4	8.0	10.5
34–44	12.8	10.3	8.5	7.1	10.1
45–54	12.5	9.6	8.7	8.7	8.4
55–64	11.3	7.5	5.3	10.5	10.7
65 and over	8.6	*9.2	11.3	7.7	*7.3
Total	12.6	9.8	8.9	8.5	9.6

Note: \* Estimate not reliable.

for men in permanent part-time employment. For men on fixed term contracts, job insecurity fell by 2 percentage points for those working full-time and by 5 percentage points for those working part-time. Presumably, those on fixed-term contracts felt more secure in their jobs because their contract was to continue for more than 12 months from the time they were interviewed. However, job insecurity was also lower among men in part-time casual employment, falling by just over 2 percentage points.

For women in part-time casual employment, average levels of job insecurity did not change at all between 2007 and 2008. However, job insecurity

of women in full-time casual jobs decreased by 2 percentage points. Conversely, job insecurity of women in full-time permanent jobs rose by 3 percentage points.

### Do people who report high levels of job insecurity actually change jobs?

What happens to people who report high levels of job insecurity? Do they change jobs, become unemployed, drop out of the labour force, or do they remain in their current job? Table 16.5 shows the employment status in 2008 of males and females who were employees in 2007, according to their level of job insecurity in 2007.

Table 16.3: Percentage chance of getting a job as good as the current one (means)					
	2001	2003	2005	2007	2008
<b>Males</b>					
15–24	69.6	70.2	69.4	73.0	72.8
25–34	68.4	64.6	69.4	73.8	71.1
34–44	62.2	60.6	66.4	68.7	67.2
45–54	50.8	52.3	55.9	59.5	59.3
55–64	38.7	40.7	51.1	55.4	56.5
65 and over	49.6	50.5	53.0	56.5	42.2
Total	61.2	60.4	64.3	67.7	66.6
<b>Females</b>					
15–24	75.4	71.7	71.0	74.2	73.8
25–34	70.1	71.6	72.9	73.2	71.9
34–44	65.6	64.9	66.5	66.6	67.0
45–54	58.2	62.8	65.4	66.3	64.5
55–64	40.5	47.1	51.9	57.7	55.5
65 and over	*25.0	44.2	59.2	42.8	*50.2
Total	65.3	66.2	67.8	68.7	67.9

Note: \* Estimate not reliable.

Table 16.4: Percentage chance of losing job in the next 12 months, by working hours and contract type (means)					
	2001	2003	2005	2007	2008
<b>Males</b>					
Full-time fixed term	20.9	15.5	14.0	13.7	11.6
Full-time casual	35.5	20.2	17.8	14.8	16.9
Full-time permanent	12.5	9.9	8.3	8.7	9.7
Part-time fixed term	21.6	43.6	8.6	13.9	9.2
Part-time casual	19.4	12.1	11.5	12.8	10.6
Part-time permanent	14.7	9.9	6.8	6.0	10.6
Other	*24.2	*11.9	*36.3	*15.6	*12.2
Total	16.0	11.7	9.8	9.8	10.4
<b>Females</b>					
Full-time fixed term	14.5	18.7	15.8	22.4	16.4
Full-time casual	25.6	14.5	19.8	13.0	11.2
Full-time permanent	9.3	7.7	7.0	5.7	9.1
Part-time fixed term	21.1	16.8	15.2	16.8	17.7
Part-time casual	17.2	11.7	10.4	10.7	10.7
Part-time permanent	8.3	6.8	6.1	5.5	6.1
Other	*33.2	*15.2	*48.3	*16.6	*2.4
Total	12.6	9.8	8.9	8.5	9.6

Note: \* Estimate not reliable.

**Table 16.5: Employment status in 2008, by reported job security level in 2007 (%)**

Percentage chance of job loss in 2007	Employment status in 2008					Total
	Employee —same employer	Employee —different employer	Employer/self-employed/unpaid family worker	Unemployed	Not in the labour force	
<b>Males</b>						
0	78.7	13.8	2.4	1.1	4.0	100.0
1–24	75.6	16.7	2.2	*2.1	3.3	100.0
25–49	71.5	21.0	*2.1	*3.4	*2.1	100.0
50–74	68.0	16.8	*6.1	*4.8	*4.3	100.0
75 and over	48.8	40.9	*0.0	*5.2	*5.1	100.0
Total	76.1	15.8	2.5	1.8	3.8	100.0
<b>Females</b>						
0	77.0	14.2	2.1	1.0	5.7	100.0
1–24	73.4	18.1	*1.3	*2.1	5.0	100.0
25–49	62.1	30.7	*0.0	*1.9	*5.3	100.0
50–74	66.6	13.0	*1.7	*5.9	*12.7	100.0
75 and over	51.5	19.6	*2.5	*1.1	*25.3	100.0
Total	74.5	15.6	1.9	1.6	6.5	100.0
<i>Note: * Estimate not reliable.</i>						

Among employees who rated the chance of losing their job in the next 12 months as 75 per cent or more in 2007, only 49 per cent of males and 52 per cent of females were still working for the same employer in 2008, compared to almost 80 per cent of males and females who said that there was no chance of losing their job and approximately three-quarters of employees who said that the chance of losing their job was 25 per cent or lower.

### Conclusion

Overall, most people are quite satisfied with their jobs, and average levels of job satisfaction changed very little between 2001 and 2008. The aspect of the job with which people are most satisfied is job security and the aspects of the job that workers are least satisfied with are their pay and hours of work. It is very unusual for low levels of overall job satisfaction to persist for more than one year. However, low levels of satisfaction with total pay, working hours and flexibility to balance work and non-work commitments are an on-going problem

for some. On the other hand, it is quite common for high levels of overall job satisfaction to persist for several years. On-going satisfaction with job security and the work itself are also quite common, while persistently high levels of satisfaction with total pay and working hours are less common.

The apparent effects of the 2008 Global Financial Crisis on satisfaction with and perceptions of job security are quite small. Perhaps this is because the Wave 8 interviews were conducted very early on in the crisis and the dire predictions being made for the economy at the time had not yet registered with people. Alternatively, it may be that these predictions did not resonate with individuals, seeming to be at odds with their personal circumstances. Indeed, in hindsight, it would seem that individuals' changes in assessments were, on average, quite proportionate to the actual changes in economic conditions that followed, with the increase in unemployment relatively small by comparison with previous economic downturns.

# Life Satisfaction, Health and Wellbeing

While much of the HILDA Survey is concerned with the economic wellbeing of people, extensive information is also collected on the health, social activity and education participation of respondents. In addition, views and perceptions on a variety of life domains are elicited, including levels of satisfaction with these life domains. In this section, we make use of some of this information to present cursory analyses of the 'subjective wellbeing', quality of family life, physical and mental health and economic participation of the Australian community. We also draw on this information in conjunction with economic data to examine the extent and nature of 'social exclusion' in Australia.

Two feature articles in Part B also address issues related to subjective wellbeing. Chapter 27 examines the links between subjective wellbeing and labour force participation of parents, while in Chapter 28 we examine attitudes to gender roles in parenting and employment, and attitudes to marriage and children.

## 17. Life satisfaction and satisfaction with specific aspects of life

Each year, HILDA Survey respondents are asked, 'All things considered, how satisfied are you with your life?' The response scale runs from 0 to 10, where 0 means 'completely dissatisfied' and 10 means 'completely satisfied'. The question is asked in the context of a battery of items asking about satisfaction with different aspects of life. Table 17.1 reports on the overall life satisfaction of Australians—males and females in different age groups—in 2001, 2003, 2005, 2007 and 2008.

It is clear that, for the population as a whole, average life satisfaction has been unchanged over the eight-year period, with average levels remaining at about 8. In general, in Australia, females report slightly higher levels of life satisfaction than males. The differences in Table 17.1 are generally not statistically significant, but have been confirmed in previous studies using different data sets (Headey and Wearing, 1992; Cummins, 1999). Males in the 35 to 44 years age group had the lowest average life satisfaction, at around 7.5 out of 10 each year. For females in the 35 to 44 age group, life satisfaction was also lower than average, but this was also the case for females aged between 20 and 34 and females aged between 45 and 54.

Older people report the highest levels of life satisfaction; as previous research has shown, retirement years are very satisfying for many, at least

while health holds up (Headey and Wearing, 1992). Teenagers also have higher than average levels of life satisfaction, perhaps because many are yet to face the stresses and responsibilities of adulthood.<sup>1</sup>

### Aspects of life satisfaction

In addition to being asked about overall life satisfaction, respondents are asked to rate other aspects of their life, such as satisfaction with the home they live in, their financial situation and their employment opportunities. Table 17.2 shows average levels of satisfaction with these various aspects of life.

Average scores for most aspects of life satisfaction barely changed in the period from 2001 to 2008. The largest change in fact was in satisfaction with employment opportunities, which increased from 6.6 to 7.2 for females and from 6.7 to 7.4 (in 2007) for males, which is entirely consistent with the decline in the unemployment rate and growth in real wages over the period. Also consistent with Australia's economic performance over this period, the average level of satisfaction with 'your financial situation' increased slightly from 6.1 to 6.5 for males and from 6.2 to 6.6 (in 2007) for females.

The aspects of life people feel most satisfied with are the 'local' ones: their own homes, their

**Table 17.1: Mean life satisfaction by age group**

	2001		2003		2005		2007		2008	
	Males	Females								
15–19	8.2	8.1	8.3	8.1	8.3	8.1	8.4	8.2	8.4	8.3
20–24	7.8	7.8	7.9	7.8	7.7	8.0	7.8	7.9	8.0	7.9
25–34	7.6	7.8	7.8	7.8	7.7	7.7	7.6	7.8	7.7	7.8
35–44	7.5	7.8	7.5	7.7	7.5	7.7	7.5	7.7	7.6	7.6
45–54	7.8	8.0	7.7	7.9	7.7	7.8	7.6	7.7	7.6	7.7
55–64	8.0	8.1	7.9	8.1	8.0	8.0	7.9	7.9	7.9	8.0
65 and over	8.4	8.5	8.4	8.6	8.3	8.4	8.3	8.2	8.2	8.3
Total	7.9	8.0	7.9	8.0	7.8	7.9	7.8	7.9	7.9	7.9

neighbourhood and how safe they feel. The aspects which occasioned least satisfaction, although average scores were still over 6, are *your financial situation* and *the amount of free time you have*.

### Associations between life satisfaction and personal characteristics

Life satisfaction is potentially affected by a variety of factors, and the HILDA data, by virtue of the rich information on the characteristics and circum-

stances of sample members, provides the opportunity to investigate the effects of many of these. In Table 17.1 differences in average overall life satisfaction by sex and age group were presented. In Table 17.3 we provide a cursory examination of the associations between overall life satisfaction in 2008 and some other key characteristics—namely, region of residence, quintile of the (equivalised) household disposable income, employment status and family type.

**Table 17.2: Aspects of life satisfaction (means)**

Satisfaction with...	2001		2003		2005		2007		2008	
	Males	Females								
The home in which you live	8.1	8.1	8.1	8.0	7.9	8.0	7.9	8.0	8.0	8.0
Employment opportunities	6.7	6.6	7.0	6.8	7.1	6.9	7.4	7.1	7.3	7.2
Your financial situation	6.1	6.2	6.3	6.4	6.4	6.4	6.5	6.6	6.5	6.5
How safe you feel	8.0	7.8	8.1	8.0	8.1	8.0	8.2	8.0	8.2	8.0
Feeling part of local community	6.6	6.7	6.6	6.8	6.7	6.8	6.7	6.8	6.7	6.8
Your health	7.4	7.4	7.5	7.4	7.3	7.2	7.3	7.2	7.3	7.3
Your neighbourhood	8.0	8.0	7.9	8.0	7.9	7.9	7.9	7.9	7.8	7.9
Amount of free time you have	6.7	6.7	6.7	6.6	6.8	6.7	6.7	6.5	6.8	6.6

**Table 17.3: Mean life satisfaction, by selected characteristics, 2008**

	Males	Females	All persons
<b>Region<sup>a</sup></b>			
Major city	7.8	7.9	7.8
Inner regional	7.9	8.0	7.9
Outer regional	8.0	8.1	8.0
Remote	7.8	8.0	7.9
<b>Income quintile<sup>b</sup></b>			
Bottom quintile	7.8	7.8	7.8
2nd quintile	7.8	7.9	7.9
3rd quintile	7.8	7.8	7.8
4th quintile	7.9	7.9	7.9
Top quintile	8.0	8.1	8.1
<b>Employment status</b>			
< 15 hours per week	8.5	8.1	8.2
15–34 hours per week	7.9	8.0	8.0
35–44 hours per week	7.9	7.8	7.8
45–54 hours per week	7.8	7.8	7.8
55+ hours per week	7.7	7.3	7.6
Unemployed	7.6	7.4	7.5
Not in the labour force	7.9	8.0	8.0
<b>Family type</b>			
Single, no resident children	7.8	7.8	7.8
Single, with resident children	7.0	7.0	7.0
Partnered, no resident children	8.0	8.1	8.0
Partnered, with resident children	7.8	7.9	7.8

Notes: <sup>a</sup> Area of residence is categorised using Accessibility/Remoteness Index of Australia (ARIA) regions. Note that under this classification, Hobart is 'inner regional' and Darwin is 'outer regional'. The other capital cities are major cities. <sup>b</sup> Income is household equivalised disposable income in the 2007–08 financial year.

Differences in average levels of overall satisfaction by characteristics are in general not large, but clear patterns are nonetheless evident. Average life satisfaction is generally decreasing with the population density of the region of residence, rising from 7.8 for persons living in major cities to 7.9 for persons living in inner regional areas and remote areas and 8.0 for people living in outer regional areas. With regards to income, while one would expect income to be important to life satisfaction, only a weak ordering of average life satisfaction by position in the income distribution is apparent. Mean life satisfaction is 7.8 in the bottom income quintile, but also in the middle income quintile, and increases to 8.1 in the top quintile. Among employed persons, for both males and females average life satisfaction is lower the greater the hours worked, while unemployed people clearly have lower average life satisfaction than persons not in the labour force. Comparing across family types, partnered individuals with no resident children have the highest mean level of life satisfaction, while those in lone parent families have the lowest mean level.

#### Changes in life satisfaction over time

There is very little change in average levels of life satisfaction and satisfaction with specific aspects of life from one year to the next for the population

as a whole (as shown in Tables 17.1 and 17.2). However, as previous HILDA Statistical Reports have indicated, this does not preclude substantial change from year-to-year at the individual level.

A particular question of interest is the extent to which dissatisfaction with things such as home, community, financial situation, and life in general, persists over time. Table 17.4 shows the number of years that people reported low levels of satisfaction (3 out of 10 or lower) with life in general and with other specific aspects of life, for the period from 2001 to 2008.

The aspect of life with which dissatisfaction arises most persistently is the amount of free time available. More than 40 per cent reported low levels of satisfaction with this aspect of life in at least one of the eight years from 2001 to 2008; 10 per cent reported low satisfaction in three or four of the eight years, and 7 per cent reported low levels of satisfaction in five or more of the eight years. Dissatisfaction with one's financial situation is also comparatively frequently experienced in multiple years, with 21 per cent reporting low levels of satisfaction with this aspect of life in at least two of the eight years, and 6 per cent reporting low levels of satisfaction for five years or more. Low levels of satisfaction with the home, the neighbourhood and personal safety appear to be much less persistent,

**Table 17.4: Years of low satisfaction with specific aspects of life, and life in general, 2001–2008**

<i>Satisfaction with...</i>	<i>Number of years of low satisfaction</i>					<i>Total</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3 or 4</i>	<i>5 or more</i>	
The home in which you live	84.7	9.7	3.5	1.9	*0.2	100.0
Employment opportunities	73.1	13.4	5.0	5.5	2.8	100.0
Your financial situation	64.8	14.3	7.7	8.1	6.1	100.0
How safe you feel	88.8	7.4	1.9	1.2	0.6	100.0
Feeling part of local community	71.8	13.3	5.9	5.8	2.9	100.0
Your health	82.8	8.0	3.1	3.3	2.8	100.0
Your neighbourhood	87.7	7.9	2.5	1.3	0.5	100.0
Amount of free time you have	56.5	16.8	9.7	10.3	6.6	100.0
Overall life satisfaction	93.3	4.5	1.1	0.7	*0.4	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 17.5: Years of high satisfaction with specific aspects of life, and life in general, 2001–2008**

<i>Satisfaction with...</i>	<i>Number of years of high satisfaction</i>					<i>Total</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3 or 4</i>	<i>5 or more</i>	
The home in which you live	10.7	12.3	12.4	27.6	36.8	100.0
Employment opportunities	14.1	13.9	13.3	26.8	32.0	100.0
Your financial situation	28.7	18.3	13.6	20.4	19.0	100.0
How safe you feel	7.3	9.3	11.2	25.6	46.6	100.0
Feeling part of local community	22.8	17.4	15.2	22.7	21.9	100.0
Your health	16.9	11.9	11.1	22.3	37.8	100.0
Your neighbourhood	8.1	9.2	11.4	25.8	45.4	100.0
Amount of free time you have	26.4	21.0	17.1	21.7	13.8	100.0
Overall life satisfaction	8.5	9.4	10.1	21.7	50.2	100.0

*Note:* Percentages may not add up to 100 due to rounding.

with less than 5 per cent of people reporting low levels of satisfaction with these aspects in two or more of the eight years. It seems that it is also very uncommon for dissatisfaction with life in general to continue for several years, with only 2 per cent reporting low levels of life satisfaction in two or more of the eight years from 2001 to 2008.

### Can high satisfaction be maintained?

It may be that some individuals are simply more optimistic by nature. Table 17.5 shows the number of years that individuals reported high levels of satisfaction (8 or higher out of 10) with various aspects of life, during the eight years from 2001 to 2008. The aspects of life for which many people have relatively persistent or frequently recurring high levels of satisfaction are their neighbourhood and how safe they feel, with more than 45 per cent of people reporting satisfaction levels of 8 or higher for these aspects of life in at least five of the eight years. High levels of satisfaction with health and the home in which a person lives are also quite persistent or frequently recurring, with around 37 per cent reporting levels of satisfaction of 8 or higher in at least five of the eight years.

Satisfaction with financial situation, the amount of free time available and feeling part of the local community are less persistent. While 77 per cent of people reported high levels of satisfaction with

feeling part of their local community in at least one of the eight years, only 22 per cent reported high levels of satisfaction in five years or more. Similarly, while 73 per cent of people reported high levels of satisfaction with the amount of free time they had and 71 per cent reported high levels of satisfaction with their financial situation in at least one of the eight years, only 19 per cent reported persistently high levels of satisfaction with their financial situation and 14 per cent reported high levels of satisfaction with the amount of free time they had in five or more of the eight years between 2001 and 2008.

### Endnote

- 1 This result appears to be at odds with previous research (e.g. Backman, O'Malley and Johnston, 1978) indicating that young people's satisfaction tends to improve rather than decline once they leave school.

### References

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## 18. Satisfaction and dissatisfaction with family relationships and aspects of family life

Each year, respondents are asked to assess their level of satisfaction with various family relationships and with certain aspects of family life, most notably the division of household chores. In this article we examine these perceptions, how they vary across different groups in the community and how they have changed between 2001 and 2008. We also examine how individuals' opinions on these aspects compare with the opinions of other members of their households, and furthermore consider the extent of the persistence of dissatisfaction with relationships as well as the persistence of these relationships themselves.

### Satisfaction with family relationships

Table 18.1 presents, for males and females separately, information on satisfaction with various family relationships in Wave 8. The first column presents the proportion of males to whom the item applies. For example, satisfaction with relationship with partner only applies to males who are partnered. Note, however, that the decision about whether an item applies is made by the respondent himself. For example, a respondent may indicate that a question about satisfaction with

their partner applies, even though the information we have on that respondent from the personal interview indicates he or she is single. The next column presents the mean response among those to whom the item applies, rated on a scale from 0 (completely dissatisfied) to 10 (completely satisfied). The third column presents the percentage of males for whom the item applies classified as dissatisfied with the relationship, defined as scoring 0, 1, 2, 3 or 4 out of 10. The last three columns replicate columns 1 to 3 for females.

The highest levels of satisfaction tend to be with relationships with children (which, it should be emphasised, will comprise relationships with all resident and non-resident children, including older adult children of elderly persons). Very few parents are dissatisfied with their relationships with their children; this is especially true for females. Consistent with higher levels of satisfaction with relationships with children for females than males, we see that males tend to be more satisfied with their partner's relationship with their children than are females. Average satisfaction of females with their partner's relationship with the children is, at 8.0, still reasonably high, but a considerable 7.2 per

**Table 18.1: Satisfaction with family relationships, 2008 (0–10 scale)**

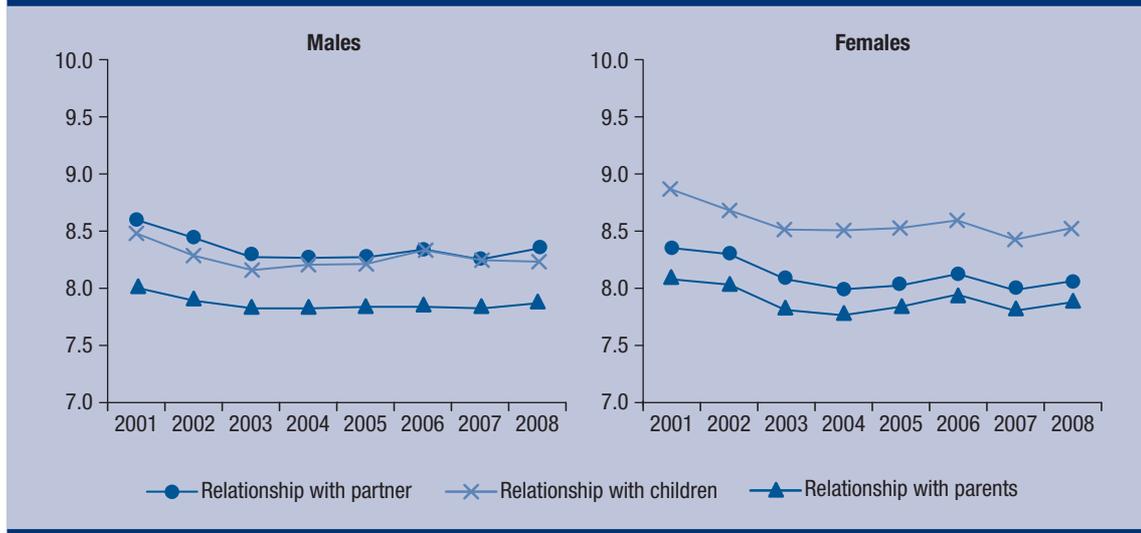
	Males			Females		
	Applicable population (%)	Mean satisfaction	Dissatisfied (%)	Applicable population (%)	Mean satisfaction	Dissatisfied (%)
Relationship with partner	72.7	8.4	4.6	70.2	8.1	6.1
Relationship with children	60.7	8.3	4.5	68.6	8.6	2.2
Partner's relationship with children	53.9	8.4	4.6	53.4	8.0	7.2
Relationship with step-children	11.7	7.3	12.4	9.8	6.6	20.5
Relationship of children with each other	38.6	7.7	7.8	42.3	7.8	6.6
Relationship with parents	69.4	7.9	7.0	69.5	7.9	7.1
Relationship with step-parents	15.2	6.9	17.3	12.2	6.6	20.4
Relationship with former partner	26.4	6.1	28.0	26.1	6.1	28.7

*Notes:* 'Applicable population': percentage of persons to whom the question applies; 'Dissatisfied': satisfaction score is less than 5 out of 10. Estimates of mean satisfaction and the percentage dissatisfied are based only on scores reported by persons for whom the item applies.

**Table 18.2: Mean satisfaction with family relationships, by age group, 2008 (0–10 scale)**

	Males			Females		
	15–24	25–54	55 and over	15–24	25–54	55 and over
Relationship with partner	8.2	8.2	8.8	8.4	7.9	8.3
Relationship with children	7.2	8.1	8.5	9.1	8.4	8.7
Partner's relationship with children	7.0	8.3	8.6	8.1	7.8	8.3
Relationship with step-children	5.4	7.1	7.6	6.3	6.4	6.9
Relationship of children with each other	7.1	7.7	8.1	7.5	7.7	8.4
Relationship with parents	8.1	7.8	8.1	7.9	7.9	8.2
Relationship with step-parents	6.2	7.1	6.9	6.2	6.8	6.8
Relationship with former partner	5.8	5.8	6.8	5.1	5.9	7.2

*Note:* Means are calculated based on scores reported only by persons for whom the item applies.

**Figure 18.1: Mean satisfaction with family relationships (0–10 scale)**

cent are dissatisfied with their partner's relationship with the children.

Both males and females report quite high levels of satisfaction with their partner, although males tend to be more satisfied than females. The mean score among males was 8.4, compared with 8.1 among females. Correspondingly, 4.6 per cent of males reported being dissatisfied with their partner, whereas 6.1 per cent of females were dissatisfied. Unsurprisingly, lowest levels of satisfaction are reserved for former partners, and here men and women appear to be equally unhappy with their ex-partners. Satisfaction with relationships with step-children is also low on average, especially among women—in 2008, 20.5 per cent of women with step-children indicated they were dissatisfied with this relationship.

Differences in satisfaction with family relationships by age are examined in Table 18.2, which shows mean satisfaction scores for each of three age groups that approximately correspond to 'youth', 'prime working age' and 'elderly' lifecycle stages. With several notable exceptions, satisfaction with relationships tends to increase with age. For most items, both men and women aged 55 years and over have the highest mean satisfaction score, and both males and females aged 15–24 have the lowest mean score. The exceptions arise mainly for females, with those aged 25–54 having the lowest mean scores of the three age groups for satisfaction with partner, children and partner's relationship with children.

How have average levels of satisfaction with family relationships changed between 2001 and 2008? Figure 18.1 plots mean satisfaction scores in each wave for three of the most common family relationships—partner, children and parents. Mean satisfaction scores for relationships with partner and with children appear to follow very similar patterns over time for both males and females.

Satisfaction with these relationships tended to decline up until 2004 and then increase slightly to 2006. Between 2006 and 2007, mean satisfaction with partner and with children decreased slightly, but then increased slightly between 2007 and 2008. For females, mean satisfaction with relationship with parents followed a very similar path between 2001 and 2008, but for males, mean satisfaction with parents has remained remarkably stable at 7.9 since 2002.

#### **Couples' perceptions of the division of child care and household tasks**

In each wave since Wave 5, partnered respondents have been asked about their level of satisfaction with the division of child care and household tasks between themselves and their partner. Specifically, they are asked to assign a score from 0 (completely dissatisfied) to 10 (completely satisfied) in response to the questions 'How satisfied are you with the way child care tasks are divided between you and your partner?' and 'How satisfied are you with the way household tasks are divided between you and your partner?' As with the questions on satisfaction with relationships, respondents themselves decide whether each question applies to them. This means that respondents will only answer the question on the division of child care tasks if they assess that their children require child care (which may be ambiguous for older children) and they have a partner with whom tasks can be shared. Likewise, the question on division of household tasks will presumably only be answered by respondents with a co-resident partner.

Table 18.3 presents results from these questions analogous to those presented in Table 18.1. Men are considerably more satisfied with the division of child care and household tasks than are women. Among partnered women with children requiring child care, 13.4 per cent are dissatisfied with the division of child care tasks, compared

**Table 18.3: Satisfaction with division of child care and household tasks, 2008**

	Males			Females		
	Applicable population (%)	Mean satisfaction	Dissatisfied (%)	Applicable population (%)	Mean satisfaction	Dissatisfied (%)
Division of child care tasks	31.3	7.8	7.2	28.4	7.2	13.4
Division of household tasks	65.2	8.0	5.0	62.4	7.1	15.6

*Notes:* Applicable population: percentage of persons to whom the question applies; 'Dissatisfied': satisfaction score is less than 5 out of 10. Estimates of mean satisfaction and the percentage dissatisfied are based only on scores reported by persons for whom the item applies.

**Table 18.4: Self-assessment of 'fairness' of one's share of the housework—Persons living with a partner, 2008 (%)**

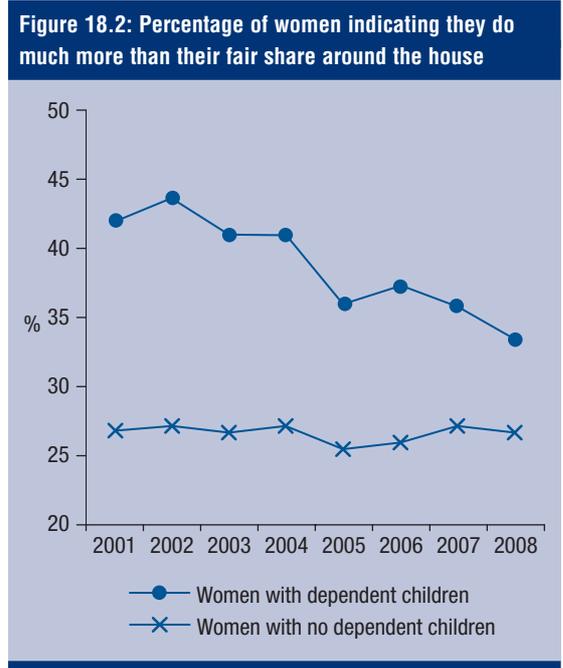
	Do you think you do your fair share around the house?				
	Much less	Bit less	Fair	Bit more	Much more
<b>Couples without dependent children</b>					
Women	4.1	9.8	40.3	18.6	27.2
Men	5.4	21.4	55.6	8.2	9.4
<b>Couples with dependent children</b>					
Women	0.3	2.1	34.4	30.2	33.0
Men	4.7	23.7	57.6	9.7	4.4

with 7.2 per cent of partnered men with children requiring child care. The situation with respect to household tasks is even worse, with 15.6 per cent of women to whom the item applies dissatisfied with the division of household tasks, compared with 5.0 per cent of men.

Each year, respondents are asked 'Do you think you do your fair share around the house?' and are given the response options indicated in the column headings of Table 18.4, which presents results for partnered persons in 2008. Consistent with the evidence in Table 18.3, women are more likely to think they do more or much more than their fair share. Women with dependent children are especially likely to believe they do more than

their fair share. To some extent, men agree with women—many acknowledge that they do less than their fair share. Nonetheless, most men believe they do their fair share or more around the house. Even amongst partnered men with dependent children, 71.7 per cent believe they do their fair share or more, which cannot be reconciled with the 63.2 per cent of partnered women who believe they do more than their fair share.

The proportion of partnered women who believe they do much more than their fair share of the housework is concerning, but has the situation been improving or deteriorating since 2001? Figure 18.2 suggests things have been improving for women with dependent children, but not for women without dependent children. The figure shows the proportion of women indicating they do much more than their fair share around the house. This proportion has remained relatively stable at around 27 per cent for partnered women without dependent children. For partnered women with dependent children, the proportion doing much more than their fair share has declined substantially, from approximately 44 per cent in 2002 down to 34 per cent in 2008. There remains, however, considerable ground to cover before parity with men is achieved.



**Persistence of low satisfaction with relationships and household tasks**

In Table 18.5 the persistence of low satisfaction is examined, restricting the analysis to items applicable to relatively large numbers of people. The upper panel considers persistence from Wave 7 to Wave 8. It shows the proportion dissatisfied in Wave 7 and, for persons in this group, the proportion still dissatisfied in Wave 8, the proportion no longer dissatisfied in Wave 8 and the proportion for which the item does not apply. An item is

deemed to not apply in Wave 8 if the respondent selects the 'not applicable' response option or if, in the case of relationship with partner, division of child care and division of household tasks, the respondent is no longer with the same partner.<sup>1</sup>

Dissatisfaction with relationships with partners, parents, children and former partners appears to be somewhat persistent, with 38–47 per cent of those dissatisfied in Wave 7 indicating they are still dissatisfied with the relationship in Wave 8. Furthermore, in the case of partner relationships, 8.4 per cent of those dissatisfied in Wave 7 were no longer living with that partner in Wave 8. Dissatisfaction with former partners might perhaps be expected to be more persistent from one year to the next than dissatisfaction with other relationships, but this does not appear to be the case. However, this would seem to reflect the high proportion of individuals who believe this question is no longer applicable to them in 2008, rather than an improvement in satisfaction with the former partner. Indeed, only 28 per cent of those dissatisfied in 2007 reported being satisfied with their former partner in 2008, compared with 44 per cent for relationship with parents and 53 per cent for relationships with current partners and with children. Dissatisfaction with the division of child care tasks is also quite persistent from one year to the next when one takes into account the high proportion for which the question no longer applies in 2008, as is dissatisfaction with the division of household tasks.

The lower panel of Table 18.5 presents similar information to the upper panel, but examines persistence over a five-year period, from 2003 to 2008. Note that satisfaction with division of child care and household tasks has only been obtained since 2005 and so persistence of low satisfaction with these aspects cannot be examined over the

2003 to 2008 time frame. As might be expected, persistence of dissatisfaction over five years is lower than persistence over one year. However, in the case of partner relationships, 20.9 per cent of people dissatisfied with their relationship in 2003 were no longer living with that partner in 2008.

An alternative approach to the examination of persistence with respect to partner relationships is to focus on the persistence of *relationships* rather than the persistence of dissatisfaction. In Table 18.6, persistence of partnerships in which one or both partners was initially dissatisfied is examined. Dissatisfaction with the relationship itself, with the division of child care and with the division of household tasks are considered separately, as are couples according to whether they are legally married and whether they have dependent children. As before, persistence is examined over the one-year period from 2007 to 2008 and over the five-year period from 2003 to 2008, the latter for relationship dissatisfaction only.

The rate of relationship dissatisfaction is higher for couples with dependent children than couples without dependent children, while de facto and legally married couples have similar rates of dissatisfaction, irrespective of whether dependent children are present. The rate of dissatisfaction with the division of household tasks is lowest for legally married couples without children (many of whom are likely to be elderly), while it is highest for de facto couples without children (many of whom are likely to be relatively young couples). Among couples with children, dissatisfaction with the division of child care tasks is slightly more prevalent among de facto couples than among legally married couples.

Where large differences arise between de facto and legally married couples is in the propensity

**Table 18.5: Persistence of low satisfaction with relationships (%)**

2007 to 2008	Dissatisfied in 2007	Persons dissatisfied in 2007			Total
		Dissatisfied in 2008	Satisfied in 2008	Not applicable in 2008	
1. Relationship with partner	5.1	39.1	52.6	8.4	100.0
2. Relationship with children	3.3	37.8	51.6	*10.6	100.0
3. Relationship with parents	7.4	46.9	44.1	9.0	100.0
4. Relationship with former partner	28.6	44.1	28.0	27.9	100.0
5. Division of child care tasks	9.2	29.1	48.6	22.3	100.0
6. Division of household tasks	11.1	47.8	45.8	6.5	100.0
2003 to 2008	Dissatisfied in 2003	Persons dissatisfied in 2003			Total
		Dissatisfied in 2008	Satisfied in 2008	Not applicable in 2008	
1. Relationship with partner	5.1	21.9	57.2	20.9	100.0
2. Relationship with children	5.2	23.0	61.8	15.2	100.0
3. Relationship with parents	9.2	30.6	49.3	20.1	100.0
4. Relationship with former partner	31.1	31.8	31.0	37.2	100.0

Notes: \* Estimate not reliable. 'Relationship with partner' restricted to co-resident partners. 'Not applicable in Wave 8' if respondent selects this response option or, for items 1, 5 and 6, the respondent was no longer living with the (same) partner.

for relationships to end. Relationships in which one or both partners are dissatisfied—be it with the other partner, with the division of child care tasks or the division of household tasks—are much more likely to subsequently end in the case of de facto marriages than in the case of legal marriages. This greater propensity for the relationship to end holds irrespective of whether dependent children are present and, in the case of dissatisfaction with the other partner, irrespective of whether the time frame is one year or five years. For example, 64.5 per cent of de facto marriages with children in which at least one member was dissatisfied with the relationship in Wave 3 no longer existed in 2008, compared with a corresponding figure of only 26.3 per cent for legal marriages with children. To an extent reflecting the higher rate of relationship dissolution, de facto couples with children are somewhat less likely to be subsequently dissatisfied with the relationship than legally married couples with children—that is, persons in de facto marriages with children appear to be less likely to stay in a persistently unhappy relationship than are legally married couples with children. However, this does not appear to apply with respect to dissatisfaction with child care and household tasks: despite a higher rate

of dissolution, persistence of dissatisfaction with these aspects from 2007 to 2008 is quite similar for de facto and legally married couples.

#### Differences of opinion within the household

The collection by the HILDA Survey of information on all household members over 15 years of age makes it possible to study the extent of consensus on relationships within the household and on other aspects of family life. In Panel A of Table 18.7, we take couples and compare the views of each member on household relationships and the division of tasks within the household. In 93.4 per cent of couples, both are satisfied with the relationship (defined as a score of 5 or more out of 10). Shared satisfaction with their relationships with the children is even higher, with both partners satisfied in 96.2 per cent of couples. It is less common for both members to be satisfied with the division of child care tasks, and even less common for both to be satisfied with the division of household tasks; but even in these cases, both partners are satisfied in over 80 per cent of couples.

Interestingly, for all four aspects, it is much more common for only one member of the couple to be dissatisfied than for both members to be dissatisfied.

**Table 18.6: Persistence of unhappy partnerships (partnership is the unit) (%)**

	2007 to 2008			2003 to 2008		
	Of those dissatisfied in 2007, percentage...			Of those dissatisfied in 2003, percentage...		
	Percentage dissatisfied in 2007	No longer partnered in 2008	Still partnered in 2008, but still dissatisfied	Percentage dissatisfied in 2003	No longer partnered in 2008	Still partnered in 2008, but still dissatisfied
<b>Legally married with dependent children</b>						
Relationship with partner	10.7	5.2	40.3	9.3	26.3	31.7
Division of child care tasks	13.0	1.9	37.7	–	–	–
Division of household tasks	19.7	3.6	50.1	–	–	–
<b>De facto married with dependent children</b>						
Relationship with partner	10.0	26.7	36.7	11.3	64.5	23.4
Division of child care tasks	17.3	6.4	46.6	–	–	–
Division of household tasks	23.3	9.0	48.9	–	–	–
<b>Legally married without dependent children</b>						
Relationship with partner	6.8	6.6	40.0	7.1	18.5	14.3
Division of child care tasks	–	–	–	–	–	–
Division of household tasks	14.9	1.6	53.5	–	–	–
<b>De facto married without dependent children</b>						
Relationship with partner	7.4	18.1	37.1	6.4	43.0	15.3
Division of child care tasks	–	–	–	–	–	–
Division of household tasks	27.9	8.9	50.1	–	–	–
<b>All couples</b>						
Relationship with partner	8.3	8.1	39.7	8.0	26.9	22.2
Division of child care tasks	13.6	2.2	14.5	–	–	–
Division of household tasks	18.2	3.9	51.4	–	–	–

Note: Dissatisfied partnership if one or both members dissatisfied (score less than 5).

**Table 18.7: Differences of opinions on household relationships within the household, 2008 (household is the unit) (%)**

<b>A. Couples</b>				
	<i>Both satisfied</i>	<i>Both not satisfied</i>	<i>Male not satisfied</i>	<i>Female not satisfied</i>
Relationship with partner	93.4	1.3	1.9	3.4
Relationship with children	96.2	0.2	2.2	1.3
Division of child care tasks	85.8	1.1	4.1	9.1
Division of household tasks	83.2	1.0	3.1	12.7
<i>Level of disagreement about contribution to household tasks</i>	<i>0</i>	<i>1</i>	<i>2</i>	<i>3+</i>
Couples with dependent children only	37.9	39.0	21.4	1.7
Couples with no children	46.7	36.8	15.0	1.6
<b>B. Families with resident children over 15 years of age</b>				
	<i>All parents and child(ren) satisfied</i>	<i>At least one parent dissatisfied</i>	<i>At least one child dissatisfied</i>	<i>At least one parent and one child dissatisfied</i>
Relationship with parents or children	91.8	2.4	5.3	0.4

Indeed, for each item, it is more common for the male only to be dissatisfied rather than both members to be dissatisfied, and it is also more common for the female only to be dissatisfied rather than both members to be dissatisfied (with the exception of own relationship with children). It is especially striking that it is quite uncommon for both members of a couple to be dissatisfied with their relationship: it is much more common for only one member to be dissatisfied.

We also examine in Panel A of Table 18.7 the extent to which partners agree with each other on their relative contributions to housework. For this analysis, to maintain the focus on the division of tasks between partnered men and women, we restrict the estimates to couples with no one else living with them other than dependent children under the age of 15. In couple families with children or other household members present, it is conceivable that both members of the couple do more than their fair share, or both do less than their fair share. While this would imply that all couples with other household members present need to be excluded, we make the assumption that children under the age of 15 do not significantly contribute to housework, allowing us to retain couples who only have children under 15.

The level of a couple's disagreement about contributions to household tasks is obtained by comparing each member's response to the question *Do you think you do your fair share around the house?* The response 'I do much more than my fair share' is assigned a score of 1, 'I do a bit more than my fair share' a score of 2, 'I do my fair share' a score of 3, 'I do a bit less than my fair share' a score of 4 and 'I do much less than my fair share' is assigned a score of 5. The level of disagreement is then equal to  $|6 - (\text{male's score} + \text{female's score})|$ . If the scores add up to six, so that our

measure equals zero, the couple are in complete agreement—for example, both believe they do their fair share (score 3 each), or the female believes she does much more than her fair share (score of 1) and the male believes he does much less than his fair share (score of 5). The maximum level of disagreement is 4, which occurs when both believe they do much more than their fair share, or both believe they do much less than their fair share.

A minority of couples are in complete agreement about their relative contributions to housework, but it is a narrow minority for couples without dependent children, among whom 46.7 per cent are in complete agreement. It is rare for members of couples to have completely contradictory views on their relative contributions, with only 1.7 per cent of couples with dependent children and 1.6 per cent of couples without dependent children scoring 3 or more, for example as would arise from one member indicating they do much more than their fair share and the other member indicating they do a bit more than their fair share. Relatively common is mild disagreement—a score of 1—applying to 39 per cent of couples with dependent children and 36.8 per cent of couples without dependent children. This situation would arise if, for example, the female thought she did much more than her fair share and the male thought he did a bit less than his fair share.

Panel B of Table 18.7 compares the views of parents and children over 15 years of age living together. Children under 15 are not interviewed and therefore cannot be included in this analysis. In 91.8 per cent of families with resident children over 15 years of age, all parents and children are satisfied with their child–parent relationships. Similar to the finding for couples, it is rare for both children and parents to be dissatisfied with the

relationship, it being much more common for only the parent(s) or only the child(ren) to be dissatisfied. Children are twice as likely to be dissatisfied with the relationship.

**Concluding comments**

Most people appear to be reasonably satisfied with their family relationships, particularly those with their immediate co-resident family. There is generally less satisfaction with the division of child care and other household tasks and, perhaps unsurprisingly, considerable disagreement within households about how fairly tasks are divided. Among the relative few expressing dissatisfaction

with relationships, some degree of persistence over time is evident. As we might expect, in the case of relationships with partners, dissatisfaction is also associated with a higher likelihood of subsequent dissolution of the partnership, especially for de facto marriages.

**Endnote**

- 1 We note that the relationship with former partner has a very high 'not applicable' rate in Wave 8. This may in part be because of reconciliation with the partner, but it may also reflect commencement of a new relationship, or simply the severing of all ties with the former partner, so that no relationship exists in the mind of the respondent.

## 19. Physical and mental health: How persistent are health problems?

Every year, HILDA Survey respondents are asked to complete the SF-36 Health Survey. This 36 item questionnaire is intended to measure health outcomes (functioning and wellbeing) from a patient point of view (Ware et al., 2000). It was specifically developed as an instrument to be completed by patients or the general public rather than by medical practitioners, and is widely regarded as one of the most valid instruments of its type.<sup>1</sup>

The Australian Bureau of Statistics has conducted both general health and mental health studies. Of particular relevance to the HILDA Survey results are the National Survey of Mental Health and Wellbeing of Adults conducted in 1997 and the National Health Survey of 2001 (ABS, 1997, 2001). The former included a short version, the SF-12, of the mental health scale in the SF-36. So far as we know, there are no established norms for the SF-36 for Australian respondents, although a small sample validation study of an Australian version of the instrument has been done in New South Wales (Sanson-Fisher and Perkins, 1998). The HILDA Survey results for the general health and mental health scales used in this article are roughly in line with American norms. Mean scores are very close indeed (Ware et al., 2000).<sup>2</sup> However, the HILDA

Survey mental health scale scores have a higher standard deviation than the American scores.

**General health, 2001 to 2008**

General health scores ranging from 0 to 100 are calculated on the basis of responses to five questions in the SF-36 (Ware, 2007). Firstly, respondents are asked to rate their health in general as either excellent, very good, good, fair, or poor. The remaining four questions that make up the general health measure require respondents to rate how true the following statements are on a scale of 1 to 5 with 1 meaning 'definitely true' and 5 meaning 'definitely false':

- *I seem to get sick a little easier than other people.*
- *I am as healthy as anybody I know.*
- *I expect my health to get worse.*
- *My health is excellent.*

Table 19.1 provides the average general health scores, by sex and age group, for 2001, 2003, 2005, 2007 and 2008.<sup>3</sup>

General health scores of males decline in a straightforward linear way with age.<sup>4</sup> In 2008, scores decreased from 77 (on the 0–100 scale) for males

**Table 19.1: General health, by sex and age, 0–100 scale (means)**

	2001		2003		2005		2007		2008	
	Males	Females								
15–19	76.0	72.4	78.5	70.4	77.1	68.7	76.4	70.3	77.0	71.1
20–24	76.2	70.0	74.3	70.1	74.6	71.4	73.5	70.9	74.2	72.0
25–34	73.8	74.8	73.0	73.8	72.1	72.0	72.5	73.7	71.9	73.2
35–44	71.4	72.1	70.6	71.9	69.3	70.8	70.2	71.7	70.6	71.3
45–54	68.2	69.0	66.5	67.4	66.9	67.9	66.8	66.8	66.2	67.2
55–64	63.2	65.1	62.2	64.3	62.1	64.0	63.0	65.2	63.6	65.1
65 and over	58.6	61.2	59.6	61.2	60.0	60.0	60.6	59.5	60.3	60.1
Total	69.4	69.5	68.8	68.6	68.2	67.8	68.4	68.1	68.4	68.2

aged between 15 and 19 to 60.3 for males aged 65 and over. For females over the age of 25, general health scores also decline with age, but young females aged between 15 and 24 have lower scores than those aged 25 to 34. In each of the years from 2001 to 2008, females aged between 15 and 24 had lower average general health scores than males of the same age. For all other age groups, average general health scores of females were equal to or higher than the average general health scores for males.

### Mental health, 2001 to 2008

The SF-36 mental health score also ranges from 0 to 100 and is based on responses to five questions. Respondents were asked, on a scale of 1 to 6 where 1 means 'all of the time' and 6 means 'none of the time', 'How much of the time, during the last 4 weeks':

- Have you been a nervous person?
- Have you felt so down in the dumps that nothing could cheer you up?
- Have you felt calm and peaceful?
- Have you felt down?
- Have you been a happy person?

Table 19.2 shows that, on average, mental health scores are higher for people aged over 65 than for younger people, and that, on average, males in all

age groups have higher mental health scores than females, with females under the age of 25 having the lowest average mental health scores.

Table 19.2 shows that during the period from 2001 to 2008 there has been a slight increase in average mental health scores for both males and females. In 2008, the average levels of mental health for females aged between 15 and 54 were approximately 73 out of 100, compared to 75 for females aged 55 and over. For males, average mental health scores ranged from 73 out of 100 for males aged between 25 and 34, to 78 out of 100 for males aged 65 or older. Unlike general health, the correlation between mental health and age is positive for both males and females.<sup>5</sup> In other words, mental health improves slightly with age, in part because people with good mental health live longer than those with poor mental health.<sup>6</sup>

### Persistence of health problems

Do the same people tend to have health problems year after year, or are health issues usually transient? Table 19.3 shows the number of years between 2001 and 2008 that people had general health scores lower than 50 out of 100.<sup>7</sup>

Around 62 per cent of people had general health scores of 50 or above in all eight years and only

**Table 19.2: Mental health, by sex and age, 0–100 scale (means)**

	2001		2003		2005		2007		2008	
	Males	Females								
15–19	73.5	70.1	75.8	69.5	75.6	70.8	77.4	71.9	76.4	72.8
20–24	74.4	68.9	73.8	69.3	73.1	70.7	73.3	71.3	74.7	72.7
25–34	74.0	71.9	75.2	73.0	73.6	70.8	73.6	72.3	73.2	72.9
35–44	73.2	71.4	74.3	72.3	73.6	72.2	74.2	72.3	74.7	72.7
45–54	75.5	73.4	74.7	72.9	75.2	73.0	75.3	72.6	73.9	72.8
55–64	75.2	73.4	75.6	74.4	76.7	73.7	76.2	74.3	76.9	74.9
65 and over	76.8	75.4	77.7	75.1	77.1	74.9	77.1	75.0	78.0	75.1
Total	74.6	72.3	75.3	72.7	75.0	72.5	75.3	73.0	75.3	73.5

**Table 19.3: Persistence of low general health scores, by sex and age, 2001–2008 (%)**

Age group in 2001	Number of years with general health lower than 50 out of 100				Total
	0	1–3	4–7	8	
<b>Males</b>					
15–24	71.3	21.6	*5.7	*1.4	100.0
25–54	63.7	20.2	12.0	4.0	100.0
55–64	52.8	23.0	10.8	13.3	100.0
65+	53.1	24.7	14.9	7.3	100.0
Total	62.2	21.3	11.2	5.3	100.0
<b>Females</b>					
15–24	61.4	23.4	13.6	*1.5	100.0
25–54	65.0	21.5	9.3	4.2	100.0
55–64	61.9	15.8	14.7	7.6	100.0
65 and over	48.4	27.5	14.0	10.1	100.0
Total	62.2	21.7	11.2	4.9	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

5 per cent had low levels of general health in all of the eight years from 2001 to 2008. As might be expected, the persistence of general health problems depends strongly on age. Persistent health problems are much more common for older people, with 47 per cent of males and 52 per cent of females aged 65 or older experiencing low levels of general health in at least one of the eight years, and 7 per cent of males and 10 per cent of females aged 65 or older experiencing low levels of general health in all eight years.

In previous HILDA Statistical Reports, it was found that poor mental health is much less persistent than poor general health, reflecting the fact that although some mental health problems are chronic, others are cyclical or temporary in nature. Table 19.4 shows the number of years between 2001 and 2008 that people had mental health scores lower than 50 out of 100. It is clear that, compared to physical health problems, mental health problems are much less persistent. While 20 per cent of males and 23 per cent of females had mental health scores of less than 50 in one, two or three of the eight years from 2001 to 2008, less than 1 per cent of individuals had low levels of mental health in all eight years.

Unlike general health, the persistence of mental health problems is not related in a linear way to age. Overall, females have higher rates of medium-term persistence of low mental health than males, but levels of long-term persistence are similar for

males and females. Among younger people, persistent mental health problems are more common for females than for males, with less than 5 per cent of males who were aged between 15 and 24 in 2001 having low levels of mental health in four or more of the eight years, compared to 9 per cent of females in the 15 to 24 age group. Among those aged between 25 and 54 in 2001 the gender difference in the proportion experiencing persistently low levels of mental health was smaller, with 6 per cent of males and 7 per cent of females having mental health scores of less than 50 in four or more of the eight years from 2001 to 2008.

How much do individual levels of general and mental health change from year to year? Table 19.5 presents a measure of the variability of health over time, the mean absolute deviation. As the name suggests, this shows the average *deviation* of an individual's health score from the average health score of that individual. The table shows the mean of this statistic evaluated over all individuals who were interviewed in each year from 2001 to 2008, disaggregated by sex and age group.<sup>8</sup>

While the estimates presented in Tables 19.3 and 19.4 imply that poor general health is considerably more persistent than poor mental health, Table 19.5 shows that overall, an individual's general health is more variable from year to year than is his or her mental health. With the exception of females in the 15 to 24 age group, the average level of variation over time in individuals' general

**Table 19.4: Persistence of low mental health scores, by sex and age, 2001–2008 (%)**

Age group in 2001	Number of years with mental health lower than 50 out of 100				Total
	0	1–3	4–7	8	
<b>Males</b>					
15–24	72.3	23.3	*4.0	*0.5	100.0
25–54	72.3	21.4	5.9	*0.3	100.0
55–64	74.6	19.6	4.0	*1.8	100.0
65 and over	81.9	10.7	6.1	*1.4	100.0
Total	73.8	20.2	5.4	*0.7	100.0
<b>Females</b>					
15–24	60.1	30.7	8.9	*0.3	100.0
25–54	68.2	24.4	6.5	*0.9	100.0
55–64	75.6	16.8	7.0	*0.6	100.0
65 and over	78.7	16.8	*4.5	*0.0	100.0
Total	69.5	23.2	6.6	0.7	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 19.5: Mean variation in general and mental health, 2001–2008 (Mean absolute deviation)**

Age group in 2001	General health		Mental health	
	Males	Females	Males	Females
15–24	7.9	7.9	7.4	8.2
25–54	7.2	7.6	6.8	7.4
55–64	7.2	7.1	6.6	6.9
65 and over	7.6	7.9	6.0	6.4
Total	7.3	7.6	6.8	7.3

health scores is substantially greater than the average level of variation in individuals' mental health scores. Table 19.5 further indicates that females have greater average variation over time than males in both reported general health and reported mental health. Also evident from the table is that, compared to those aged between 25 and 64, there is slightly more variability over time in individuals' general health scores in the youngest and oldest age groups, particularly among males. Variation from year to year in mental health scores tends to decrease with age.

### Endnotes

- 1 It should be understood that, because answers are provided by the public and not by practitioners, the SF-36 cannot be used to diagnose specific physical or mental health problems. Validation tests have shown that SF-36 scores correlate highly with practitioner assessments, but such correlations do not mean that physical and mental health problems can be assumed for individuals with low scores. In other words, the SF-36 works well as a screening instrument, but specific assessments by a medical practitioner are required for diagnoses to be made.
- 2 The HILDA Survey means in 2004 were 68.5 for general health and 74.1 for mental health. The American means are both about 2 points higher.
- 3 2002, 2004 and 2006 are not included in Table 19.1, as there was little change in average levels of general health during this period.
- 4 Pearson correlation between age and general health for men: -0.27 (2001), -0.28 (2002), -0.28 (2003), -0.26 (2004), -0.26 (2005), -0.25 (2006), -0.25 (2007), -0.25 (2008). Pearson correlation between age and general health for women: -0.19 (2001), -0.21 (2002), -0.18 (2003), -0.17 (2004), -0.18 (2005), -0.21 (2006), -0.20 (2007), -0.20 (2008).
- 5 Pearson correlation between age and mental health for men: 0.05 (2001), 0.03 (2002), 0.04 (2003), 0.03 (2004), 0.07 (2005), 0.04 (2006), 0.04 (2007), 0.06 (2008). Pearson correlation between age and mental health for women: 0.10 (2001), 0.07 (2002), 0.09 (2003), 0.09 (2004), 0.09 (2005), 0.07 (2006), 0.06 (2007), 0.07 (2008).

- 6 Several studies, including Martin et al. (1995) and Barreira (1999) have found that people with poor mental health, on average, have a lower life expectancy than those with good mental health.
- 7 It should be noted that for some of these people, low levels of general health may have been sporadic, rather than persistent over the entire period.
- 8 More formally, for a set of observations such as the eight years of general health, the mean absolute deviation (MAD) for each individual can be calculated as:
 
$$\text{MAD} = \frac{1}{n} \sum_{i=1}^n |x_i - \bar{x}|$$
 where  $\bar{x}$  is the mean of the distribution. The figures reported in Table 19.5 are the means of each individual's MAD, by gender and age group.

### References

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## 20. Labour force and education participation, 2001 to 2008

At each annual interview, HILDA Survey respondents fill in an ‘employment and education calendar’ for the period from the beginning of the previous financial year up to the time of interview. In principle, this provides comprehensive information on the labour market and education participation of each respondent over the full period spanned by the HILDA Survey. For each third of the month, the respondent records whether he or she was employed, unemployed or not in the labour force, and also whether he or she was enrolled in school or any course of study. Changes in job are also recorded.

We can use this information to derive a breakdown of the percentage of time employed, unemployed and not in the labour force, and also the percentage of time enrolled in an education course. A person must always be in one of the three mentioned labour force states, so the percentage of time spent in these three states must sum to 100. The percentage of time spent in education can range from 0 to 100, irrespective of the time spent in each of the three labour force states.

In this article, we summarise the labour market and education participation of persons over the eight years covered by the HILDA Survey. We examine three age groups that loosely correspond to different lifecycle stages: 15–24 years, 25–54 years and 55 years and over. In general, we expect education to be relatively more important for youth aged 15–24 years, while employment becomes relatively more important for prime-age people aged

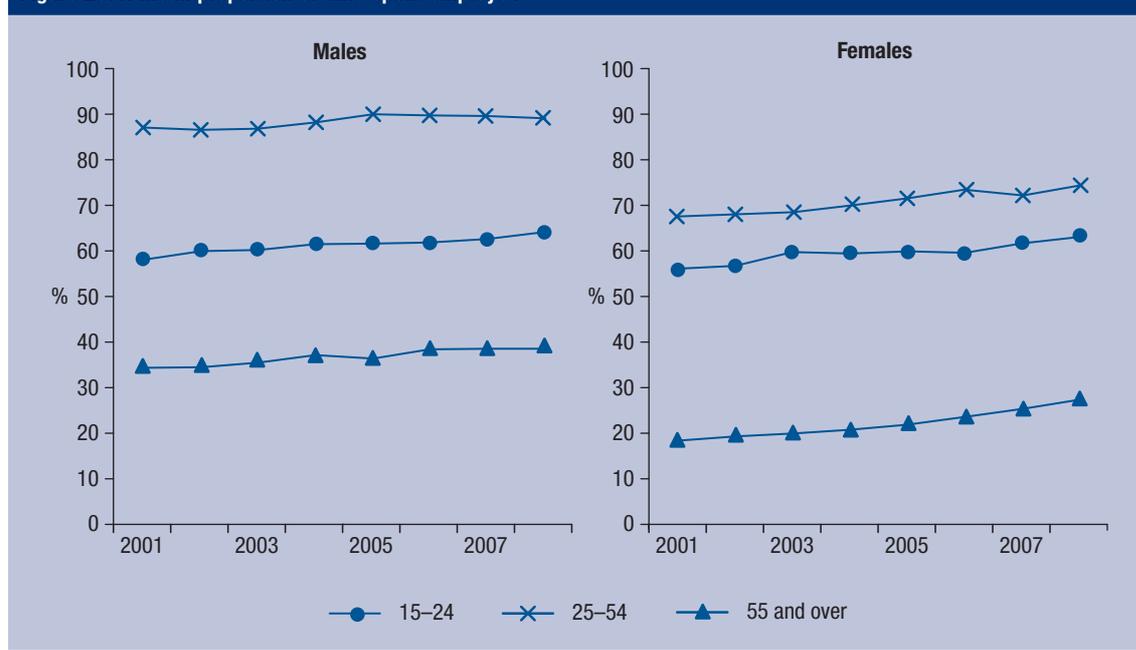
25–54 years. For the oldest age group, it is to be expected that both education and employment activity will be lower than in the other two age groups, reflecting movements into retirement by many in this age group.

### Trends in participation, 2001 to 2008

Figure 20.1 presents, for males and females separately, the mean proportion of time spent in employment in each year for each of the three age groups, while Figure 20.2 presents the mean proportion of time spent unemployed in each year. As expected, the mean proportion of the year in employment is highest for those aged 25–54 years. Men in this age range have particularly high levels of employment, on average spending nearly 90 per cent of the year in employment; for females aged 25–54, the average proportion of the year in employment is approximately 70 per cent. Men and women in the 55 and over age group on average spend the least amount of time in employment—approximately 35 per cent of the year in the case of men and approximately 25 per cent of the year in the case of women. In all three age groups, females spend a lower proportion of the year in employment, although the difference is very slight among those aged 15–24 years.

Over the course of the 2001 to 2008 period, the mean proportion of the year in paid employment gradually increased for both males and females in all three age groups. Growth has been greater for females than males, and for both males and females

Figure 20.1: Mean proportion of time spent employed



has been greater for the youngest and oldest age groups. In part, this reflects the groups which in 2001 had the greatest scope for increased employment. In particular, men aged 25–54 have only increased the proportion of the year in employment very slightly, but this is unsurprising given that they are on average spending nearly 90 per cent of the year in employment.

The proportion of time spent unemployed also differs considerably across the three age groups; it is highest for those aged 15–24 years and lowest for people aged 55 years and over. In 2002, when the proportion of time unemployed peaked, males aged 15–24 on average spent nearly 10 per cent of the year unemployed, while females aged 15–24 on average spent 8 per cent of the year unemployed. Men aged 25–54 averaged slightly over 5 per cent of that year unemployed, women aged 25–54 averaged slightly over 4 per cent of the year unemployed, men aged 55 and over averaged 3 per cent of the year unemployed, and women aged 55 and over averaged 1 per cent of the year unemployed. Between 2002 and 2008, when the aggregate unemployment rate fell from approximately 6 per cent to approximately 4 per cent, the proportion of the year spent unemployed fell substantially for those aged 15–24 years, and also fell for those aged 25–54 years and men aged 55 and over.

Figures 20.3 and 20.4 present the mean proportion of time spent enrolled in full-time education (Figure 20.3) and in part-time education (Figure 20.4). As expected, those aged 15–24 years have by far the highest levels of participation in full-time education, males in this age group averaging nearly 50 per cent of the year in full-time education and females in this age group averaging nearly

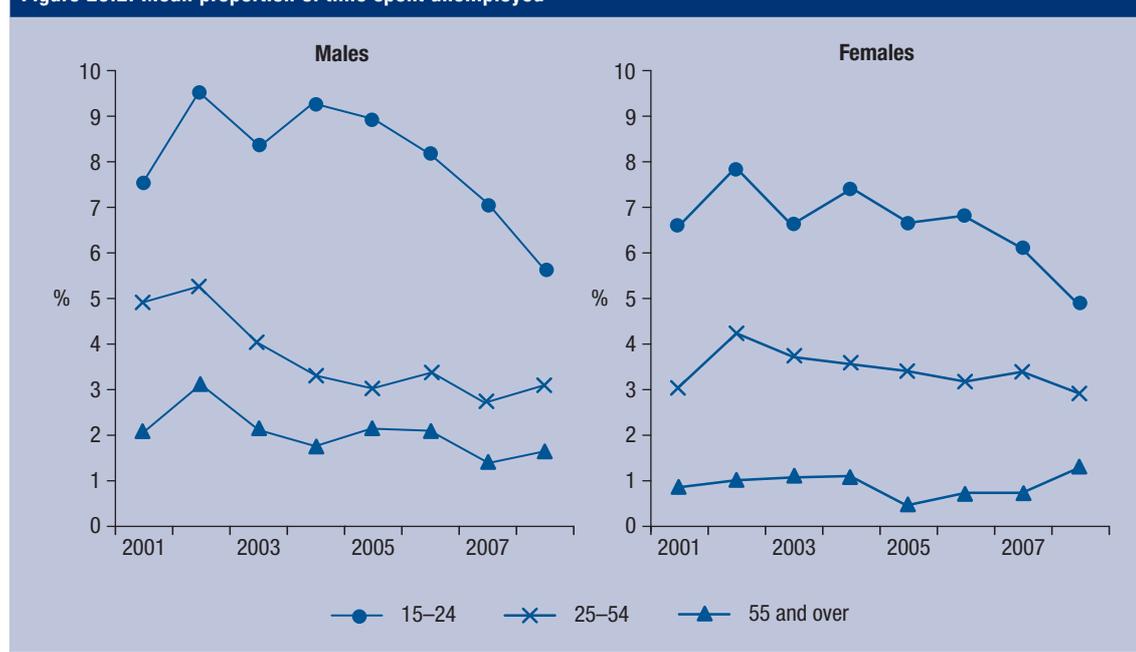
55 per cent of the year in full-time education. Men and women aged 25–54 spend little time in full-time education, and those aged 55 and over spend even less time. Time spent in part-time education is somewhat higher for the older two age groups, and in particular those aged 25–54 years, who on average spend nearly as much time in part-time education as do those aged 15–24 years.

Participation in education does not appear to have changed substantially over the 2001–2008 period, although there has clearly been a slight decrease in the mean proportion of the year spent in full-time education by those aged 15–24 years. In 2008, the proportion of the year spent in full-time education was, for females aged 15–24, approximately 3 percentage points lower than it had been in 2001. For males aged 15–24, the drop was only about 1 percentage point.

### Total employment and education activity over the life of the HILDA Survey

The upper panel of Table 20.1 shows the total proportion of time spent in each labour force and education participation state over the entire eight years from 2001 to 2008. For this analysis, individuals are assigned an age group based on their age in 2001—that is, we examine total participation over the 2001 to 2008 period of persons aged 15–24 in 2001, persons aged 25–54 in 2001, and persons aged 55 and over in 2001. Among males aged 15–24 in 2001, in total, 79 per cent of the eight-year period was spent in the employed labour force state, 5.7 per cent was spent unemployed and 15.2 per cent was spent not participating in the labour force. Among females aged 15–24 in 2001, 68.1 per cent of the time was spent in the employed labour

Figure 20.2: Mean proportion of time spent unemployed



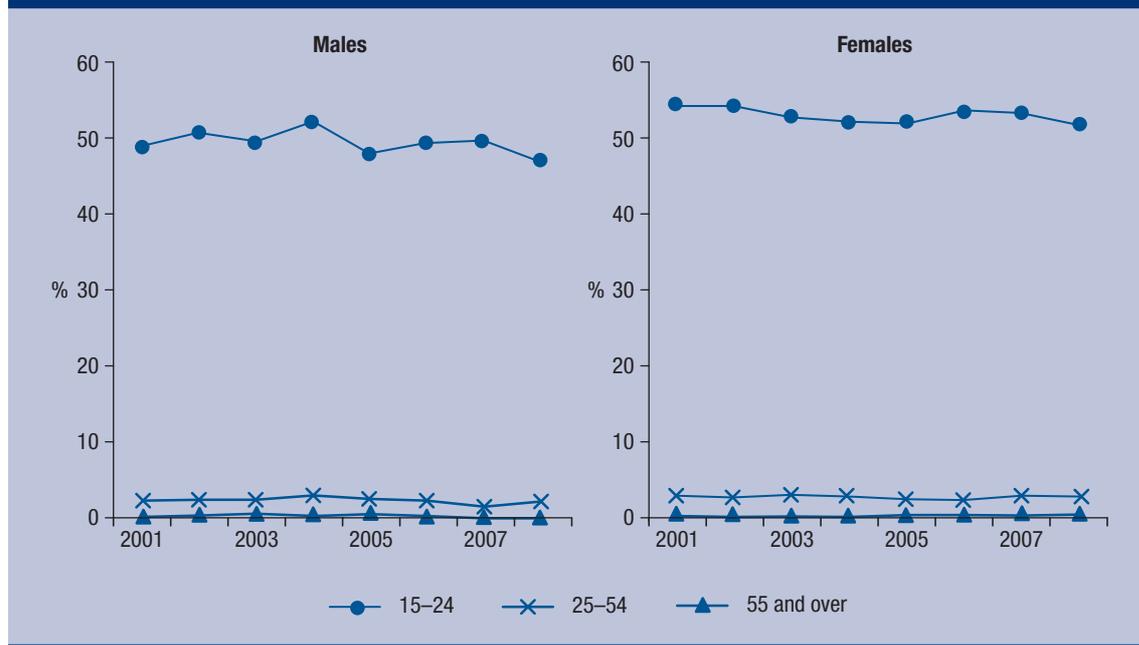
force state, 4.7 per cent was spent unemployed and 27.1 per cent was spent not participating in the labour force. Much of the time spent out of the labour force by those aged 15–24 years is likely to be accounted for by enrolment in full-time education (28.6 per cent of time in the case of males and 35 per cent of time in the case of females), although of course many full-time students are employed.

Among prime-age men, 86.4 per cent of the eight-year period was spent in employment, 3.7 per cent was spent unemployed and 9.9 per cent was spent out of the labour force, while among prime-age

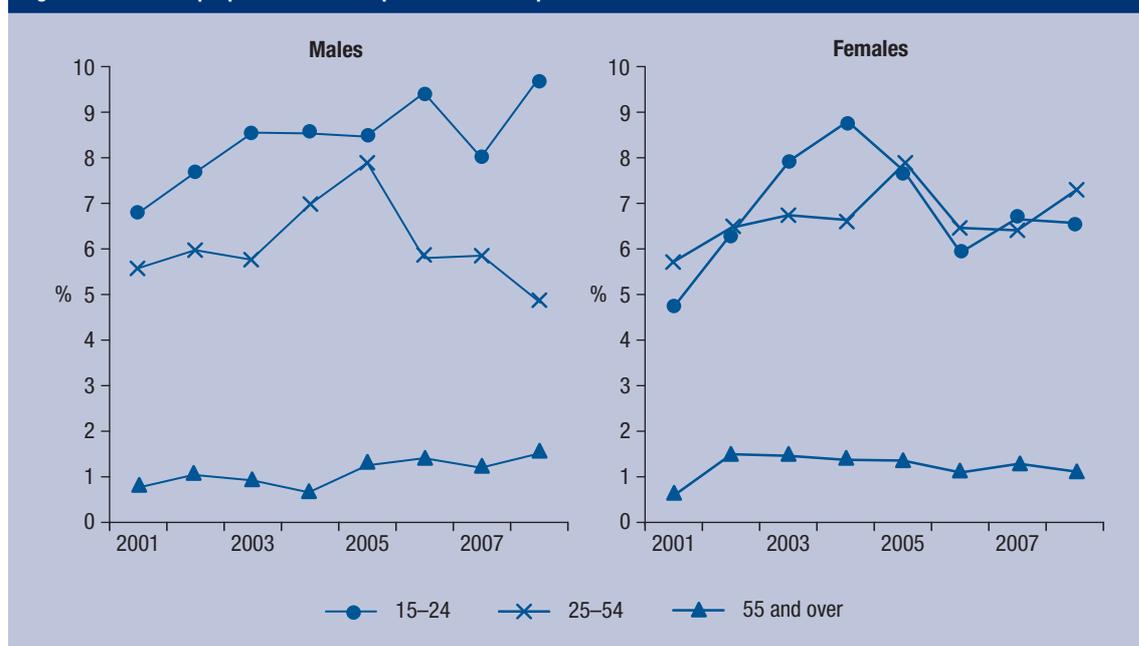
women the corresponding figures are 70.8, 3.1 and 26.1. Among men aged 55 and over in 2001 (and therefore at least 62 years of age in 2008), only 26.1 per cent of the eight-year period was spent in employment, with 72.2 per cent of the period spent out of the labour force. Women in this age group had even lower employment participation, spending only 14.7 per cent of the period in employment.

The lower panel of Table 20.1 shows that it would be a mistake to imagine that the same people engage in the same activities every year. Most males and females aged 15–54 in 2001 participated

**Figure 20.3: Mean proportion of time spent enrolled in full-time education**



**Figure 20.4: Mean proportion of time spent enrolled in part-time education**



**Table 20.1: Education and employment participation over the full eight years of the survey (%)**

	Aged 15–24 in 2001		Aged 25–54 in 2001		Aged 55 and over in 2001	
	Males	Females	Males	Females	Males	Females
<b>Proportion of time spent in each activity</b>						
Employed	79.0	68.1	86.4	70.8	26.1	14.7
Unemployed	5.7	4.7	3.7	3.1	1.7	0.6
Not in the labour force	15.2	27.1	9.9	26.1	72.2	84.7
Full-time education	28.6	35.0	1.8	2.3	0.2	0.3
Part-time education	10.0	8.0	5.5	6.2	0.7	0.9
<b>Proportion of population that ever participated in each activity</b>						
Employed	98.4	94.2	94.9	89.5	41.3	26.0
Unemployed	52.4	48.6	25.5	27.3	8.5	4.4
Not in the labour force	65.4	78.1	34.1	61.1	88.2	93.1
Full-time education	70.7	72.7	11.3	13.8	1.7	1.3
Part-time education	53.9	50.1	30.6	36.4	5.8	6.8

in employment at some stage between 2001 and 2008, and indeed almost all males and females aged 15–24 in 2001 participated in employment at some stage. Among the 55 and over age group, the rate of participation in employment across the full eight-year period is of course much lower, but—at 41.3 per cent for men and 26 per cent for women—is higher than might appear based on the upper panel of Table 20.1.

As well as high rates of employment participation, those aged 15–24 in 2001 also have very high rates of participation in education, with over 70 per cent enrolled in full-time education, and over 50

per cent enrolled in part-time education, at some stage of the eight-year period. As might be expected, the rate of participation in education by those aged 55 and over is low even over an eight-year period, but among persons aged 25–54 in 2001, we see quite high rates of education participation. Women in particular have high rates of participation, with 13.8 per cent at some stage enrolled in full-time education, and 36.4 per cent at some stage enrolled in part-time education. For men, the corresponding figures are 11.3 and 30.6, which are still quite high. ‘Adult education’, broadly defined, is thus clearly an extremely important activity of prime working-age persons.

## 21. Social exclusion in Australia

There has long been considerable dissatisfaction with narrow income-based conceptions of socio-economic disadvantage. The income poverty measures, such as presented in Chapter 7, are widely regarded as informative, but are also regarded by most people in research, policymaking and community sector circles as inadequate for fully identifying and understanding socio-economic disadvantage in the community. Multidimensional approaches have been advocated as providing superior information, and in recent years in Australia this has taken the form of disadvantage conceived as social exclusion. Reflecting this development, the Australian Government in 2008 established the Australian Social Inclusion Board (ASIB), one of the activities of which has been to define and measure social exclusion in Australia (e.g. see ASIB, 2010).

The HILDA Survey is well placed to examine social exclusion in Australia because of the richness of the data, its annual frequency and the capacity to examine persistence and recurrence of exclusion. In work conducted by the Melbourne Institute in

conjunction with the Brotherhood of St Laurence, a method for measuring social exclusion was developed and estimates of social exclusion were produced for the 2001 to 2008 period using the HILDA Survey data. In this article we present a brief exposition of these measures of social exclusion, with an emphasis on persistence and recurrence of exclusion. Full details on the development of the measures are available in Scutella, Wilkins and Horn (2009), while more detailed analysis of social exclusion over the 2001 to 2008 period using the HILDA Survey data is presented in Scutella, Wilkins and Kostenko (2009).

The measure of social exclusion we present here is derived from 21 indicators across seven domains of exclusion. The seven domains are material resources; employment; education and skills; health and disability; social support and interactions, community engagement; and personal safety. The premise of the social exclusion approach is that each of these domains is important to the ability of an individual to be a full participant in society—learning, working, engaging

with others and having a say in what happens in their communities. The 21 indicators are available in every wave of the HILDA Survey, allowing us to examine change in social exclusion over the entire survey period and to also examine persistence and recurrence of social exclusion.<sup>1</sup> The indicators are summarised in Table 21.1.

The indicators are combined together to produce an overall measure of social exclusion for each individual. This is done by calculating, for each domain, the proportion of indicators present for the individual and then adding up these proportions across all seven domains. For example, if an individual has income less than 60 per cent of median income, but does not experience three or more indicators of financial stress, then one of the two indicators of exclusion in the material resources domain are present, and the individual scores 0.5 for that domain. An individual who scores 0.5 in one domain and has no indicators present in any other domain will obtain an aggregate score of 0.5; an individual who scores 0.5 in all seven domains will obtain an aggregate score of 3.5; and an individual who has all indicators present will score 7.

Figure 21.1 presents, for each year in the 2001 to 2008 period, the proportions of the population aged 15 years and over: with a social exclusion score of at least one; with a social exclusion score of at least two; and with equivalised income less than 50 per cent of median equivalised income. These can be interpreted, respectively, as the proportion experiencing marginal or worse exclusion, the proportion experiencing deep exclusion, and the proportion in

income poverty. The figure shows the proportion of the population in income poverty lies between the proportion deeply excluded and the proportion experiencing marginal or worse exclusion. Contrary to the pattern evident for income poverty, on both social exclusion measures, the rate of exclusion steadily declines over the entire survey period. Given the strong economic growth and associated employment growth over the period, the indications are that social exclusion is more responsive to economic conditions than is income poverty.

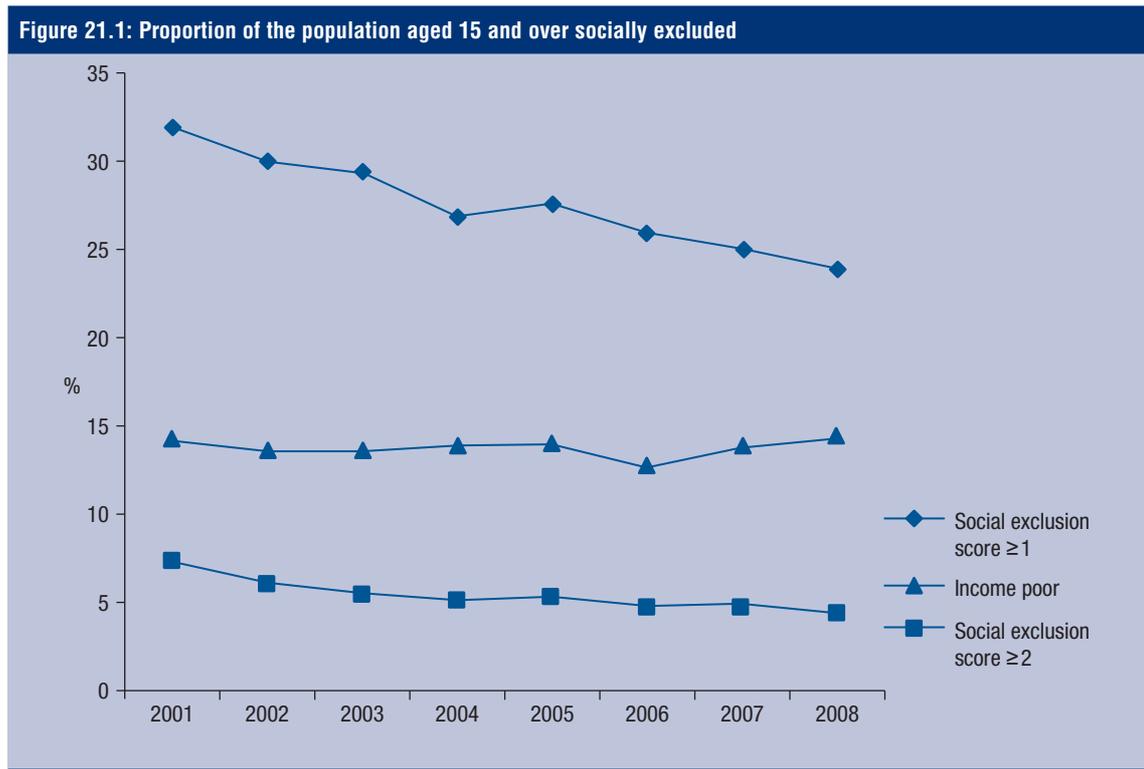
Which groups of people are most susceptible to social exclusion? In Table 21.2, 2008 rates of social exclusion for the two measures are compared with rates of income poverty across sex, age and household type groups. In common with income poverty, females are somewhat more susceptible to social exclusion than males, and lone parent families are more prone to social exclusion than other families with children (or, indeed, other non-elderly couples). The elderly also have similarly high rates of marginal social exclusion and income poverty. However, it is significant that the elderly are, relative to other members of society, much less likely to experience deep social exclusion than they are to be income poor. Elderly couples in particular have a relatively low rate of deep social exclusion, despite over one-quarter being classified as income poor. Scutella, Wilkins and Kostenko (2009) further find that, when wealth is taken into account, the apparent situation of the elderly improves even further compared with other members of society.

<b>Table 21.1: Indicators of social exclusion</b>	
<i>Domains</i>	<i>Indicators</i>
Material resources	Income less than 60 per cent of median income Three or more indicators of financial stress
Employment	Long-term unemployed Unemployed Unemployed or marginally attached Unemployed, marginally attached or underemployed In a jobless household
Education and skills	Poor English proficiency Low level of formal education Little or no work experience
Health and disability	Poor general health Poor physical health Poor mental health Has a long term health condition or disability Household has a disabled child
Social	Little social support
Community	Reported satisfaction with 'the neighbourhood in which you live' low Reported satisfaction with 'feeling part of local community' low Not currently a member of a sporting, hobby or community-based club or association No voluntary activity in a typical week
Personal safety	Low level of satisfaction with 'how safe you feel'

### Persistence of social exclusion

The nature of many of the indicators of social exclusion presented in Table 21.1 is such that we might expect measured social exclusion to be highly persistent over time, although it is not clear whether we should expect social exclusion to be more or less persistent than income poverty. In particular, domains such as health and disability and education and skills seem likely to be highly correlated over time. Figure 21.2 shows—perhaps somewhat surprisingly—that deep social exclusion is in fact less persistent among the 11.2 per cent

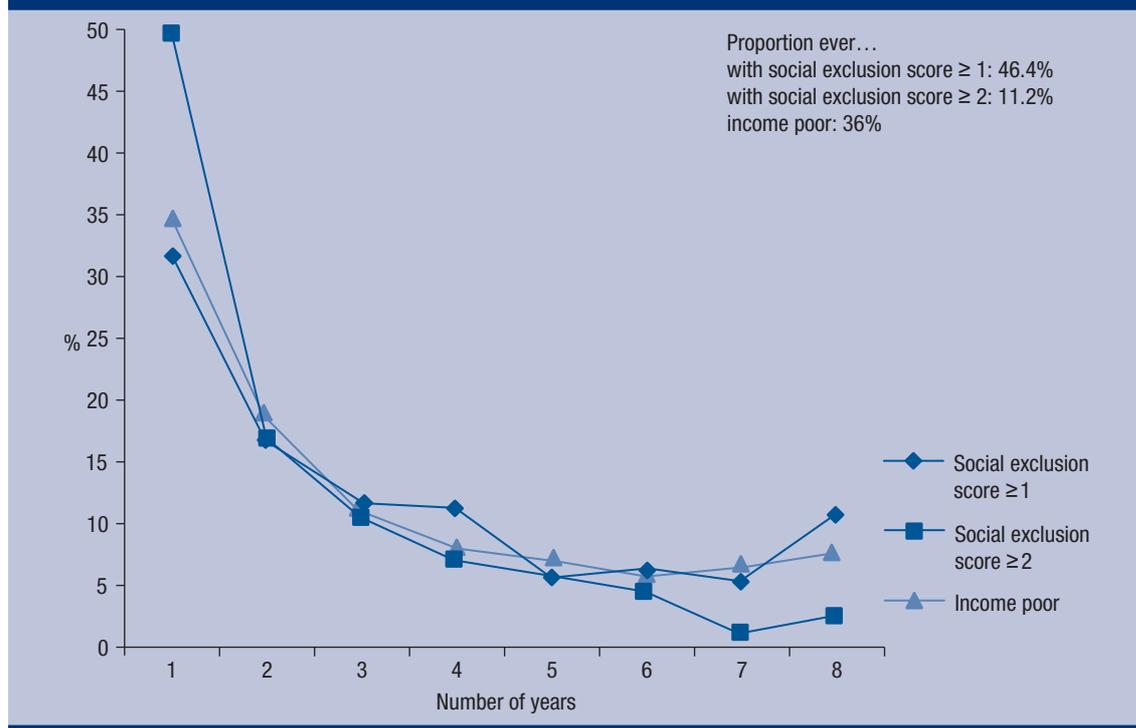
of people to experience deep exclusion in the eight-year period than is income poverty among the 36 per cent of people to experience income poverty in the period. It is comparatively frequent for deep exclusion to last for only one or two of the eight years, and less common for it to be experienced in six or more of the eight years. Marginal exclusion, however, appears to be relatively persistent, and certainly more so than income poverty. The proportion of the 46.4 per cent of people who at some stage of the eight-year period experienced marginal (or worse) exclusion who



**Table 21.2: Social exclusion in Australia, 2008 (%)**

	<i>Social exclusion score <math>\geq 1</math></i>	<i>Social exclusion score <math>\geq 2</math></i>	<i>Income poor</i>
Female	30.5	5.9	15.3
Male	24.6	4.9	12.3
15–24	30.1	4.6	12.4
25–34	17.7	4.1	7.1
35–44	20.3	5.0	8.3
45–54	20.8	4.9	9.0
55–64	31.7	6.6	16.3
65 and over	53.5	8.3	33.6
Non-elderly couple	20.0	4.1	7.6
Couple with children	20.2	3.3	6.9
Lone parent	45.2	11.2	21.8
Non-elderly single male	24.5	6.4	11.7
Non-elderly single female	26.1	7.3	14.8
Elderly couple	45.3	6.6	26.3
Elderly single male	56.5	9.7	37.9
Elderly single female	62.7	12.2	41.9

**Figure 21.2: Number of years excluded/income poor among those at some stage excluded/income poor, 2001 to 2008**



experienced such exclusion in only one or two years is comparatively low, while the proportion to experience it in all eight years, at 11 per cent, is comparatively high.

**Discussion**

The evidence presented in this brief analysis of social exclusion suggests that, despite some commonalities with income poverty, it is far from equivalent to income poverty. The pattern over time in the incidence of social exclusion between 2001 and 2008 is quite different to that for income poverty. Moreover, while there is clearly considerable overlap, it is also clear that the people who experience social exclusion, particularly deep exclusion, are not simply the same people as those who experience income poverty. For example, the elderly are relatively more likely to be income poor than they are to be deeply socially excluded. We also find, perhaps somewhat unexpectedly, that many people’s experience of social exclusion—particularly deep exclusion—is only transient, suggesting many people are able to take action to remedy their situation. Nonetheless, persistent or recurrent social exclusion is apparent for significant numbers in the community.

**Endnote**

- 1 Scutella, Wilkins and Kostenko (2009) also present analysis drawing on additional indicators that are not available in every wave, including indicators for household wealth, household consumption expenditure, literacy and numeracy, neighbourhood quality, experience of violence and experience of property crime.

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**B**

**FEATURE ARTICLES**



## 22. Individuals' perceptions of their financial wellbeing

It is common in studies of economic wellbeing, and in particular studies of inadequate economic circumstances, to rely only on 'objective' measures of adequacy. Most commonly, studies compare household income, adjusted for need based on the composition of the household, with a minimum standard that is a fixed proportion of the median income (as done in Chapter 7 of this report). However, it is also possible to draw on 'subjective' assessments of adequacy, which are essentially individuals' own assessments of the adequacy of their income situation, or their economic situation more broadly. Subjective assessments can provide meaningful information on the economic circumstances of households that is not captured by objective measures. For example, a household that appears to have a satisfactory income may in fact have very high expenses because of the presence of people with severe disabilities, and therefore not have an adequate income. Objective measures will typically not identify such situations of inadequacy, whereas subjective measures potentially can. Of course, we would not want to rely solely on individuals' own assessments to determine whether or not they are poor. Expectations will vary considerably across respondents, and no doubt some people with very high incomes (and few expenses) will still regard their incomes as inadequate. However, careful use of subjective information, particularly in conjunction with objective data, can produce valuable insights. For example, *mean* household incomes of those who regard themselves as poor, calculated for different household types, are likely to be informative as to the income requirements of these types of households.

As Stewart (2009) argues, subjective assessments can also be used to determine the appropriate adjustments to income for household composition. Such a set of 'adjustments' is known as an 'equivalence scale'. Numerous equivalence scales have been employed by researchers, but almost all represent arbitrary judgements about the relative living costs of different household types. Examining how the relationship between perceived financial wellbeing and income depends on household composition provides a potentially more rigorous basis for establishing differences in need across different household types.

Two main subjective measures of financial wellbeing are available in the HILDA Survey. In the personal interview, respondents are asked each year to rate their satisfaction with their financial situation on a scale from 0 (completely dissatisfied) to 10 (completely satisfied). While the question asks about the respondent's satisfaction with his or her *own* financial situation rather than the *household's* financial situation, these will usually

be closely related. Indeed, all economic analyses of income are concerned with individuals' wellbeing, but examine (equivalised) household income on the basis that, to ascertain the income situation of an individual, it is necessary to examine the income of the entire household. This is because income is typically shared within a household, especially when one or more members have little or no personal income. Nonetheless, it should be acknowledged that household income is not necessarily shared among all members, or at least not shared equitably, so that an individual's dissatisfaction with his or her financial situation does not necessarily imply the household's income is deficient.

The second subjective measure comes from the self-completion questionnaire (SCQ) in the form of the following question:

*Given your current needs and financial responsibilities, would you say that you and your family are...*

1. Prosperous
2. Very comfortable
3. Comfortable
4. Just getting along
5. Poor
6. Very poor

This question is a more direct measure of perceived financial wellbeing, asking respondents to evaluate their situation relative to their needs and responsibilities. The question on satisfaction with financial situation would seem to be subject to a greater variety of interpretations. For example, a respondent who considers himself to have a high income relative to his needs may nonetheless report being dissatisfied with his financial situation if he believes his employer should be paying him more. The SCQ question moreover explicitly asks respondents to consider the financial situation of their entire family.<sup>1</sup>

In this article, we examine responses to these two questions with a view to briefly exploring the nature and determinants of perceived financial wellbeing, with a particular focus on its relationship with household income. We also, along the lines suggested by Stewart (2009), use information on this relationship to produce an equivalence scale for a selection of household types.

### Patterns in perceived financial wellbeing over the 2001–2008 period

Table 22.1 shows the distribution of responses to the two questions on perceived financial wellbeing in 2001, 2003, 2005, 2007 and 2008. For the SCQ 'prosperity' question, slightly over half of

respondents report being 'reasonably comfortable', and just over one-quarter report that they are 'just getting along'. Only 3–4 per cent believe they are 'poor' or 'very poor'. Up until 2007, there were slight increases in the proportions reporting being 'prosperous', 'very comfortable' and 'reasonably comfortable'. The proportions reporting they were 'just getting along' or were 'poor' correspondingly declined, although the proportion reporting being 'very poor' did not change. In 2008, probably reflecting early effects of the economic downturn that began in September 2008, there was some reversal of the improvements to 2007, with the proportions reporting being reasonably comfortable or better declining and the proportions reporting they were just getting along or were poor increasing.

For the 'satisfaction' question in the Person Questionnaire (PQ), responses are distributed across the entire 0–10 spectrum, although the majority lie between 5 and 8. Trends over the survey period are less readily discerned than is the case for prosperity. However, combining scores together reveals some patterns. The proportion with low satisfaction, defined as a score of 0 to 5, declined steadily over the entire period from 38.6 per cent in 2001 to 28.7 per cent in 2008. The proportion with moderate satisfaction, defined as a score of 6 or 7, increased steadily over the entire period, rising from 28.6 per cent in 2001 to 35.1 per cent in 2008. The proportion with high satisfaction, defined as a score of 8–10, rose from 32.9 per cent to 37.4 per cent from 2001 to 2007, but

then declined in 2008 to 36.4 per cent, which is consistent with the findings for financial prosperity.

### Persistence of adverse perceptions of financial wellbeing

Focusing on individuals with low perceived financial wellbeing, Table 22.2 examines persistence of such adverse views over time. The column labelled 'Perceived poor' presents the distribution of the number of years an individual regards his or her family as 'very poor', 'poor' or 'just getting along'. Similarly, the column labelled 'Financially dissatisfied' presents the distribution of the number of years an individual reports having low satisfaction with his or her financial situation, defined as a rating of 5 or lower out of 10. The threshold of 5 is of course somewhat arbitrary, but results are little-affected if it is increased to 6 (slightly more persistence) or decreased to 4 (slightly less persistence).

Approximately 40 per cent of individuals never perceive themselves to be poor (or just getting by) in the eight-year period, while approximately one-third never give a rating of 5 or less for their satisfaction with their financial situation. Fewer than 10 per cent regard themselves as poor in every year, and just 5 per cent are financially dissatisfied in all eight years. Among those who at some stage report being poor or financially dissatisfied, well over half do so in four or fewer of the eight years, and most commonly they do so in only one or two years. Financial dissatisfaction is more likely to be reported than being poor, but the total proportion

**Table 22.1: Perceived financial wellbeing (%)**

	2001	2003	2005	2007	2008
<b>'Prosperity' (SCQ)</b>					
Prosperous	1.6	1.5	1.6	2.3	1.7
Very comfortable	12.7	14.9	15.0	15.9	14.6
Reasonably comfortable	51.4	51.8	53.2	53.3	53.1
Just getting along	30.1	28.3	27.3	25.6	27.1
Poor	3.5	2.8	2.3	2.3	2.9
Very poor	0.7	0.7	0.6	0.7	0.6
Total	100.0	100.0	100.0	100.0	100.0
<b>'Satisfaction' (PQ)</b>					
0 (Totally dissatisfied)	3.0	1.6	1.5	1.5	1.5
1	2.8	2.1	1.9	1.4	1.3
2	4.4	3.9	3.4	3.2	3.3
3	5.8	5.1	4.8	4.0	4.2
4	6.3	6.1	5.7	5.2	5.0
5	16.3	14.5	14.2	13.6	13.4
6	12.1	12.4	13.0	13.3	13.8
7	16.5	18.8	20.4	20.4	21.3
8	16.3	19.0	19.5	20.5	20.7
9	7.5	8.7	8.8	9.6	9.3
10 (Totally satisfied)	9.1	7.9	6.7	7.3	6.4
Total	100.0	100.0	100.0	100.0	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 22.2: Number of years perceived poor/financially dissatisfied (%)**

	<i>Perceived poor</i>	<i>Financially dissatisfied</i>
0	41.3	33.7
1–2	20.6	25.7
3–4	11.8	16.5
5–7	16.8	18.7
8	9.5	5.4

financially dissatisfied in five or more years (24.1 per cent) is in fact lower than the total proportion perceiving themselves as poor in five or more years (26.5 per cent).

Table 22.3 examines how perceptions change from one year to the next, the top panel for the SCQ measure of financial prosperity and the bottom panel for the PQ measure of financial satisfaction. The table presents, for each measure, and for each of four year-pairs, the proportions that held adverse views in the first year only, in the second year only, in both years, and in neither year. The estimates show that, on average, approximately 9 per cent of people switch between believing they are poor and believing they are not poor from one year to the next, while approximately 12 per cent switch between financial satisfaction and financial dissatisfaction from one year to the next.

These are somewhat higher rates of movements into and out of ‘perceived poverty’ than was found for movements into and out of income poverty from year to year in Table 7.1 in Chapter 7. However, the thresholds adopted result in the number of individuals classified as ‘perceived poor’ and ‘financially dissatisfied’ being approximately twice the number that are classified as income poor. Indeed, year-to-year persistence appears to be at least as high, if not higher, for perceived wellbeing. For example, the last column of Table 22.3 shows that 21.1 per cent of individuals regarded themselves as poor (just getting along or worse) in both 2007 and 2008, while 6.8 per cent regarded

themselves as poor only in 2007. This implies that, of those who regarded themselves as poor in 2007, 76 per cent still regarded themselves as poor in 2008. Similarly, 28.4 per cent of individuals were financially dissatisfied in 2007, of whom 62 per cent (17.7 per cent of all people) remained dissatisfied in 2008. By comparison, Table 7.1 in Chapter 7 of this report showed that 13.1 per cent of individuals were in income poverty in 2007, of whom 65 per cent (8.5 per cent of all people) remained in poverty in 2008.

Notwithstanding the relatively high degree of persistence of adverse perceptions of financial wellbeing, it is nonetheless the case that the total numbers of individuals moving into and out of having adverse perceptions are considerably greater than the numbers moving into and out of income poverty. One possible explanation for this is that, in addition to income differing, income requirements will fluctuate, for example because of changes in health costs. The perceived wellbeing measures can capture effects of both changes in income and changes in income requirements, whereas the income poverty measure can only capture effects of income changes. However, it may also be that perceptions are inherently more unstable than actual income, depending on factors such as the particular events experienced by the respondent in the days leading up to the interview or completion of the SCQ, and even the mood of the respondent at the time of responding.

In terms of changes over time in rates of inflow to and outflow from adverse perceptions, the main pattern evident is that flows in both directions, for both measures, appear to have declined slightly, most substantially in the case of outflows from ‘perceived poverty’. In 2001–2002, 9.7 per cent of people perceived themselves to be poor in the first year but not the second, while in 2007–2008, only 6.8 per cent of people perceived themselves to be poor in the first year but not the second. Rates of persistence in adverse perceptions from one year to the next have also declined over the period for

**Table 22.3: Perceptions of financial wellbeing over two years (%)**

	<i>2001 and 2002</i>	<i>2003 and 2004</i>	<i>2005 and 2006</i>	<i>2007 and 2008</i>
<b><i>Prosperity</i></b>				
Not poor in either year	56.0	59.5	61.5	61.7
Poor in second year only	10.4	9.4	9.0	10.4
Poor in first year only	9.7	8.5	7.8	6.8
Poor in both years	23.9	22.7	21.7	21.1
Total	100.0	100.0	100.0	100.0
<b><i>Financial satisfaction</i></b>				
Not dissatisfied in either year	49.4	56.2	57.4	61.0
Dissatisfied in second year only	12.8	11.2	11.5	10.5
Dissatisfied in first year only	12.7	12.7	11.1	10.7
Dissatisfied in both years	25.2	19.9	20.0	17.7
Total	100.0	100.0	100.0	100.0
<i>Note: Percentages may not add up to 100 due to rounding.</i>				

both measures of perceived financial wellbeing. In 2001–2002, 23.9 per cent of people regarded themselves as poor in both years, compared with 21.1 per cent in 2007–2008. More substantial is the decline in persistence in dissatisfaction with financial situation from one year to the next, with 25.2 per cent dissatisfied in both years in 2001–2002 and 17.7 per cent dissatisfied in 2007–2008.

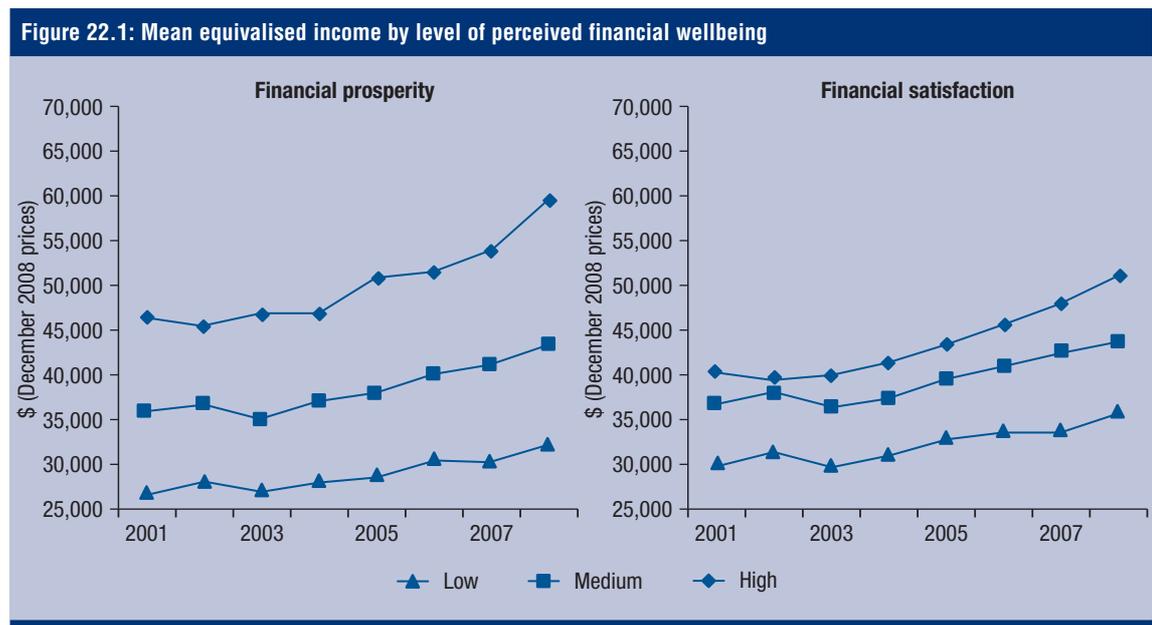
**The relationship between individuals’ perceived financial wellbeing and household income**

One might expect perceived financial wellbeing to be positively associated with household income, but is this the case? In Figure 22.1, mean equivalised household incomes by level of financial prosperity and by level of financial satisfaction are examined in each survey year. Individuals are classified into one of three levels of financial prosperity and one of three levels of financial satisfaction. The three levels are respectively labelled ‘low’, ‘medium’ and ‘high’. Prosperity is defined to be low if the response to the question was ‘very poor’, ‘poor’ or ‘just getting along’, medium if the response was ‘comfortable’ and high if the response was ‘very comfortable’ or ‘prosperous’. Satisfaction is defined to be low if a satisfaction score of 0–5 was reported, medium if a score of 6 or 7 was reported, and high if a score of 8–10 was reported.

The figure shows mean income is strongly ordered by level of perceived financial wellbeing—that is, individuals with higher perceived wellbeing tend to have higher incomes. Differences in mean income by level of perceived wellbeing are greater for financial prosperity than for financial satisfaction. This is not simply an artefact of the particular thresholds chosen for the three levels of each wellbeing measure. For example, if the thresholds for level of financial dissatisfaction are changed to 0–4, 5–8 and 9–10, the disparities in mean incomes across the three financial satisfaction groups increase

only very slightly. The finding of greater disparities for the perceived prosperity measure accords with the contention that it is a more direct measure of financial wellbeing than is the question on financial satisfaction, which would seem to have greater potential for adverse reports from high income individuals. In terms of patterns over time, differences in mean incomes by level of perceived wellbeing are reasonably stable across the survey period, with perhaps a slight widening towards the end of the period.

While mean incomes are clearly ordered by level of perceived financial wellbeing, Table 22.4 shows that there is nonetheless considerable overlap of incomes across different levels of perceived financial wellbeing. For each wellbeing measure, the table presents statistics on the distribution of equivalised income within each level of perceived wellbeing. For both wellbeing measures, the 10th percentile of the high group is well below the mean of the low group, which means that at least 10 per cent of those in the high group have lower than the average income of the low group. Similarly, the 90th percentile of the low group is above the median of the high group, which means that 10 per cent of the low group have higher incomes than at least half the high group. The last row of each panel of Table 22.4 presents the proportion of the group with an income below the income poverty line, and provides further confirmation of the looseness of the relationship between perceived financial wellbeing and income. The proportion of people in income poverty is certainly ordered by level of perceived wellbeing, but many with low perceived wellbeing are not classified as income poor, while some people with medium or high wellbeing are classified as income poor. Specifically, only 23.6 per cent of those with low prosperity, and 23.2 per cent of those with low financial satisfaction, are



**Table 22.4: Distribution of equivalised income in 2008 by level of perceived prosperity/financial satisfaction (December 2008 prices)**

	<i>Low</i>	<i>Medium</i>	<i>High</i>
<b>Prosperity</b>			
Mean (\$)	32,906	45,589	63,632
Median (\$)	31,085	42,541	53,269
10th percentile (\$)	14,522	19,418	24,016
90th percentile (\$)	56,311	73,667	102,385
Below poverty line (%)	23.6	9.8	6.3
<b>Satisfaction</b>			
Mean (\$)	35,943	43,833	51,077
Median (\$)	32,641	40,405	44,102
10th percentile (\$)	14,522	18,041	18,882
90th percentile (\$)	61,272	71,362	85,056
Below poverty line (%)	22.2	11.6	10.3

income poor; and 6.3 per cent of those with high prosperity, and 10.5 per cent of those with high financial satisfaction, are classified as income poor.

#### *How does the relationship between income and perceived financial wellbeing depend on household characteristics?*

In Table 22.5, we consider the effects of household size, disability, location, housing situation, employment situation and household income on subjective (perceived) financial wellbeing, including how the effects of income on subjective wellbeing depend on these characteristics. The table reports ‘mean marginal effects’ estimates from logit models of the effects of characteristics on the probability an individual reports being ‘comfortable’ or better, and on the probability an individual reports being ‘satisfied’ with his or her financial situation, defined as a score of 7 or more out of 10. A mean marginal effect is the average across all sample members of the effect of a characteristic on the probability of the outcome being examined—in our case, the probability of being comfortable or satisfied. In other words, the estimate gives the effect on the probability of a 1-unit increase in the value of the characteristic. (See the Glossary to this report for further details on mean marginal effects.) Income is expressed in thousands of dollars, so the effect is of a \$1,000 increase in income (December 2008 prices). The estimation sample is all eight waves of data. Note that the analysis presented here is relatively simple and that considerably more sophisticated approaches are available for investigating this topic. For example, Stewart (2009) estimates ordered probit models which utilise all of the information provided by responses on financial wellbeing.

As might be expected, all else remaining equal (including income), the probability of being comfortable or satisfied is lower for households with housing costs (mortgage repayments or rent), and households containing a person with a disability. Having an employed person in the household is also associated with lower subjective financial

wellbeing, most likely reflecting expenses associated with employment (including the need for things such as child care). Consistent with larger households requiring more resources, holding constant income and other factors, the probability of being satisfied with one’s financial situation is lower the larger the household. However, no such pattern is evident for the probability of being ‘comfortable’. Interestingly, and at odds with equivalence scales commonly used in studies of living standards, the negative mean marginal effects estimates for the children variables imply that children under 15 have a greater (negative) impact on the probability of being comfortable or satisfied than do other people.

Turning to the effect of income, we see that the probability of being comfortable and the probability of being satisfied are both increasing with income, each \$1,000 of income increasing the ‘base case’ probability of being comfortable by 0.0061 and of being satisfied by 0.0027. The ‘base case’ is a single-person owner-occupier household in Wave 8, residing in a major city, with the individual not employed and without a disability. As expected, the positive effect of income is generally lower the larger the household. For example, the mean marginal effect of income on the probability of being comfortable for a household of two adults and two children under 15 (holding all else constant) is 0.0049 (0.0061 – 0.0036 + 0.0024); for a household of four persons over 15 years of age, it is 0.0025. The interpretation of these estimates is that it takes more income to achieve a given increase in the probability of being comfortable for larger households. Furthermore evident in Table 22.5 is that income has a greater positive effect on subjective wellbeing of households containing a person with a disability.

#### **Combining subjective and objective measures of financial wellbeing**

There are two main reasons for the imperfect association (shown in Table 22.4) between income

and perceived financial wellbeing. First, although Table 22.4 examined equivalised income that notionally adjusts income for the household's needs, in reality income requirements will vary considerably across households in ways not captured by the modified OECD scale. For example, health costs and housing costs, among other things, will vary from household to household, and asset-rich households will have lower income requirements than asset-poor households. The second main reason for the imperfect association between perceived wellbeing and income is that individuals' *expectations* will vary considerably. Some individuals with quite high incomes will still regard their financial situation as inadequate, while some individuals with similar needs but with quite low incomes may nonetheless regard their financial situation as adequate.

For this latter reason, it is unlikely to be credible to assess someone as poor simply because they believe themselves to be poor or are dissatisfied

with their financial situation. However, combining subjective and objective information on financial circumstances of household can potentially produce meaningful information that is superior to relying on objective data alone.

One way of using the subjective information in conjunction with objective data is to use the results of the logit models estimated for Table 22.5 to obtain the income for different household types at which the predicted probability of being 'comfortable' or 'satisfied' reaches 50 per cent—that is, the minimum income required for the predicted probability of a satisfactory financial situation to exceed 50 per cent. However, to determine the financial predicament of an individual's household, the subjective financial wellbeing of that household would not be (directly) used. Rather, to determine the adequacy of the household's income, the actual income of the household would be compared with the income required to give that household a predicted probability of

**Table 22.5: Effects of household characteristics and income on perceived financial wellbeing—Logit mean marginal effects estimates for the probability of being 'comfortable'/'satisfied', 2001 and 2008**

	'Comfortable'	'Satisfied'
Number of household members ('1' omitted)		
2	0.0272	-0.0276
3	0.0015 <sup>+</sup>	-0.1092
4	0.0041 <sup>+</sup>	-0.0692
5	-0.0013 <sup>+</sup>	-0.1337
6 or more	0.0720	-0.0846
Number of children under 15 years of age		
1	-0.0821	-0.0970
2	-0.1221	-0.1049
3 or more	-0.0851	-0.0783
Housing situation ('Owner without mortgage' omitted)		
Owner with mortgage	-0.1397	-0.1465
Public housing tenant	-0.2989	-0.2280
Private housing tenant	-0.2502	-0.2331
Regional location	0.0076 <sup>+</sup>	-0.0015 <sup>+</sup>
Person with disability in household	-0.1202	-0.0936
Employed person in household	-0.0285	-0.0339
Household income (\$'000)	0.0061	0.0027
Household income interacted with...		
Number of household members ('1' omitted)		
2	-0.0015	0.0001 <sup>+</sup>
3	-0.0031	-0.0005 <sup>+</sup>
4	-0.0036	-0.0012
5	-0.0042	-0.0010
6 or more	-0.0054	-0.0020
Number of children under 15 years of age		
1	0.0013	0.0014
2	0.0024	0.0018
3	0.0020	0.0018
Regional location	0.0001 <sup>+</sup>	0.0007
Person with disability in household	0.0005	0.0004

*Notes:* <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level. Also included, but not reported, are wave dummies interacted with income to control for differences across the waves of the survey.

being comfortable (or satisfied) of 50 per cent. That is, rather than relying on an individual's assessment of whether they are poor to determine poverty status, we still compare their actual income with a particular benchmark; the key innovation is that the benchmark itself is determined by individuals' (collective) subjective assessments.

Results of this exercise are presented in Table 22.6 for various household types. The top panel compares single and couple households with and without children, adopting a 'base case' for other characteristics—namely, no disability in the household, not in a regional area, owner-occupied housing with a mortgage, one or more members employed, and the year is 2008. The half-median poverty line is also presented in the upper panel with incomes adjusted for household type using the modified OECD scale (as employed in all other analysis in this report examining equivalised incomes). Both the prosperity and financial satisfaction measures produce minimum income requirements that in most cases are greater than the half-median poverty line, although it should be noted that the comparison is only relevant for households with the above-mentioned 'base case' characteristics.

Perhaps more informative than the absolute levels of minimum income required to be comfortable/satisfied is the implied equivalence scale produced by the approach. This implied equivalence scale, also reported in Table 22.6, is obtained by dividing the minimum income required for each household

type by the minimum income required by a single-person household. Certainly, the two subjective wellbeing measures produce different equivalence scales to each other, as one would expect given that they measure quite different things. However, the equivalence scales they produce are more alike to each other than either is with the modified OECD scale. In particular, both suggest that additional income requirements of children are generally greater than allowed for by the OECD scale, particularly for lone-parent households.

The lower panel of Table 22.6 focuses on couple households with two dependent children, and examines the effects of variations from the base case in terms of housing situation, location of residence, disability in the household and employment in the household. It shows very large differences in income requirements depending on housing circumstances, with people owning their home outright having very minimal income requirements—indeed, all else being equal, they require only about 35 per cent of the income of a household with an outstanding mortgage. Renters, by contrast, actually require about one-third more income than households with a mortgage. People living in regional areas require less income, while households containing a person with a disability are predicted to require approximately 30 per cent more income, all else being equal, which is consistent with there being substantial costs of disability or long-term health conditions more generally. Finally, households where no-one is employed are

**Table 22.6: Minimum income at which the predicted probability of being 'comfortable' or 'satisfied' with finances exceeds 50 per cent, 2001 to 2008**

	<i>Prosperity</i>		<i>Satisfaction</i>		<i>Half-median poverty line (\$)</i>	<i>Modified OECD equivalence scale</i>
	<i>Minimum income required (\$)</i>	<i>Implied equivalence scale</i>	<i>Minimum income required (\$)</i>	<i>Implied equivalence scale</i>		
Single person	20,102	1.00	22,148	1.00	19,710	1.0
Couple	20,557	1.02	32,057	1.45	29,565	1.5
Couple, one child	47,981	2.39	78,543	3.55	35,478	1.8
Couple, two children	49,190	2.45	77,263	3.49	41,391	2.1
Lone parent, one child	29,808	1.48	45,581	2.06	25,623	1.3
Lone parent, two children	44,997	2.24	71,813	3.24	31,536	1.6
<b><i>Couple with two children</i></b>						
Base case	49,190	1.00	77,263	1.00		
Owner	19,191	0.39	26,568	0.34		
Private renter	68,858	1.40	105,509	1.37		
Public renter	78,090	1.59	105,594	1.37		
Regional area	46,530	0.95	63,116	0.82		
Disability in household	67,708	1.38	96,671	1.25		
No-one employed	42,996	0.87	65,609	0.85		

*Notes:* All estimates adopt the base case for all household characteristics other than indicated by the row heading. The base case is for Wave 8 and a household in which no-one has a disability, is not in a regional area, has a mortgage and has someone employed.

predicted to require only 85 per cent of the income of employed households, reflecting costs associated with employment.

### Concluding comments

Clearly, subjective financial wellbeing measures such as those examined in this article are not a sound basis for determining a household's financial circumstances when used in isolation. However, the indications from the brief analysis presented here is that they do convey meaningful information, and when combined with objective measures of households' financial circumstances, can improve our understanding of how households are faring. In particular, while more comprehensive analysis is required, the results presented in Table 22.6 strongly suggest there are important inadequacies in the modified OECD scale that is

commonly used in studies of household incomes to adjust incomes for differences in needs.

### Endnote

- 1 The SCQ contains other questions about the financial circumstances of respondents, but these are less clearly subjective assessments of financial wellbeing. In particular, the questions on financial stress examined in Chapter 9 are about experience of specific events, which is notionally objective information. There is also a question asked each year about the respondent's ability to raise \$2,000 at short notice, which measures acute liquidity constraints rather than financial wellbeing more broadly.

### Reference

- Stewart, M.B. (2009) 'The Estimation of Pensioner Equivalence Scales Using Subjective Data', *Review of Income and Wealth*, vol. 55, no. 4, pp. 907–29.

## 23. Job-related discrimination

Discrimination on the basis of an individual's sex, age, ethnicity, religion, family status or any other socio-demographic characteristic figures prominently in public perceptions of social injustice or inequity. Concerns about discrimination extend to all life domains, but particularly important is the employment domain, which plays a pivotal role in determining material wellbeing, sense of self-worth and subjective wellbeing more generally. Australian governments, like governments in many other countries, have sought to eliminate discrimination, including at the federal level enacting the *Racial Discrimination Act 1975*, the *Sex Discrimination Act 1984*, the *Disability Discrimination Act 1992*, the *Equal Opportunity for Women in the Workplace Act 1999* and the *Age Discrimination Act 2004*, all of which have a strong emphasis on job discrimination. However, eliminating discrimination is not easy, because it can be difficult to identify, let alone prove its existence. Ultimately, eliminating discrimination requires changes to community attitudes, and for that reason discrimination is likely to persist for some time to come.

Economists have long been interested in the issue of discrimination, and starting with the work of Becker (1957) have played an important role in defining what it means to be discriminated against in employment. In particular, they have helped clarify what is not discrimination, namely differential treatment on the basis of differential capacity to perform the job.<sup>1</sup> Thus, for example, an employer turning down a job applicant on the basis of a lack of skills may be perceived by the applicant as engaging in discrimination, but is not classified as doing so by economists, nor by governments in their framing of legislation. Legislation tends to focus on adverse treatment on the basis

of characteristics that of themselves are unlikely to directly affect ability to perform a job, including sex, age, ethnicity, religion, sexual identity and family status. In the case of disability, care is taken to prohibit discrimination only where the disability does not preclude ability to perform the job (although employers are not permitted to discriminate where the person could perform the requirements of the job if the employer made 'reasonable adjustments' for the disability).

In Wave 8, the HILDA Survey included new questions on perceived experiences of employment discrimination, both in applying for jobs and in the course of employment. Specifically, respondents who had applied for a job within the last two years were asked if they thought they were unsuccessful in any application in the period because of discrimination; and all respondents who had worked for an employer in the last two years were asked if they felt an employer had discriminated against them in that period. While there can be many bases for discrimination, the questions focused on discrimination on the basis of sex, age, ethnicity, religion and parenting responsibilities. These were deliberately chosen as characteristics unlikely to directly affect productivity, and therefore more likely to produce measures of discrimination consistent with economic and indeed government notions of discrimination. Notable by its exclusion is disability/health, which, while potentially a basis for discrimination, can also impact on the ability to carry out a job. As noted, people often believe they have experienced discrimination for reasons such as lack of experience or skills, but this is not what is meant by job discrimination. Therefore, restricting to discrimination on the basis of gender, age, ethnicity,

**What is job discrimination?**

Discrimination means many different things and different things to different people. In an employment context, it involves adverse treatment in recruitment, dismissal or in conditions and benefits offered as part of employment for reasons that are not directly related to an individual's ability to perform a job. Thus, for example, while a person may feel discriminated against if denied a job because of a lack of work experience, this is usually not regarded as discrimination. By contrast, a person denied a job because she is female, which of itself has no bearing on her ability to perform the job, would usually be regarded as a victim of job discrimination.

For this reason the HILDA questions explicitly ask respondents whether they were discriminated on the basis of a selection of characteristics—sex, age, ethnicity, religion and parenting responsibilities—that should not directly impact on productivity. Of course, an employer may discriminate on the basis of other characteristics for reasons unrelated to the ability to carry out the job. For example, Australian Government legislation prohibits discrimination on the basis of race, colour, national or ethnic origin, sex, pregnancy, marital status, age, disability, religion, sexual preference or trade union activity.

religion and parenting responsibilities helps to ensure that reports of experience of job discrimination more closely align with actual experience of job discrimination.<sup>2</sup>

Despite attempts to obtain reports corresponding to actual experience of discrimination, it must be emphasised that what is measured by the HILDA Survey is *perceptions* of experience of discrimination. Such perceptions may not equate to actual experience of discrimination, not only because a respondent may believe discrimination exists where it does not, but also because a respondent may not realise that he or she was the victim of discrimination. Indeed, it is plausible that the latter type of error is more frequent, since discrimination is typically hard to observe, not least because employers usually have strong legal (and other) incentives to make it so.

**Prevalence of job-related discrimination**

Table 23.1 presents statistics on reported discrimination on the basis of each of the five reasons. As with all analysis presented in this article, the population for the estimates of rates of discrimination in job applications is all persons who had applied for a job in the two years leading up to Wave 8 (essentially, the 2007 and 2008 calendar years). The population for the estimates of rates of discrimination in the course of employment is all persons who had been employees at some stage in the two years to Wave 8. The HILDA data indicate that 28.4 per cent of the population aged 15 years and over had applied for a job in that period, and 62.8 per cent had been an employee at some stage

of the period. Also applicable to all analysis is that all statistics relate to the experience of discrimination in that two-year period. The table shows that, among people who had applied for a job in the last two years, 1.5 per cent believed they had been unsuccessful in an application because of discrimination on the basis of their gender, 6 per cent believed they had been unsuccessful because of discrimination on the basis of their age, 1.7 per cent because of their ethnicity, 0.4 per cent because of their religion and 1.1 per cent because of their parenting responsibilities. In total, 8.3 per cent believed they had been unsuccessful in an application because of discrimination on the basis of one or more of these reasons.

Among people who had been an employee in the last two years, 2.4 per cent believed they had been discriminated against by their employer on the basis of their gender, 4.4 per cent on the basis of their age, 1.1 per cent on the basis of their ethnicity, 0.4 per cent on the basis of their religion and 1.6 per cent on the basis of their parenting responsibilities. In total 7.8 per cent of people who had been employed in the two-year period believed their employer had at some stage in that period discriminated against them on one or more of these bases.

One might expect substantial differences in rates of reporting experience of job discrimination across different demographic groups, particularly when those groups are defined by sex, age, ethnicity, religion or parenting responsibilities. Table 23.2 shows this is indeed the case. Rates of report of discrimination experienced in applying for jobs (for any of the five reasons) are higher for women, older (55 and over) persons, Indigenous persons, immigrants from non-English-speaking countries (NESB immigrants), people with a religious affiliation, especially those with a non-Christian affiliation, and women with young children (aged 0–11 years). Rates of report of discrimination experienced in the course of employment likewise differ by demographic characteristics, although there are some notable differences with discrimination in job applications. As with applying for a job, reported discrimination in employment is more

**Table 23.1: Prevalence of job-related discrimination, by reason, 2008 (%)**

	<i>Applying for a job</i>	<i>In course of employment</i>
<i>Gender</i>	1.5	2.4
<i>Age</i>	6.0	4.4
<i>Ethnicity</i>	1.7	1.1
<i>Religion</i>	0.4	0.4
<i>Parenting</i>	1.1	1.6
<i>Any of the above reasons</i>	8.3	7.8

**Table 23.2: Incidence of job-related discrimination, by demographic characteristics, 2008 (%)**

	<i>Applying for job</i>	<i>In course of employment</i>
Males	7.0	5.3
Females	9.5	10.4
<b>Age group (years)</b>		
15–24	5.6	10.3
25–34	4.4	7.6
35–44	10.0	5.9
45–54	15.0	7.4
55 and over	22.3	7.9
<b>Ethnicity and place of birth</b>		
Aboriginal/Torres Strait Islander	14.3	12.6
Other Australian born	6.9	7.7
ESB	11.1	9.0
NESB (NE, SE and S Asia)	13.4	6.1
NESB (Other)	13.5	8.2
<b>Religion</b>		
Christian	9.5	7.5
Other religion	14.4	9.8
No religion	6.2	8.0
<b>Female, and number of children aged 0–11 is...</b>		
0	9.1	10.1
1	10.4	10.3
2 or more	10.7	12.5

prevalent among women, Indigenous persons, people with a non-Christian religious affiliation and women with young children. However, reported discrimination in employment by those aged 55 years and over is no higher than in other age groups, while young people aged 15–24 have a relatively high rate of reported discrimination in employment, in contrast to their low rate of reported discrimination in applying for jobs. Furthermore, NESB immigrants and people with a Christian religious affiliation do not have high reported rates of discrimination in the course of employment. Also notable is that the female–male differential is much larger for discrimination in employment, with the reported rate of discrimination among women nearly twice that of men.

In Table 23.3 we further probe the nature of the large difference between males and females in rates of discrimination experienced in the course of employment. The table presents the proportions of men and women reporting experience of discrimination in employment on the basis of their gender, disaggregated by the level of ‘maleness’ of the industry in which they are employed, defined as the proportion of employees in the industry that is male. Three levels are distinguished: less than 30 per cent male, 30–70 per cent male, and more than 70 per cent male. The table is necessarily restricted to people currently employed at the time of interview, since industry in Wave 8 is only known for those currently employed. Strikingly, reported rates of discrimination are

**Table 23.3: Percentage of employees discriminated against in the course of employment on the basis of gender, by ‘maleness’ of industry, 2008**

	<i>Males</i>	<i>Females</i>
< 30% male	2.7	1.7
30–70% male	1.8	4.3
> 70% male	0.6	4.8
Total	1.4	3.4

*Notes:* Industries are ANZSIC 2006 1-digit level industries. Industries with < 30 per cent male comprise Education and Training and Health Care and Social Assistance. Industries with 30–70 per cent male comprise Retail Trade, Accommodation and Food Services, Information Media and Telecommunications, Financial and Insurance Services, Rental, Hiring and Real Estate Services, Professional, Scientific and Technical Services, Administrative and Support Services, Public Administration and Safety, Arts and Recreation Services and Other Services. Industries with > 70 per cent male comprise Agriculture, Forestry and Fishing, Mining, Manufacturing, Electricity, Gas, Water and Waste Services, Construction, Wholesale Trade and Transport, Postal and Warehousing.

clearly ordered by level of maleness of the industry, for both men and women. For women, the proportion reporting discrimination is 1.7 per cent among those employed in industries in which fewer than 30 per cent of employees are male, 4.3 per cent in industries in which 30–70 per cent of employees are male, and 4.8 per cent in industries in which more than 70 per cent of employees are male. For males, the corresponding figures are 2.7, 1.8 and 0.6. While lower, they show the expected reverse ordering to that evident for females. Despite this ordering, it is significant that, even in industries with similar proportions of males and females, the rate of perceived gender discrimination among females is relatively high.

### Factors associated with experience of job-related discrimination

Job discrimination is, almost by definition, primarily experienced by particular groups in the community—specifically, groups generally regarded as minorities. However, as the preceding analysis has shown, even among those groups most prone to experiencing discrimination, such as women and ethnic and religious minorities, relatively small proportions report experiencing discrimination. Moreover, some people who do not fall into any of these minority groups nonetheless report experiencing discrimination. A natural question to follow from this finding is ‘What factors determine whether a person perceives that he or she is a victim of employment-related discrimination?’

One way to investigate this question is to estimate regression models of the probability a person reports experiencing discrimination (on any basis) as a function of various factors on which the HILDA Survey contains information. Table 23.4 thus reports probit regression model estimates of the ‘mean marginal effects’ of factors on the probability of experiencing discrimination in applying

for a job and on the probability of experiencing discrimination in the course of employment. These two models allow us to make inferences on the individual contribution of each factor to the likelihood an individual experiences discrimination. The sample for the job application discrimination model comprises all persons who indicated they had applied for a job in the two years preceding the Wave 8 interview. The sample for the in-job discrimination model comprises employees in Wave 8 who had been with their current employer for at least two years. The restriction to employees with at least two years tenure with their current employer ensures that job-related factors included in the regression model capture characteristics of the employer who actually discriminated against the employee, since respondents are asked about discrimination experienced in the last two years

Factors examined for the experience of discrimination in applying for a job comprise sex, age, place of birth and ethnicity, religious affiliation, presence of young children (for women only), educational attainment, household income, region of residence, socio-economic status of area, extent to which the individual trusts others, and, for women only, the extent to which the individual has 'traditional' views on marriage and children and on work and family. The extent of trust in others is measured by the sum of scores on five items included in the self-completion questionnaire (SCQ). The variable ranges in value from 5 (completely untrusting) to 35 (completely trusting).<sup>3</sup> Similarly, the extent to which traditional views are held is calculated as the sum of scores on nine SCQ items for marriage and children (giving a score between 9 and 63) and on 17 SCQ items for parenting and work (giving a score between 17 and 119). A higher score equates to more traditional views.<sup>4</sup>

The same factors are examined for the determination of experience of discrimination in the course of employment, with the effects of various employment characteristics also considered: gender mix of the respondent's workplace, male-ness of the respondent's industry of employment, years with current employer, part-time status, type of employment contract, hourly wage, union membership, workplace size, sector of employment, whether have supervisory responsibilities and, for NESB immigrants, the proportion of their industry who are NESB immigrants.

Perceived experience of discrimination is likely to in part reflect inherent traits of individuals that affect perceptions (as opposed to actual experience). It is for this reason that the variable 'level of trust' is included in the models, on the basis that it can control for differences in predilections to see the best or worst in others. People who are very trusting tend to see the 'best' in others and so, all else being equal, are unlikely to perceive that an employer has discriminated against them;

while people who are not very trusting tend to see the 'worst' in others, and are therefore relatively likely to believe that they have been discriminated against. Including this variable helps to increase faith that we are identifying the true effects of characteristics on the likelihood of being discriminated against. However, it should be acknowledged that reduced trust in others could in part be caused by past experience of discrimination, rather than reduced trust in others being the cause of greater perceived experience of discrimination.

Level of trust is indeed a significant predictor of reporting experience of discrimination in both job applications and in the course of employment. The estimates imply that an individual who is completely untrusting (score of 5) has on average a 0.24 higher probability of reporting discrimination in applying for a job than an individual who is completely trusting (score of 35). For in-job discrimination, the corresponding increase in probability is 0.12. These are substantial effects when one considers that the probability of reporting discrimination over all persons is less than 0.1 for both types of discrimination. The interaction term between 'female' and level of trust is not statistically significant, indicating that the effects of level of trust do not significantly differ for men and women.

Turning to factors for which we are attempting to identify effects on *actual* (as opposed to simply *perceived*) discrimination, a clear positive and significant effect for both types of discrimination is evident for women. Holding all else constant, being a woman increases the probability of reporting discrimination by 0.12 in the case of job applications and by 0.16 in the case of in-job discrimination.

Somewhat surprisingly, aside from sex and trust, the effects and/or statistical significance of all other factors included in both the job-applications and in-job models differ for the two types of discrimination. It thus appears that they have quite different determinants. Being older, having a religious affiliation, lower income, being a female with non-traditional views on work and family, and living in a low socio-economic status region, are all associated with significant positive effects on the probability of experiencing discrimination in applying for a job. No significant effects on the likelihood of experiencing discrimination in applying for a job are found for place of birth and ethnicity, the presence of young children for women, female views on marriage and children, or living in a regional area. For in-job discrimination, by contrast, positive effects are found for being aged 15–24 years or 55 years and over and for higher levels of educational attainment, and—surprisingly—*negative* effects are found for being a NESB immigrant. No significant effects are found for religious affiliation, traditional views of women, income or location of residence.

Additional employment-related factors considered for discrimination in employment show, for males,

an increased probability of discrimination if they perceive the majority of people in their workplace to be female. To identify the effects of workplace gender mix for females, the estimates for the uninteracted gender mix variables need to be combined with the estimates for the gender mix variables that are interacted with the 'female' dummy. This shows, somewhat surprisingly, no significant effect of the gender composition of the workplace for females, although the point estimates imply an adverse effect of the majority of the workplace being male which is about half the magnitude of the effect evident for males when it comes to the majority being female.

Also evident is that the higher the employee's hourly wage, the less likely he or she is to report discrimination in employment, although whether this represents a cause or consequence of discrimination is

unclear—that is, the observed association could be because higher-wage employees are less prone to experiencing discrimination, or because experiencing discrimination causes lower wages. The table also shows that being a union member and having a supervisory role are both, perhaps surprisingly, associated with increased probabilities of reporting discrimination. However, this may reflect greater awareness of discrimination rather than greater actual experience of discrimination. As mentioned, under-reporting could occur because of the inherent difficulty in observing discrimination, which may be less of an issue for union members and employees in supervisory roles. No significant effects are found for the maleness of the industry, the NESB immigrant share of industry employment exceeding 15 per cent, tenure with current employer, part-time status, contract type, workplace size or sector of employment. The dummy indicator for the

**Table 23.4: Factors associated with job-related discrimination, 2008—Probit model mean marginal effects**

<i>Factors applying to discrimination both in applying for and in job</i>	<i>Applying for job</i>		<i>Factors applying to discrimination in job only</i>	
	<i>In job</i>	<i>In job</i>	<i>In job</i>	
Female	0.121	0.161	<i>Gender mix of workplace ('About same' omitted)</i>	
<i>Age in years ('15–24' omitted)</i>			Majority is male	0.013 <sup>+</sup>
25–34	–0.020	–0.039	Majority is female	0.058
35–44	0.022 <sup>+</sup>	–0.031	Majority is male x female	0.014 <sup>+</sup>
45–54	0.107	–0.025	Majority is female x female	–0.050
55 and over	0.165	–0.010 <sup>+</sup>	<i>Maleness of industry ('30–70% male' omitted)</i>	
<i>Place of birth and ethnicity ('ESB' omitted)</i>			< 30% male	–0.029 <sup>+</sup>
Aboriginal/Torres Strait Islander	0.021 <sup>+</sup>	0.035 <sup>+</sup>	> 70% male	–0.010 <sup>+</sup>
Other Australian born	–0.016 <sup>+</sup>	–0.018 <sup>+</sup>	< 30% male x female	–0.006 <sup>+</sup>
NESB (NE, SE and S Asia)	0.011 <sup>+</sup>	–0.060	> 70% male x female	0.006 <sup>+</sup>
NESB (Other)	0.022 <sup>+</sup>	–0.040	NESB & > 15% of industry NESB	0.036 <sup>+</sup>
<i>Religion ('Christian' omitted)</i>			Years with current employer	–0.001 <sup>+</sup>
Other religion	0.015 <sup>+</sup>	0.028 <sup>+</sup>	Part-time worker	–0.014 <sup>+</sup>
No religion	–0.020	–0.000 <sup>+</sup>	<i>Contract type ('Permanent' omitted)</i>	
Female with child aged 0–4 years	0.015 <sup>+</sup>	0.060	Fixed term	–0.003 <sup>+</sup>
Female with child aged 5–11 years	–0.013 <sup>+</sup>	0.012 <sup>+</sup>	Casual	0.011 <sup>+</sup>
<i>Educational attainment ('Less than Year 10' omitted)</i>			Hourly wage	–0.001
Degree or higher	–0.039 <sup>+</sup>	0.055	Union member	0.024
Diploma, Certificate III/IV	–0.035 <sup>+</sup>	0.030	Supervisor	0.014
Year 12	–0.052 <sup>+</sup>	0.027 <sup>+</sup>	<i>Workplace size ('Fewer than 20 workers' omitted)</i>	
Year 10/11 or Certificate I/II	–0.069	–0.002 <sup>+</sup>	20 to 99	0.003 <sup>+</sup>
Equivalentised income (in \$1,000)	–0.001	0.000 <sup>+</sup>	100 or more	0.009 <sup>+</sup>
<i>Region ('Major city' omitted)</i>			Public sector	0.017 <sup>+</sup>
Inner regional	–0.006 <sup>+</sup>	–0.013 <sup>+</sup>		
Outer regional/remote	0.005 <sup>+</sup>	–0.015 <sup>+</sup>		
SEIFA index (deciles)	–0.006	–0.001		
Level of trust	–0.008	–0.004		
Level of trust x female	0.002 <sup>+</sup>	–0.002 <sup>+</sup>		
Traditional views on marriage & children x female	–0.002 <sup>+</sup>	–0.000 <sup>+</sup>		
Traditional views on work & family x female	–0.001	–0.001 <sup>+</sup>		

*Notes:* <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level. Number of observations is 2,529 for 'applying for job' and 4,849 for 'in job'. 'NESB & > 15 per cent of industry NESB'—NESB immigrant and more than 15 per cent of workers in the individual's industry of employment are NESB immigrants. Industries with more than 15 per cent of workers being NESB immigrants comprise Manufacturing, Accommodation and food services, Financial and insurance services, Professional, scientific and technical services, Administrative and support services and Health care and social assistance.

NESB immigrant share of industry employment exceeding 15 per cent, interacted with NESB immigrant status, was included on the basis that an NESB immigrant working in an industry with a relatively high NESB immigrant share is less likely to experience discrimination. However, given that, all else being equal, NESB immigrants are less likely to report experiencing discrimination in their current job, it is unsurprising that the NESB immigrant share of industry employment does not matter. The lack of significant effects for maleness of the industry is at odds with descriptive evidence presented in Table 23.3, implying differences in rates of discrimination by maleness of industry derive from differences in other industry characteristics that are correlated with maleness of the industry.

**How do employment and other outcomes of those reporting experience of discrimination compare with outcomes of others?**

Table 23.5 compares various outcomes of those reporting experience of discrimination with outcomes of those reporting no discrimination. As with the examination of the factors associated with discrimination in the course of employment, the population is restricted to current employees who have been with the current employer at least two years. Note, therefore, that outcomes for those reporting discrimination may look worse if all employees experiencing discrimination in the course of employment could be included in Table 23.5, since it is likely that many of those experiencing discrimination do not remain with the employer who has discriminated against them. In particular, we might expect satisfaction with the various aspects of the job to be particularly low among those victims of discrimination who have already left that job, and who are correspondingly excluded from the table.

<b>Table 23.5: Outcomes by discrimination status in current job, 2008 (means)</b>		
	<i>Not discriminated against in current job</i>	<i>Discriminated against in current job</i>
<i>Satisfaction (0–10 scale) with ...</i>		
Pay	7.2	6.2
Job security	8.2	7.3
Work itself	7.8	6.8
Working hours	7.4	6.4
Job flexibility	7.4	6.2
Job overall	7.8	6.6
<i>Per cent chance of ... in next 12 months?</i>		
Leaving job voluntarily	18.6	30.2
Losing job involuntarily	8.7	12.3
Hourly wage (\$)	28.0	26.3
Equivalised household income (\$)	51,605	52,254
Life satisfaction	7.9	7.4

Clearly, and as one would expect, employees who feel their current employer has discriminated against them are considerably less satisfied with the job, averaging 6.6 out of 10 compared with 7.8 for employees who do not think their employer has discriminated against them. Employees who believe the current employer has discriminated against them are also less satisfied with all individual aspects of the job for which the HILDA Survey obtains measures, namely, pay, job security, the work itself, working hours and job flexibility. The average difference in satisfaction is particularly large for job security, with the discriminated-against averaging 7.3 compared with 8.2 for those not discriminated against. Consistent with this, the expected probability of involuntarily losing the current job also tends to be higher for those who believe they have been discriminated against, averaging 12.3 per cent compared with 8.7 per cent. The discriminated-against also report a much higher average probability of voluntarily leaving the current job, which is unsurprising given their dissatisfaction with the job.

Other outcomes compared in Table 23.5 which, it must be emphasised, are not necessarily caused by discrimination, are hourly wages, household income and life satisfaction. The mean hourly wage is \$1.70 less for those who believe they have been discriminated against, but their mean equivalised household income is actually slightly higher. For life satisfaction, it seems that dissatisfaction with the job translates to lower overall life satisfaction, with mean satisfaction 7.4 compared with 7.9 for employees who do not believe they have been discriminated against.

**Conclusion**

The prevalence of job discrimination on the basis of gender, age, ethnicity, religion or parenting responsibilities is, at least as perceived by potential victims of discrimination, of significant proportions in the Australian labour market, particularly for certain groups of employees such as women, the young and old, Indigenous persons and women with young children. By far the most common reason cited for discrimination is age, although significant numbers, mostly women, believe they have been discriminated against in the course of employment because of their gender.

While gender is a common factor predicting discrimination in both job applications and in the course of employment, the determinants of the two types of discrimination are otherwise somewhat different. Most notably, while age influences the likelihood of both discrimination types, it is being both young and old that increases the probability of being subject to discrimination in the job, whereas it is only being old that increases the probability of being a victim of discrimination in applying for jobs. Also of note is that women with young children (aged 0–4 years) have, all else being equal, a

higher probability of experiencing discrimination in the job, but not in applying for jobs, which may be related to the fact that employers will often not know whether a female job applicant has children, and so therefore are unable to discriminate on this basis when someone is applying for a job. Once a woman is employed, it will typically become apparent that she has young children, and indeed, it may be for reasons such as failure to (satisfactorily) accommodate requests for time off to attend to sick children that the employee believes she has been discriminated against.

### Endnotes

- 1 Economics research has also developed theories of how and why discrimination occurs and has produced evidence on the incidence, extent and nature of discrimination in a number of countries. See Cain (1987) and Altonji and Blank (1999) for summaries of the findings of this research.
- 2 The questions about discrimination in applying for a job (but not the questions about discrimination experienced in the job) identified persons who believed they had been discriminated against for any reason. We classify a person as experiencing discrimination in applying for a job only if he or she reported being discriminated against on the basis of gender, age, ethnicity, religion or parenting responsibilities. The HILDA data show 11.9 per cent of people who had applied for a job reported being unsuccessful because of discrimination for any reason, compared with 8.3 per cent reporting being unsuccessful for one or more of the five reasons—that is, 3.6 per cent of job applicants believed they had been discriminated against only for reasons other than their gender, age, ethnicity, religion and parenting responsibilities.
- 3 Respondents were asked the following question on trust: To what extent do you agree with the following statements? *a. Most people would try to take advantage of you if they got the chance; b. Most people you meet keep their word; c. Most people you meet succeed by stepping on other people; d. Most people you meet make agreements honestly; and e. Generally speaking, most people can be trusted.* For each item, respondents selected a score of 1 (strongly disagree) to 7 (strongly agree). A respondent's total trust score was calculated as  $(8 - a) + b + (8 - c) + d + e$ .
- 4 Respondents were asked to indicate on a 1–7 scale the extent to which they agreed or disagreed with the following statements on attitudes to marriage and children: *a. It is alright for an unmarried couple to live together even if they have no intention of marrying; b. Marriage is a lifetime relationship and should never be ended; c. Marriage is an outdated institution; d. It is alright for a couple with an unhappy marriage to get a divorce even if they have children; e. A woman has to have children in order to be fulfilled; f. A man has to have children in order to be fulfilled; g. Children will usually grow up happier if they have a home with both a father and a mother; h. It is alright for a woman to have a child as a*

*single parent even if she doesn't want to have a stable relationship with a man; i. When children turn about 18–20 years old they should start to live independently; and j. Homosexual couples should have the same rights as heterosexual couples do.* A respondent's total score for the extent to which she holds traditional views about marriage and children was calculated as  $(8 - a) + b + (8 - c) + (8 - d) + e + g + (8 - h) + i + (8 - j)$ . (Statement *f* is not included in the construction of the score because agreement with the statement does not necessarily translate to a more- or less-traditional view.)

For attitudes to parenting and work, respondents were asked to indicate on a 1–7 scale the extent of agreement with the following statements: *a. Many working mothers seem to care more about being successful at work than meeting the needs of their children; b. Many working fathers seem to care more about being successful at work than meeting the needs of their children; c. If both partners in a couple work, they should share equally in the housework and care of children; d. Whatever career a woman may have, her most important role in life is still that of being a mother; e. Whatever career a man may have, his most important role in life is still that of being a father; f. Mothers who don't really need the money shouldn't work; g. Children do just as well if the mother earns the money and the father cares for the home and children; h. It is better for everyone involved if the man earns the money and the woman takes care of the home and children; i. As long as the care is good, it is fine for children under 3 years of age to be placed in child care all day for 5 days a week; j. A working mother can establish just as good a relationship with her children as a mother who does not work for pay; k. A working father can establish just as good a relationship with his children as a father who does not work for pay; l. A father should be as heavily involved in the care of his children as the mother; m. It is not good for a relationship if the woman earns more than the man; n. On the whole, men make better political leaders than women do; o. A preschool child is likely to suffer if his/her mother works full-time; p. Children often suffer because their fathers concentrate too much on their work; and q. If parents divorce it is usually better for the child to stay with the mother than with the father.* A respondent's total score for the extent to which she holds traditional views about parenting and work was calculated as  $a + (8 - b) + (8 - c) + d + (8 - e) + f + (8 - g) + h + (8 - i) + (8 - j) + k + (8 - l) + m + n + o + (8 - p) + q$ .

### References

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## 24. Dismissal from employment

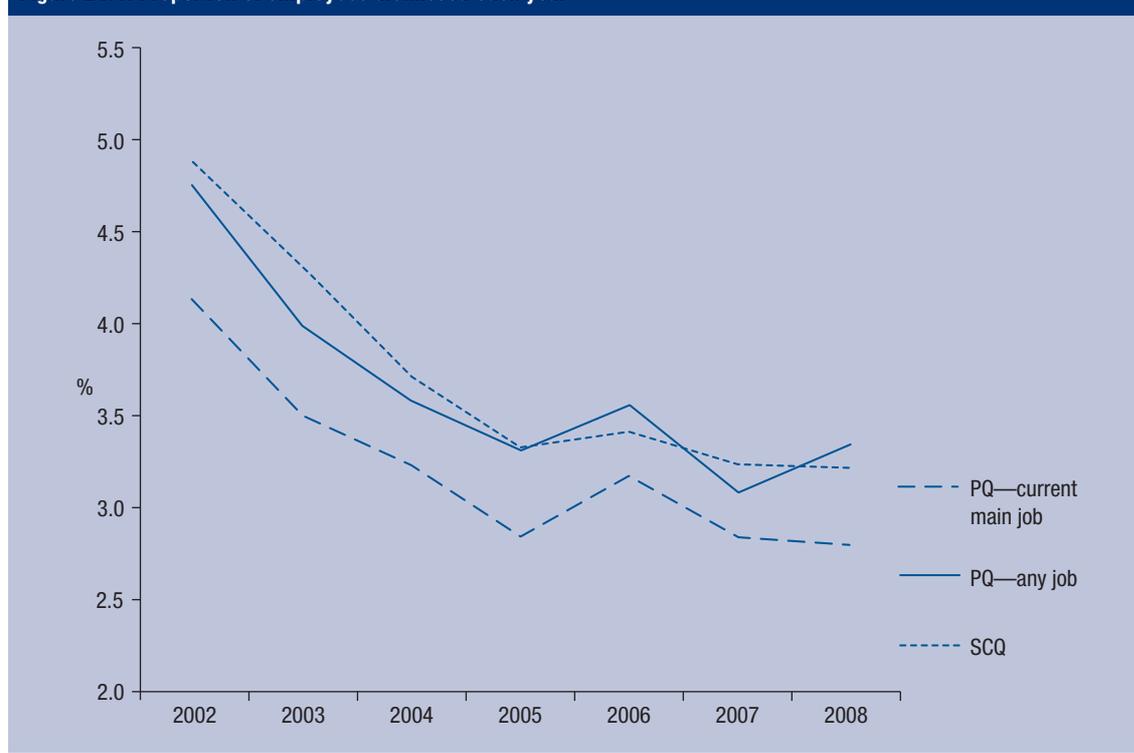
Dismissal from employment is usually if not always involuntary from the perspective of the employee and is therefore likely to be an undesirable experience for most employees. It often causes substantial upheaval to the life of the dismissed worker and the lives of family members, potentially including a period of joblessness and associated loss of income (which in some cases is permanent), loss of self-confidence and sense of self-worth, changes to living arrangements, sometimes including moving to another location to obtain new employment and, in the event that new employment is obtained, coming to terms with a new job which may require different skills and which may also involve less attractive pay and conditions. Perhaps the only situation in which dismissal from employment is not undesirable is voluntary redundancy for which generous retrenchment packages are given, but these are not very common.

Information on dismissal from employment is obtained in both the person questionnaire (PQ) and the self-completion questionnaire (SCQ) of the HILDA Survey. In the PQ, since Wave 2, persons who have changed employers or ceased working since the last interview have been asked the main reason they stopped working in the job held at the time of last interview. In addition, the HILDA Survey obtains the main reason for stopping work in the most recently-ceased of any jobs that commenced after the last interview. (Note, however, that persons who remained employed

by the same employer in their main job are not asked the reasons for stopping any jobs that commenced after the previous interview.) One of the response options available to interviewers for coding responses to these questions is 'Got laid off / No work available / Retrenched / Made redundant / Employer went out of business / Dismissed etc.' This response option thus covers a number of scenarios, but all involve termination of employment that is not initiated by the employee.<sup>1</sup>

The SCQ contains a 'life events inventory' which asks respondents to indicate whether each of 21 major life events has occurred in the preceding 12 months. One of these events is 'Fired or made redundant by employer'. This is a narrower conception of job dismissal, but can potentially capture more dismissals because it (implicitly) asks about all jobs held in the last 12 months. The PQ obtains reasons for leaving a job for at most two jobs—that held at the time of last interview and that most-recently left. Note also that the PQ reference period is from the date of last interview to the date of current interview, which will typically be approximately one year, but may not be, most notably in the case where a respondent did not respond in one or more of the preceding waves. We have, however, excluded persons from the PQ estimates who were not interviewed in the last wave in order to produce a more determinate time-frame for reports of dismissals.

Figure 24.1: Proportion of employees dismissed each year



	15–24	25–44	45–54	55 and over	Total
<b>Males</b>					
PQ—current main job	4.5	3.5	3.4	3.7	3.7
PQ—any job	5.6	3.9	3.5	3.8	4.2
SCQ	5.3	4.4	3.2	3.6	4.3
<b>Females</b>					
PQ—current main job	3.2	2.5	2.3	2.4	2.6
PQ—any job	4.3	2.8	2.5	2.5	3.0
SCQ	4.0	2.8	2.9	2.6	3.1

Figure 24.1 presents estimates of dismissal rates (the proportion of employees dismissed each year) from the PQ and SCQ. Two sets of estimates are presented from the PQ. The first set gives the proportion of employees reporting dismissal from any job, be it the main job held at the time of the previous interview or a job that commenced after the previous interview. The second PQ measure restricts to dismissals from the main job held at the time of the previous interview, and is the measure on which most of the remaining analysis presented in this article focuses. This is because it is most suited to examining the types of jobs susceptible to dismissal, since detailed information is collected about these jobs, whereas relatively little information is collected about jobs that commenced and ended in-between waves. All three measures restrict the analysis to persons who were employees at the time of the previous interview, so that all three dismissal rates represent the proportion of employees in the previous wave dismissed from employment in the subsequent year.

The ‘any job’ dismissal rate from the PQ and the SCQ dismissal rate are the most comparable measures from the PQ and SCQ, and indeed produce very similar estimates. For both measures, the dismissal rate steadily fell from approximately 4.75 per cent in the year to 2002 to 3.3 per cent in the year to 2005, thereafter showing no clear trend change, hovering between 3 and 3.6 per cent up until the end of the sample period.

Table 24.1 presents dismissal rates by sex and age group. To increase precision of the estimates, results are presented for all years (waves) combined. For both males and females, young employees have higher rates of dismissal than other employees. Dismissal rates are broadly quite similar across the 25–44, 45–54 and 55–plus age groups. Perhaps most striking in the table is that dismissal rates are considerably higher for males than females, being over 40 per cent higher for all three measures. The higher rates apply across all age groups, although the PQ measures indicate the difference is largest among employees over 55 years of age, among whom the ‘any job’ dismissal rate is 3.8 per cent for men and 2.5 per cent for women, a difference of 52 per cent.

**Table 24.2: Dismissal rates from current main job, 2001 to 2008 (%)**

Part-time	3.5
Full-time	3.0
Permanent/ongoing	2.7
Fixed-term	3.4
Casual	4.6
<i>Note:</i> Dismissal measure is ‘PQ—current main job’.	

It would seem unlikely that all types of jobs are equally susceptible to dismissal from employment, and Table 24.2 presents some cursory evidence that this is the case. Part-time employees are more likely to be dismissed than full-time employees, and casual employees are more likely to be dismissed than fixed-term contract employees, who in turn are more likely to be dismissed than permanent or ongoing employees. It therefore appears that the likelihood of dismissal is lower the stronger and longer-term the employment connection between the employee and employer, since the dismissal rates are lowest for those with full-time hours of work and a permanent or ongoing contract of employment.

### **Employee characteristics associated with job dismissal**

Table 24.1 presented some preliminary indications of employee characteristics associated with dismissal—namely, being young and being male. More detailed investigation can be undertaken by estimating regression models of the probability of dismissal as a function of employee characteristics. Table 24.3 presents regression results from estimation of such models. The estimates are mean marginal effects estimates obtained from logit models (see the Glossary for further details on logit models and mean marginal effects). The random effects logit is a model that takes into account that we have multiple ‘observations’ on each sample member (one for each wave the sample member is an employee and therefore ‘at risk’ of dismissal). The pooled logit model simply pools all waves together and treats each ‘wave-person’ observation as an independent observation, and therefore doesn’t take into account that some individuals may have unobserved characteristics that make

them more or less likely to be dismissed. Not accounting for these unobserved characteristics can lead to different estimates—most commonly, to overestimation of the effects of a characteristic.

Consistent with Table 24.1, there is a substantial positive effect of being male and of being aged 15–24, even after controlling for other characteristics. Poorer health and the presence of a disability are also associated with a greater likelihood of dismissal. In Wave 5, a battery of questions was administered in the SCQ that allows derivation of five measures capturing dimensions of an individual’s personality: extroversion, agreeableness, conscientiousness, emotional stability and openness; see Watson (2010) and Saucier (1994) for details. These measures are included in the regression models reported in Table 24.3, on the assumption that personality traits do not change over time and thus the Wave-5 values are assigned to individuals in every wave. Greater extroversion and openness to new experiences are both associated with a greater likelihood of dismissal, while other personality traits are not associated with significant effects. Immigrants from the main English-speaking countries (ESB immigrants) have the highest rate of dismissal, all else being equal.

**Job characteristics associated with job dismissal**

In Table 24.4, the characteristics investigated are extended, primarily by adding explanatory variables for characteristics of the job. In addition,

variables for household income and the work experience of the employee are included. Note that all of the explanatory variables included in the regressions reported in Table 24.3 are retained in these regression models, but the estimates for these variables are not presented in the table. However, we find that estimates for these variables are similar to those reported in Table 24.3, albeit quantitatively slightly smaller.

As might be expected, increased tenure in the current job is associated with a reduced probability of dismissal. The point estimates also imply that trade union membership has the expected effect of reducing the likelihood of dismissal; however, the estimates are not statistically significant. Casual employees are more likely to be dismissed, as are private sector employees and employees of small businesses. Working nights or irregular shifts is associated with a lower probability of dismissal, possibly because employees willing to work in such jobs are harder to find. Professionals and clerical workers are relatively unlikely to be dismissed compared with workers in other occupations. In terms of industry differences, employees in manufacturing and construction are the most likely to be dismissed, all else being equal, and employees in cultural, recreational and personal services are the least likely to be dismissed, while employees in all other industries appear to be similarly likely to be dismissed. Random effects models, but not pooled logit models, indicate that employees with little work experience are significantly more likely to be dismissed.

**Table 24.3: Employee characteristics associated with dismissal, 2001–2008**

	<i>Pooled logit</i>	<i>Random effects logit</i>
Male	0.0114	0.0079
<i>Age group ('35–44' omitted)</i>		
15–24	0.0058	0.0037
25–34	–0.0002 <sup>+</sup>	0.0000 <sup>+</sup>
45–54	–0.0032 <sup>+</sup>	–0.0020 <sup>+</sup>
55 and over	0.0023 <sup>+</sup>	0.0022 <sup>+</sup>
<i>Educational attainment ('No post-school qualifications' omitted)</i>		
Degree or higher	–0.0139	–0.0097
Other post-school qualification	–0.0041	–0.0033
Have a disability	0.0045	0.0031
Level of general health	–0.0002	–0.0001
<i>Personality</i>		
Extroversion	0.0028	0.0019
Agreeableness	0.0004 <sup>+</sup>	0.0003 <sup>+</sup>
Conscientiousness	–0.0015 <sup>+</sup>	–0.0011 <sup>+</sup>
Emotional stability	–0.0003 <sup>+</sup>	–0.0003 <sup>+</sup>
Openness	0.0016	0.0013
<i>Immigrant status/ethnicity</i>		
ESB immigrant	0.0062	0.0046
NESB immigrant or Indigenous	0.0042 <sup>+</sup>	0.0028 <sup>+</sup>
Wave	–0.0017	–0.0012

Notes: Estimates are mean marginal effects. <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level.

### Concluding comments

The finding that the estimated effects of employee characteristics—sex, age, educational attainment, health, personality and immigrant status/ethnicity—are largely robust to the addition of variables capturing job and employer characteristics is potentially significant. It suggests that the higher probabilities of dismissal for males, young people, the disabled, the less-educated, immigrants, people with extroverted personalities and people with a high degree of ‘openness to new experiences’ cannot simply be explained by the types of jobs these individuals do. The implication is that

there are inherent traits that make individuals with these characteristics more likely to be dismissed from any job that they do. This could be due to their behaviour in the workplace, but it could also be due to the behaviour of employers, who may be more willing to fire certain types of workers. However, it should also be noted that the HILDA Survey obtains only limited information on the characteristics of employers and jobs. Workers with the above personal characteristics may in fact be more likely to work in jobs with characteristics associated with dismissal, but these characteristics may be unobserved in the HILDA data.

**Table 24.4: Employment characteristics associated with dismissal, 2001–2008**

	<i>Pooled logit</i>	<i>Random effects logit</i>
Household income	0.0000 <sup>+</sup>	0.0000
<i>Work experience</i>		
0–5 years	0.0028 <sup>+</sup>	0.0024
5–10 years	–0.0004 <sup>+</sup>	–0.0004
10–20 years	–0.0069 <sup>+</sup>	–0.0060
20–30 years	–0.0076 <sup>+</sup>	–0.0067
> 30 years	–0.0046 <sup>+</sup>	–0.0042
Member of trade union	–0.0013 <sup>+</sup>	–0.0015 <sup>+</sup>
Tenure with current employer (years)	–0.0010	–0.0008
<i>Occupation ('Managers' omitted)</i>		
Professionals	–0.0084	–0.0068
Technicians and trades workers	–0.0023 <sup>+</sup>	–0.0020 <sup>+</sup>
Community and personal service workers	–0.0019 <sup>+</sup>	–0.0014 <sup>+</sup>
Clerical and administrative workers	–0.0083	–0.0070
Sales workers	–0.0054 <sup>+</sup>	–0.0044 <sup>+</sup>
Machinery operators and drivers	–0.0052 <sup>+</sup>	–0.0041 <sup>+</sup>
Labourers	0.0004 <sup>+</sup>	0.0005 <sup>+</sup>
<i>Industry ('Agriculture, mining, utilities' omitted)</i>		
Manufacturing	0.0116	0.0098
Construction	0.0166	0.0136
Wholesale and retail trade	–0.0029 <sup>+</sup>	–0.0024 <sup>+</sup>
Hospitality	0.0007 <sup>+</sup>	0.0006 <sup>+</sup>
Transport, communication	0.0075 <sup>+</sup>	0.0064 <sup>+</sup>
Finance, business services	0.0069 <sup>+</sup>	0.0055 <sup>+</sup>
Government, education, health	–0.0023 <sup>+</sup>	–0.0021 <sup>+</sup>
Cultural, recreational and personal services	–0.0214	–0.0181
Part-time	–0.0007 <sup>+</sup>	–0.0002 <sup>+</sup>
<i>Contract of employment ('Permanent/ongoing' omitted)</i>		
Fixed-term contract	0.0047 <sup>+</sup>	0.0037 <sup>+</sup>
Casual employee	0.0127	0.0101
Hourly wage	0.0000 <sup>+</sup>	0.0000 <sup>+</sup>
Private sector	0.0078	0.0063
<i>Firm size ('&gt; 100' omitted)</i>		
0–20 employees	0.0099	0.0086
20–100 employees	0.0051	0.0046
Work on weekends	–0.0002 <sup>+</sup>	–0.0002 <sup>+</sup>
Work nights or irregular shifts	–0.0068	–0.0057
Wave	–0.0029	–0.0024

*Notes:* Estimates are mean marginal effects. <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level. Also included in the above specifications, but not reported, are all variables reported in Table 24.3.

**Endnote**

1 Another response option is 'Job was temporary or seasonal' which could be interpreted as termination of employment initiated by the employer. However, employees will typically take these jobs knowing that they are short-term, and in some—possibly most—cases will only desire short-term employment. We therefore exclude this response option from our definition of job dismissal.

**References**

Saucier, G. (1994) 'Mini-Markers: A Brief Version of Goldberg's Unipolar Big-Five Markers', *Journal of Personality Assessment*, vol. 63, no. 3, pp. 506–16.

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## 25. Couples' coordination of retirement

As a growing number of women approach old age with substantial work histories, the topic of couples' retirement is becoming increasingly important. The decision about whether one or both members of a couple should leave the labour force is dependent on many factors, including preferences for joint leisure time, work-limiting health conditions, caring responsibilities, pension eligibility and the resulting change in household income if one or both members of the couple are no longer in paid work. Therefore, it is likely that in couple households, decisions about retirement are usually made by both members of the couple, rather than by the individuals alone.

Couples joint labour force transitions between 2001 and 2008, computed by comparing the distribution of couples in each labour force state in each year conditional on their labour force status in the previous year, are presented in Table 25.1.

Among couples who are either both in paid work or both out of the labour force, there is a relatively high degree of persistence in labour force status from one year to the next, with 96 per cent of couples who were both not in paid employment and 88 per cent of couples who were both employed still in the same labour force state one year later. Still, there is some evidence of joint retirement—2 per cent of couples who were both employed, 14 per cent of couples in which only the husband was employed and 13 per cent of couples in which only the wife was employed had moved to joint retirement by the following year.

Concentrating on mature age couples who were both in paid employment in 2001, 13 per cent had

moved to joint retirement by 2008. Table 25.2 shows that, among mature age couples who were both employed in 2001 and both retired by 2008, more than half had retired within one year of their spouse, and a further 18 per cent had retired within two years of their spouse's retirement.

### Couples' coordination of full and partial retirement

In the retirement modules included in the third and seventh waves of the HILDA Survey (2003 and 2007), men and women who were living with a spouse or partner when they either fully or partly retired were asked about the labour force status of their partner at the time of their retirement. Table 25.3 shows the retirement status of the spouse at the time of their partner's (complete or partial) retirement. When partnered women retired from the labour force, over 60 per cent had a spouse or partner who was still working full-time. For men, the situation is quite different. In 2007, 44 per cent of men who were partly retired and 65 per cent of men who were completely retired had a spouse or partner who was not in the labour force at the time of their retirement.

Men and women who (either fully or partly) retired after their spouse had retired were asked how long before they retired their spouse or partner had stopped working. The distribution of responses is shown in Table 25.4.

Just over 30 per cent of men who were either fully or partly retired said that their spouse had never worked, and the majority of men who had a

**Table 25.1: Labour force transitions between 2001 and 2008—Couples, husband aged 45 and over, 2001–2008 (%)**

Labour force status at time <i>t</i> -1	Labour force status at time <i>t</i>				Total
	Both employed	Husband employed	Wife employed	Both not employed	
Both employed	88.4	6.2	3.5	2.0	100.0
Husband employed	13.7	71.9	*0.7	14.0	100.0
Wife employed	14.6	*1.8	70.7	13.2	100.0
Both not employed	0.6	2.3	1.3	95.7	100.0
Total	35.9	14.4	6.2	43.4	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 25.2: Difference in retirement date—Couples aged 45 and over, both in paid employment in 2001 and one or both retired by 2008 (%)**

1 year or less	54.7
1–2 years	17.9
2–3 years	*12.2
3 years or more	*15.2
Total	100.0
<i>Notes: * Estimate not reliable. Percentages may not add up to 100 due to rounding. Sample is restricted to couples who were both aged 45 and over and in paid employment.</i>	

spouse or partner who had been in the labour force and retired before them said that their spouse had retired more than two years before they had retired. Similarly, in the 2003 data, almost half of the women who had continued working after their spouse had retired remained in employment for two or more years after the retirement of their partner. Still, there is some evidence of coordinating retirement. In 2003, 14 per cent of men and 32 per cent of women who retired after their spouse said they had retired within a year of their spouse's retirement. In 2007 these figures were higher, with 17 per cent of men and 44 per cent of women who had retired after their spouse retiring less than one year after their spouse.

Table 25.5 shows further evidence of couples coordinating their retirement. Among those men and women whose partner was in paid employment at the time that they retired, most said that their partner had continued to work in the same

way as they had done in the past. However, over 20 per cent of men (almost 30 per cent in 2003) and more than 10 per cent of women said that their partner had retired at around the same time.

Among those who had coordinated their retirement with their spouse or partner, most said that it was important that their partner retired at the same time (Table 25.6), and when asked about the effect of coordinating their retirement with their spouse, the majority of men and women said that it had not caused them to retire any earlier or later than they had wanted (Table 25.7).

In 2003, 65 per cent of men and 55 per cent of women who had coordinated their retirement with their partner rated the importance of their partner retiring at the same time as either important or very important. The proportion of men and women who had coordinated their retirement with their spouse, but said it was not important that their partner retired at the same time, dropped from around 30 per cent of men and women in 2003 to 17 per cent of men and 23 per cent of women in 2007; with 72 per cent of men and 64 per cent of women rating their coordinated retirement as either important or very important in 2007.

Men and women who had coordinated their retirement with their spouse were asked whether this had meant retiring earlier or later than they wanted. Table 25.7 shows that while for some people coordinating retirement had meant retiring earlier than they would have liked, it was extremely uncommon for people to delay their retirement in order to coordinate their retirement with their spouse.

**Table 25.3: Retirement status of spouse or partner—Individuals who were living with a spouse or partner at the time of their (full or partial) retirement, 2003 and 2007 (%)**

	<i>Retirement status of spouse or partner</i>			<i>Total</i>
	<i>Already retired or not in the paid workforce</i>	<i>Working part-time</i>	<i>Working full-time</i>	
<b>Men (2003)</b>				
Fully retired	67.2	15.9	16.9	100.0
Partly retired	52.6	26.9	20.4	100.0
Total	64.9	17.7	17.4	100.0
<b>Men (2007)</b>				
Fully retired	64.9	17.0	18.1	100.0
Partly retired	44.5	29.5	26.0	100.0
Total	61.8	18.9	19.3	100.0
<b>Women (2003)</b>				
Fully retired	27.7	9.0	63.3	100.0
Partly retired	20.1	13.9	66.0	100.0
Total	26.7	9.6	63.7	100.0
<b>Women (2007)</b>				
Fully retired	31.1	7.3	61.6	100.0
Partly retired	21.1	22.7	56.2	100.0
Total	29.0	9.0	61.0	100.0
<i>Note: Percentages may not add up to 100 due to rounding.</i>				

In both 2003 and 2007, the proportion of men and women who said that coordinating their retirement with their spouse had meant that they retired later than they wanted to was less than 5 per cent. At least 67 per cent of men and women who had coordinated their (full or partial) retirement with their partner said that the timing of their retirement had been about what they wanted, and

around 30 per cent said that coordinating their retirement with their spouse had caused them to retire earlier than they would have liked. In 2003, the effects of coordinating retirement for women were much the same as for men, with 68 per cent of women saying that this had not affected the timing of their retirement and 30 per cent saying that they had retired earlier than they wanted.

**Table 25.4: Difference between own retirement date and partner's retirement date—Men and women who retired after their partner, 2003 and 2007 (%)**

	<i>Less than 6 months</i>	<i>6 months to 1 year</i>	<i>1 to 2 years</i>	<i>More than 2 years</i>	<i>Not relevant —partner never worked</i>	<i>Total</i>
<b>Men (2003)</b>						
Fully retired	11.4	*3.1	7.5	47.7	30.2	100.0
Partly retired	*4.5	*6.4	*12.8	45.4	31.9	100.0
Total	10.5	3.5	8.2	47.4	30.4	100.0
<b>Men (2007)</b>						
Fully retired	14.1	3.2	6.9	45.8	30.1	100.0
Partly retired	*10.7	*0.9	*9.6	57.5	*21.3	100.0
Total	13.7	2.9	7.2	47.0	29.2	100.0
<b>Women (2003)</b>						
Fully retired	25.5	6.6	16.1	49.8	*2.2	100.0
Partly retired	*24.4	*10.8	*20.2	42.0	*2.3	100.0
Total	25.3	7.0	16.5	49.0	*2.2	100.0
<b>Women (2007)</b>						
Fully retired	36.4	6.7	19.0	36.3	*1.5	100.0
Partly retired	*41.8	*15.0	*9.6	33.6	*0.0	100.0
Total	36.8	7.4	18.3	36.1	*1.4	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 25.5: Partner's labour force participation—Men and women who retired before their partner, 2003 and 2007 (%)**

	<i>Partner's labour force participation at the time of own retirement</i>					<i>Total</i>
	<i>Retired at around the same time</i>	<i>Continue to work in much the same way as in the past</i>	<i>Continue to work, but less than previously</i>	<i>Continue to work, but more than in the past</i>	<i>Partner died soon after</i>	
<b>Men (2003)</b>						
Fully retired	31.6	59.2	*6.1	*3.0	*0.0	100.0
Partly retired	*15.9	58.0	*15.3	*10.7	*0.0	100.0
Total	28.3	59.0	8.1	4.7	*0.0	100.0
<b>Men (2007)</b>						
Fully retired	23.5	62.4	9.9	*3.9	*0.3	100.0
Partly retired	*8.5	79.4	*10.0	*1.7	*0.5	100.0
Total	20.2	66.1	9.9	*3.4	*0.4	100.0
<b>Women (2003)</b>						
Fully retired	15.6	73.9	5.6	3.9	*1.0	100.0
Partly retired	*7.3	78.0	12.0	*2.8	*0.0	100.0
Total	14.4	74.5	6.5	3.7	*0.9	100.0
<b>Women (2007)</b>						
Fully retired	12.9	80.0	4.8	*1.9	*0.4	100.0
Partly retired	*6.6	74.5	*17.9	*1.0	*0.0	100.0
Total	12.1	79.3	6.4	*1.8	*0.3	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding. Sample is restricted to those who had a spouse or partner at the time that they (fully or partly) retired.

However by 2007, the proportion of women who said that coordinating retirement with their spouse had caused them to retire earlier than they wanted to had dropped to 24 per cent.

Table 25.8 shows that among those whose partner continued to work after they had retired, it was much more important for women than for men that their partner continued in paid work. More than 50 per cent of women, but only 20 per cent of men, whose partner continued to work after they had either fully or partly retired said that it was very important that their partner continued to work, pre-

sumably so that the household had enough income to maintain the standard of living they had prior to the retirement of one member of the couple.

### Sources of pressure to retire

Retired men and women were asked whether they had felt any pressure to retire, either from their spouse or other family members, their doctor, their employer or from other people at work. Table 25.9 shows that in 2007, 46 per cent of men who were completely retired said that retirement was something that they had wanted to do, a further 44 per

**Table 25.6: Importance of partner retiring at the same time—Men and women who had coordinated retirement with their partner, 2003 and 2007 (%)**

	<i>Not important</i>	<i>Of limited importance</i>	<i>Important</i>	<i>Very important</i>	<i>Total</i>
<b>Men (2003)</b>					
Fully retired	27.3	*4.0	31.0	37.7	100.0
Partly retired	*53.0	*11.4	*17.7	*17.9	100.0
Total	30.4	4.9	29.4	35.3	100.0
<b>Men (2007)</b>					
Fully retired	16.3	*11.1	31.0	41.6	100.0
Partly retired	*28.4	*7.7	*25.0	*38.9	100.0
Total	17.2	10.9	30.5	41.4	100.0
<b>Women (2003)</b>					
Fully retired	*29.2	*14.9	31.2	24.7	100.0
Partly retired	*36.7	*20.1	*33.9	*9.2	100.0
Total	29.9	*15.4	31.4	23.3	100.0
<b>Women (2007)</b>					
Fully retired	22.0	*13.1	23.1	41.9	100.0
Partly retired	*40.4	*11.5	*25.1	*23.0	100.0
Total	23.2	13.0	23.2	40.6	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding. Sample is restricted to those who had a spouse or partner who retired at the time that they (fully or partly) retired.

**Table 25.7: Effect of coordinating retirement with spouse—Men and women who retired at the same time as their spouse, 2003 and 2007 (%)**

	<i>Retired earlier than you wanted</i>	<i>Retired at about the time you wanted</i>	<i>Retired later than you wanted</i>	<i>Total</i>
<b>Men (2003)</b>				
Fully retired	33.6	65.2	*1.3	100.0
Partly retired	*11.5	*88.5	*0.0	100.0
Total	31.0	67.8	*1.1	100.0
<b>Men (2007)</b>				
Fully retired	29.0	65.6	*5.4	100.0
Partly retired	*15.8	*84.2	*0.0	100.0
Total	27.8	67.3	*4.9	100.0
<b>Women (2003)</b>				
Fully retired	30.4	67.6	*2.1	100.0
Partly retired	*26.3	*73.7	*0.0	100.0
Total	30.0	68.0	*1.9	100.0
<b>Women (2007)</b>				
Fully retired	24.3	73.3	*2.4	100.0
Partly retired	*14.4	*85.6	*0.0	100.0
Total	23.7	74.1	*2.2	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 25.8: Importance of partner continuing to work—Men and women who retired before their partner, 2003 and 2007 (%)**

	<i>Not important</i>	<i>Of limited importance</i>	<i>Important</i>	<i>Very important</i>	<i>Total</i>
<b>Men (2003)</b>					
Fully retired	38.5	23.5	17.0	21.0	100.0
Partly retired	32.0	*19.0	*24.4	24.6	100.0
Total	36.8	22.3	18.9	21.9	100.0
<b>Men (2007)</b>					
Fully retired	39.7	19.0	22.1	19.2	100.0
Partly retired	36.6	24.4	*17.5	21.5	100.0
Total	38.9	20.4	20.9	19.8	100.0
<b>Women (2003)</b>					
Fully retired	14.3	7.5	22.4	55.9	100.0
Partly retired	22.6	*9.8	24.7	42.9	100.0
Total	15.7	7.8	22.7	53.8	100.0
<b>Women (2007)</b>					
Fully retired	14.8	9.4	22.1	53.7	100.0
Partly retired	*12.9	*18.0	22.3	46.8	100.0
Total	14.6	10.5	22.1	52.7	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding. Sample is restricted to those who had a spouse or partner who continued in paid work at the time that they (fully or partly) retired.

cent said that they had felt forced or pressured to retire and the remaining 10 per cent said that while retiring was something that they had wanted to do, they had also felt some pressure. Women more commonly said that retiring was something that they had wanted to do, with only 30 per cent of retired women in 2007 saying that they had felt pressure to retire and 9 per cent saying that their retirement was partly because of pressure but also something they wanted to do.

Those who said they had felt some pressure to retire were asked whether that pressure had come from their employer, their doctor, their spouse or other

family members. Table 25.10 shows that among men and women who were completely retired, the most commonly reported source of pressure to retire was a doctor or other medical expert, and the second most common source of pressure was from an employer or others at the workplace. Still, it appears that among those who reported feeling some pressure to retire, women experienced more pressure from their spouse than men did.

In 2007, 6 per cent of men who reported feeling pressure to retire said that some of that pressure had come from their spouse, and a further 6 per cent said that their spouse had put a lot of pressure

**Table 25.9: Pressure to retire—Men and women who are fully or partly retired, 2003 and 2007 (%)**

	<i>Wanted to retire</i>	<i>Pressured or forced to retire</i>	<i>Part wanted, part pressured or forced</i>	<i>Total</i>
<b>Men (2003)</b>				
Fully retired	42.5	45.7	11.8	100.0
Partly retired	51.8	36.0	12.2	100.0
Total	44.0	44.1	11.9	100.0
<b>Men (2007)</b>				
Fully retired	45.8	44.3	9.9	100.0
Partly retired	52.6	36.5	*10.9	100.0
Total	46.9	43.1	10.0	100.0
<b>Women (2003)</b>				
Fully retired	59.1	30.6	10.2	100.0
Partly retired	64.4	25.1	10.5	100.0
Total	59.9	29.9	10.2	100.0
<b>Women (2007)</b>				
Fully retired	60.7	30.4	8.9	100.0
Partly retired	73.9	19.8	*6.4	100.0
Total	62.1	29.2	8.6	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

on them to retire. The proportion of women who reported some pressure to retire from their spouse was approximately double that of men—10 per cent of women who said they felt pressure to retire said that some of that pressure had come from their spouse, and a further 13 per cent said that a lot of pressure to retire had come from their spouse.

It was also more common for women to report feeling pressure to retire from family members other than their spouse. In 2007, 13 per cent of women but only 5 per cent of men reported feeling either some pressure or a lot of pressure to retire from other family members. Men, on the other hand, reported more pressure from employers and health professionals. In 2007, 42 per cent

of men and 33 per cent of women who had felt some pressure to retire said that they had felt at least some pressure to retire from their employer or other people at their workplace; and 53 per cent of men and 41 per cent of women who felt pressure to retire said that they had, to some extent, felt pressured to retire by their doctor.

### Expectations of those not yet retired

How many couples who are not yet retired are planning to retire at around the same time? The differences in the planned retirement date, based on planned retirement age reported in 2008, of husbands and wives who are both still in paid employment are shown in Table 25.11.

**Table 25.10: Sources of pressure to retire—Men and women who are completely retired, 2003 and 2007 (%)**

Pressure to retire from...	Amount of pressure to retire			Total
	None	Some	A lot	
<b>Men (2003)</b>				
Employer or others at work	54.0	13.8	32.2	100.0
Doctor or medical expert	48.4	14.7	36.9	100.0
Spouse or partner	88.4	6.7	5.0	100.0
Other family members	93.1	4.5	2.4	100.0
<b>Men (2007)</b>				
Employer or others at work	58.4	11.7	29.8	100.0
Doctor or medical expert	47.2	9.8	43.0	100.0
Spouse or partner	88.3	6.1	5.6	100.0
Other family members	94.7	3.8	*1.4	100.0
<b>Women (2003)</b>				
Employer or others at work	65.3	10.3	24.4	100.0
Doctor or medical expert	64.5	10.6	24.9	100.0
Spouse or partner	78.1	10.6	11.3	100.0
Other family members	88.1	6.5	5.5	100.0
<b>Women (2007)</b>				
Employer or others at work	67.4	8.9	23.7	100.0
Doctor or medical expert	59.1	12.3	28.6	100.0
Spouse or partner	77.1	10.0	12.9	100.0
Other family members	87.4	8.5	4.1	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 25.11: Difference in planned retirement date—Couples aged 45 and over and both still in paid employment, 2008 (%)**

Difference in husband's and wife's planned retirement date	Age group of husband					Total
	45–49	50–54	55–59	60–64	65+	
1 year or less	9.4	21.0	20.0	23.3	*21.3	18.5
2 years	*6.7	8.4	11.4	*7.9	*1.3	8.1
3 years	*5.0	*8.4	*9.8	*6.5	*9.2	7.8
4 years	*3.8	*3.8	*5.2	*10.3	*0.0	4.7
5 years or more	23.3	27.2	18.0	11.0	*7.7	20.3
One or both members of the couple either do not intend to retire or have no definite plans about retirement age	51.8	31.2	35.5	41.0	60.5	40.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding. Sample is restricted to couples who were both aged 45 and over and in paid employment.

Based on planned retirement age, it appears that almost one in five couples who are not yet retired intend to coordinate the timing of their retirement. Furthermore, the proportion of couples who intend to retire within one year of each other increases with the age of the husband—from 9 per cent of couples in which the husband is aged between 45 and 49 to 23 per cent of couples in which the husband is in the 60 to 64 age group.

### Concluding points

Descriptive evidence suggests that while the most common pattern of retirement for couples is one in which the wife retires before the husband, there also is some evidence of couples coordinating their retirement. Among those who were retired at the time of their 2007 interview, 17 per cent of men and 45 per cent of women who retired after their spouse retired within one year of their spouse's retirement; and 20 per cent of men and 12 of women whose

spouse was in paid employment at the time that they retired said that their spouse had retired at around the same time. Among couples who were both employed at the time of their 2001 interview and both retired at the time of their 2008 interview, more than half had retired within a year of their spouse. Furthermore, among mature age couples who are both still in paid employment, it appears that 20 per cent intend to retire at around the same time as their partner, and the proportion intending to coordinate retirement with their spouse increases as the couple gets closer to actually retiring.

During this period, the age of eligibility for the Age Pension was lower for women than for men, and in many couples, the wife is several years younger than the husband. Therefore, an interesting question for further research concerns the role played by the relative ages of partners, and interactions with pension eligibility age of the husband and the wife, in the decision about when to retire.

## 26. Employment and parental leave before and after the birth of children

In 2010, the Australian Parliament passed the *Paid Parental Leave Act 2010*, which introduced Australia's first national Paid Parental Leave scheme, funded by the Government. Under this scheme, parents of children born or adopted on or after 1 January 2011 are entitled to taxable instalments of Parental Leave Pay at the level of the national minimum wage<sup>1</sup>, for a maximum period of 18 weeks, subject to income, work, residency and primary carer tests (Family Assistance Office, 2010).<sup>2</sup>

Prior to the introduction of the Paid Parental Leave scheme, Australia was one of the few OECD countries to have no general provision for paid maternity leave. Figures from the Australian Bureau of Statistics show that in August 2007, only 45 per cent of female employees were entitled to paid maternity leave in their main job (ABS, 2008).

Australian parents are also eligible to take unpaid parental leave from their employer. Under the *Fair Work Act 2009*, the National Employment Standards guarantee that eligible working parents have the right to separate periods of up to 12 months of unpaid leave associated with the birth or adoption of a child. Where families prefer one parent to take a longer period of leave, that parent is entitled to request an additional 12 months of unpaid parental leave from their employer.<sup>3</sup> This request can only be refused by their employer on reasonable business grounds. Both parents are able to take three weeks unpaid parental leave concurrently at their child's birth.

Prior to the 2009 changes, Australian parents were entitled to a period of up to 52 weeks of unpaid

parental leave at the time of birth of a child. While female employees could take up to 52 weeks of unpaid maternity leave during or after their pregnancy, male employees were only entitled to one week of unpaid leave within a week of the birth of their child, and a longer period of continuous unpaid parental leave only if the father was the child's primary care giver (Andrews, 2006).

In 2008, HILDA Survey respondents with children aged 24 years or younger were asked whether they were working at any time in the 12 months before each of their children was born, and whether they took any formal parental leave. Figure 26.1 shows the proportion of men and women who were working before their children were born, by the year of birth of the child.<sup>4</sup>

The proportion of women who had worked at some time in the 12 months before having a baby increased from 46 per cent in 1984 to 72.5 per cent in 2006 before falling to 70 per cent in 2007 and 60 per cent in 2008.<sup>5</sup> In most years between 1981 and 2007, over 90 per cent of men were employed in the 12 months before their child was born. With more parental leave becoming available to Australian workers in recent years, Figure 26.2 shows that the proportion of men and women who took (paid or unpaid) parental leave when their children were born has increased substantially.<sup>6</sup>

The proportion of women who were employed at some time in the 12 months before their child was born and then took formal maternity leave has increased from 28 per cent in 1984 to 53 per cent

in 2007. Among men who were in paid employment in the 12 months before the birth of their child, the proportion who took formal paternity leave increased from 7 per cent in 1984 to 32 per cent in 2007.

### How long before the birth of a child do women stop working?

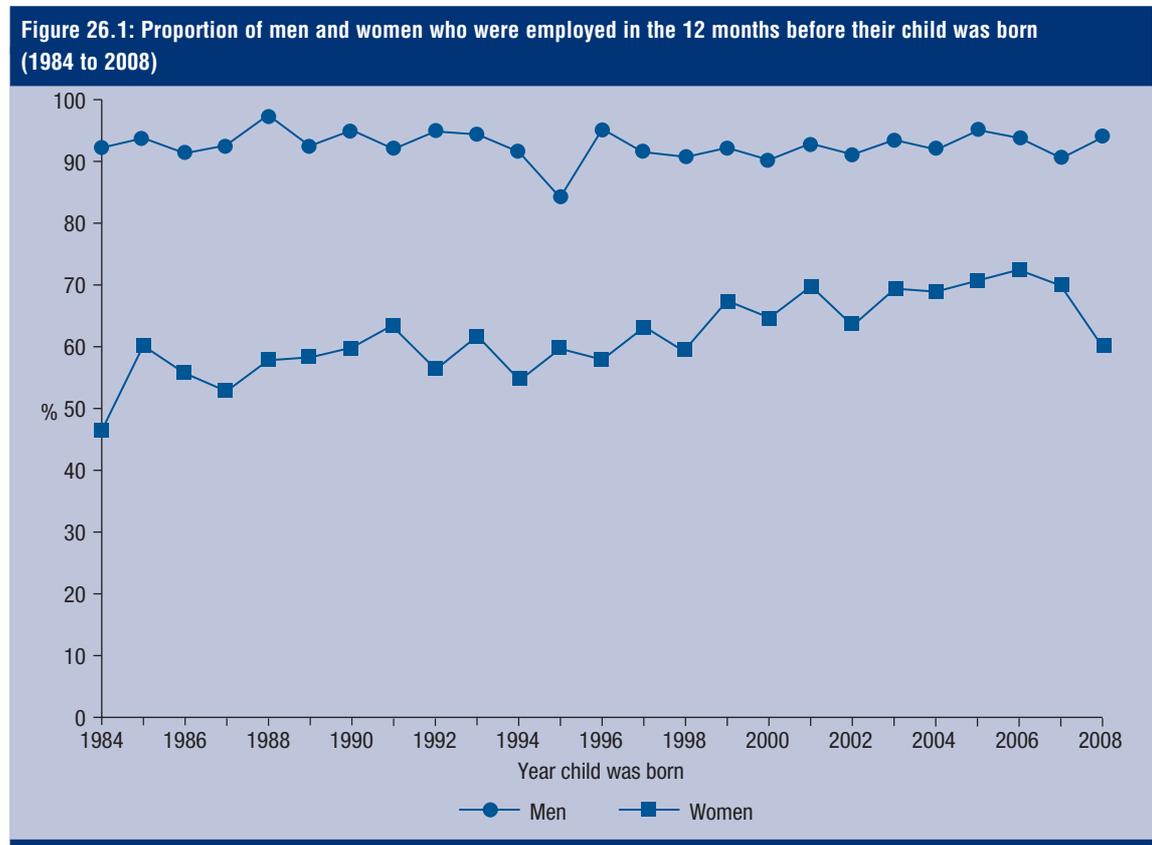
In Wave 8 of the HILDA Survey, women who were aged between 18 and 44 who had at least one child were also asked how long before the birth of their youngest child they stopped working, and when they returned to work after the birth of their youngest child. Table 26.1 shows the distribution of responses to the question ‘How long before the birth (of your youngest child) did you stop paid employment?’<sup>7</sup>

While the proportion of mothers who did not take any time off work at all before the birth of their youngest child has fallen from 8.1 per cent of mothers who had a child between 1996 and 2000 to 6.6 per cent of those who had a child between 2006 and 2008, the proportion of women who left work only one or two weeks before their child was born has increased, from 12.5 per cent of women whose youngest child was born between before 1996, to 17.3 per cent of women whose youngest child was born between 2006 and 2008. It may be the case that, as more mothers become entitled to parental leave, time taken off work before the birth of a child is reduced in order to maximise time spent off work after the baby is born.

### How soon do women return to work after the birth of a child?

Census data (Megalogenis, 2007) show that in 2001, the age of the youngest child when the majority of partnered mothers returned to employment had fallen to two years, and by 2006 that figure had halved again, to just one year.<sup>8</sup> Furthermore, in 1996, only 32 per cent of women with a baby aged less than 12 months were back at work, compared to 40 per cent in August 2006 (Megalogenis, 2007). Presumably, more women were returning to work sooner after the birth of a child because they were either not entitled to paid maternity leave, or only entitled to a short period of paid maternity leave, and cannot cope with the loss in household income. Data from the Australian Bureau of Statistics (2006) indicate that 73 per cent of working mothers who had a child under the age of two in 2005 said they had returned to work because of financial reasons, while 30 per cent said that one of their main reasons for returning to work was for ‘adult interaction and mental stimulation’. Table 26.2 shows the distribution of responses when mothers with children aged under 25 in 2008 were asked how long it was before they returned to work after the birth of their youngest child.

Almost 8 per cent of women with a child under the age of 24 had returned to work within one month of the birth of their youngest child, and a further 8 per cent had returned to work within two or three months. Over the past 25 years, there has been very little change in the proportion of women

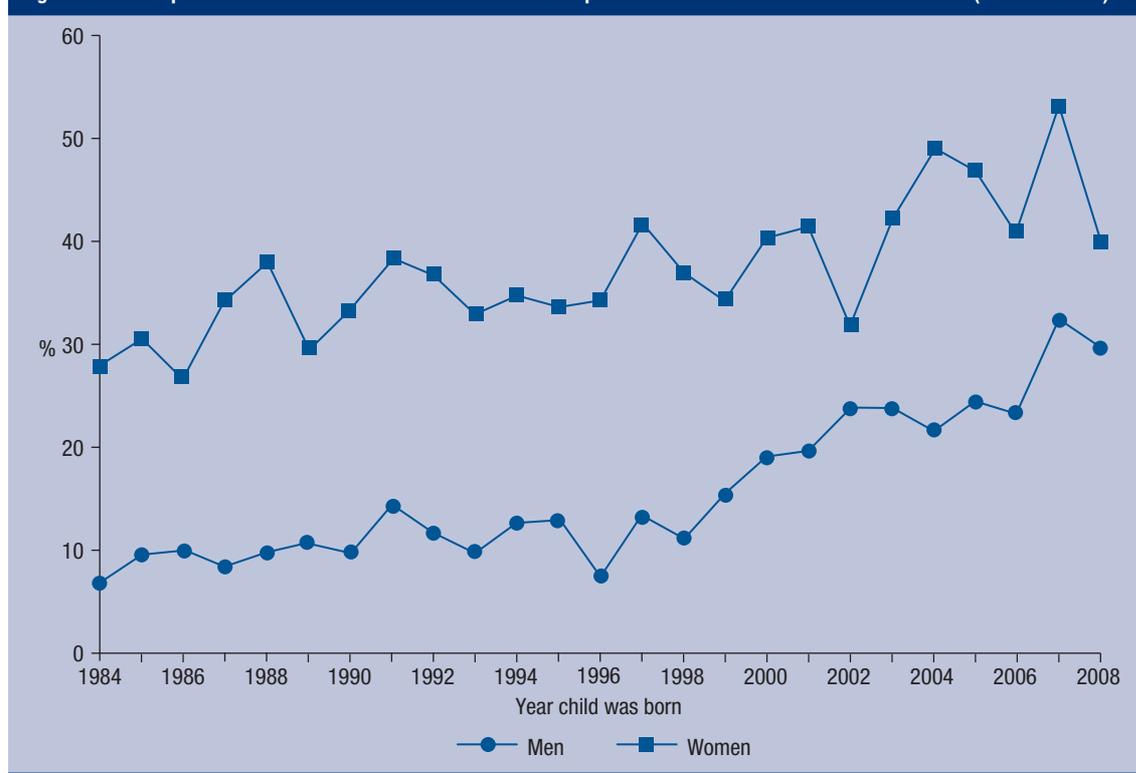


who returned to work less than eight months after having a baby, with 25 per cent of women who had their youngest child between 1984 and 1995 returning to work in less than eight months, compared to 26 per cent of women who had their youngest child between 2006 and 2007. However, there has been an increase in the proportion of mothers who returned to employment when their youngest child was aged between eight and 11 months, from 5 per cent of mothers whose youngest child was born between 1996 and 2000 to 11 per cent of mothers who had their youngest child between 2001 and 2005, and to 9 per cent of mothers whose youngest child was born in 2006 or 2007.

### Characteristics of women who took formal parental leave

Prior to the introduction of the Paid Parental Leave scheme, not all female employees were entitled to formal parental leave, that is, a period of paid or unpaid leave to be used in the period following the birth or adoption of a child. Table 26.3 presents the results of a probit model identifying the personal and job characteristics associated with the taking of formal parental leave for women who had a child between 2002 and 2008 and were working in the 12 months prior to the birth of that child. The marginal effect coefficients in the table can be interpreted as the mean increase or decrease in probability that formal (paid or unpaid) parental leave was taken.

**Figure 26.2: Proportion of men and women who took formal parental leave when their child was born (1984 to 2008)**



**Table 26.1: How long before the birth of your youngest child did you stop paid employment? Mothers aged 18–44 in 2008 (%)**

	Year of birth of youngest child				Total
	1984–1995	1996–2000	2001–2005	2006–2008	
Did not stop work <sup>a</sup>	6.8	8.1	7.6	6.6	7.3
1–2 weeks	12.5	14.4	16.8	17.3	14.9
3–4 weeks	12.2	13.4	19.6	23.9	16.5
5–6 weeks	5.9	5.1	9.0	8.7	7.0
7–8 weeks	9.8	7.8	9.7	6.8	8.8
9–12 weeks	11.9	13.0	6.7	10.6	10.5
13–52 weeks	14.9	11.9	6.5	11.3	11.3
More than 12 months	25.9	26.3	24.1	14.8	23.7
Total	100.0	100.0	100.0	100.0	100.0

*Notes:* Percentages may not add up to 100 due to rounding. <sup>a</sup> This category includes women whose baby was born earlier than expected.

Regression analysis indicates that the probability of having taken formal maternity leave increases slightly with age, but once job characteristics are controlled for, other personal characteristics such as marital status and highest level of education are not statistically significant. Compared to mothers who were employed on a permanent basis prior to the birth of their child, mothers who were in casual employment or employed on a fixed-term contract are less likely to have taken formal maternity leave. Similarly, mothers who were in part-time employment prior to the birth of their child are less likely to have taken formal maternity leave than those who were working full-time. The probability of having taken formal maternity leave increases with employment tenure and the size of the firm in which the woman is employed. Compared to women who were working in a firm with less than 20 employees, the probability of taking formal maternity leave is 20 percentage points higher for women who worked in firms with 20 to 99 employees, and 28 percentage points higher for those who worked in firms with 500 employees or more. Women who were working as labourers also have a higher probability of taking formal maternity leave, presumably because of the physically demanding nature of their occupation.

Compared to women who worked in the health care and social assistance industry, the probability of taking formal maternity leave was 20 percentage points higher among those who worked in either the electricity gas and water services industry or the transport, postal and warehousing industry. On the other hand, women who worked in the retail trade; education and training industry or public administration and safety industries were less likely to have taken formal maternity leave.

### Concluding points

Parental leave for both mothers and fathers has become much more common in the last 20 years, with all eligible working parents now entitled to up to 12 months of unpaid parental leave, and one

parent entitled to request an additional 12 months' leave. Eligible parents are now also entitled to access the Government's Paid Parental Leave scheme and the Government has made a further commitment to provide eligible working fathers with access to two weeks dedicated Paternity Leave Pay from 1 July 2012.

However, in 2007 only 45 per cent of female employees were entitled to paid maternity leave. The amount of time taken off work before the birth of a child has decreased slightly in the last two decades, with 17.3 per cent of women whose youngest child was born between 2006 and 2008 taking only one or two weeks off work before the birth of that child, compared to 12.5 per cent of women whose youngest child was born between 1984 and 1995. The proportion of women who returned to work before their child was eight months old has remained fairly stable over the past two decades. However, the proportion returning to work when their child was aged between eight and 11 months has increased slightly. Presumably this change is due to increased availability of (paid and unpaid) maternity leave. Regression analysis indicates that formal maternity leave is more common among women who were permanent employees and those who were working in large firms, and less common among women who were in casual employment or working part-time before their child was born.

### Endnotes

- 1 The 2010 national minimum wage order has been set at \$569.90 per week, calculated on the basis of a week of 38 ordinary hours, or \$15 per hour. The Paid Parental Leave scheme payment is calculated at the hourly rate of \$15.
- 2 To be eligible for Paid Parental Leave, an individual must be the child's primary carer, have been employed for at least of 7.6 hours per week on average for at least 10 of the 13 months prior to the expected birth or adoption, have had an income of \$150,000 or less in the previous financial year and be a resident of Australia (Australian Government Family Assistance Office, 2010).

**Table 26.2: How long after the birth of your youngest child did you start paid employment again? Mothers aged 18–44 whose youngest child was under 25 in 2008 (%)**

	<i>Year of birth of youngest child</i>				<i>Total</i>
	<i>1984–1995</i>	<i>1996–2000</i>	<i>2001–2005</i>	<i>2006–2007</i>	
1 month or less	7.8	8.5	8.0	5.7	7.7
2–3 months	7.0	9.2	7.9	7.6	7.8
4–7 months	11.0	11.0	10.8	12.8	11.3
8–11 months	3.7	4.8	10.6	9.2	6.8
12–23 months	15.1	12.9	17.5	10.9	14.5
24–60 months	15.4	19.4	8.1	–	11.7
More than 5 years	19.9	9.3	–	–	8.9
Has not returned yet	20.2	24.9	35.9	52.2	31.2
Total	100.0	100.0	100.0	100.0	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 26.3: Factors associated with taking formal parental leave—Women who had a baby between 2002 and 2008 and were employed in the 12 months before the birth of the child**

<i>Personal characteristics (at the time of the child's birth)</i>	<i>Estimate</i>
Age	0.003
Partnered	0.179 <sup>+</sup>
No previous children	-0.03 <sup>+</sup>
Equivalised household disposable income in previous year	0.001 <sup>+</sup>
<i>Highest level of education (Control = Year 12 or below)</i>	
Degree	0.091 <sup>+</sup>
Trade certificate or diploma	0.056 <sup>+</sup>
<i>Characteristics of the job held prior to the child's birth</i>	
<i>Employment type (Control = Permanent employee)</i>	
Casual employee	-0.56
Fixed term contract	-0.165
<i>Firm size (Control = Less than 20 employees)</i>	
20–99 employees	0.198
100–499 employees	0.264
500 employees or more	0.283
Working part-time	-0.230
Public sector	0.078 <sup>+</sup>
Union member	0.109 <sup>+</sup>
Employment tenure (years)	0.025
<i>Occupation (Control = Managers)</i>	
Professionals	0.083 <sup>+</sup>
Technicians and trades workers	0.166 <sup>+</sup>
Community and personal service workers	0.02 <sup>+</sup>
Clerical and administrative workers	0.079 <sup>+</sup>
Sales workers	0.087 <sup>+</sup>
Machinery operators and drivers	-0.32 <sup>+</sup>
Labourers	0.247
<i>Industry (Control = Health care and social assistance)</i>	
Manufacturing	-0.235 <sup>+</sup>
Electricity, gas, water and waste services	0.197
Construction	-0.462
Wholesale trade	-0.323
Retail trade	-0.268
Accommodation and food services	-0.399 <sup>+</sup>
Transport, postal and warehousing	0.195
Information media and telecommunications	-0.226 <sup>+</sup>
Financial and insurance services	0.046 <sup>+</sup>
Rental, hiring and real estate services	-0.212 <sup>+</sup>
Professional, scientific and technical services	-0.036 <sup>+</sup>
Administrative and support services	-0.338 <sup>+</sup>
Public administration and safety	-0.112
Education and training	-0.227
Arts and recreation services	-0.505 <sup>+</sup>
Other services	-0.005 <sup>+</sup>
<i>Year of child's birth (Control = 2002)</i>	
2003	0.091 <sup>+</sup>
2004	0.071 <sup>+</sup>
2005	0.009 <sup>+</sup>
2006	0.087 <sup>+</sup>
2007	0.039 <sup>+</sup>
2008	0.072 <sup>+</sup>
Log-pseudo likelihood	-269.7851
R-squared	0.4052
Number of observations	668

*Notes:* Estimates are mean marginal effects from probit models. <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level.

- 3 Eligible employees are permanent full-time and part-time employees who have completed 12 months continuous service with their employer immediately before the date (or expected date) of the birth or adoption of a child. Long-term casual employees who have been engaged in employment on a regular and systematic basis for at least 12 months immediately before the date (or expected date) of birth or adoption, and who have a reasonable expectation of continuing regular and systematic employment are also eligible.
- 4 Parents with more than one child were asked separately whether they were working before the birth of each of their children. It should be noted that there may be recall error, as for some mothers, the birth of their youngest child was over 20 years ago.
- 5 Results for 2008 should be interpreted with caution as mothers of babies who were born in 2008, but after the time of the 2008 interviews are not included in the sample.
- 6 Note: formal maternity leave includes paid and unpaid parental leave agreed to by their employer.
- 7 The proportion of mothers who had never worked before their youngest child was born ranged from 33 per cent of mothers whose youngest child was born before 1991 to 11 per cent of mothers whose youngest child was born between 2006 and 2008.
- 8 Among sole mothers, the average age of the youngest child when they returned to work was 6 years in both 2001 and 2006 (Megalogenis, 2007).

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## 27. Labour force participation and subjective wellbeing of working parents

For parents, combining work and family responsibilities can be difficult and stressful. This is particularly the case for mothers returning to work after the birth of a child. While some mothers feel they have to return to work because they need the extra income, others choose to return to work because they enjoy their job, it gives them a break from full-time caring responsibilities, or they fear that spending too much time out of the workforce will be detrimental to their career.<sup>1</sup> Although studies such as that of Baxter and Smith (2009) have found that babies whose mothers work full-time receive just as much time being nurtured by their parents as the babies of stay-at-home mothers, many mothers express feelings of guilt about leaving their children in child care and going to work (Hosking, 2009).<sup>2</sup> In addition to the stresses of work, many working mothers are also responsible for the majority of the household chores and child-related tasks, including taking care of the children when they are unwell.<sup>3</sup>

Combining work and family responsibilities can also be difficult for fathers, who often feel they need to work longer hours in order to provide for

their family, at the cost of spending time with their children. Using data from the Longitudinal Study of Australian Children (LSAC), Baxter et al. (2010) find that Australian children spend considerably less time with their fathers than their mothers and that children spend relatively small amounts of time with their fathers without their mothers also present.<sup>4</sup>

This article examines the change in labour force participation rates and working hours of parents over the eight-year period from 2001 to 2008 and the impact of work and family responsibilities on parents' life satisfaction and job satisfaction. Table 27.1 shows the labour force participation rates of men and women with children under the age of 15 from 2001 to 2008.<sup>5</sup>

During the eight years from 2001 to 2008, labour force participation rates of mothers with children under the age of 15 increased from 63 per cent of partnered mothers and 52 per cent of lone mothers in 2001 to 69 per cent of partnered mothers and 61 per cent of lone mothers in 2008.<sup>6</sup> For partnered fathers, participation rates remained quite steady at

**Table 27.1: Labour force participation rates for parents with children under 15, by age of youngest child (%)**

Age of youngest child	2001	2002	2003	2004	2005	2006	2007	2008
<b>Partnered mothers</b>								
< 2	40.3	41.5	36.2	49.3	47.6	44.0	47.5	52.0
2-5	63.6	61.3	59.2	63.8	67.6	67.9	62.8	62.7
6-9	72.0	73.7	69.8	71.7	74.8	77.6	79.2	81.4
≥ 10	76.4	76.0	78.4	74.6	73.5	79.2	82.2	81.7
Total	63.1	63.9	61.9	65.3	66.6	68.0	68.1	69.4
<b>Lone mothers</b>								
< 2	*30.7	28.3	24.0	28.0	32.1	40.2	40.3	27.9
2-5	44.2	49.8	50.7	37.7	42.4	50.7	56.0	60.6
6-9	58.9	59.4	65.1	73.7	69.3	75.2	74.6	75.2
≥ 10	64.0	76.7	67.4	64.7	76.4	75.0	75.9	79.4
Total	51.5	53.2	52.1	50.5	54.8	60.5	61.2	60.5
<b>Partnered fathers</b>								
< 2	94.1	93.4	96.4	96.3	96.4	93.0	92.3	93.0
2-5	94.8	93.3	92.5	94.0	93.0	95.2	96.5	93.1
6-9	94.7	93.5	92.5	89.2	91.8	89.3	88.7	92.9
≥ 10	92.1	92.1	93.0	91.6	92.1	90.9	92.2	91.4
Total	94.0	93.1	93.5	92.8	93.2	92.2	92.7	92.6
<b>Lone fathers</b>								
< 2	88.4	86.0	89.1	80.2	90.0	91.0	82.2	90.6
2-5	82.6	91.1	83.7	81.7	87.8	84.4	87.3	91.7
6-9	78.2	87.4	85.8	89.7	91.1	91.4	92.4	90.3
≥ 10	77.3	87.5	83.3	86.3	92.6	83.7	81.5	92.7
Total	80.5	88.2	85.2	84.4	90.2	87.5	85.7	91.4

Note: \* Estimate not reliable.

around 93 per cent throughout this period, while participation rates of lone fathers increased from 81 per cent in 2001 to 91 per cent in 2008.

Between 2003 and 2008 there was a substantial increase in the participation rate of partnered mothers whose youngest child was under the age of 2, from 36 per cent in 2003 to 52 per cent in 2008. This could possibly be a result of the introduction of the child care tax rebate in July 2004, under which families were able to claim 30 per cent of their out-of-pocket costs for approved child care and the subsequent increase in the rebate to 50 per cent of out-of-pocket expenses in July 2008. However, for partnered mothers whose youngest child was aged between two and five years, participation rates remained relatively stable throughout the period.

Are parents working fewer hours now than they did in recent years in favour of spending more time with their children? Table 27.2 shows the average hours worked per week for parents with children under 15 from 2001 to 2008.

The average weekly working hours for partnered and lone parents have remained quite steady over this eight-year period. Partnered mothers worked 28 hours per week on average, but for lone mothers, average weekly working hours increased from

28 hours per week in 2001 to 30 hours per week in 2008. For partnered fathers, average working hours dropped slightly, from 48 hours per week in 2002 and 2003 to 46 hours per week in 2008, while average working hours for lone fathers ranged between 42 and 45 hours per week. For (lone and partnered) mothers, average hours of work per week increased with the age of the youngest child—from approximately 24 hours per week for mothers with children under two years of age, to around 32 hours per week for women whose youngest child is 10 or older.

### Work and family responsibilities

In each year of the HILDA Survey, working parents are asked how strongly they agree or disagree with statements related to combining work and family responsibilities, such as, '*Working makes me feel good about myself, which is good for my children*' and '*Working leaves me with too little time or energy to be the kind of parent I want to be*'. The response scale runs from 1 (strongly disagree) to 7 (strongly agree). Table 27.3 shows the proportion of mothers and fathers who agreed with each of these statements, that is, the proportion whose response to each statement was either 6 or 7 out of 7.

For some of the statements in Table 27.3, there are clear differences in the responses of mothers and

**Table 27.2: Average weekly hours of work for parents with children under 15, by age of youngest child**

Age of youngest child	2001	2002	2003	2004	2005	2006	2007	2008
<b>Partnered mothers</b>								
< 2	23.1	24.3	23.0	23.8	22.4	23.6	27.3	23.4
2–5	26.5	26.7	26.2	24.9	25.4	25.8	25.9	26.5
6–9	27.7	28.2	29.5	28.7	28.1	27.4	27.0	28.0
≥ 10	31.6	31.0	30.8	32.2	31.6	31.6	31.7	32.4
Total	27.8	28.1	28.2	27.9	27.5	27.6	28.2	28.2
<b>Lone mothers</b>								
< 2	*20.7	26.7	21.7	24.7	21.3	23.3	27.1	21.9
2–5	25.6	26.7	27.1	27.6	26.9	28.5	26.5	29.5
6–9	29.1	27.5	28.6	29.4	30.1	31.3	30.0	32.2
≥ 10	29.9	30.4	32.5	32.5	32.0	30.9	35.4	31.8
Total	28.1	28.3	28.8	29.5	28.9	29.3	30.2	30.1
<b>Partnered fathers</b>								
< 2	47.7	47.5	47.4	47.0	45.4	46.0	44.4	45.1
2–5	47.2	47.6	47.5	47.1	45.9	46.3	47.1	46.5
6–9	47.9	46.5	47.1	45.8	47.7	46.6	46.2	46.8
≥ 10	47.0	48.4	48.1	48.3	47.4	46.9	46.1	45.4
Total	47.4	47.5	47.6	47.1	46.6	46.5	46.1	46.0
<b>Lone fathers</b>								
< 2	39.9	44.7	41.2	43.5	39.3	42.0	41.0	44.9
2–5	44.7	45.1	43.0	44.1	43.2	42.3	42.6	43.7
6–9	44.4	41.9	42.1	44.8	45.0	45.9	44.4	42.4
≥ 10	46.2	47.3	41.0	43.7	43.6	43.0	44.0	46.3
Total	44.7	44.8	41.9	44.1	43.1	43.3	43.0	44.3

Note: \* Estimate not reliable.

**Table 27.3: Work and family responsibilities, by age of youngest child, 2008 (%)**

	Age of youngest child				All (0-14)
	< 2	2-5	6-9	10-14	
<i>Having both work and family responsibilities makes me a more well-rounded person</i>					
Mothers	51.5	41.4	50.4	45.4	46.2
Fathers	46.0	47.9	47.4	47.3	47.2
<i>Having both work and family responsibilities gives my life more variety</i>					
Mothers	57.5	47.0	54.8	48.7	50.9
Fathers	47.0	48.8	48.0	51.7	49.0
<i>Managing work and family responsibilities as well as I do makes me feel competent</i>					
Mothers	48.8	39.2	46.9	44.6	44.1
Fathers	43.4	41.8	35.9	38.6	40.0
<i>Because of my family responsibilities, I have to turn down work activities or opportunities that I would prefer to take on</i>					
Mothers	22.9	18.8	12.8	13.7	16.2
Fathers	9.0	9.0	12.8	6.1	9.1
<i>Having both work and family responsibilities challenges me to be the best I can be</i>					
Mothers	45.3	37.4	46.2	39.3	41.3
Fathers	44.0	47.8	40.0	39.1	43.0
<i>Because of my family responsibilities, the time I spend working is less enjoyable and more pressured</i>					
Mothers	*10.5	13.1	8.4	10.5	10.8
Fathers	6.8	8.4	*6.5	8.3	7.6
<i>Because of the requirements of my job, I miss out on home or family activities that I would prefer to participate in</i>					
Mothers	16.4	25.0	16.5	22.4	20.9
Fathers	29.5	29.5	24.2	27.0	27.7
<i>Because of the requirements of my job, my family time is less enjoyable and more pressured</i>					
Mothers	*7.7	9.4	*7.6	12.5	9.7
Fathers	10.1	12.4	11.6	12.6	11.8
<i>Working makes me feel good about myself, which is good for my children</i>					
Mothers	51.3	40.7	48.8	45.3	45.6
Fathers	36.6	38.7	38.3	41.3	38.8
<i>My work has a positive effect on my children</i>					
Mothers	22.5	28.4	33.1	38.2	30.7
Fathers	39.6	25.5	33.9	39.9	34.0
<i>Working helps me to better appreciate the time I spend with my children</i>					
Mothers	63.6	48.1	46.8	40.9	47.5
Fathers	46.5	47.4	44.6	38.8	44.3
<i>The fact that I am working makes me a better parent</i>					
Mothers	31.3	19.7	22.3	23.5	23.1
Fathers	27.7	31.0	33.5	34.9	31.9
<i>I worry about what goes on with my children while I'm at work</i>					
Mothers	19.9	19.6	19.9	20.5	20.0
Fathers	20.1	19.9	16.4	16.2	18.2
<i>Working leaves me with too little time or energy to be the kind of parent I want to be</i>					
Mothers	*13.7	16.4	16.4	14.9	15.4
Fathers	11.8	13.4	14.9	19.1	15.4
<i>Working causes me to miss out on some of the rewarding aspects of being a parent</i>					
Mothers	24.0	23.2	24.7	26.2	24.6
Fathers	31.2	34.9	28.1	28.3	30.9
<i>Thinking about the children interferes with my performance at work</i>					
Mothers	*2.8	*1.4	*3.6	*3.6	2.9
Fathers	*3.5	*2.2	*2.5	*4.8	3.2

Note: \* Estimate not reliable.

fathers, and also differences according to the age of the youngest child. For example, it was much more common for mothers than for fathers to say that they had to turn down work activities or opportunities because of their family responsibilities. On the other hand, it was also more common for mothers than fathers to agree that working made them feel good about themselves, which is good for their children. Mothers with children under the age of two particularly identified with this statement, with more than half rating their agreement at 6 or 7 out of 7. Similarly, a high proportion (64 per cent) of working mothers whose youngest child was under the age of two said that working helps them better appreciate the time they spend with their children.

Compared to working fathers, it is more common for working mothers than to say that the time they spend working is more pressured, and less enjoyable because of their family responsibilities. On the other hand, fathers more commonly agree with the opposite statement—*‘Because of the requirements of my job, my family time is less enjoyable and more pressured’*. Fathers are also more likely to say that they miss out on family activities because of their work responsibilities; that their work causes them to miss out on some of the rewarding aspects of being a parent; and that their work leaves them with too little time or energy to be the kind of parent they want to be. The proportion of fathers who agreed with the statement *‘Working leaves me with too little time or energy to be the kind of parent I want to be’* increased with the age of their youngest child—from 12 per cent of fathers whose youngest child was under the age of two, to 19 per cent of fathers whose youngest child was between 11 and 14 years old.

Approximately 20 per cent of mothers and fathers said that they worried about what goes on with their children while they are at work. The proportion of fathers who agreed with this statement declined slightly with the age of their youngest child, with 16 per cent of fathers whose youngest child was over the age of six agreeing with this statement. For mothers, however, the proportion who agreed with this statement remained at 20 per cent regardless of the age of their youngest child.

### **Associations between work and family responsibilities, job satisfaction and life satisfaction**

Do the stresses of combining work and family responsibilities have a significant impact on parents’ wellbeing? Table 27.4 compares the average levels of job satisfaction and life satisfaction of parents according to household characteristics including the working hours of both parents, the age of the youngest child, the type of child care used and number of hours (if any) that the children spend in child care while their parents are at work.

In general, differences in levels of life satisfaction and job satisfaction according to household characteristics are not large, but clear patterns are nonetheless evident. For both mothers and fathers, average life satisfaction is highest when their youngest child is under the age of two. However, compared to fathers whose youngest child is aged two or above, fathers with children under the age of two have lower average levels of job satisfaction. On the other hand, working mothers with young children have higher than average levels of job satisfaction.

In terms of household work arrangements, fathers in full-time employment with partners who either work part-time or do not work at all have higher than average levels of life satisfaction, while average levels of life satisfaction are highest for mothers when they and their partner are both working part-time, and lowest when they are working full-time and their partner is not employed. Mothers who work part-time also have higher than average levels of job satisfaction; while for partnered fathers, average levels of job satisfaction are highest when they are working full-time and their partner is working part-time.

For mothers, average levels of life satisfaction and job satisfaction decrease slightly with the number of hours their child(ren) spend in (work-related) child care. Similarly, average levels of life satisfaction and job satisfaction of fathers are lowest when their child(ren) spend 30 hours or more in work-related child care each week. The type of child care used also appears to have some effect on satisfaction levels, with parents whose children were in formal child care having slightly lower levels of both life satisfaction and job satisfaction. Some possible reasons for this difference are that many parents feel more comfortable leaving their children with a friend or relative, or the other parent, while they are at work, and also the cost of child care and the time pressure associated with some types of formal child care, that is, many child care centres require that the children be picked up by a certain time, which may prevent the parent who is responsible for picking up the children from staying back at work if they need to.

Looking only at averages, it may appear that certain household characteristics, such as employment and child care arrangements have a significant influence on parents’ job satisfaction and life satisfaction. However it must be noted that, without controlling for other factors that might impact upon these satisfaction levels, we cannot say that this is in fact the case. Table 27.5 shows that using a fixed effects regression and controlling for other characteristics that are known to impact upon job satisfaction and life satisfaction, we find that the number of hours of (work-related) child care used has a very small negative effect on the life satisfaction of working mothers, but no significant effect on the life satisfaction of working fathers and no

significant impact on the job satisfaction of either working mothers or working fathers. Furthermore, the number of hours of informal child care used appears to have no significant impact on job satisfaction or life satisfaction of working parents.<sup>7</sup>

For working fathers and working mothers, having a long-term health condition and being overemployed (i.e. working more hours than they want to) are negatively and significantly associated with life satisfaction, while life satisfaction increased with equivalised household income. Compared to fathers who worked between 35 and 44 hours per week, fathers whose weekly working hours were between 44 and 54 hours had higher levels of life satisfaction, while mothers who worked less than 35 hours per week had significantly higher levels of life satisfaction than those who worked between 35 and 44 hours per week. For mothers, being underemployed (i.e. wanting to work more hours) had a negative impact on life satisfaction; while for fathers, being in casual employment reduced life satisfaction. Compared to lone mothers, mothers

with a partner in paid employment had substantially higher levels of life satisfaction; possibly because this gave them more financial security as well as flexibility in choosing the number of hours they work.

Turning to job satisfaction, having a long-term health condition, working less than 20 hours per week, being over-employed, and doing either casual work or shift work have a significant negative impact on the job satisfaction of fathers. For mothers, being either overemployed or underemployed has a negative effect on job satisfaction levels. Compared to working mothers whose youngest child is aged between 11 and 14, mothers with children under the age of two have significantly higher levels of job satisfaction. Job satisfaction levels are also higher among working mothers whose partner is not employed.<sup>8</sup>

**Conclusion**

Over the eight-year period from 2001 to 2008, labour force participation rates of lone parents and

**Table 27.4: Mean levels of life satisfaction and job satisfaction of working parents with children under 15, by household characteristics, 2008**

	Life satisfaction		Job satisfaction	
	Men	Women	Men	Women
All	7.81	7.69	7.57	7.79
<b>Age of youngest child</b>				
Youngest child aged < 2	7.90	7.95	7.47	7.95
Youngest child aged 2–5	7.87	7.68	7.56	7.66
Youngest child aged 6–10	7.63	7.59	7.59	7.80
Youngest child aged 11–14	7.78	7.64	7.62	7.89
<b>Household work arrangements</b>				
Both work full-time	7.63	7.76	7.52	7.75
Father full-time, mother part-time	7.87	7.94	7.68	7.96
Father full-time, mother not employed	7.87	n.a.	7.51	n.a.
Father part-time, mother full-time	7.29	7.44	6.96	8.04
Both work part-time	7.78	8.16	7.43	8.15
Father part-time, mother not employed	7.73	n.a.	7.81	n.a.
Mother full-time, father not employed	n.a.	6.94	n.a.	7.23
Mother part-time, father not employed	n.a.	7.80	n.a.	8.00
Single parent, employed full-time	7.79	7.38	7.47	7.51
Single parent, employed part-time	7.99	7.48	7.71	7.80
<b>Weekly hours of work-related child care<sup>a</sup></b>				
< 5 hours	7.81	7.74	7.61	7.88
5–10 hours	7.91	7.62	7.46	7.80
11–19 hours	7.87	7.70	7.52	7.67
20–29 hours	7.90	7.54	7.50	7.59
30 hours or more	7.60	7.51	7.42	7.59
<b>Main type of child care used<sup>b</sup></b>				
No regular child care	7.83	7.70	7.63	7.88
Formal	7.73	7.55	7.44	7.71
Informal	7.84	7.78	7.55	7.73

Notes: <sup>a</sup> In families with more than one child, the maximum number of hours in work-related care is used. <sup>b</sup> Where no regular work-related child care is used, the child is cared for by the other parent. Formal child care includes family day care, private or community long day care, kindergarten, pre-school, paid babysitters, nannies and formal outside of school hours care. Informal child care includes relatives, friends, neighbours, non-resident parents, children coming to the parents' workplace and children looking after themselves. n.a.—not applicable.

partnered mothers increased while participation rates of partnered fathers remained quite stable. While some of this increase in labour force participation can be explained by an improvement in economic conditions during this period, a part of this increase is likely to be due to changes in eligibility for Parenting Payments which were part of the 'Welfare to Work' changes introduced in 2006. For working parents, average weekly hours of work remained quite steady over this period. Average hours of work of mothers increased with the age of the youngest child, while for fathers, children's age does not appear to have an impact on hours of work.

In terms of stresses associated with balancing work and family responsibilities, mothers seem to feel pressure on their work time as a result of their family responsibilities, while for fathers the opposite is true, with fathers more commonly reporting that work pressures have a negative impact on their time with the family. For mothers, average levels of life satisfaction and job satisfaction

decrease slightly with the number of hours their child(ren) spend in child care and fathers whose children are in child care for 30 hours per week or longer also have slightly lower levels of both life satisfaction and job satisfaction. The type of child care used also appears to have some impact on satisfaction levels, with parents whose children are in formal child care having slightly lower levels of both life satisfaction and job satisfaction. However, after controlling for other factors that impact upon job satisfaction and life satisfaction, we find that the number of hours that children spend in informal child care has no significant impact on working parents' job satisfaction or life satisfaction; while the number of hours children spend in formal child care has a only a very small negative effect on the life satisfaction of mothers.

### Endnotes

- 1 For low-income families in Australia, a second wage may actually leave the family in the same or worse financial position than a single wage, simply because the Parenting Allowance is income-tested.

**Table 27.5: Factors affecting life satisfaction and job satisfaction, working parents 2004–2008**

	<i>Life satisfaction</i>		<i>Job satisfaction</i>	
	<i>Fathers</i>	<i>Mothers</i>	<i>Fathers</i>	<i>Mothers</i>
Age	-0.1707	-0.1136	0.0051+	0.3974
Age squared	0.0015	0.0006+	0.0001+	-0.0048
<i>Partner's work status ('Lone parent' omitted)</i>				
Partner employed	-0.0496+	0.3242	-0.1079+	0.1771+
Partner not employed	-0.0151+	0.1336+	-0.1349+	0.4555
Long-term health condition	-0.1491	-0.1006	-0.1399	-0.0314+
Number of resident children under 15	-0.0532+	-0.0305+	0.0609+	-0.0917+
<i>Age of youngest child ('11–14' omitted)</i>				
Under 2 years	-0.0877+	0.0160+	-0.1212+	0.5026
2 to 5 years	-0.0687+	-0.1000+	-0.1505+	0.092+
6 to 10 years	-0.0202+	0.0246+	-0.0871+	-0.0698+
Weekly hours of formal child care	-0.002+	-0.0086	0.0015+	-0.0037+
Weekly hours of informal child care	-0.0014+	-0.0038+	0.0064+	-0.0036+
Equivalent household income (\$'000)	0.0012	0.0015	0.0010+	0.002
<i>Working hours ('35–44 hours' omitted)</i>				
Less than 20 hours	-0.2336+	0.1641	-0.863	0.0477+
20 to 34 hours	0.0454+	0.0883	-0.177+	-0.0685+
45 to 54 hours	0.0704	-0.0024+	0.0386+	-0.0257+
55 hours or more	-0.0134+	0.1082+	0.0063+	0.0796+
Job tenure	-0.0138+	-0.0017+	-0.0658	-0.098
Job tenure squared	0.0004+	-0.0001+	0.0018	0.0033
Over-employed (prefer fewer hours)	-0.1284	-0.0677	-0.3843	-0.3579
Under-employed (prefer more hours)	-0.011+	-0.0815	-0.0512+	-0.1324
Casual employee	-0.1811	0.0674+	-0.3552	-0.0449+
Shift work	-0.0237+	-0.0588+	-0.1713	-0.0969+
Satisfaction at t-1	-0.1123	-0.1167	-0.0901	-0.1174
Constant	13.2513	11.9484	8.5474	1.037
Number of observations	6,107	5,340	5,951	4,603

*Notes:* The statistics presented are fixed effects regression model coefficient estimates of the effects of the explanatory variables on job satisfaction and life satisfaction (both measured on a 0–10 scale). + indicates the estimate is not statistically significantly different from zero at the 10 per cent level. Dummy variables for year of interview were also included and found to be significant for life satisfaction but not for job satisfaction.

- 2 'Nurturing' includes being held, cuddled, read to and talked to.
- 3 In a study of Australian working mothers with children not yet of school age, Ochiltrie and Greenblat (1991) found that when both parents are employed, the responsibility of care for sick children usually falls on the mother. The main reasons given for this are that the father earns a higher wage, his job responsibilities are deemed more important, and employers are more likely to accept a mother staying home to care for sick children than a father.
- 4 Their findings suggest that many children spend as little as half an hour alone with their fathers on weekdays, and on weekends time spent with their father while their mother is not there varies from 0.8 hours a day for infants to 1.4 hours for children aged two to three years and 1.5 hours for children aged eight to nine years.
- 5 The labour force participation rate is the proportion of the population who are either employed or unemployed and looking for work.
- 6 In September 2003, Australian parents claiming income support faced compulsory activity requirements for the first time. Under the 'Australians Working Together' policy, Parenting Payment recipients, whose youngest child was aged 13 to 15 years, were required to undertake 150 hours of employment-oriented activity every six months. Prior to this change, low income sole and partnered parents were able to receive Parenting Payments, without any activity requirements, until their youngest child reached 16 years of age. For lone parents whose youngest child is aged six or older, some of the increase in participation rates is likely to be due to the Welfare to Work changes which took effect in 1 July 2006. As a result of these changes, sole parents receiving Parenting Payment are now moved to NewStart Allowance—with a lower rate of payment and extra participation requirements—once their youngest child reaches the age of 6.
- 7 Only observations from 2004 to 2008 are used in this model as the questions about the type (and number of

hours) of child care used are different in the first three waves of the HILDA Survey.

- 8 Note that, in order to control for state dependence, a one period lagged value of the dependent variable is included in the explanatory variables. The negative coefficient indicates that net of fixed personal characteristics, a high satisfaction score one period is likely to be followed by a lower score next period. In a study of working hours and subjective wellbeing, Wooden et al. (2009) explain this result to be a consequence of the clustering of responses at the upper end as well as the truncation of the satisfaction scales at 10 (i.e. those who report a satisfaction level of 10 in one period can only report the same or a lower score in the next period).

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## 28. Attitudes to marriage and children and to gender roles in parenting and employment

Community attitudes to family formation and to work and family gender roles have undoubtedly changed over recent decades, although it would probably be wrong to characterise changes as a linear march towards more progressive views. While on balance attitudes have become more progressive, there is possibly also a cyclical aspect to attitudes. For example, it may be that there has been some degree of resurgence in conservative values in Australia in recent years. The HILDA Survey has collected information allowing us to track community attitudes in these areas over time, providing objective evidence on the extent to which attitudes are indeed shifting. Specifically, in Waves 1, 5 and 8, a battery of statements about parenting and work—12 statements in Wave 1 and 17 statements in Waves 5 and 8—was presented to respondents in the self-completion questionnaire (SCQ). Respondents were asked to indicate the extent to which they agreed with each statement on a scale of 1 (strongly disagree) to 7 (strongly agree). In addition, in Waves 5 and 8, the SCQ contained a set of 10 statements about marriage and children, for each of which the respondent was likewise asked to indicate extent of agreement.

Because the HILDA data are longitudinal, not only can we track changes in overall community attitudes over time, we can track changes in individuals' attitudes, allowing us to see who has changed their attitudes, and more generally how attitudes change as people age and move into different life cycle stages. For example, it is generally thought that older people tend to be more conservative or traditional than younger people. What is less clear is the extent to which this empirical regularity is an effect of ageing and moving into different life cycle stages, as opposed to an effect of fixed differences in attitudes across birth cohorts—that is, it may be that people born earlier were always more conservative than people born more recently. Longitudinal data such as provided by HILDA can help us resolve this uncertainty.

Tables 28.1 and 28.2 respectively present the Wave-8 population-weighted distributions of responses to the statements on attitudes to marriage and children and the statements on attitudes to parenting and work. For most questions, some degree of ambivalence is evident for the majority of people, with relatively few people choosing the extreme

**Table 28.1: Distribution of responses to statements on attitudes to marriage and children, 2008 (%)**

	Strongly disagree		3	4	5	6	Strongly agree		Total
	1	2					7	8	
<i>M1. It is alright for an unmarried couple to live together even if they have no intention of marrying</i>	8.9	5.0	5.1	10.2	12.1	20.4	38.3	100.0	
<i>M2. Marriage is a lifetime relationship and should never be ended</i>	13.9	9.4	9.1	17.5	14.5	15.9	19.9	100.0	
<i>M3. Marriage is an outdated institution</i>	35.5	22.1	10.9	15.2	7.3	4.3	4.6	100.0	
<i>M4. It is alright for a couple with an unhappy marriage to get a divorce even if they have children</i>	4.9	5.4	6.2	16.0	15.0	24.3	28.2	100.0	
<i>M5. A woman has to have children in order to be fulfilled</i>	43.0	21.9	10.0	12.3	6.0	4.0	2.7	100.0	
<i>M6. A man has to have children in order to be fulfilled</i>	43.8	22.2	10.3	12.4	5.3	3.3	2.7	100.0	
<i>M7. Children will usually grow up happier if they have a home with both a father and a mother</i>	6.2	4.1	4.3	13.5	14.2	25.3	32.3	100.0	
<i>M8. It is alright for a woman to have a child as a single parent even if she doesn't want to have a stable relationship with a man</i>	14.9	12.7	12.7	21.1	14.9	12.7	11.1	100.0	
<i>M9. When children turn about 18–20 years old they should start to live independently</i>	7.9	10.9	11.7	26.8	18.2	14.8	9.6	100.0	
<i>M10. Homosexual couples should have the same rights as heterosexual couples do</i>	21.5	9.4	7.8	16.3	9.7	12.2	23.0	100.0	

Note: Percentages may not add up to 100 due to rounding.

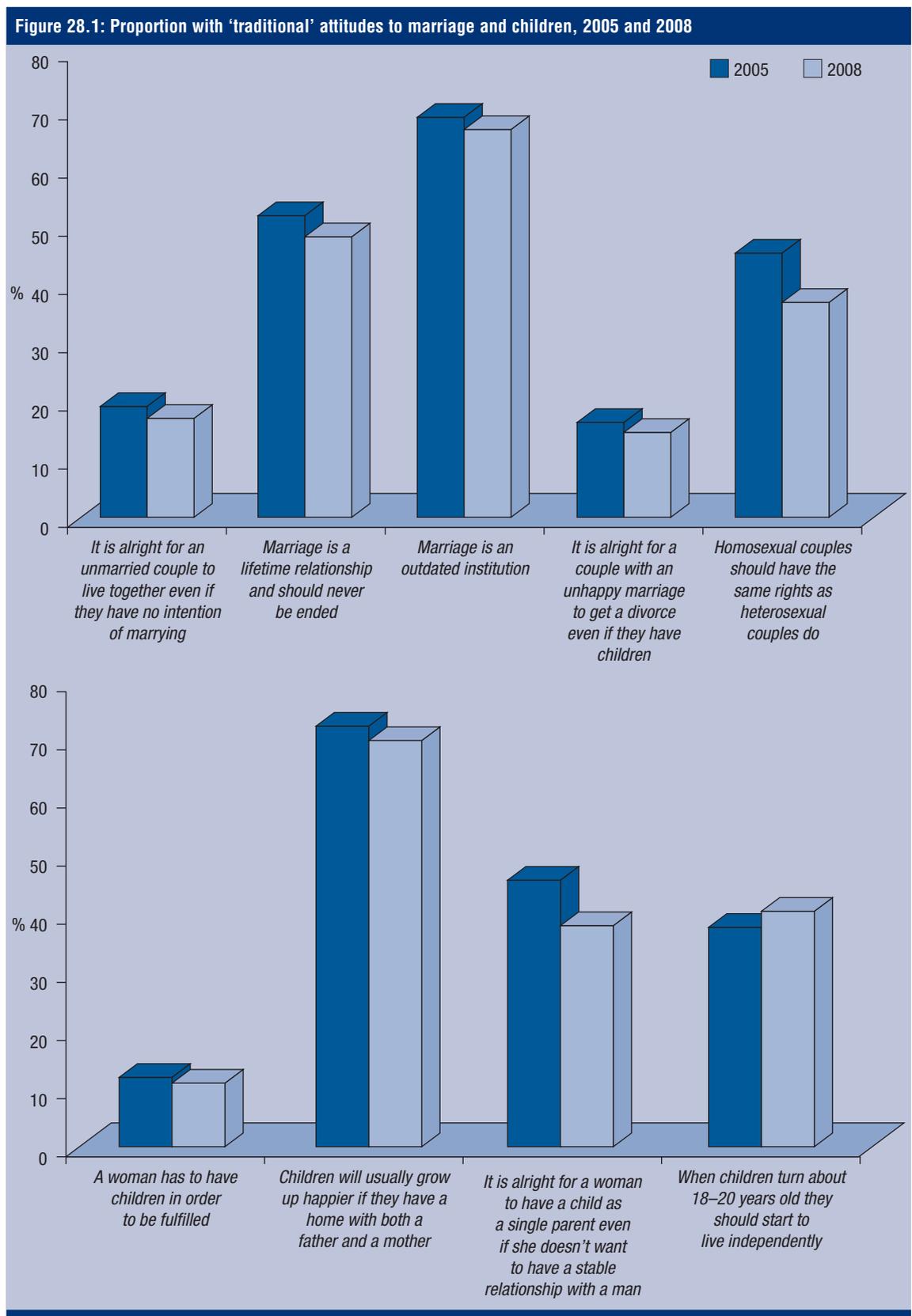
**Table 28.2: Distribution of responses to statements on attitudes towards parenting and work, 2008 (%)**

	Strongly disagree		3	4	5	6	Strongly agree		Total
	1	2					7		
<i>P1. Many working mothers seem to care more about being successful at work than meeting the needs of their children</i>	13.4	19.3	16.6	27.6	13.2	5.7	4.1	100.0	
<i>P2. Many working fathers seem to care more about being successful at work than meeting the needs of their children</i>	10.2	14.7	15.1	26.5	19.6	9.8	4.2	100.0	
<i>P3. If both partners in a couple work, they should share equally in the housework and care of the children</i>	0.7	0.8	2.0	11.1	12.6	30.0	42.9	100.0	
<i>P4. Whatever career a woman may have, her most important role in life is still that of being a mother</i>	4.1	4.2	5.4	15.2	14.7	24.3	32.1	100.0	
<i>P5. Whatever career a man may have, his most important role in life is still that of being a father</i>	4.0	3.9	5.5	15.3	16.7	24.7	29.9	100.0	
<i>P6. Mothers who don't really need the money shouldn't work</i>	16.3	17.9	15.1	20.4	11.2	9.2	9.8	100.0	
<i>P7. Children do just as well if the mother earns the money and the father cares for the home and children</i>	3.1	3.3	5.3	22.7	17.0	26.2	22.3	100.0	
<i>P8. It is better for everyone involved if the man earns the money and the woman takes care of the home and children</i>	19.2	16.9	11.5	22.0	11.8	9.5	9.1	100.0	
<i>P9. As long as the care is good, it is fine for children under 3 years of age to be placed in child care all day for 5 days a week</i>	21.1	20.5	16.8	19.4	10.2	7.2	4.9	100.0	
<i>P10. A working mother can establish just as good a relationship with her children as a mother who does not work for pay</i>	7.1	9.3	14.2	21.1	16.3	18.6	13.4	100.0	
<i>P11. A working father can establish just as good a relationship with his children as a father who does not work for pay</i>	4.7	6.7	11.9	23.3	17.8	20.9	14.6	100.0	
<i>P12. A father should be as heavily involved in the care of his children as the mother</i>	0.7	1.2	4.1	13.1	16.0	30.1	34.7	100.0	
<i>P13. It is not good for a relationship if the woman earns more than the man</i>	35.2	22.6	9.9	19.4	6.2	4.2	2.5	100.0	
<i>P14. On the whole, men make better political leaders than women do</i>	33.9	17.8	9.2	20.3	8.1	6.1	4.6	100.0	
<i>P15. A pre-school child is likely to suffer if his/her mother works full-time</i>	12.0	13.0	14.0	23.0	15.9	12.7	9.4	100.0	
<i>P16. Children often suffer because their fathers concentrate too much on their work</i>	5.9	7.8	12.5	24.2	25.0	16.2	8.5	100.0	
<i>P17. If parents divorce it is usually better for the child to stay with the mother than with the father</i>	15.7	10.8	9.2	36.1	12.5	9.6	6.1	100.0	

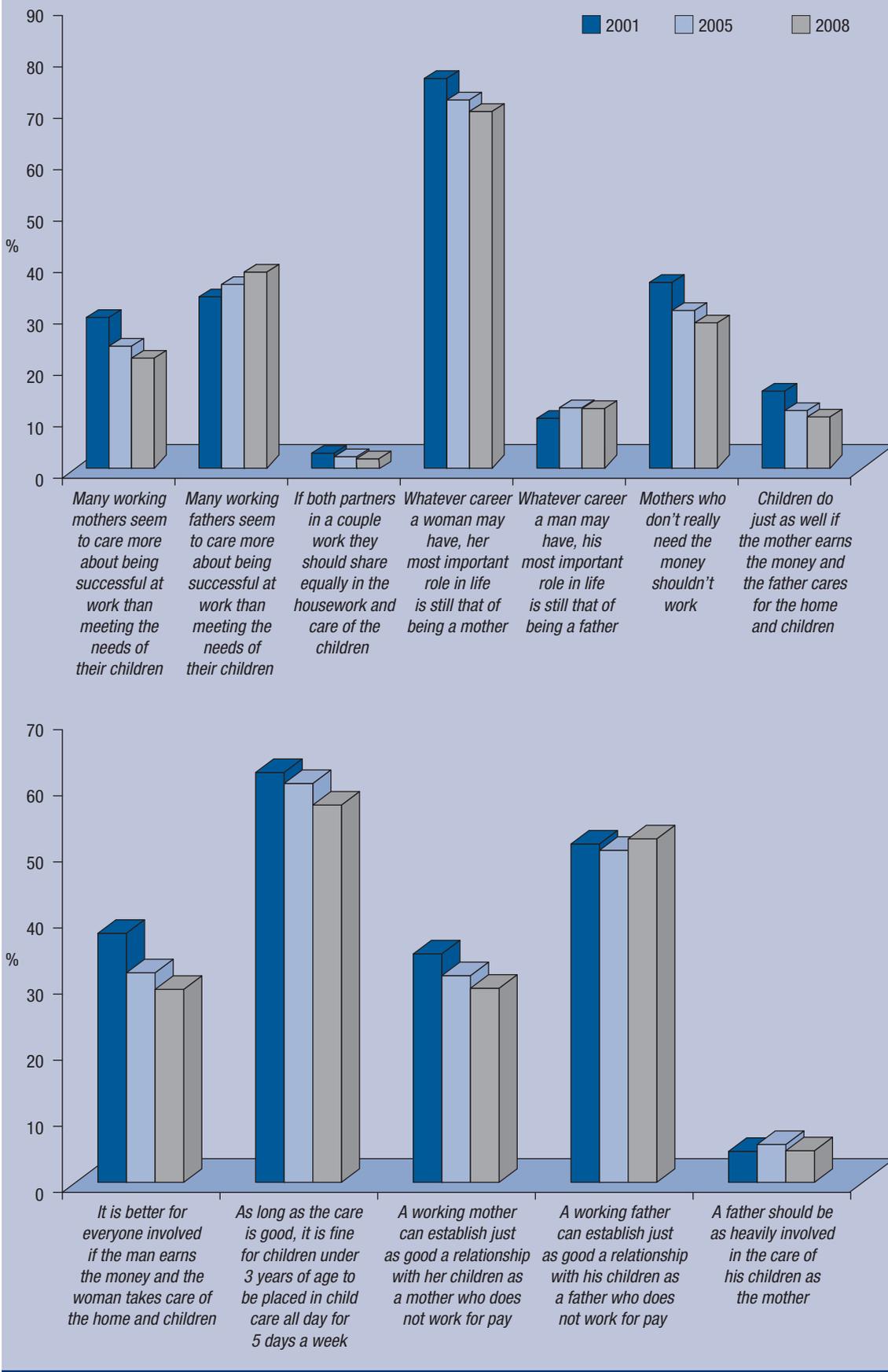
Note: Percentages may not add up to 100 due to rounding.

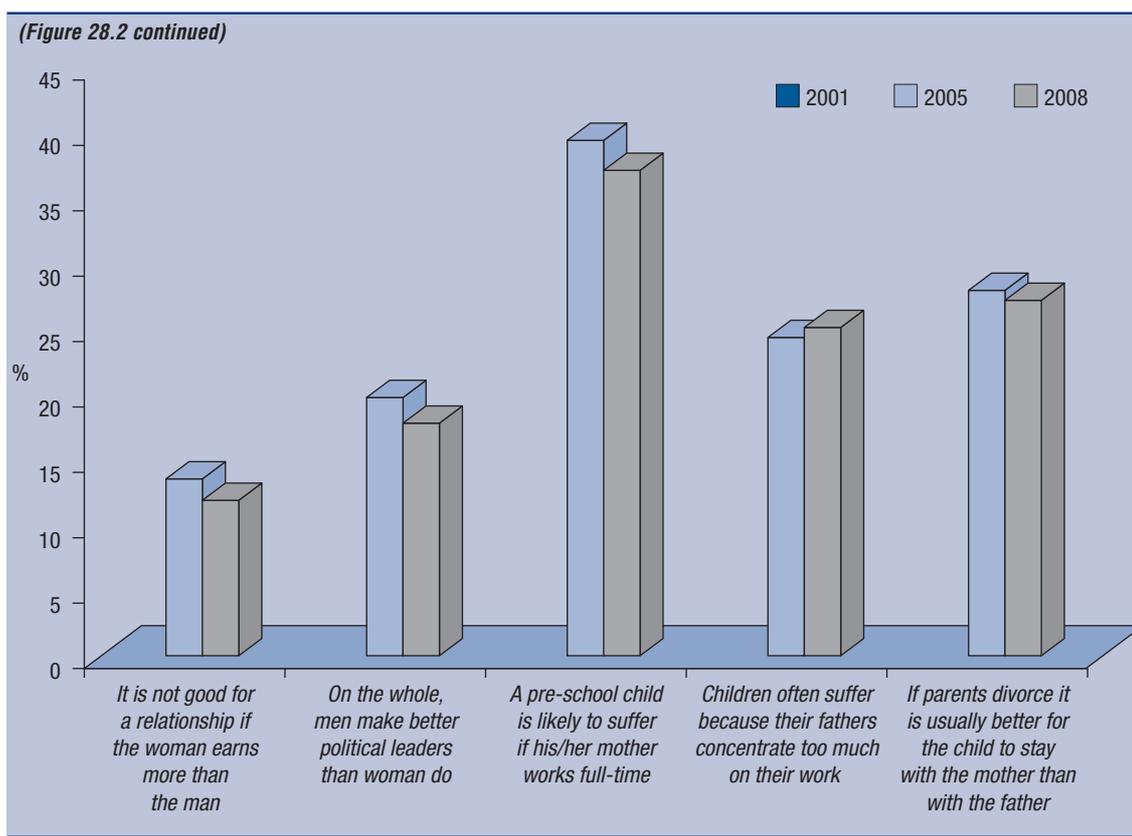
'strongly agree' or 'strongly disagree' response options. Notable exceptions for attitudes to marriage and children include a high proportion strongly agreeing that 'it is alright for an unmarried couple to live together even if they have no intention of marrying'

tion of marrying' and high proportions strongly disagreeing that 'marriage is an outdated institution', 'a woman has to have children in order to be fulfilled', and 'a man has to have children in order to be fulfilled'. For attitudes to parenting and



**Figure 28.2: Proportion with 'traditional' attitudes to parenting, 2001, 2005 and 2008**





work, high proportions strongly agree that 'if both partners in a couple work, they should share equally in the housework and care of the children', 'whatever career a woman may have, her most important role in life is still that of being a mother', 'whatever career a man may have, his most important role in life is still that of being a father' and 'a father should be as heavily involved in the care of his children as the mother'. High proportions strongly disagree that 'it is not good for a relationship if the woman earns more than the man' and 'on the whole, men make better political leaders than women do'.

### Changes in community attitudes between 2001 and 2008

To succinctly summarise changes in community attitudes, in Figures 28.1 and 28.2 we classify individuals' responses for each item according to whether they represent a 'traditional' view. For statements where agreement corresponds to a traditional or conservative attitude, a response is classified as traditional if 5, 6 or 7 is chosen. This applies to the items (as listed in Tables 28.1 and 28.2) M2, M5, M7, M9, P1, P4, P6, P8, P11, P13, P14, P15 and P17. For the remaining statements, where disagreement corresponds to a traditional or conservative attitude, a response is classified as traditional if 1, 2 or 3 is chosen.<sup>1</sup>

Figure 28.1 examines changes in attitudes to marriage and children between 2005 and 2008, showing even in this limited period a decline in the pro-

portion of people with traditional attitudes for all but one statement. The exception is that there has been an increase in the proportion of the population who agree that children should start to live independently when they turn about 18–20 years old. However, the connection between this statement and traditional attitudes is somewhat ambiguous, particularly in reference to female children.

Figure 28.2 examines changes in attitudes to parenting and employment between 2001 and 2008 for 12 statements and between 2005 and 2008 for a further five statements only included in Waves 5 and 8. As with attitudes to marriages and children, the clear trend is towards less traditional views, a trend that holds not only between 2005 and 2008, but also between 2001 and 2005. There are, however, exceptions for two items in relation to the behaviour and role of fathers, but these items less clearly translate into measures of how traditional are one's views than do similar items for mothers. In particular, many people will not see a trade-off between career success and being a good father, irrespective of how traditional their views; whereas, people with traditional views will tend to believe such a trade-off exists for mothers.

Differences in attitudes across selected demographic groups are examined in Tables 28.3 and 28.4. 'Scores' are constructed for measures of the extent to which an individual holds traditional views. For marriage and children, the score is equal to  $(8 - M1) + M2 + (8 - M3) + (8 - M4) + M5 + (8 - M6) + M7 + (8 - M8) + M9 + (8 - M10)$ .

Potential scores range from 10 (very non-traditional views) to 80 (very traditional views). For parenting and employment, the score is calculated only for a subset of the statements on parenting and work, restricting to those statements where there is little ambiguity over what constitutes a 'traditional' view. Specifically, P2, P3, P5 and P11 are excluded. Also, the five items included from Wave 5 only (P13–P17) have not been used in constructing the scores, so that scores are comparable across all three of the waves. The score is therefore equal to  $P1 + P4 + P6 + (8 - P7) + P8 + (8 - P9) + (8 - P10) + (8 - P12)$ , potentially ranging from 8 (very non-traditional views) to 64 (very traditional views).

Consistent with the evidence presented in Figures 28.1 and 28.2, overall mean scores decline over the periods examined for both males and females and for both measures. They also decline for every demographic group examined in the tables. There are, however, substantial differences in the levels of the scores across demographic groups. Males tend to hold more traditional views than females, while—unsurprisingly—the elderly are substantially more traditional in their views than others. Single people and lone parents tend to be less traditional, while couples with dependent children have the most traditional views of the non-elderly. Comparisons across age groups reveal that, while attitudes to parenting and working are ordered by age, with views becoming more traditional the

older the age group, attitudes to marriage and children are broadly the same across the 15–54 years age range. It is only those over 55 years of age who are clearly more conservative in their views on marriage and children than those in other age groups. Finally, as we would expect, people with a religious affiliation, be it with a Christian religion or any other religion have considerably more traditional views on marriage and children than people without a religious affiliation. Differences are also evident for attitudes to parenting and work, but are not so large, particularly for males.

**How do attitudes change as people age?**

As noted earlier, an important question on which the HILDA Survey can shed light by virtue of its longitudinal structure is how individuals' attitudes change as they get older. Table 28.5 presents, for each of seven age groups and for males and females separately, the mean change in individuals' 'tradition score', the percentage whose score decreased and the percentage whose score increased. These are presented for the change in attitudes to marriage and children between 2005 and 2008 and for the change in attitudes to parenting and work between both 2005 and 2008 and 2001 and 2008. For change over the 2005–2008 period, the score for parenting and work includes all 11 'unambiguous' items available in Waves 5 and 8, while for change over the 2001–2008

**Table 28.3: Extent to which 'traditional' in attitudes to marriage and children, 2005 and 2008—Mean score by family type, age group and religious affiliation**

	Males		Females	
	2005	2008	2005	2008
All	37.6	36.4	35.1	33.9
<b>Family type</b>				
Non-elderly single	33.8	33.2	30.9	30.0
Non-elderly couple	35.7	34.8	33.7	32.5
Lone parent	34.6	36.3	32.2	31.4
Couple parent	38.3	37.0	35.7	34.5
Non-dependent child	36.8	34.4	33.4	31.6
Dependent child	35.8	33.8	32.6	30.8
Elderly single	40.7	39.5	39.1	37.5
Elderly couple	42.4	40.9	40.9	39.1
<b>Age group</b>				
15–24	36.1	33.8	32.9	31.4
25–34	36.0	35.6	32.7	32.2
35–44	36.2	34.4	33.4	32
45–54	36.6	36.1	33.8	33
55–64	38.9	37.6	37.4	35.1
65 and over	43.2	41.6	41.6	40.3
<b>Religious affiliation</b>				
None	33.3	32.6	29.2	28.2
Christian	39.5	38.5	36.9	35.9
Other	38.8	36.4	36.3	34.6

*Note:* Scores range from 10 to 80. A higher score corresponds to more traditional values.

**Table 28.4: Extent to which 'traditional' in attitudes towards parenting and work, 2001, 2005 and 2008—Mean score by family type, age group and religious affiliation**

	Males			Females		
	2001	2005	2008	2001	2005	2008
All	31.9	30.9	30.2	29.9	29.0	28.7
<b>Family type</b>						
Non-elderly single	31.1	29.4	29.0	26.9	26.2	26.5
Non-elderly couple	30.4	29.2	28.7	29.4	27.4	27.2
Lone parent	32.1	31.7	32.9	30.2	29.3	29.1
Couple parent	32.0	31.0	30.3	30.3	29.5	29.1
Non-dependent child	31.1	30.3	29.0	27.3	27.2	26.7
Dependent child	29.1	28.5	27.5	25.7	25.9	25.1
Elderly single	36.5	35.0	34.4	33.8	32.8	31.8
Elderly couple	36.2	34.1	33.4	34.3	32.5	32.2
<b>Age group</b>						
15–24	29.6	29.0	27.8	26.7	26.4	26.2
25–34	29.5	29.1	29.2	27.8	27.3	26.9
35–44	31.0	30.3	28.9	29.4	28.3	27.6
45–54	32.3	30.7	30.2	29.8	28.6	28.9
55–64	34.9	32.2	31.6	32.9	31.0	30.0
65 and over	36.7	34.8	34.3	34.9	33.4	33.0
<b>Religious affiliation</b>						
None	29.6	28.9	28.9	26.8	26.4	26.4
Christian	32.7	31.7	31.1	30.7	29.9	29.8
Other	32.0	31.7	31.1	29.2	30.1	30.2

*Note:* Scores range from 8 to 64. A higher score corresponds to more traditional values.

**Table 28.5: Changes in individuals' attitudes over time**

	Attitudes to marriage and children, 2005–2008			Attitudes to parenting and work, 2005–2008			Attitudes to parenting and work, 2001–2008		
	Mean change	Became more traditional (%)	Became less traditional (%)	Mean change	Became more traditional (%)	Became less traditional (%)	Mean change	Became more traditional (%)	Became less traditional (%)
<b>Males</b>									
15–19	–1.8	36.2	57.1	–1.0	43.5	50.7	–0.6	43.2	52.1
20–24	–2.0	37.2	56.2	–1.0	43.8	49.3	–1.4	39.5	53.7
25–29	–1.4	37.8	54.1	–0.2	46.8	49.0	–0.6	44.4	47.0
30–39	–0.8	40.0	52.4	0.0	47.1	47.5	–0.6	43.2	50.8
40–49	–0.8	39.7	51.1	–0.3	43.2	49.8	–1.4	37.4	56.0
50–59	–0.3	43.8	47.4	0.0	47.6	46.2	–0.8	42.3	50.4
60 and over	–0.5	44.0	48.0	–0.2	46.2	48.0	–1.8	35.6	57.3
Total	–0.8	40.9	50.9	–0.3	45.7	48.3	–1.2	39.8	53.3
<b>Females</b>									
15–19	–1.5	35.4	57.6	–0.4	43.7	49.4	0.8	52.6	41.1
20–24	–1.0	39.2	53.1	–0.2	45.0	51.0	–0.2	45.9	47.9
25–29	–0.5	40.8	51.4	0.2	49.0	45.2	–0.1	46.1	48.7
30–39	–1.0	38.2	53.1	0.3	49.7	44.3	–0.4	45.8	49.3
40–49	–1.0	38.3	53.2	0.4	49.6	44.1	–0.7	43.6	50.2
50–59	–0.8	40.4	53.1	0.1	47.3	47.0	–0.7	42.8	51.6
60 and over	–0.5	41.7	50.2	0.2	47.3	47.0	–1.3	37.5	55.2
Total	–0.9	39.5	52.6	0.2	48.0	46.2	–0.7	43.0	51.0

*Note:* Measured changes in attitudes to parenting and work measured over the 2005 to 2008 period are based on scores on 11 items (P1, P4, P6, P7, P8, P9, P10, P12, P13, P14, P15), whereas changes over the 2001 to 2008 period are based on scores on eight items, omitting 3 items (P13, P14, P15) not available in Wave 1.

**Table 28.6: Determinants of change in attitude 'score'—OLS regression coefficient estimates**

	<i>Marriage and children, 2005–2008</i>		<i>Parenting and employment, 2001–2008</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
<b>Initial (Wave 1 or 5) characteristics</b>				
<i>Age group ('15–24' omitted)</i>				
25–34	0.378 <sup>+</sup>	0.018 <sup>+</sup>	0.384 <sup>+</sup>	–0.031 <sup>+</sup>
35–44	0.374 <sup>+</sup>	–0.410 <sup>+</sup>	–0.108 <sup>+</sup>	–0.205 <sup>+</sup>
45–54	0.594 <sup>+</sup>	0.141 <sup>+</sup>	–0.136 <sup>+</sup>	–0.355 <sup>+</sup>
55–64	0.682 <sup>+</sup>	–0.144 <sup>+</sup>	–0.413 <sup>+</sup>	–0.890 <sup>+</sup>
65 and over	–0.049 <sup>+</sup>	–0.011 <sup>+</sup>	–0.257 <sup>+</sup>	–1.068 <sup>+</sup>
<i>Family type ('Non-elderly single' omitted)</i>				
Non-elderly couple	0.150 <sup>+</sup>	–1.157	0.471	–0.697
Lone parent	–0.285 <sup>+</sup>	–0.798	0.581 <sup>+</sup>	–0.573
Couple parent	–0.180 <sup>+</sup>	–0.866	–0.149 <sup>+</sup>	–0.949
Non-dependent child	–0.415 <sup>+</sup>	0.153 <sup>+</sup>	–0.433 <sup>+</sup>	1.398
Dependent child	–0.222 <sup>+</sup>	–2.624	–9.743 <sup>+</sup>	7.268 <sup>+</sup>
Elderly single	0.488 <sup>+</sup>	–0.982	–0.307 <sup>+</sup>	–0.152 <sup>+</sup>
Elderly couple	0.084 <sup>+</sup>	–0.810 <sup>+</sup>	–0.807 <sup>+</sup>	–0.055 <sup>+</sup>
<i>Educational attainment ('Degree or higher' omitted)</i>				
Diploma or Certificate III/IV	0.057 <sup>+</sup>	–0.230 <sup>+</sup>	–0.463 <sup>+</sup>	–0.540 <sup>+</sup>
Completed high school	–0.309 <sup>+</sup>	–0.270 <sup>+</sup>	–0.210 <sup>+</sup>	–0.141 <sup>+</sup>
Certificate I/II	0.401 <sup>+</sup>	–1.201 <sup>+</sup>	–1.405 <sup>+</sup>	–0.584 <sup>+</sup>
Year 11 and below	–0.205 <sup>+</sup>	–0.289 <sup>+</sup>	–0.228 <sup>+</sup>	–0.731
<i>Place of birth/ethnicity ('Indigenous' omitted)</i>				
Other Australian-born	2.437	–0.575 <sup>+</sup>	0.953 <sup>+</sup>	1.037 <sup>+</sup>
ESB immigrant	2.901	–0.735 <sup>+</sup>	1.059 <sup>+</sup>	1.412 <sup>+</sup>
NESB immigrant	1.749 <sup>+</sup>	–1.280 <sup>+</sup>	0.021 <sup>+</sup>	1.175 <sup>+</sup>
<i>Religious affiliation ('None' omitted)</i>				
Christian	–0.267 <sup>+</sup>	–0.223 <sup>+</sup>	–0.238 <sup>+</sup>	–0.064 <sup>+</sup>
Other	0.330 <sup>+</sup>	–0.218 <sup>+</sup>	0.725 <sup>+</sup>	0.243 <sup>+</sup>
Major city	–0.280 <sup>+</sup>	–0.168 <sup>+</sup>	0.085 <sup>+</sup>	0.115 <sup>+</sup>
Equivalised Income	1.41e–07 <sup>+</sup>	4.98e–06 <sup>+</sup>	–7.78e–07 <sup>+</sup>	7.27e–06 <sup>+</sup>
<i>Labour force status ('Employed full-time' omitted)</i>				
Employed part-time	0.467 <sup>+</sup>	0.333 <sup>+</sup>	0.114 <sup>+</sup>	0.325 <sup>+</sup>
Not employed	0.510 <sup>+</sup>	0.625	0.152 <sup>+</sup>	0.315 <sup>+</sup>
<b>Changes between the initial wave (1 or 5) and Wave 8</b>				
Separated from spouse	0.102 <sup>+</sup>	–0.750	0.257 <sup>+</sup>	0.038 <sup>+</sup>
Got married	–0.209 <sup>+</sup>	0.263 <sup>+</sup>	0.565 <sup>+</sup>	–0.774 <sup>+</sup>
Entered de facto marriage	–0.663	0.534 <sup>+</sup>	–0.058 <sup>+</sup>	–0.071 <sup>+</sup>
Victim of crime of violence	0.308 <sup>+</sup>	–0.046 <sup>+</sup>	–0.001 <sup>+</sup>	0.316 <sup>+</sup>
Initially employed, but not employed in Wave 8	–0.839	–0.043 <sup>+</sup>	–0.011 <sup>+</sup>	1.010
Initially not employed, but employed in Wave 8	–0.393 <sup>+</sup>	–0.855	0.113 <sup>+</sup>	–1.271
Partner initially employed, but not employed in Wave 8	0.573 <sup>+</sup>	0.424 <sup>+</sup>	1.187	–0.444 <sup>+</sup>
Partner initially not employed, but employed in Wave 8	0.213 <sup>+</sup>	–0.413	–0.897 <sup>+</sup>	0.961 <sup>+</sup>
Initially had dependent children, but did not in Wave 8	–0.780	–0.054 <sup>+</sup>	–0.179 <sup>+</sup>	1.246
Initially did not have dependent children, but did in Wave 8	–0.285 <sup>+</sup>	–0.508 <sup>+</sup>	–0.119 <sup>+</sup>	0.364 <sup>+</sup>
Percentage change in equivalised Income	3.11e–05 <sup>+</sup>	–3.76e–06 <sup>+</sup>	6.18e–06 <sup>+</sup>	–5.28e–05 <sup>+</sup>
Constant	–3.129	0.832 <sup>+</sup>	–1.591 <sup>+</sup>	–1.242 <sup>+</sup>
Number of observations	3,218	3,826	2,812	3,408
<i>Notes:</i> + indicates the estimate is not significantly different from zero at the 10 per cent level. The dependent variable for marriage and children is the change between 2005 and 2008 in the individual's score for (8 – M1) + M2 + (8 – M3) + (8 – M4) + M5 + (8 – M6) + M7 + (8 – M8) + M9 + (8 – M10). The dependent variable for parenting and employment is the change between 2001 and 2008 in the individual's score for P1 + P4 + P6 + (8 – P7) + P8 + (8 – P9) + (8 – P10) + (8 – P12). In both models, a positive value for the dependent variable translates to a more traditional/conservative attitude.				

period, the score is necessarily restricted to the eight ‘unambiguous’ items available in Wave 1.

For both males and females, most age groups show a mean *decrease* in the extent to which traditional views are held, implying no tendency for ageing to produce more traditional attitudes. However, the mean decreases tend to be larger for younger people, suggesting there may be an ageing effect (towards more traditional views) at the older ages.

### Factors associated with changes in attitudes

In Table 28.6, the factors associated with changes in individuals’ attitudes over time are investigated. Ordinary Least Squares (OLS) models are estimated of the change in the ‘tradition score’ between 2005 and 2008 for attitudes to marriage and children and between 2001 and 2008 for attitudes to parenting and work. As well as considering effects associated with initial (Wave 1 or Wave 5) characteristics, the models examine the effects of changes experienced by the individual between the initial wave and Wave 8.

As ought perhaps be expected, few of the initial characteristics in the upper panel of the table exert statistically significant effects on the change in attitudes. However, significant effects are found for some of the life changes examined (lower panel of the table). Specifically, a man’s attitudes to marriage and children become less traditional if he enters a de facto relationship, exits the workforce or goes from having dependent children to not having dependent children. A female’s attitudes to marriage and children become less traditional if she separates from her spouse, moves from non-

employment to employment or has a partner who moves from non-employment to employment. For parenting and work, men become more traditional if their spouse moves from employment to non-employment. Women become more traditional in their attitudes to parenting and employment if they move out of employment and less traditional if they move from non-employment to employment. Women also become more traditional in their attitudes to parenting and employment if they go from having dependent children to not having dependent children.

### Concluding comments

The HILDA Survey provides rich information on the attitudes and values of the Australian community and how they are evolving over time both in the community at large and at the individual level. This article has made only limited use of this information, but hopefully provides some indication of its potential value—particularly when examined in conjunction with the rich variety of information on economic and social life contained in the HILDA data. It should also be noted that, as at the time of writing, it is intended that these attitudinal questions be repeated at regular intervals in future waves. Clearly, the availability of increasingly more waves of data will greatly enhance our ability to understand the evolution of individuals’ attitudes over the life cycle.

### Endnote

- 1 Statement M6 is excluded from this analysis because it is not clear whether agreement corresponds to less-traditional or more-traditional views.

## 29. Fertility and fertility intentions

As in most other Western nations, women in Australia are having fewer children, on average, than they were 20 or 30 years ago. Until recently, Australia had been experiencing a long period of fertility decline. Figure 29.1 shows that after a drop in the total fertility rate in the mid 1930s and a subsequent increase to a peak of 3.5 children per woman in 1961, the average number of children that Australian women have in their lifetime fell to 2.8 in 1967, 1.8 in 1984 and 1.7 in 2001. Since 2001, the fertility rate has been increasing, apparently arresting the gradual decline over the preceding two decades (Australian Bureau of Statistics, 2008).

### Fertility rates

The age specific fertility rate (ASFR) is defined as the number of live births registered during the calendar year, according to the age of the mother, per 1,000 of the female estimated resident population of the same age at 30 June. The total fertility rate (TFR) represents the average number of babies that a woman could expect to have during her reproductive lifetime, assuming current age-specific fertility rates apply (ABS, 2009).

Figures from the Australian Bureau of Statistics indicate that the number of children born in Australia has been rising in recent years. In 2008, there were 296,600 births registered in Australia, an increase of 4 per cent from 2007 and the highest number of births ever recorded (ABS, 2009).<sup>1</sup> In 2008, Australia's total fertility rate (TFR) was 1.97

babies per woman, the highest since 1985 (ABS, 2009). According to the ABS (2009), the increase in the total fertility rate between 2007 and 2008 was largely due to births to women aged between 30 and 39 years, with women aged between 30 and 34 experiencing the highest fertility of all age groups in 2008. This increase in total fertility rate is also evident in the HILDA Survey data. Table 29.1 shows age-specific fertility rates (number of births per 1,000 women) and total fertility rates, based on the HILDA Survey data, for each year from 2001 to 2008.

The HILDA Survey data indicate that for women aged between 20 and 24, fertility rates dropped from 44 births per 1,000 women in 2001 to 31 in 2003 before increasing to 56 in 2005, then falling again to 40 and 2007 and 36 in 2008. For women aged between 25 and 29, fertility rates dropped from 102 births per 1,000 women in 2001 to 84 in 2003, then increased to 88 births per 1,000 women in 2005. Among women in the 30 to 34 age group fertility rates increased from 97 births per 1,000 women in 2001 to 120 in 2003, then dropped again to 99 in 2005 and 83 by 2008. However, among women aged between 35 and 39, fertility rates showed the opposite pattern, with an increase from 41 births per 1,000 women in 2001 to 49 in 2005, 53 births per 1,000 women in 2007 and 60 births per 1,000 women in 2008. Thus, there has been some degree of ageing in fertility patterns, with more women delaying motherhood, or having more children, until their mid to late thirties.

Figure 29.1: Total fertility rate, Australia, 1921 to 2008



**Table 29.1: Age specific fertility rates—Births per 1,000 women, 2001 to 2008**

	2001	2003	2005	2007	2008
15–19	*10.2	*9.4	*7.3	*7.6	*7.5
20–24	44.1	30.9	56.6	40.3	35.7
25–29	101.8	84.4	88.4	85.7	83.3
30–34	97.2	120.2	99.0	87.9	82.7
35–39	40.7	48.8	49.0	52.9	60.2
40–44	*11.7	3.2	8.6	9.5	4.7
45–49	*1.2	*0.0	*0.0	*0.0	*0.9
Total	43.8	*41.8	*43.5	*40.4	*39.3
Total fertility rate	1.55	1.48	1.54	1.42	1.36

*Note:* \* Estimate not reliable.

### Fertility intentions

The HILDA Survey data allow us to look at not only changes in the number of babies born each year, but also changes in the number of children people *intend* to have. Each year, HILDA Survey respondents aged between 18 and 44 are asked about their fertility intentions—that is, about having a child, or more children, in the future.<sup>2</sup> Men and women in this age group are specifically asked: ‘How likely are you to have a child/more children in the future?’ This question is answered on a 0 to 10 scale where 0 means ‘very unlikely’ and 10 means ‘very likely’. For those who gave an answer of 6 or higher to this question—indicating that they think they are reasonably likely to have a child in the future—a final question asks how many (more) children the respondent intends to have. Based on responses to these questions, and the number of children each respondent already has, the total number of actual and intended children can be calculated. We can use this information to investigate whether the number of children that Australian men and women intend to have has changed over the eight-year period from 2001 to 2008. Table 29.2 shows the average number of actual and intended children for men and women aged between 18 and 44 in each year from 2001 to 2008.

The average number of intended children has remained quite stable during this eight-year period. For women, the overall average number of intended children remained at 2.1 for the entire period and for men, the average number of intended children increased very slightly—from 1.9 in 2001 to 2.0 in 2008. Among men aged between 25 and 29, total expected number of children increased from 1.8 in 2003 to 2.2 in 2008 and among women in the 30 to 34 age group, average expected children increased from 2.0 in 2001 to 2.3 in 2008.

While there has been very little overall change in total intended fertility between 2001 and 2008, it is possible that for many people, intentions about having a child, or more children, did change during this period. It may be the case that those who reported an increase in the number of children they intended to have are counterbalanced by people who reported a decrease in the number of children they intended having.

Looking at changes in total intended fertility over the five-year period between 2003 and 2008, Table 29.3 shows that, taking into account the number of children individuals had prior to their 2003 interview as well as any children born between

**Table 29.2: Total expected number of children (actual and intended), by sex and age group (means)**

	2001	2003	2005	2007	2008
<b>Men</b>					
18–24	1.8	1.7	1.8	1.8	2.0
25–29	1.9	1.8	2.1	1.9	2.2
30–34	1.8	1.9	1.9	1.9	2.0
35–39	1.8	1.9	1.9	1.9	2.0
40–44	2.0	2.0	1.9	1.9	2.0
Total	1.9	1.9	1.9	1.9	2.0
<b>Women</b>					
18–24	2.0	2.1	2.1	2.1	2.1
25–29	2.0	2.0	2.1	2.0	2.1
30–34	2.0	2.1	2.1	2.1	2.3
35–39	2.1	2.0	2.1	2.1	2.2
40–44	2.2	2.2	2.2	2.1	2.1
Total	2.1	2.1	2.1	2.1	2.1

**Table 29.3: Change in individual fertility intentions between 2003 and 2008—Men and women aged 18–39 in 2003 (%)**

Age in 2003	Change in total number of children expect to have					Total
	-2	-1	0	1	2	
<b>Men</b>						
18–24	8.6	10.5	47.8	14.3	18.8	100.0
25–29	*4.7	12.7	57.6	15.0	10.0	100.0
30–34	6.7	9.7	55.2	17.9	10.4	100.0
35–39	*3.1	6.6	72.3	12.7	5.3	100.0
Total (18–39)	6.1	10.0	56.8	15.1	11.9	100.0
<b>Women</b>						
18–24	14.2	13.8	45.7	14.5	11.7	100.0
25–29	6.8	10.1	56.5	16.5	10.3	100.0
30–34	4.6	9.2	65.6	17.1	3.5	100.0
35–39	*1.8	*3.4	83.4	10.2	*1.1	100.0
Total (18–39)	7.2	9.4	61.8	14.7	6.9	100.0

Notes: \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 29.4: Fertility intentions of those able to have children, 2005 and 2008 (%)**

	Fertility intentions in 2005	Had a child between 2005 and 2008	Intend to have (more) children in 2008	
			Had a child between 2005 and 2008	No children between 2005 and 2008
<b>Men</b>				
<i>Partnered, with at least one child</i>				
Intend to have more children	52.1	57.4	30.9	59.5
Do not intend to have more children	47.9	13.8	*34.9	15.6
<i>Partnered, no children</i>				
Intend to have children	85.6	47.6	86.0	96.3
Do not intend to have children	14.4	*8.5	*59.9	11.8
<i>Single, with at least one child</i>				
Intend to have more children	49.6	*21.7	*17.8	77.9
Do not intend to have more children	50.4	*12.5	*9.4	6.2
<i>Single, no children</i>				
Intend to have children	83.4	6.7	89.8	85.2
Do not intend to have children	16.6	*2.6	*64.8	27.1
<i>All</i>				
Intend to have (more) children	74.1	24.8	61.8	84.0
Do not intend to have (more) children	25.9	9.5	36.6	18.4
<b>Women</b>				
<i>Partnered, with at least one child</i>				
Intend to have more children	47.3	56.6	33.2	62.7
Do not intend to have more children	52.7	10.3	*35.8	*7.3
<i>Partnered, no children</i>				
Intend to have children	85.2	41.4	80.6	95.3
Do not intend to have children	14.8	*15.7	*69.6	*15.8
<i>Single, with at least one child</i>				
Intend to have more children	36.2	*32.1	*68.9	63.7
Do not intend to have more children	63.8	*9.9	*17.9	*11.7
<i>Single, no children</i>				
Intend to have children	88.0	7.1	84.6	90.0
Do not intend to have children	12.0	*8.9	*14.5	*38.6
<i>All</i>				
Intend to have (more) children	69.0	28.4	59.8	86.2
Do not intend to have (more) children	31.0	10.5	34.6	13.5

Note: \* Estimate not reliable.

2003 and 2008, 43 per cent of men and 38 per cent of women who were between the ages of 18 and 39 in 2003 reported a different number of total expected children in 2008 compared to 2003. Furthermore, the proportion of men and women who reported a higher number of total expected children in 2008 was slightly larger than the proportion who reported a lower number.

The proportion of men and women who changed their fertility intentions between 2003 and 2008 decreased with age—48 per cent of men and 46 per cent of women who were aged between 18 and 24 in 2003 reported the same number of expected children in 2003 as they did in 2008, compared to 72 per cent of men and 83 per cent of women aged between 35 and 39 in 2003. For men and women in all age groups, but particularly among those aged between 18 and 29, it was more common to have reported an increase in total expected children than a decrease. Overall, 27 per cent of men and 22 per cent of women reported a higher number of total expected children in 2008 compared to 2003, and 16 per cent of men and 17 per cent of women reported a lower number.

There are many factors that could have an impact on the decision about whether to have a child, or another child. Table 29.3 has shown that it was more common for younger people than older people to have changed their total fertility intentions over time. The main reason for this is that, compared to younger men and women, it is more likely that men and women in their late thirties and forties have completed their fertility planning. That is, most have already had as many children as they intend to have.

In a previous version of this report (2009), we examined other characteristics of individuals who had changed their fertility intentions between 2001 and 2006 and found that compared to parents who already had two or more children, it was more common for those who were not yet parents, and those with only one child, to have increased their fertility expectations. It was also more common for men and women whose relationship status had changed—particularly those who were single in 2001 and living with a spouse or partner in 2006—to have reported an increase in the expected total number of children. Table 29.4 shows the fertility intentions of men and women aged between 18 and 42 and able to have children in 2005, disaggregated by family type in 2005, whether they actually had a child between their 2005 and 2008 interviews, and their fertility intentions in 2008.

Overall, 74 per cent of men and 69 per cent of women in this group said in 2005 that they intended to have more children. More than 85 per cent of men and women who had no children at the time of their 2005 interview said that they intended to have at least one child at some time in the future,

compared to 52 per cent of partnered men and 47 per cent of partnered women who already had children and 50 per cent of fathers and 36 per cent of mothers who were not living with a spouse or partner at the time of their 2005 interview.

Among those who said that they intended to have a child, or more children, in 2005, 25 per cent of men and 28 per cent of women had a new baby by 2008. Almost 60 per cent of men and women who were partnered and already had at least one child in 2005 had another child by 2008. Of those who were partnered in 2005, but had not yet had children, 48 per cent of men and 41 per cent of women had a child by 2008. Of those who said that they intended to have (more) children in 2005, but had not had a child between 2005 and 2008, 96 per cent of men and 95 per cent of women who were living with a partner in 2005 but had no children still expressed an intention to have children in 2008. However, of those who were single and had no children in 2005, only 85 per cent of men and 90 per cent of women still had intentions to have a child in 2008. For those who already had children, and had not had a child during the three-year period between 2005 and 2008, the proportion who still wanted to have another child in 2008 was lower still: 60 per cent for partnered men and 63 per cent for partnered women, and 78 per cent for men and 64 per cent for women who were single in 2005.

#### **How many do not intend to have children at all?**

In a previous version of this report, we found that the proportion of men aged between 18 and 44 who said they did not intend to have any children was higher than that of women, but not by very much. This gender difference was more evident among men and women aged between 30 and 44 than among those under the age of 30. Table 29.5 compares the proportion of men and women aged between 18 and 44 who said that they did not intend to have any children in 2005 and 2008.

Overall, the proportion of men and women who did not intend to have children increased by around 2 per cent between 2005 and 2008. Among men and women aged between 18 and 24, the proportion who said they did not intend to have any children increased substantially, from 14 per cent of men and 15 per cent of women in 2005 to 20 per cent of men and 18 per cent of women in 2008. Men aged between 30 and 34 were the only group for whom the proportion who did not intend to have any children declined during this period—from 16 per cent in 2005 to 12 per cent in 2008.

However, a reasonable proportion of men and women who said, in 2005, that they did not intend to have any children had changed their mind by 2008: 8 per cent of men and 5 per cent of women who said that they did not intend to have children in 2005 said that they intended to have children in

2008. This change of intentions was most common among younger people, with 14 per cent of men and 8 per cent of women who were aged between 18 and 24 in 2005 changing their minds about having children by 2008.

**Is there a gender preference?**

In many countries there has traditionally been a preference for male children. Table 29.6 summarises the responses of men and women aged between 18 and 44 who were asked whether they would prefer their next child to be a boy or a girl. This question was restricted to men and women who intended having (more) children, but in many cases the respondents had no children yet, so they were essentially being asked about the preferred gender of their first child. In other cases, they already had one or more children, so their answers were (presumably) affected by the gender of their existing children.

While over 60 per cent of men and women said that they had no preference about the gender of their next child, there appears to be some preference for male children, or at least a preference for the first child to be male. This is clearly true for men and, by a smaller majority, for women too—33 per cent of men who had not already had a child wanted their first child to be a boy, compared with 6 per cent who wanted a girl; 19 per cent of women who had not had children said

they first wanted a boy and 16 per cent wanted a girl. There is also some evidence of a desire for at least one boy and one girl, with 35 per cent of men and 27 per cent of women with at least one daughter and no sons saying that they would prefer that their next child be a boy, and 36 per cent of men and 45 per cent of women who had at least one son and no daughters saying they would like their next child to be a girl.

Table 29.7 presents the results of a multinomial logit regression identifying the characteristics of those who expressed a preference about the gender of their next child. The sample included in the regression is men and women who said that they intended to have a child, or another child, in 2005 or 2008. Marginal effects at the mean are reported, so the results may be interpreted as the (percentage point) change in the predicted probability of each preference.<sup>3</sup> The results indicate that, after controlling for characteristics such as education, occupational status, religion and traditional views about gender roles, the gender of existing children is still the strongest predictor of gender preferences for both men and women.<sup>4</sup>

Compared to men who were not yet parents, the likelihood of men who had only male children expressing a preference for another male child is 18 percentage points lower, and the likelihood of men with only male children having a preference for a female child is 17 percentage points higher.

**Table 29.5: Men and women who do not have children and do not intend to have children, 2005 and 2008 (%)**

	<i>Men</i>		<i>Women</i>	
	<i>2005</i>	<i>2008</i>	<i>2005</i>	<i>2008</i>
18–24	14.0	20.1	14.5	17.5
25–29	10.0	12.3	14.2	15.0
30–34	16.3	12.4	9.5	11.7
35–39	16.7	18.4	9.6	11.0
40–44	18.4	19.9	10.6	11.1
Total	15.1	16.9	11.8	13.5

**Table 29.6: Preferred gender of next child, 2008 (%)**

	<i>Preferred gender of next child</i>			<i>Total</i>
	<i>Boy</i>	<i>Girl</i>	<i>Does not matter</i>	
<b><i>Men</i></b>				
No children	33.2	6.2	60.6	100.0
Only boys	*7.2	36.2	56.6	100.0
Only girls	34.9	*8.7	56.4	100.0
At least one boy and one girl	*16.4	*11.9	71.7	100.0
Total	30.1	9.4	60.6	100.0
<b><i>Women</i></b>				
No children	19.2	16.2	64.6	100.0
Only boys	*5.1	44.9	50.0	100.0
Only girls	26.7	*9.4	63.9	100.0
At least one boy and one girl	*12.9	*10.9	76.2	100.0
Total	18.1	18.5	63.4	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

Men with only female children are more likely to prefer their next child be male and also less likely to say that they have no preference about the gender of their next child. Similarly, compared to women who were not yet parents, women who had only male children are less likely have a preference for another male child and also less likely to have no preference about the gender of their next child. However, there was no significant difference in the preferences of women with only female children compared to women with no children, while those with at least one male child and one female child have a lower probability of preferring that their next child be male and a higher probability of having no preference about the gender of their next child.

For both men and women, the probability of having a preference for male children decreases slightly with age, and the probability of having no preference about the gender of the next child increases with age. Compared to men whose highest level of education is Year 12 or below, men with a degree are less likely to have a preference that their next child be female and more likely to

have no preference about the gender of their next child. Women with a degree qualification are also more likely to have no preference about the gender of their next child and less likely to have a preference for a female child. Occupational status also has a small, but significant, effect, with the probability of having a preference for a male child increasing slightly with occupational status for men and decreasing slightly for women. For men, the probability of having a preference for either a boy or a girl increases slightly with occupational status, while for women, the probability of having no preference about the gender of the next child increases with occupational status.

Men with traditional views about gender roles are more likely to have a definite preference about the gender of their next child; and women with traditional views are more likely to prefer their next child be male and less likely to have no preference.

In terms of religion, the regression results indicate that, compared to men who are not religious, men who are of the Buddhist faith and those whose religion is something other than the five religions

**Table 29.7: Characteristics associated with preferred gender of next child, 2005 and 2008**

	<i>Men</i>			<i>Women</i>		
	<i>Prefer male</i>	<i>Prefer female</i>	<i>No preference</i>	<i>Prefer male</i>	<i>Prefer female</i>	<i>No preference</i>
Age	-0.069	0.003 <sup>+</sup>	0.066	-0.022	-0.006 <sup>+</sup>	0.028
<i>Marital status ('Single' omitted)</i>						
Married	-0.051 <sup>+</sup>	0.007 <sup>+</sup>	0.043 <sup>+</sup>	-0.031 <sup>+</sup>	0.012 <sup>+</sup>	0.018 <sup>+</sup>
De facto	0.017 <sup>+</sup>	0.016 <sup>+</sup>	-0.032 <sup>+</sup>	-0.005 <sup>+</sup>	0.012 <sup>+</sup>	-0.007 <sup>+</sup>
<i>Family situation ('No children' omitted)</i>						
Only male child(ren)	-0.176	0.167	0.009 <sup>+</sup>	-0.090	0.259	-0.169
Only female child(ren)	0.204	-0.005 <sup>+</sup>	-0.199	0.047 <sup>+</sup>	-0.043 <sup>+</sup>	-0.004 <sup>+</sup>
At least one boy and one girl	-0.049 <sup>+</sup>	0.016 <sup>+</sup>	0.032 <sup>+</sup>	-0.063	-0.036 <sup>+</sup>	0.099
Equivalised household disposable income (\$'000)	-0.0004	-0.0004	-0.0004 <sup>+</sup>	-0.0001 <sup>+</sup>	0.0004 <sup>+</sup>	-0.0003 <sup>+</sup>
Occupational status (0-100)	0.0003	0.0003	0.001 <sup>+</sup>	-0.001	-0.0003 <sup>+</sup>	0.001
<i>Highest level of education ('Year 12 or below' omitted)</i>						
Degree	-0.039 <sup>+</sup>	-0.024	0.063	-0.013 <sup>+</sup>	-0.061	0.074
Certificate or diploma	-0.001 <sup>+</sup>	-0.021	0.021 <sup>+</sup>	0.022 <sup>+</sup>	0.001 <sup>+</sup>	-0.023 <sup>+</sup>
<i>Place of birth ('Australian-born' omitted)</i>						
ESB immigrant	-0.065 <sup>+</sup>	0.024 <sup>+</sup>	0.042 <sup>+</sup>	0.068 <sup>+</sup>	-0.033 <sup>+</sup>	-0.035 <sup>+</sup>
NESB immigrant	-0.077	-0.011 <sup>+</sup>	0.088	0.071	0.009 <sup>+</sup>	-0.080
Traditional views	0.092	0.023	-0.115	0.044	0.022 <sup>+</sup>	-0.067 <sup>+</sup>
<i>Religious affiliation ('No affiliation' omitted)</i>						
Christian	0.029 <sup>+</sup>	-0.009 <sup>+</sup>	-0.021 <sup>+</sup>	0.012 <sup>+</sup>	0.002 <sup>+</sup>	-0.014 <sup>+</sup>
Buddhist	0.010 <sup>+</sup>	-0.056	0.046 <sup>+</sup>	-0.018 <sup>+</sup>	0.121 <sup>+</sup>	-0.103 <sup>+</sup>
Hindu	0.204 <sup>+</sup>	-0.011 <sup>+</sup>	-0.194 <sup>+</sup>	0.024 <sup>+</sup>	-0.095 <sup>+</sup>	0.071 <sup>+</sup>
Islam	0.017 <sup>+</sup>	-0.018 <sup>+</sup>	0.001 <sup>+</sup>	0.033 <sup>+</sup>	-0.002 <sup>+</sup>	-0.031 <sup>+</sup>
Judaism	0.043 <sup>+</sup>	0.070 <sup>+</sup>	-0.113 <sup>+</sup>	-0.164	0.146 <sup>+</sup>	0.018 <sup>+</sup>
Other	0.105 <sup>+</sup>	-0.054	-0.051 <sup>+</sup>	-0.023 <sup>+</sup>	-0.078 <sup>+</sup>	0.101 <sup>+</sup>
Wave 5	0.013 <sup>+</sup>	-0.007 <sup>+</sup>	-0.006 <sup>+</sup>	0.014 <sup>+</sup>	-0.006 <sup>+</sup>	-0.008 <sup>+</sup>
Number of cases		1,893			1,954	

*Notes:* Estimates are marginal effects at the mean, obtained from multinomial logit models. <sup>+</sup> indicates the estimate is not statistically significantly different from zero at the 10 per cent level.

listed in Table 29.7 are less likely to have a preference for a female child, while Jewish women are less likely to have a preference for a male child.<sup>5</sup>

### Conclusion

Australia's total fertility rate has been increasing in recent years. Data from the ABS indicate that in 2008, the fertility rate was the highest since 1985. However, in terms of fertility intentions, the HILDA Survey data indicate that the average number of children people intend to have has remained quite stable during the period from 2001 to 2008, rising only slightly among men in their late twenties and women in their early thirties.

While there has been very little overall change in total intended fertility, approximately 40 per cent of men and women who were aged between 18 and 39 in 2003 reported a different number of total expected children in 2008 than they did in 2003. For both men and women, the proportion who reported a higher number of expected children in 2008 was slightly larger than the proportion who reported a lower number. While over 60 per cent of men and women said that they had no preference about the gender of their next child, there appears to be some preference for male children, or at least a preference for the first child to be male. There is also some evidence of a desire for at least one boy and one girl. After controlling for personal characteristics such as marital status, income, highest level of education and religion it appears that the gender of any existing children is still the main determinant of preference about the gender of future children, with those who only have male children more likely to express a preference that their next child be female and those who only have female children more likely to have a preference for a male child.

### Endnotes

- 1 In 2007, 285,200 births were registered in Australia. Before 2007, the highest number of births recorded in Australia was 276,400 in 1971 (ABS, 2009).
- 2 In Waves 1 to 4 these questions were asked of men and women aged between 18 and 55. In Waves 5 and 8 the question was restricted to women aged 18 to 44 (or

younger if they had already moved out of home), partnered men whose female partner was under the age of 45 and single men under the age of 55. In Waves 5 and 8, people were also excluded from the questions on fertility intentions if they had reported a medical reason for not being able to have any (more) children. In Waves 6 and 7, the questions were asked of women aged between 18 and 44 and men aged between 18 and 55. For consistency across waves, the analysis in this article is restricted to men and women aged between 18 and 44.

- 3 An alternative to presenting marginal effects at the mean is to present mean marginal effects. To evaluate the 'average' or 'overall' marginal effect, two approaches are frequently used. One approach is to compute the marginal effect at the sample means of the data. The other approach is to compute marginal effect at each observation and then to calculate the sample average of individual marginal effects to obtain the overall marginal effect. For small samples, averaging the individual marginal effects is preferred. However for large sample sizes, both the approaches yield similar results.
- 4 The variable representing traditional views about gender roles is based a question asking how much, on a scale of 0 to 7, the individual agrees with the statement 'It is better for everyone involved if the man earns the money and the woman takes care of the home and children' with 0 being 'strongly disagree' and 7 being 'strongly agree'. Those who gave a response of 5 or higher to this statement are coded as having traditional views about gender roles. Occupational status, for the current or most recent job, is coded on a scale from 0 to 100. For more information about the occupational status scale refer to McMillan, Beavis and Jones (2009).
- 5 These results should be interpreted with caution as the number of cases for these groups is quite low.

### References

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- Australian Bureau of Statistics (2009) *Births, Australia, 2008*, ABS Catalogue No. 3301.0, Canberra.
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## 30. Use of birth control measures in Australia

In Waves 5 and 8 of the HILDA Survey, a series of questions were included on fertility-related topics as part of an international study coordinated by the United Nations, known as the Generations and Gender Programme. For women aged 18–44 and men aged 18–55, this included questions on contraceptive use—specifically, whether they took birth control measures and, if so, which methods they used.<sup>1</sup> Eleven distinct birth control measures were presented to respondents on a show card, including condoms, contraception pill, withdrawal, ‘rhythm method’ and even the ‘morning-after pill’. An ‘other’ option was also included on the show card. In this article, we make use of this information to provide a brief overview of contraceptive use in Australia in recent years.

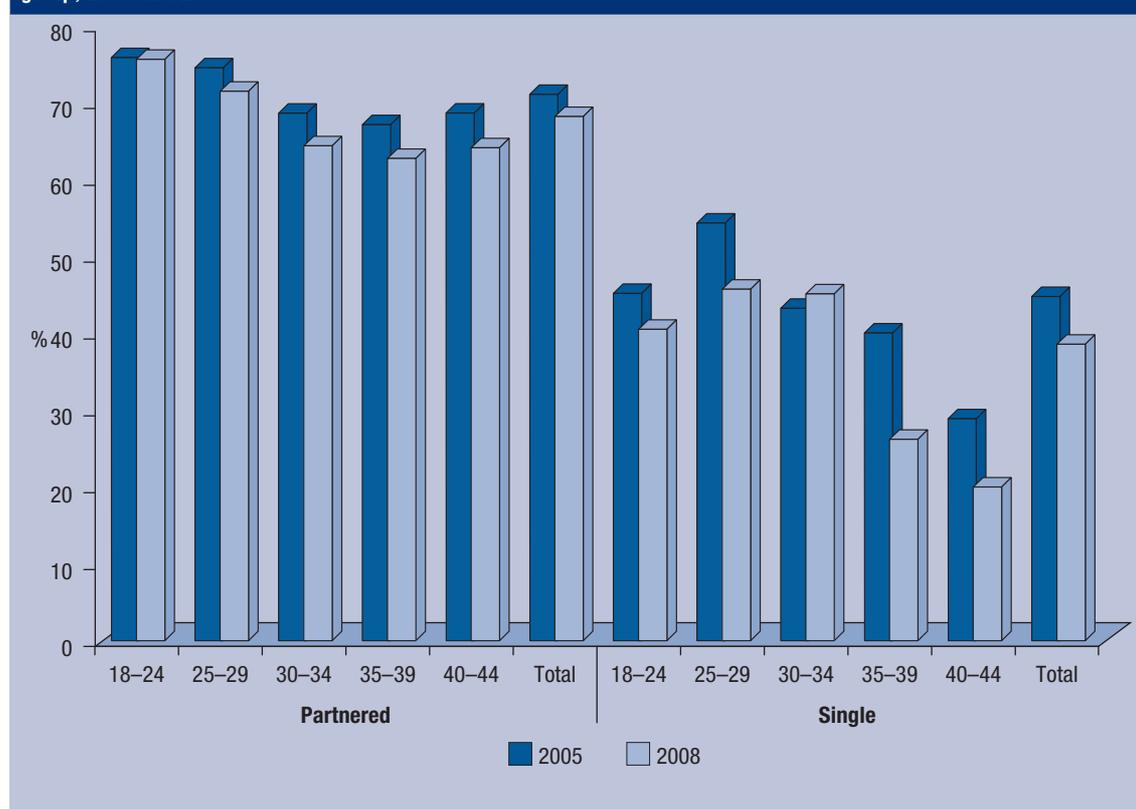
The population for study is limited to men and women aged 18–44. We further restrict most of our analysis to partnered individuals, on the basis that many people without a partner will not be sexually active. The fertility-related questions coincide with questions on non-co-resident partners administered in Waves 5 and 8, allowing us to identify all partnered individuals, irrespective of whether they live with their partner.

One potential limitation of the information that should be acknowledged is that, although the questions refer to birth control measures taken by

both the respondent and the respondent’s partner, the reference to the partner was ‘optional text’ to be read out by the interviewer only if the respondent had a partner. Since the existence of non-co-resident partners was only established later in the interview, interviewers would typically not have known to include the optional text for these individuals. It is possible, therefore, that many respondents with non-co-resident partners would have answered only about measures personally taken and not included measures taken by their partner.

Figure 30.1 compares rates of contraceptive use in 2005 and 2008 by age group and partner status. It shows that the use of birth control has somewhat declined from 2005 to 2008. This is true for partnered and single people across all age groups except for 30–34 year old singles. Notwithstanding the increase in use of contraception among singles aged 30–34 years, the decline is more pronounced for single people than partnered people, dropping by 6 percentage points (45 to 39 per cent), compared with 3 percentage points (72 to 69 per cent) for partnered people. Overall, partnered people are more likely to report using birth control measures than single people, and younger people are more likely to report using measures than older people. Also notable is that the variation across age groups is higher for single people.

**Figure 30.1: Use of contraceptives in Australia—Proportion taking birth control measures, by partner status and age group, 2005 and 2008**



**Table 30.1: Use of birth control measures by intention to have (more) children, 2005 and 2008 (%)**

	2005		2008	
	Partnered	Single	Partnered	Single
Intend to have children within next 3 years	61.2	42.8	54.6	36.2
Intend to have children, but not in next 3 years	80.9	47.9	80.3	47.9
Do not intend to have (more) children	76.6	39.9	74.5	29.2

Contraceptive use is to a large extent a function of level of sexual activity and intentions to have children. No direct information is collected by the HILDA Survey on sexual activity, but in Waves 5 and 8, respondents were asked about fertility intentions. Table 30.1 shows that, among partnered people, contraceptive use is lowest for those who intend having a child within the next three years. This is to be expected, since many individuals in this category will be attempting to conceive a child. The rate of contraceptive use is slightly higher among those who do not intend having a child for at least three years than among those who do not intend having any more children, which most likely reflects differences in rates of sexual activity. Rates of contraceptive use are lower for single people, and indeed lower for those who do not intend having children than those who do intend having children in the next three years. Again, these patterns most likely reflect rates of sexual activity.

**Birth control use as a proxy for sexual activity**

As noted, the HILDA Survey does not directly ask respondents whether and how sexually active they are. However, as suggested by our discussion of Table 30.1, use of birth control combined with information on fertility intentions can be used to infer whether individuals are sexually active. Thus, we assume an individual is sexually active if that individual reports using any form of birth control or if that individual lives with a partner and indicates an intention to have a child within the next three years. Of course, it is possible that some

people who do not intend having a child and report not taking any birth control measures are nonetheless sexually active.<sup>2</sup>

Examination of birth control use by age in Figure 30.1 showed that the youngest age group is most likely to use contraceptives. Table 30.2 shows that it would be wrong to conclude on this basis that those aged 18–24 years are the most sexually active. Taking into account intentions to have children within the next three years, couples in their mid-twenties to mid-thirties appear to be the most sexually active group. Indeed, for partnered men, there is little difference in rate of sexual activity across the entire 18–44 years age range. For single people, by contrast, substantial differences by age persist, particularly among women. Single women aged 35–39 and 40–44 have particularly low rates of sexual activity.

Although some changes between 2005 and 2008 are evident within individual age groups, little overall change in the rate of inferred sexual activity among partnered people is evident. For single people, however, there is an apparent sizeable decline in the rate of sexual activity, from 47.9 per cent to 39.9 per cent for men, and from 41.5 per cent to 37.8 per cent for women. Of course, we cannot rule out decreased contraceptive use among sexually active single people as part of the explanation for this decline—that is, the rate of sexual activity may not have actually declined, or at least declined to the same extent as the estimates in Table 30.2 imply.

**Table 30.2: Inferred rates of sexual activity, 2005 and 2008 (%)**

	2005		2008	
	Partnered	Single	Partnered	Single
<b>Men</b>				
Aged 18–24	79.1	50.4	79.1	42.0
Aged 25–29	83.4	51.5	88.3	46.0
Aged 30–34	80.9	48.4	87.2	47.7
Aged 35–39	82.2	46.4	82.5	28.2
Aged 40–44	81.1	31.5	72.2	21.8
All ages	81.3	47.9	82.4	39.9
<b>Women</b>				
Aged 18–24	82.4	39.6	83.8	39.6
Aged 25–29	92.6	59.7	83.7	47.2
Aged 30–34	87.2	39.6	90.5	43.8
Aged 35–39	82.5	31.3	82.9	25.5
Aged 40–44	74.2	26.4	74.6	18.7
All ages	84.3	41.5	83.7	37.8

**Table 30.3: Sexual activity by place of birth, ethnicity and religion, 2008 (%)**

	Partnered	Single
<b>Place of birth/ethnicity</b>		
Aboriginal/Torres Strait Islander	75.1	41.7
Other Australian born	84.9	41.3
ESB immigrant	87.1	40.4
NESB immigrant	75.7	21.9
<b>Religious affiliation</b>		
Christian	82.4	33.9
Other religion	71.1	32.9
No religion	84.5	43.1

*Note:* Religious affiliation was measured in Wave 7 (2007).

Some traditional cultures and some religions discourage sexual intimacy for purposes other than conceiving children, suggesting differences in rates of sexual activity by background and religious affiliation may exist. Table 30.3 briefly considers this subject by presenting inferred rates of sexual activity in 2008 by place of birth and Indigenous status, and by religious affiliation. The estimates suggest that people born in non-English-speaking countries and Indigenous people are the least sexually active and non-Indigenous Australian-born persons and immigrants from English-speaking countries are the most sexually active. Differences are especially large among single people. In terms of religious affiliation, among partnered people, those with a non-Christian religious affiliation are relatively less likely to be sexually active than those with a Christian religious affiliation or no religious affiliation. Among single people, however, rates of

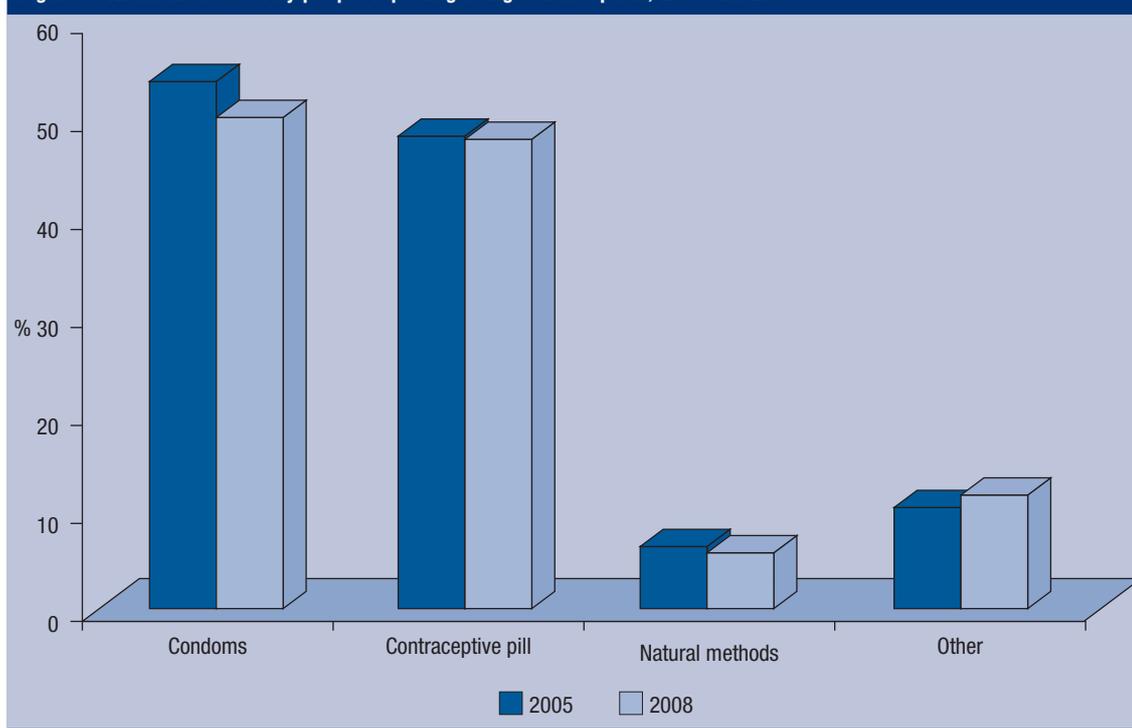
sexual activity are similar for those with a Christian religious affiliation and those with a non-Christian religious affiliation, at about one-third. The rate of sexual activity among single people with no religious affiliation, by contrast, is substantially higher, at 43.1 per cent.

### What kinds of birth control do people use?

Figure 30.2 presents information on the types of birth control measures used by those who use contraception, showing the percentage reporting using each of four methods: condoms; contraceptive pill; natural birth control methods (persona, withdrawal, safe period method); and other birth control measures.<sup>3</sup> Note that respondents could report using multiple methods. While condoms and contraceptive pills are quite effective birth control methods, natural methods have proven to be less reliable (Trussell, 2007). The category 'other birth control measures' contains a variety of methods with varying effectiveness, so little can be said about the effectiveness of this category as a whole.

Condoms are the most popular type of contraception: 55 per cent reported using condoms when asked in 2005, although this declined to 51 per cent in 2008. Use of the contraceptive pill was similar in 2005 and 2008, in both years 49 per cent reporting using this method. While the use of natural methods remained stable at 7 per cent, the use of other birth control measures increased slightly, from 11 per cent in 2005 to 13 per cent in 2008.

Table 30.4 examines differences between men and women in reported contraception methods in 2008. Condoms are the most common contraceptive

**Figure 30.2: Methods used by people reporting using contraception, 2005 and 2008**

method among single men (95 per cent). Single women, on the other hand, favour the pill, with 70 per cent reporting using it. About 6 per cent of single men use natural birth control methods, whereas single women do not favour these methods at all. On the other hand, 9 per cent of partnered women and 7 per cent of partnered men report using natural methods of contraception. As previously mentioned, natural methods are less effective than the condom or pill. However, the results presented in Table 30.4 do not tell us whether the people using these methods relied solely on them as the only way to prevent pregnancy. Table 30.5 therefore provides information about how people combine different methods of birth control in order to prevent pregnancy.

Table 30.5 shows that both men and women tend to rely on only one contraceptive method: 81 per cent of men and women who reported using some type of contraception relied on only one type.

The lower panel of Table 30.5 presents proportions using particular methods of contraception among all contraceptive users. As expected, the responses of partnered men and women do not differ greatly, although partnered men are more

likely to report using condoms and partnered women are more likely to report using the pill. Differences between single men and women are much starker. 82 per cent of single men report using condoms as their only form of contraception, whereas only 14 per cent of single women indicate that they rely solely on condoms. Conversely, 42 per cent of single women state that they use the pill as their only form of birth control, compared with only 1 per cent of single men. Also evident is that single women are more likely to report using multiple methods than single men, who almost exclusively report using condoms. Indeed, a discrepancy between single men and women is evident, with 28 per cent of single women versus 7 per cent of single men reporting using both condoms and the pill. It is likely this reflects the superior information of women, who are better placed to know whether they are using the pill or not, and as well placed as men to know whether they are using a condom. The reports of single women are therefore likely to be more accurate than those of single men.

The greater differences between single men and women reports than between partnered men and

**Table 30.4: Methods used by people reporting using contraception, by sex and partner status, 2008 (%)**

	<i>Condom</i>	<i>Contraceptive pill</i>	<i>Natural methods</i>	<i>Other</i>
<b>Men</b>				
Partnered	50.7	50.8	6.8	13.3
Single	94.7	11.2	6.2	*4.9
Total	62.3	40.3	6.6	11.1
<b>Women</b>				
Partnered	38.5	55.5	8.7	14.1
Single	44.4	70.2	*0.0	16.4
Total	39.6	58.3	7.0	14.5

*Notes:* \* Estimate not reliable. The categories do not add up to 100 per cent.

**Table 30.5: Combinations of methods used by people reporting using contraception, 2008 (%)**

	<i>Men</i>			<i>Women</i>		
	<i>Partnered</i>	<i>Single</i>	<i>Total</i>	<i>Partnered</i>	<i>Single</i>	<i>Total</i>
<b>Number of contraceptives</b>						
1	79.0	87.4	81.2	83.0	69.6	80.5
2 or more	21.0	12.6	18.8	17.0	30.4	19.5
<b>Combination of contraceptives</b>						
<i>One contraceptive type</i>						
Condom	31.0	82.3	44.6	23.0	14.0	21.3
Pill	33.4	*1.1	24.9	43.0	41.5	42.7
Natural method	2.8	*1.4	2.5	4.3	*0.0	3.5
Other method	11.7	*2.6	9.3	12.7	14.1	13.0
<i>Two or more contraceptive types</i>						
Condom and pill	15.5	6.7	13.2	11.5	28.1	14.6
Natural method and something else	3.9	4.8	4.2	4.3	*0.0	3.5
Any other combination	1.6	*1.1	1.5	1.2	*2.3	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

women reports of contraceptive use imply that, for men at least, the responses should be interpreted differently. While for partnered men, it seems that methods used by both members of the couple are reported, for single men it is only their personal contraceptive use that is reported. This may also suggest that the relatively low level of condom use reported by single women does not mean that single women are more at risk of sexually transmitted diseases than men.

Returning to the question of whether natural birth control methods are used exclusively, Table 30.5 suggests that this is not the case for single men and women. Some partnered men and women reported that they rely solely on natural methods but the proportions are, at 3 and 4 per cent respectively, quite small. Natural birth control methods are more often combined with other contraceptive methods, which almost always are either the condom or the contraceptive pill.

An alternative way of categorising contraceptives is to distinguish between 'male' and 'female' contraceptives. The condom and the withdrawal method can be categorised as 'male' contraceptives, while all other methods can be classified as 'female' contraceptives. Differentiating contraceptive methods in this way allows consideration of how couples share the responsibility for birth control. The results in Table 30.6 suggest that, for the majority of couples, it is the woman that is solely responsible for birth control. In both 2005 and 2008, 54 per cent of people using contraception reported using only female contraceptives, while only 32–33 per cent reported using only male contraceptives.

Comparisons of the results for 2005 and 2008 in Table 30.6 show there was little overall change in the distribution of responsibility for birth control between men and women. However, it may be that individuals change their behaviour over time,

**Table 30.6: Male and female responsibility for birth control among people reporting using contraceptives, 2005 and 2008 (%)**

	2005	2008
Male only	32.7	32.4
Female only	54.0	53.8
Male and female	13.2	13.8

**Table 30.7: Male and female responsibility for birth control in 2008, by responsibility in 2005—Persons reporting using contraception and with the same partner in both years (%)**

	Male methods in 2008	Female methods in 2008	Male and female methods in 2008	Total
Male methods in 2005	66.6	25.2	8.2	100.0
Female methods in 2005	10.0	83.0	7.1	100.0
Male and female methods in 2005	29.8	33.2	37.1	100.0

*Notes:* Percentages may not add up to 100 due to rounding. The sample is restricted to people that lived with the same partner in 2005 and 2008.

which Table 30.7 investigates by examining changes in methods used between 2005 and 2008 by people who used contraception and lived with the same partner in both years. Couples in which the woman was solely responsible for birth control in 2005 were relatively unlikely to change, with 83 per cent still relying on female contraceptive methods in 2008. For couples that were solely using male contraceptives in 2005, a much higher propensity to change is evident, with 25.2 per cent switching to exclusive use of female contraceptives. Of those using both male and female contraceptives in 2005, the majority (63 per cent) switched to either male methods only or female methods only by 2008.

Our results suggest that couples' practices do indeed change the longer the relationship lasts, tending to move towards female contraceptive methods. This likely reflects couples' preferences, and is largely driven by reduced condom use, and increased use of the contraceptive pill, the longer the relationship lasts. This is consistent with lower concerns about sexually transmitted diseases the longer the relationship lasts, but it does mean that responsibility for birth control increasingly shifts from the man to the woman.

## Conclusion

Having analysed data from the 2005 and 2008 waves of the HILDA Survey, we find that partnered people are considerably more likely to report taking birth control measures than are single people. A likely explanation is that single people are simply less sexually active than partnered people. We also find that individuals with no intention of having more children are less likely to report using birth control than individuals intending to have a child in the future, but not in the next three years. Again, this is likely to reflect differences in levels of sexual activity. Birth control use by single people declined between 2005 to 2008, for reasons that are unclear. There was also a drop for partnered people, but here our results suggest that an increase in the proportion of couples trying to conceive was responsible for the decline.

Among users of birth control measures, condoms and the contraceptive pill were the most popular contraceptives. While men more often report relying

on condoms than on the contraceptive pill, the opposite is true for women. Natural birth control methods (persona, withdrawal, safe period method) are not very widely used, and among those who do use them, they are almost always combined with either condoms or the contraceptive pill. Single men seem to under-report the use of the contraceptive pill, while single women seem to under-report the use of condoms, reflecting a tendency to report only the method they personally use. In couples, it is typically the female who is responsible for birth control, particularly in longer-term relationships.

### Endnotes

- 1 The questions were not administered to pregnant women or respondents who reported being (medically) unable to have children.

- 2 Pregnant women and individuals who report being medically unable to have children are excluded from the analysis because their contraceptive use cannot be used to infer whether they are sexual active (and indeed their contraceptive use is not obtained by the HILDA Survey).
- 3 This category includes: intra-uterine device (coil, loop); diaphragm/cervical cap; foam/cream/jelly/suppository; injectables (e.g. Depo-Provera); implants (e.g. Norplant); hormonal emergency contraception afterwards ('morning after pill'); and other.

### Reference

- Trussell, J. (2007) 'Contraceptive Efficacy', in R.A. Hatcher et al., *Contraceptive Technology*, 19th rev. edn, Ardent Media, New York.

## 31. Relationships with non-resident partners

As a household study, the HILDA Survey naturally has information on all relationships within the household. However, also important to understanding the economic and social lives of Australians is information about relationships with people who do not live with them. The annually collected information on such relationships is somewhat limited, essentially restricted to non-resident (non-adult) children. However, in Waves 5 and 8, information was obtained about 'non-resident partners'—individuals living elsewhere with whom the respondent has an intimate, ongoing relationship. Wave 8 additionally saw the collection of information about non-resident siblings, adult children and parents. Chapter 32 presents analysis of the information on siblings and parents.

In Table 31.1, the prevalence of non-co-residential relationships is described. The upper panel of the table shows the percentage of all men and women over 18 years of age who report having a non-resident partner, in total and disaggregated by age group. The lower panel shows rates of non-co-residential partnering among *single* people (i.e. people not married and not living with a partner), also disaggregated by sex and age group. The table shows that approximately 9 per cent of men, and slightly less than 8 per cent of women, have a non-resident partner. Among single adults, 26–27 per cent of males and 21–22 per cent of females are in non-co-residential relationships. The estimates suggest that there was a very slight decline in the proportion of adults in non-co-residential relationships between 2005 and 2008, falling from 9.3 per cent to 9 per cent for males and from 7.9 per cent to 7.7 per cent for females. The lower panel of Table 31.1 shows that this is not simply because of a decline in the number of single adults, with the percentage of single men in non-co-residential relationships declining from

27.3 to 26.2 and the percentage of single women in non-co-residential relationships declining from 21.6 to 21.2.

There are substantial differences in rates of non-co-residential partnering by age group. For both men and women, the prevalence of non-co-residential relationships is mostly decreasing with age. In 2008, 30.4 per cent of men and 31.4 per cent of women aged 18–24 years reported having a non-resident partner. This proportion falls to 18.7 per cent for men aged 25–29 years and 13.1 per cent for women aged 25–29 years, 7.8 per cent for men aged 30–34 years and 7.7 per cent for women aged 30–34 years, and continues to decline with age thereafter. The lower panel of Table 31.1 shows that the ordering by age is not only because rates of co-residential partnering tend to increase with age, since the proportion of *single* persons with a non-resident partner is also decreasing with age. Also evident from the table is that women aged 18–24 years have somewhat higher rates of non-co-residential partnering than similarly-aged men, but in all other age groups tend to have lower rates of non-co-residential partnering. The differences between men and women by age are almost certainly explicable by a greater tendency, compared with men, for women aged 18–24 years to have relationships with partners in older age groups; conversely, men in older age groups have a greater tendency to have non-co-residential relationships with partners in younger age groups.

### Characteristics of non-co-residential relationships

The HILDA Survey obtained various details on the characteristics of non-co-residential relationships in Waves 5 and 8, including whether a definite decision to not live together had been made, the geographic proximity of the partner, the duration

**Table 31.1: Prevalence of non-co-residential relationships, 2005 and 2008 (%)**

	2005		2008	
	Males	Females	Males	Females
<b>All adults</b>				
Total	9.3	7.9	9.0	7.7
<i>Age group (years)</i>				
18–24	28.6	32.0	30.4	31.4
25–29	17.2	11.1	18.7	13.1
30–34	14.7	8.8	7.8	7.7
35–44	5.8	4.4	6.0	5.3
45–54	4.0	4.7	4.5	4.2
55 and over	2.2	1.2	1.7	0.7
<b>Single adults</b>				
Total	27.3	21.6	26.2	21.2
<i>Age group (years)</i>				
18–24	32.8	41.2	35.0	41.7
25–29	32.7	28.2	34.2	34.0
30–34	41.6	30.4	27.4	30.0
35–44	21.6	20.4	23.6	22.3
45–54	20.5	18.7	20.2	16.9
55 and over	11.7	3.1	8.8	1.9

of the relationship and the frequency of contact between partners. Table 31.2 presents summary information on these characteristics in 2008. Non-co-residential relationships have usually been in progress for a relatively short length of time, with 46.6 per cent less than a year old at the time of interview, and the mean length of relationships in progress being 2.4 years. This implies that they tend to be relatively short, no doubt in part because some will go on to become co-resident relationships. Frequency of contact between non-co-resident partners is typically very high, with most seeing each other at least twice per week. Interestingly, nearly one-quarter do not live in the same town as the partner, yet clearly many of these individuals manage to see their partner at least weekly, since only 10.5 per cent of all people with a non-resident partner see the partner less often than weekly. In 57.6 per cent of relationships, there has been a definite decision not to live together by one or both members of the relationship. The table also shows that the mean age of individuals who report having a non-resident partner is a relatively young 30 years.

### Characteristics of people in non-co-residential relationships

The preceding analysis has provided some indications of the types of people who tend to be in non-co-residential relationships—namely, younger people. But are there other characteristics of people in non-co-residential relationships that distinguish them from other people, and in particular, from people in co-resident relationships? Table 31.3 compares various characteristics of people with non-resident partners with the characteristics of people with resident partners (i.e. de facto or legally mar-

**Table 31.2: Characteristics of non-co-residential relationships, 2008**

Mean length of relationship (years)	2.4
<i>Length of relationship (%)</i>	
< 1 year	46.6
1 – < 2 years	19.5
2 – < 4 years	14.0
≥ 4 years	19.9
Total	100.0
<i>Frequency of in-person contact (%)</i>	
5–7 times per week	37.7
2–4 times per week	45.8
Weekly	6.1
Less often than weekly	10.5
Total	100.0
<i>Location (%)</i>	
Live in the same town	75.6
Live in different town in the same state	16.2
Live in a different state	3.5
Living overseas	4.7
Total	100.0
Made a definite decision not to live together (%)	57.6
Mean age (years)	30.0
<i>Note: Totals may not add up to 100 due to rounding.</i>	

ried people living together). Comparisons are presented separately for males and females and for each of three age groups: 18–24 years, 25–34 years and 35 years and over. Undertaking comparisons within these three age groups eliminates differences in characteristics that exist simply because those in non-co-residential relationships tend to be younger. For example, more recent birth cohorts

tend to have higher educational attainment than older birth cohorts, so a finding that, overall, people with non-resident partners have greater educational attainment would be likely to simply reflect their younger average age rather than a greater predisposition towards education.

Among the young age group, those with non-resident partners tend to be more highly educated, but among the older age groups, they tend to be less educated than those with resident partners. They are generally as likely to have the same level of educational attainment as their partner as are those with co-resident partners. Across all age groups, persons in non-co-residential relationships are considerably more likely to live in a major city

than are people in co-residential relationships, suggesting non-co-residential relationships are to a considerable extent a 'big city' phenomenon. Unsurprisingly, people living with a partner are much more likely to have dependent children, although this is not true for females aged 35 and over. However, this may be because there are many more elderly women in the resident-partner group in this age category.

Not unexpectedly, women are considerably more likely to be employed if they have a non-resident partner than if they live with their partner; moreover, among women in the 18–24 years age group, the partner is more likely to be employed if co-resident. Despite their relatively high rate of employment,

**Table 31.3: People with non-co-resident partners compared to people with co-resident partners, by age group, 2008**

	<i>Aged 18–24</i>		<i>Aged 25–34</i>		<i>Aged 35 and over</i>	
	<i>Non-co-resident</i>	<i>Co-resident</i>	<i>Non-co-resident</i>	<i>Co-resident</i>	<i>Non-co-resident</i>	<i>Co-resident</i>
<b>Males</b>						
Proportion in the relationship type (%)	30.7	13.1	13.4	58.4	3.7	77.8
<i>Education level (%)</i>						
Degree or higher	19.3	12.4	32.9	29.4	13.4	23.0
Diploma or Certificate III/IV	16.0	31.8	28.1	39.8	51.5	40.3
Completed high school	45.2	22.8	20.2	18.7	14.5	8.6
Less than high school completion	19.5	33.0	18.8	12.1	20.5	28.1
Have different level of educational attainment to partner (%)	59.6	64.8	65.3	67.2	64.5	62.0
Live in major city (%)	82.3	64.7	80.3	72.8	65.2	64.5
Have dependent children (%)	0.0	30.0	0.0	53.8	3.2	39.3
Employed (%)	83.7	91.5	85.2	93.4	81.3	67.8
Partner employed (%)	55.3	63.8	77.8	73.2	75.4	57.3
Mean equivalised income (\$)	49,427	40,946	52,080	51,757	52,942	45,967
On welfare (%)	28.8	29.6	27.0	14.8	30.3	33.7
Mean life satisfaction (0–10 scale)	8.1	7.9	7.4	7.9	7.7	7.9
<b>Females</b>						
Proportion in the relationship type (%)	31.7	24.6	10.1	68.3	2.9	69.5
<i>Education level (%)</i>						
Degree or higher	20.3	16.7	39.8	40.2	27.9	22.4
Diploma or Certificate III/IV	16.6	26.3	25.8	25.3	31.7	23.1
Completed high school	47.8	34.8	23.5	17.9	8.4	12.2
Less than high school completion	15.3	22.3	10.8	16.6	32.0	42.2
Have different level of educational attainment to partner (%)	68.9	65.7	53.3	64.6	69.1	49.0
Live in major city (%)	78.5	64.6	76.5	70.0	68.0	65.3
Have dependent children (%)	4.7	31.0	21.5	58.1	37.1	37.5
Employed (%)	84.5	67.0	77.8	74.2	85.2	56.4
Partner employed (%)	72.2	88.5	92.6	92.6	86.8	65.1
Mean equivalised income (\$)	46,736	42,712	48,783	51,741	35,697	45,612
On welfare (%)	37.0	25.2	34.2	14.9	42.8	34.0
Mean life satisfaction (0–10 scale)	7.9	8.1	7.7	8.0	7.5	8.0

women with a non-resident partner are considerably more likely to be on welfare. Further analysis (not presented in the table) shows that many of these women are sole parents. The pattern is not evident for men in the 18–24 and 35 and over age groups, but those in the 25–34 years age range with non-resident partners do have nearly double the rate of welfare receipt of those with resident partners. Finally, it seems that people in non-co-residential relationships are on average not as happy as people in co-residential relationships. With the exception of men aged 18–24 years, mean life satisfaction is lower, in most cases considerably lower, when the partner is non-resident.

### Changes over time in individuals' partner status

The longitudinal information created by administering the questions on non-resident partners in both Waves 5 and 8 can be used to examine transitions in relationship status over time. In Table 31.4, transitions between each of four partner states are examined: no partner, non-resident partner, de facto married and legally married. For example, the first row shows that 19.5 per cent of people aged 18 years and over in 2005 did not have a partner in both 2005 and 2008, 3.2 per cent did not have a partner in 2005 and were in a non-co-residential relationship in 2008, 2 per cent did not have a partner in 2005 and were de facto married in 2008, and 0.8 per cent did not have a partner in 2005 and were legally married in 2008. Consistent with the cross-sectional indications that non-co-residential relationships are transitory in

nature and often precursors to longer-term co-residential relationships, we can see that of the 8.1 per cent of people in a non-co-residential relationship in 2005, over 40 per cent (3.3 per cent of 8.1 per cent) were living with a partner in 2008. Less than one-third were still in a non-co-residential relationship (the remainder did not have a partner in 2008). By contrast, 8.3 of the 9.5 per cent of people in de facto marriages in 2005 were still living with a partner in 2008, and 53.9 of the 56.8 per cent married in 2005 were still married.<sup>1</sup>

In Table 31.5, we focus on individuals who were not living with a partner in 2005, examining partner status in 2008 by age group in 2005 and by whether they had a non-resident partner in 2005. For example, the top data row of the table shows that, of those aged 18–24 years who did not have a partner in 2005, 45 per cent had the same partner status in 2008, 28.8 per cent had a non-resident partner in 2008, and 26.2 per cent were living with a partner in 2008. Several clear patterns are evident from the table. First, compared with un-partnered people, those with a non-resident partner in 2005 were considerably more likely to have moved in with a partner by 2008. Second, the older an un-partnered person was in 2005, the less likely it is that he or she was partnered in 2008; although note that un-partnered people in 2005 aged 25–34 were more likely to have moved in with a partner by 2008 than un-partnered people aged 18–24 (who were more likely to have started a relationship with a non-resident partner by 2008).

**Table 31.4: Partner status transitions between Waves 5 and 8—Persons aged 18 years and over in 2005 (%)**

Status in 2005	Status in 2008				Total
	No partner	Non-resident partner	De facto	Married	
No partner	19.5	3.2	2.0	0.8	25.6
Non-resident partner	2.2	2.6	1.9	1.4	8.1
De facto	0.8	0.4	6.0	2.3	9.5
Married	2.3	0.4	0.3	53.9	56.8
Total	24.7	6.6	10.3	58.4	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 31.5: Partner status in 2008 of persons not living with a partner in 2005, by age group (%)**

Age group in 2005	Partner status in 2005	Status in 2008			Total
		No partner	Non-resident partner	Resident partner (legally or de facto married)	
18–24	No partner	45.0	28.8	26.2	100.0
	Non-resident partner	25.7	31.4	42.9	100.0
25–29	No partner	51.3	18.7	30.1	100.0
	Non-resident partner	26.9	24.5	48.6	100.0
30–34	No partner	53.9	16.8	29.3	100.0
	Non-resident partner	18.9	31.0	50.1	100.0
35 or more	No partner	79.2	11.0	9.9	100.0
	Non-resident partner	32.5	35.7	31.8	100.0

*Note:* Percentages may not add up to 100 due to rounding.

The final evident pattern is that, among those who had a non-resident partner in 2005, the proportion living with a partner in 2008 is increasing with age up to the 30–34 years age group, but then drops off considerably among those aged 35 years and over in 2005. It seems that, up to age 34, a non-co-residential relationship is increasingly (the older the person) a precursor to a live-in relationship. For people over 35 years of age, a non-co-residential relationship is less frequently such a precursor, possibly reflecting the type of people and types of relationships involved when the person is over 35. For example, older people in non-co-residential relationships may be more likely to have decided they do not want to (ever) live with a partner.

**Expectations of people in non-co-residential relationships in 2005 and outcomes in 2008**

Respondents with a non-resident partner were asked in Waves 5 and 8 whether they intended moving in with their partner within the next three years. They were also asked how likely they thought it was they would marry in the future, and were given the response options ‘very likely’, ‘likely’, ‘not sure’, ‘unlikely’, ‘very unlikely’ and ‘prefer not to disclose’. The question on marriage does not, however, specify a time frame or the respondent’s current partner—it simply asks about the likelihood of marrying anyone at any time in the future. Nonetheless, we can examine the stated intentions and expectations in 2005 of those with non-resident partners, and compare these with observed partnering outcomes in 2008. Table 31.6 shows that, in 2005, two-thirds of people with non-resident partners indicated they intended living with their partner within the next three years, while 57.5 per cent indicated that it was very likely or likely they would marry in the future.

How do outcomes three years later stack up against these projections? In Panel B of Table 31.6, the distribution of partner outcomes in 2008 are presented for different intentions/expectations held in 2005. The first row presents outcomes for

those who intended to move in with their partner within three years, and shows 42 per cent were indeed living with a partner in 2008, although we do not know whether they are living with the same partner. The remaining 58 per cent were not living with a partner, with 30.2 per cent still in a non-co-residential relationship and 27.8 per cent not in a relationship at all. It therefore appears that intentions to live with non-resident partners are less often fulfilled than not, although presumably some people move in with their partner but subsequently move out again before the Wave 8 interview. The second row of Panel B examines outcomes of those who did not intend to live with their partner within three years. These intentions appear to be more frequently fulfilled, with only 15.4 per cent living with a partner in 2008, while 47.4 per cent were still in a non-co-residential relationship and 37.1 per cent were single.

The last two rows consider partner status outcomes in 2008 for different expectations in 2005 about future marriage—specifically, individuals are classified into two groups: those who believe it is very likely or likely they will marry in the future and all other persons. These marriage expectations may relate to many years in the future, but it is notable that over 38.6 per cent of those who indicated they expect to marry were living with a partner in 2008, compared with one-quarter of those who did not have such an expectation in 2005.

**Predictors of non-co-residential partners moving in with one another**

The results presented in Table 31.6 suggest that stated intentions to live (or not live) with one’s partner are far from perfect predictors of subsequent co-residence. This raises the question of whether there are observable characteristics of people which predict whether they will move from having a non-resident partner to having a resident partner. Table 31.7 presents the results of probit models estimated on individuals in non-co-residential relationships in 2005 of the probability they will be in a co-residential relationship in 2008.

**Table 31.6: Expectations and outcomes of individuals in non-co-residential relationships in 2005 (%)**

<b>A. Percentage who...</b>				
Intend to live together	66.6			
Are very likely or likely to marry	57.5			
<b>B. Intentions in 2005 and outcomes in 2008</b>				
<i>Intentions/expectations in 2005</i>	<i>Partner status in 2008</i>			
	<i>Resident partner</i>	<i>Non-resident partner</i>	<i>Single</i>	<i>Total</i>
Live together	42.0	30.2	27.8	100.0
Not live together	15.4	47.4	37.1	100.0
<i>Expectations in 2005</i>				
Likely to marry	38.6	31.7	29.7	100.0
Not likely to marry	25.0	40.9	34.1	100.0

*Note:* Percentages may not add up to 100 due to rounding.

The models are estimated for men and women separately. Explanatory factors include age, location, educational attainment, place of birth/ethnicity, income, health, employment status, religious affiliation, personality, level of trust in others and the degree to which one holds 'traditional' views.<sup>2</sup> Note that the average probability of moving in with a partner was 32 per cent for the male sample and 36 per cent for the female sample.

Sample sizes are relatively low, at 203 for men and 200 for women, so it is unsurprising that many of the estimates are not statistically significant. Nonetheless, there are a number of significant effects and some clear patterns are evident. For both men and women with non-resident partners in 2005, the probability of moving in with a partner between 2005 and 2008 is relatively high if

aged under 35 years, highly educated, residing in a major city, employed, in good general health, have high 'emotional stability' and/or hold traditional values. However, for men, somewhat at odds with the finding for general health is that the presence of a long-term health condition is associated with a higher probability of moving in with a partner. A further notable difference between men and women is that immigrants from non-English-speaking countries are, all else being equal, more likely to move in with a partner in the case of men, but less likely to move in with a partner in the case of women. No significant effects are found for income, religious affiliation, extent of trust in others or the time spent in employment between 2005 and 2008. While this may simply reflect the lack of statistical precision of the estimates due to the small sample sizes, it should also

**Table 31.7: Factors associated with moving in with a partner between 2005 and 2008—Individuals with a non-resident partner in 2005**

	<i>Males</i>	<i>Females</i>
<i>Age group ('35 and over' omitted)</i>		
18–24	0.110 <sup>+</sup>	0.299
25–29	0.090 <sup>+</sup>	0.321
30–34	0.208	0.322
Rural or remote area	–0.145	–0.050 <sup>+</sup>
<i>Education group ('Degree or higher' omitted)</i>		
Diploma or Certificate III/IV	–0.172	0.037 <sup>+</sup>
Completed high school	–0.090 <sup>+</sup>	–0.172
Other <sup>#</sup>	–0.182	–0.054 <sup>+</sup>
<i>Place of birth/ethnicity ('Non-Indigenous Australian-born' omitted)</i>		
Indigenous	0.291 <sup>+</sup>	–0.240 <sup>+</sup>
ESB immigrant	0.060 <sup>+</sup>	–0.170 <sup>+</sup>
NESB immigrant	0.232	–0.211
Have dependent children	–4.13e–04 <sup>+</sup>	1.67e–03
Disposable personal income	2.19e–06 <sup>+</sup>	–1.23e–08 <sup>+</sup>
General health (SF–36)	3.3e–03	4.21e–03
Long-term health condition	0.163	–0.094 <sup>+</sup>
<i>Employment status ('Part-time' omitted)</i>		
Full-time	0.132 <sup>+</sup>	0.027 <sup>+</sup>
Not employed	–0.238 <sup>+</sup>	–0.243
Percentage of 2005–2008 employed	–2.5e–03 <sup>+</sup>	–5.97e–5 <sup>+</sup>
<i>Religious affiliation ('None' omitted)</i>		
Christian	0.072 <sup>+</sup>	0.050 <sup>+</sup>
Other	–0.079 <sup>+</sup>	0.043 <sup>+</sup>
<i>Personality</i>		
Extroversion	–0.012 <sup>+</sup>	1.43e–04 <sup>+</sup>
Agreeableness	–0.0357 <sup>+</sup>	9.01e–03 <sup>+</sup>
Conscientiousness	0.003 <sup>+</sup>	2.47e–02 <sup>+</sup>
Emotional stability	0.063	0.047 <sup>+</sup>
Openness to experience	–0.053 <sup>+</sup>	0.022 <sup>+</sup>
Extent of trust in others	3.30e–03 <sup>+</sup>	9.04e–03 <sup>+</sup>
Degree to which holds traditional values	3.12e–03 <sup>+</sup>	0.015
Number of observations	203	200
<i>Notes:</i> Estimates are mean marginal effects obtained from probit models of the probability of moving in with a partner. <sup>+</sup> indicates the estimate is not significantly different from zero at the 10 per cent level. <sup>#</sup> 'Other' comprises Certificate I/II, no qualifications or not completed high school.		

be noted that the estimates presented here are for the probability of living with a partner, not the probability of entering a legal marriage, which may in fact significantly depend on some or all of these factors.

### Concluding comments

As might be expected, many, and possibly most, non-co-residential relationships tend to be shorter in duration and less stable than co-residential relationships, but—also as we might expect—they appear to often be a precursor to cohabitation. However, it is also true that they can be ongoing arrangements for a significant number of people, particularly older people (over 35 years of age).

For some, this is a matter of preference, while for others it is a matter of circumstance. For example, significant numbers of those in non-co-residential relationships do not live in the same city or town as their partner, and it will not always be viable for either partner to relocate.

### Endnotes

- 1 Note that Table 31.4 simply describes transitions in partner status, not *relationship* transitions. For example, individuals who had a non-resident partner in both 2005 and 2008 may have changed partners.
- 2 The variables for level of trust in others and the degree to which hold 'traditional' views are as described in Chapter 23, and the variables for personality are as described in Chapter 24.

## 32. Proximity to and contact with non-resident siblings and parents

A key focus of the HILDA Survey is family life, and in principle this includes non-co-resident family members—adult children, parents and siblings. Prior to Wave 8, only limited information was collected on non-co-resident family, but in Wave 8 a sequence of new questions was included on parents and siblings of respondents. This included information on the extent to which Australians are connected with their parents and siblings. In particular, respondents were asked a series of questions relating to how far they lived from, and how often they had contact with their parents and each of their non-co-resident siblings. Respondents were also asked questions relating to their parents' age and health and whether their parents lived with each other.

In this article, we draw on this data to describe the proximity to and frequency of contact with non-co-resident parents and siblings and explore the characteristics associated with closer proximity and more frequent contact. When we analyse the distance and frequency of contact with parents, we restrict the sample to respondents who report having at least one parent living elsewhere. Similarly, when we analyse the relationship with siblings, respondents who do not have any siblings living elsewhere or whose siblings have already died are excluded. This approach was taken out of necessity, as the parent questions were only asked of respondents who did not live with their parents and the siblings questions were only asked of respondents who had at least one sibling living elsewhere.

### Parents

Figure 32.1 shows how far people live from their parents. With 47 per cent reporting living less than 50 kilometres away, and 35 per cent living less than 20 kilometres away, Australians seem to reside quite

close to their parents. Australia's high level of urbanisation and dispersed metropolitan areas together suggest that a large proportion of Australians live in the same metropolitan area as their parents. That 13 per cent of the individuals have parents living overseas is not surprising because of the relatively high immigrant population in Australia.

Figure 32.2 presents the distribution of frequency of contact with parents, by any means and disaggregated by whether in-person contact or not (telephone, email or letter). Generally, people have less contact with their parents in person than by telephone, email or letter. While 37 per cent see their parents in person at least once per week, 67 per cent use telephone, email or letter at least once per week. About 15 per cent have some form of daily contact with their parents. At only 4 per cent, Australians who do not have any contact with their parents or contact them less than once per year are a very small group. From the graph we can also see that 16 per cent of people with a non-resident parent see their parent(s) in-person less than once a year, which is not surprising given that 30 per cent reside at a distance of more than 500 kilometres from their parents. As shown later (in Table 32.4), the closer an individual lives to his or her parents (or siblings) the more often he or she tends to be in contact with them.

### Siblings

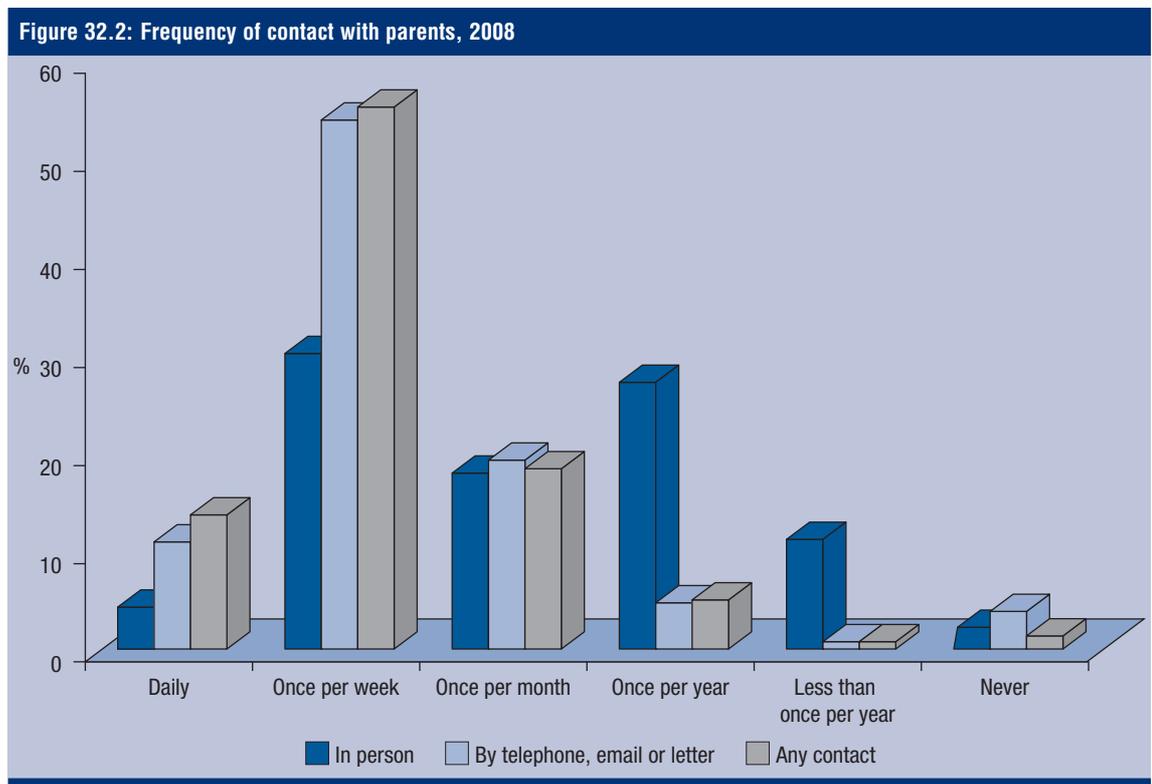
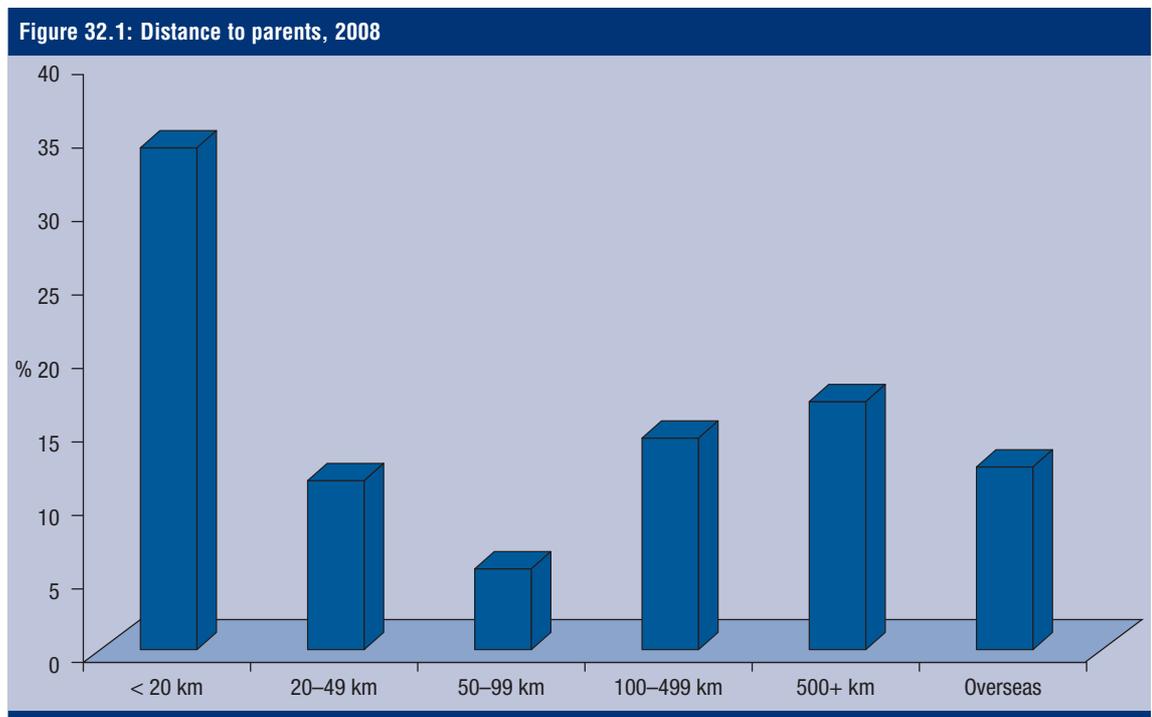
Analysis of proximity to and contact with siblings is undertaken by treating each sibling as a separate 'observation'. This means that the estimates we present represent the number of *siblings* (in per cent) who fall in each relationship category, and *not* the number of respondents who have siblings in a particular category. This allows us to incorporate every sibling into the analysis.

Figure 32.3 shows that, while about 23 per cent of siblings live within 20 kilometres, a significant proportion of siblings—over 40 per cent—reside over 500 kilometres away or overseas. Indeed, almost 20 per cent of siblings live overseas. Nonetheless, the majority of Australian siblings live less than 500 kilometres away.

report speaking to 16 per cent of their siblings in person at least once per week. As with parents, contact by other means is generally more common: people with non-resident siblings have weekly contact with 26 per cent of their siblings. However, some siblings have no contact with each other: 9 per cent of siblings never have any contact.

Figure 32.4 displays the distribution of frequency of contact of individuals with their siblings. Individuals

Information was also collected in Wave 8 on the gender, age, and type (full, half, adopted or step) of

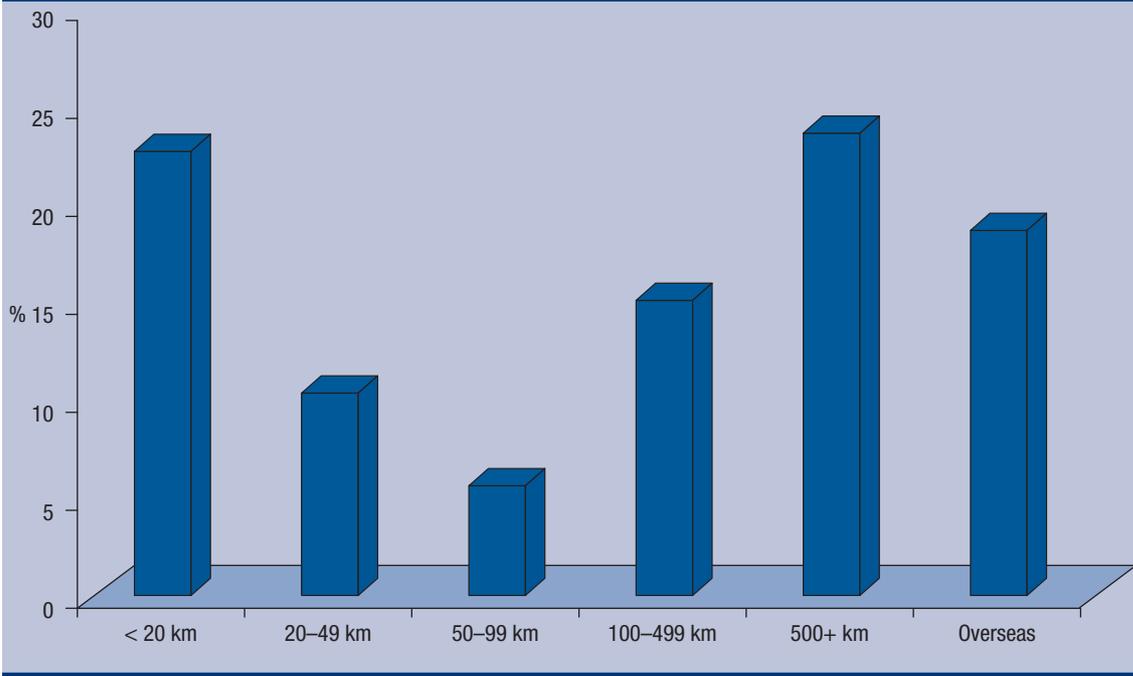


each sibling. Table 32.1 examines gender differences and interactions in frequency of contact between siblings, presenting the distributions of contact frequency by sex of the respondent and by sex of the sibling. (Note that, in principle, the estimates for 'males and sisters' should be the same as for 'females and brothers', even though the former are based on reports by male respondents and the latter estimates

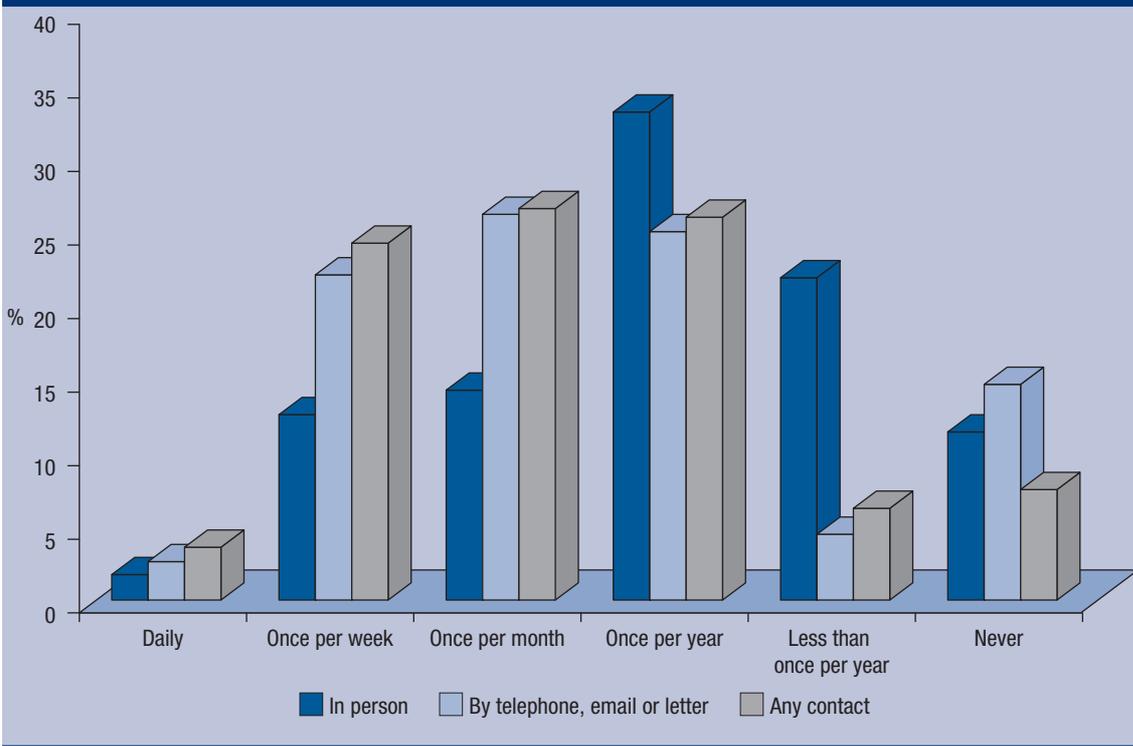
are based on reports by female respondents.) The table shows that females have more regular contact with their siblings than do males. Females communicate with 6 per cent of their siblings daily and 28 per cent of their siblings once per week; the corresponding figures for males are 3 and 23 per cent.

Delving deeper, we can see that males are in roughly equal amounts of contact with their brothers

**Figure 32.3: Distance of siblings to respondents, 2008**



**Figure 32.4: Frequency of contact with siblings, 2008**



and sisters. However, females are markedly closer to their sisters than they are to their brothers, as demonstrated by the observation that females talk to 41 per cent of their sisters at least once per week but speak only with 26 per cent of their brothers at the same frequency.

Table 32.2 examines how frequency of contact and proximity depends on the age gap between siblings. It reveals that siblings who are of a similar age tend to live closer together and have contact more often than those with a larger age gap. Twins seem to be closest to each other, both in terms of geographic proximity and frequency of contact. We can see that the mean age gap (in the last column) is lowest for siblings that communicate daily (at 5.6 years) and highest for those who never have contact with each other (at 7.1 years). A similar relationship is found for distance from siblings. The results suggest that siblings of a similar age group—especially twins—are more connected with each other compared to those with a larger age gap. An explanation for this could be that these siblings grew up together in the same household in a similar situation. However, it is likely that part of this is also driven by a separate age effect for which we

do not control here. As indicated by our regression analysis later on, people become less close to their siblings as they get older. Therefore, the older siblings might have already moved away from their younger siblings, seeking contact less often.

Table 32.3 considers differences by type of sibling. It shows a strong ordering by strength of biological link, full siblings having the closest relationships and step siblings having the least close relationships. However, adopted siblings, while less close than full siblings, appear to be closer than half and step siblings. We do not control for other possibly important factors such as age or relationship to parents, and therefore care is required in interpreting these findings. However, a likely explanation for half and step siblings tending to be less close is that some—perhaps many—will not have grown up in the same household.

### Associations between characteristics of individuals and proximity to, and contact with, non-co-resident siblings

In this section, we estimate multivariate regressions to examine the associations between individual and

**Table 32.1: Frequency of contact with siblings, by sex, 2008 (%)**

	Males			Females		
	Brothers	Sisters	Total	Brothers	Sisters	Total
Daily	4.4	2.4	3.4	3.5	8.4	6.0
Once per week	22.8	22.3	22.5	22.4	32.8	27.7
Once per month	27.2	30.2	28.7	28.2	25.0	26.5
Once per year	29.2	30.0	29.6	29.4	19.9	24.6
Less than once per year	7.9	6.6	7.2	7.7	5.8	6.7
Never	8.5	8.6	8.5	8.8	8.2	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

*Note:* Percentages may not add up to 100 due to rounding.

**Table 32.2: Sibling contact and proximity, by age gap, 2008 (%)**

	Age gap (years)					Mean age gap
	0 (same age)	> 0 and < 3	≥ 3 and < 6	≥ 6 and < 10	10+	
<b>Frequency of contact</b>						
Daily	9.8	5.2	4.8	4.8	4.0	5.6
Once per week	40.6	26.7	26.3	25.4	22.5	5.7
Once per month	22.3	28.7	29.2	27.5	24.8	5.8
Once per year	18.9	25.9	26.8	27.7	28.5	6.2
Less than once per year	*2.7	6.0	6.0	7.1	9.8	7.4
Never	*5.6	7.4	7.0	7.5	10.4	7.1
<b>Distance to sibling</b>						
< 20 kilometres	28.8	24.1	24.4	22.7	21.5	5.8
20–49 kilometres	*5.9	11.7	11.0	11.4	10.0	5.9
50–99 kilometres	*10.1	5.8	6.5	6.1	7.0	6.3
100–499 kilometres	12.2	16.4	15.7	15.6	15.0	5.9
500+ kilometres	31.8	25.7	23.7	23.6	24.3	6.0
Overseas	11.2	16.3	18.6	20.6	22.3	6.6
Total	100.0	100.0	100.0	100.0	100.0	6.2

*Notes:* \* Estimate not reliable. Percentages may not add up to 100 due to rounding.

**Table 32.3: Distance and frequency of contact by type of sibling, 2008 (%)**

	<i>Full</i>	<i>Half</i>	<i>Adopted</i>	<i>Step</i>
<b>Frequency of contact</b>				
Daily	5.1	2.9	*1.7	*1.2
Once per week	27.3	14.7	14.7	10.4
Once per month	29.0	19.8	30.5	15.8
Once per year	26.5	28.3	32.6	30.6
Less than once per year	6.0	11.3	8.3	17.6
Never	6.0	23.0	12.2	24.3
<b>Distance to sibling</b>				
< 20 kilometres	24.2	17.5	17.3	17.2
20–49 kilometres	11.0	10.4	15.3	11.2
50–99 kilometres	6.2	6.8	10.2	6.3
100–499 kilometres	15.6	17.6	15.4	15.8
500+ kilometres	23.2	31.6	26.9	31.8
Overseas	19.8	16.2	14.8	17.7
Total	100.0	100.0	100.0	100.0
<i>Notes: * Estimate not reliable. Percentages may not add up to 100 due to rounding.</i>				

family characteristics and proximity to and frequency of contact with non-co-resident family members. We define the following sets of outcome variables, one set each for parents and siblings:

- *Proximity: This variable takes the value of 1 if a respondent lives within 20 kilometres of their parents (Table 32.4) or within 20 kilometres of the majority (50 per cent or more) of their siblings (Table 32.5) and zero if otherwise.<sup>1</sup>*
- *Frequency of in-person contact: This takes the value of 1 if the respondent sees their parents in-person at least once per week (Table 32.4) or sees the majority (50 per cent or more) of their siblings in-person at least once per week (Table 32.5).*
- *Frequency of contact by email, telephone or letter: This outcome variable takes the value of 1 if a respondent contacts their parents by email, telephone or letter at least once per week (Table 32.4) or contacts the majority (50 per cent or more) of their siblings by email, telephone or letter at least once per week (Table 32.5).*

With the categorical outcome variables defined above, probit regressions are estimated with explanatory variables comprising the respondent's relevant individual and family characteristics. These characteristics are age, household income, education level, marital status, sex, state of residence, number of children of different age categories in the household, type of area (regional or city), socioeconomic status of the area of residence, labour force status, health condition, religiosity, marital status of parents, number of siblings, and also whether the parents live in a nursing home. For the frequency of contact regressions, we also consider the role of proximity. Half- and step-siblings are excluded from the sibling

regressions because parent characteristics differ between half- and step-siblings.

The mean marginal effects coefficients presented in the tables can be interpreted as the effect of a one-unit increase in the explanatory variable on the probability that an individual: lives within 20 kilometres of; speaks at least once a week with; or contacts at least once a week by telephone, email or letter: their parents (Table 32.4) or more than 50 per cent of their siblings (Table 32.5).

The results are supportive of life events (such as partnering or education decisions) being an important determinant of closeness (as measured by distance and frequency of contact) of people to their parents and siblings. The coefficients for the 35–44 and 45–54 age groups suggest a lower frequency of contact (in-person or otherwise), for both parents and siblings. People are in less-frequent contact with their parents and siblings as they grow older, perhaps initially due to starting their own families or to pursuing their careers. However, the frequency of in-person and other contact appears to again increase slightly at older (55 and over) ages.

Being partnered tends to lower the frequency of in-person contact, but this variable is not statistically significant with respect to distance of the individual from family members. Higher levels of education are associated with a decreased likelihood of living close to one's parents (less than 20 kilometres) and also decreased frequency of contact with sibling(s).

Not surprisingly, the probability of frequent contact with parents is lower for those that live large distances away. (Distance from siblings has been excluded from the estimated models due to the way the dependent variable is constructed and because a respondent may have multiple siblings.) Having children in the household younger than

**Table 32.4: Characteristics associated with close proximity to and frequent contact with parents, 2008—Probit regression mean marginal effects estimates**

	<i>Close proximity</i>	<i>Frequent in-person contact</i>	<i>Frequent contact by telephone, etc.</i>
<i>Age ('15–24' omitted)</i>			
25–34	0.001+	–0.041	–0.066
35–44	–0.011+	–0.067	–0.139
45–54	–0.038+	–0.058	–0.131
55 and over	–0.042+	–0.005+	–0.090
Female	0.010+	0.039	0.137
<i>Partner status ('Not partnered' omitted)</i>			
Married	0.023+	–0.046	–0.018+
De facto	–0.014+	–0.027	–0.019+
Equivalent household income (log)	0.008+	0.012+	0.036
<i>Educational attainment ('Less than Year 12' omitted)</i>			
Degree or higher	–0.075	–0.006+	0.034
Diploma, Cert III/IV	–0.045	–0.008+	–0.004+
Year 12	–0.035	0.006+	0.025+
SEIFA index (deciles)	–0.008	–0.002+	0.007
Child(ren) in household aged 0–5 years	0.037	0.063	0.049
Child(ren) in household aged 6–8 years	–0.008+	0.005+	–0.001+
Child(ren) in household aged 9–11 years	0.030+	–0.013+	0.036
Child(ren) in household aged 12–14 years	–0.015+	0.020+	–0.040
<i>State ('New South Wales' omitted)</i>			
Victoria	–0.016+	–0.011+	–0.007+
Queensland	–0.073	–0.018+	–0.016+
South Australia	0.048	–0.008+	–0.016+
Western Australia	0.004+	–0.005+	0.008+
Tasmania	0.064	–0.000+	0.026+
Northern Territory	–0.160	0.044+	0.005+
ACT	–0.124	–0.036+	–0.075
<i>Regional area ('Outer regional/remote' omitted)</i>			
Major city	0.154	–0.066	–0.011+
Inner regional	0.076	–0.013+	–0.013+
<i>Labour force status ('Not in the labour force' omitted)</i>			
Employed full-time	0.013+	–0.014+	0.015+
Employed part-time	0.015+	0.013+	0.016+
Unemployed	–0.054+	0.017+	0.003+
<i>Country of birth ('Australian-born' omitted)</i>			
ESB immigrant	–0.192	0.020+	–0.007+
NESB immigrant	–0.143	0.063	0.002+
Health condition that limits work	0.015+	–0.016+	0.015+
<i>Importance of religion (in 2007) ('Neutral' omitted)</i>			
Important	–0.004+	–0.006+	–0.021+
Not important	–0.014+	–0.041	–0.040
<i>Parents ('Both alive' omitted)</i>			
Both alive, not living together	–0.101	–0.125	–0.298
Mother still alive	0.005+	–0.014+	–0.042
Father still alive	–0.038+	–0.065	–0.213
Number of full/adopted siblings	–0.011	–0.006	–0.017
Parent(s) severely limited	0.030+	0.007+	–0.036
<i>How do parent(s) live ('Other' omitted)</i>			
Nursing home	0.060+	–0.015+	–0.241
Supported accommodation	–0.026+	0.008+	0.027+
<i>Distance to parents ('&lt; 20 kilometres' omitted)</i>			
20–99 kilometres	–0.382	–0.075	
100–499 kilometres	–0.739	–0.161	
500+ kilometres	–0.779	–0.241	
Overseas	–0.786	–0.367	
Number of observations	5,768	5,768	5,768

Note: + indicates the estimate is not significantly different from zero at the 10 per cent level.

**Table 32.5: Characteristics associated with close proximity to and frequent contact with siblings, 2008—Probit regression mean marginal effects estimates**

	<i>Close proximity</i>	<i>Frequent in-person contact</i>	<i>Frequent contact by telephone, etc.</i>
<i>Age ('15–24' omitted)</i>			
25–34	–0.046	–0.053	–0.038 <sup>+</sup>
35–44	–0.085	–0.138	–0.149
45–54	–0.131	–0.183	–0.236
55–64	–0.158	–0.166	–0.209
65 and over	–0.139	–0.166	–0.131
Female	–0.008 <sup>+</sup>	0.037	0.115
<i>Partner status ('Not partnered' omitted)</i>			
Married	0.018 <sup>+</sup>	–0.026	–0.062
De facto	–0.020 <sup>+</sup>	–0.021 <sup>+</sup>	–0.013 <sup>+</sup>
Equivalised household income (log)	0.008 <sup>+</sup>	–0.014 <sup>+</sup>	0.019 <sup>+</sup>
<i>Educational attainment ('Less than Year 12' omitted)</i>			
Degree or higher	–0.059	–0.061	–0.042
Diploma, Cert III/IV	–0.024 <sup>+</sup>	–0.038	–0.003 <sup>+</sup>
Year 12	–0.012 <sup>+</sup>	–0.031	0.013 <sup>+</sup>
SEIFA index (deciles)	–0.003 <sup>+</sup>	–0.007	0.001 <sup>+</sup>
Child(ren) in household aged 0–5 years	0.029	0.048	0.038
Child(ren) in household aged 6–8 years	–0.004 <sup>+</sup>	–0.045	–0.032 <sup>+</sup>
Child(ren) in household aged 9–11 years	0.012 <sup>+</sup>	–0.004 <sup>+</sup>	–0.011 <sup>+</sup>
Child(ren) in household aged 12–14 years	–0.016 <sup>+</sup>	–0.012 <sup>+</sup>	–0.021 <sup>+</sup>
<i>State ('New South Wales' omitted)</i>			
Victoria	0.017 <sup>+</sup>	–0.009 <sup>+</sup>	–0.020 <sup>+</sup>
Queensland	–0.040	–0.041	–0.051
South Australia	0.062	0.010 <sup>+</sup>	–0.007 <sup>+</sup>
Western Australia	0.003 <sup>+</sup>	–0.015 <sup>+</sup>	–0.022 <sup>+</sup>
Tasmania	0.116	0.047 <sup>+</sup>	0.059 <sup>+</sup>
Northern Territory	–0.114 <sup>+</sup>	–0.074 <sup>+</sup>	–0.061 <sup>+</sup>
ACT	–0.124	–0.113	–0.084
<i>Regional area ('Outer regional/remote' omitted)</i>			
Major city	0.163	0.044	0.058
Inner regional	0.012 <sup>+</sup>	0.011 <sup>+</sup>	0.031 <sup>+</sup>
<i>Labour force status ('Not in the labour force' omitted)</i>			
Employed full-time	0.033 <sup>+</sup>	0.026 <sup>+</sup>	0.004 <sup>+</sup>
Employed part-time	0.045	0.013 <sup>+</sup>	0.011 <sup>+</sup>
Unemployed	–0.088	–0.042 <sup>+</sup>	0.024 <sup>+</sup>
<i>Country of birth ('Australian-born' omitted)</i>			
ESB immigrant	–0.149	–0.054	–0.037
NESB immigrant	–0.078	0.014 <sup>+</sup>	0.048
Health condition that limits work	0.004 <sup>+</sup>	–0.029	–0.040
<i>Importance of religion (in 2007) ('Neutral' omitted)</i>			
Important	–0.015 <sup>+</sup>	0.017 <sup>+</sup>	0.029 <sup>+</sup>
Not important	–0.016 <sup>+</sup>	–0.011 <sup>+</sup>	–0.033
<i>Parents ('Both alive' omitted)</i>			
Both alive, not living together	0.006 <sup>+</sup>	–0.003 <sup>+</sup>	0.026 <sup>+</sup>
Mother still alive	–0.015 <sup>+</sup>	–0.018 <sup>+</sup>	0.030
Father still alive	–0.043	–0.029 <sup>+</sup>	0.067
Number of full/adopted siblings	–0.014	–0.018	–0.045
Parent(s) severely limited	0.063	0.032 <sup>+</sup>	0.071
<i>How do parent(s) live ('Other' omitted)</i>			
Nursing home	–0.045 <sup>+</sup>	–0.039 <sup>+</sup>	–0.038 <sup>+</sup>
Supported accommodation	–0.032 <sup>+</sup>	–0.085	–0.109
Number of observations	5,252	5,252	5,252

Note: + indicates the estimate is not significantly different from zero at the 10 per cent level.

six years of age has a positive effect on the probability of living closer to both siblings (3 percentage points) and parents (4 percentage points).

The results also show that respondents born overseas live further from their parents (19.2 percentage points less for English-speaking background and 14.3 percentage points less for non-English-speaking background). When it comes to frequency of in-person contact, after controlling for distance, which could include large distances for those with family members who are overseas, non-English-speaking background immigrants speak with their parents more often in person than either English-speaking background immigrants or Australian-born persons. For contact over the phone or via email, there was little difference between the three groups.

Reaffirming the earlier descriptive analyses, females tend to speak more often with their parents and siblings, in person or otherwise. Residents in regional or rural areas are far more likely to live further from their parents, as are people living in less disadvantaged areas as measured by the SEIFA index (relative socio-economic advantage/disadvantage).

Finally, people from larger families (with more siblings) tend to live further from their parents and siblings and have less frequent contact. The separation of parents or the death of a parent tends to decrease the frequency of contact with parents, or a surviving parent, or with siblings. People who place low importance on religion are less likely to speak with their parents at least once a week.

The results are consistent with past research, including Malmberg and Pettersson (2007), who found that factors such as education, labour market position and household situation are important, and Sarkisian and Gerstel (2008), who found that life course events such as home ownership, having children and getting married affect distances between adult children and parents. In other research, religiosity and family size have also been found to be associated with closer family proximity in Europe (Fokkema et al., 2008),

while Michielin and Mulder (2007), using 2002–2003 panel data from the Netherlands, found that parental characteristics had a lesser effect than life-course events.

### Concluding remarks

Taking advantage of a new set of questions introduced in Wave 8, this article has presented statistical descriptions of how people interact with their parents and siblings. We find that over one-third of individuals live within 20 kilometres of their parents, and a similar proportion see their parents at least once per week. People generally do not live as close to, or see as frequently, their siblings. Consistent with previous research, the regression analysis of the factors associated with proximity and closeness to both parents and siblings shows that life events, circumstances and individual characteristics all play important roles.

### Endnote

- 1 If the respondent's parents were both alive but not living together, we chose one parent randomly and used the respondent's distance and frequency of contact with this parent to create the respective variables.

### References

- Fokkema, T., Bekke, S. and Dykstra, P. (2008) 'Solidarity between Parents and Their Adult Children in Europe', NIDI Report No. 76, KNAW Press, Amsterdam.
- Malmberg, G. and Pettersson, A. (2007) 'Distance to Elderly Parents: Analyses of Swedish Register Data', *Demographic Research*, vol. 17, no. 23, pp. 679–704.
- Michielin, F. and Mulder, C.H. (2007) 'Geographical Distance between Adult Children and Their Parents in the Netherlands', *Demographic Research*, vol. 17, no. 22, pp. 655–78.
- Sarkisian, N. and Gerstel, N. (2008) 'Till Marriage Do Us Part: Adult Children's Relationships with Their Parents', *Journal of Marriage and Family*, vol. 70, no. 2, pp. 360–76.



# **GLOSSARY**

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**ANZSIC**

ANZSIC is the Australia and New Zealand Standard Industry Classification. Structured in a similar manner to ASCO2, it classifies the economic activity of firms and other employers. See ABS Catalogue No. 1292.0 for details.

**ARIA**

Accessibility/Remoteness Index of Australia. In this report, remoteness of region of residence is derived from the ARIA scores from the 2001 Census. ARIA scores are assigned based on the Census Collection District (CD) code. In most analysis in this report, we distinguish persons residing in the major cities from persons residing in other locations, which consist of inner regional Australia, outer regional Australia, remote Australia and very remote Australia. Approximately two-thirds of the in-scope Australian population resides in a major city.

**ASCO2**

ASCO2 stands for the Australian Standard Classification of Occupations, Second edition. This is the Australian Bureau of Statistics classification scheme for occupations. It is based on a conception of types of tasks and skill level requirements. It has six 'levels', with 10 occupation groups distinguished at the highest level of aggregation, known as the one-digit level, 54 groups distinguished at the next (two-digit) level of aggregation, and so on. See ABS Catalogue No. 1220.0 for details.

**Casual employment**

Casual employment is a form of employment unique to Australia. It is characterised by flexibility for employers and employees in the number and timing of hours worked from week to week (including the ability for employers to very readily reduce hours to zero), as well as the absence of employee entitlement to paid annual and sick leave.

**Child poverty**

Measures of child poverty presented in this report give the number of children under 18 years of age living in households with an equivalised income below the poverty line (be it a relative or absolute poverty standard).

**Correlation coefficient**

A correlation coefficient (often referred to as a 'Pearson correlation coefficient') is a measure of (linear) dependence or association between two quantities. It is obtained by dividing the covariance of the two variables by the product of their standard deviations. It ranges between  $-1$  (perfect negative correlation) and  $1$  (perfect positive correlation). A value of zero indicates no association between the two quantities, while values close to  $-1$  or  $1$  indicate strong association (or dependence) between the variables.

**Deciles and quintiles**

A decile is any of the nine values that divide data that have been sorted from lowest to highest into 10 equal parts, so that each part represents one-tenth of the sample or population. Thus, for example, the first decile of the income distribution cuts off the lowest 10 per cent of incomes, and people in the first (or bottom) decile have the lowest 10 per cent of incomes. A quintile is any of the four values that divide data that have been sorted from lowest to highest into five equal parts; for example, people in the first (or bottom) quintile have the lowest 20 per cent of incomes.

**Disability**

The International Classification of Functioning, Disability and Health (ICF), produced by the World Health Organization, defines disability as an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual's health conditions and the various contextual (environmental and personal) factors of that individual. In this report, a person is defined to have a disability if they have 'any long-term health condition, impairment or disability that restricts the individual in everyday activities and which has lasted, or is likely to last, for six months or more'. This is an 'operational' definition of disability which is very similar to that used in many household surveys, such as the Australian Bureau of Statistics Survey of Disability, Ageing and Carers.

**Equivalence scale and equivalised income**

Equivalised income is a measure of material living standards, obtained by adjusting household disposable income for the household's 'needs'. In practice, it is common for adjustment of income to be based only on the number of adult and child household members, achieved by an equivalence scale. In this report, we have used the 'modified OECD' scale, which divides household income by 1 for the first household member plus 0.5 for each other household member over 15 years of age, plus 0.3 for each child under 15. A family comprising two adults and two children under 15 years of age would therefore have an equivalence scale of 2.1 ( $1 + 0.5 + 0.3 + 0.3$ ), meaning that the family would need to have an income 2.1 times that of a lone-person household in order to achieve the same standard of living.

**Fertility intentions**

Fertility intentions relate to the number of children one wishes to have, the gender balance (e.g. one boy and one girl) and the gender sequence (e.g. a boy followed by a girl). Demographers are extremely interested in fertility intentions as one factor determining likely future population levels. Fertility intentions were asked in detail for the first time in HILDA in 2005.

### Financial stress

A person or household is considered to be under financial stress if, *due to shortage of money*, it is not possible for them to meet basic financial commitments. The measure of financial stress used in this report is based on questions about inability to pay utility bills on time, inability to pay the mortgage on time, having to pawn or sell possessions, going without meals, being unable to heat the home, asking for financial help from friends or family, or asking for help from a welfare or community organisation.

### Fixed effects regression model

An econometric technique often applied to panel data, fixed effects regression involves accounting for the effects of all characteristics of sample members that do not change over time. For example, if we are interested in how life events impact on life satisfaction, a fixed effects model is useful because we can control for (remove the effects of) fixed individual traits such as optimism and pessimism. This is achieved by examining how the outcome of interest (e.g. life satisfaction) changes at the individual level in response to changes in explanatory variables (e.g. income). For example, a fixed effects model will find a positive effect of income on life satisfaction if individuals who experience increases in income from one year to the next tend to exhibit increases in life satisfaction over the same period, and individuals who experience decreases in income from one year to the next tend to exhibit decreases in life satisfaction over that period.

### Gini coefficient

The Gini coefficient is a measure of dispersion often used as a measure of inequality of income and wealth. It ranges between 0 and 1, a low value indicating a more equal distribution and a high value indicating a more unequal distribution. 0 corresponds to perfect equality (everyone having exactly the same) and 1 corresponds to perfect inequality (where one person has everything and everyone else has nothing).

### Household disposable income

The main household income measure examined in this report is 'real household annual disposable income'. Household annual disposable income is the combined income of all household members, after receipt of government pensions and benefits and deduction of taxes, in the financial year ended 30 June of the year of the wave (e.g. 2001 in Wave 1). This is then adjusted for inflation—the rise in the general price level in the economy—using the Australian Bureau of Statistics Consumer Price Index, so that income in all waves is expressed at December 2008 prices, to give *real* income. Since prices tend to rise over time, the incomes statistics we present for Waves 1–7 are higher than what would be obtained from using incomes actually reported by sample members.

### Household expenditure and consumption

Households spend money on both non-durable and durable goods and services. Non-durables—goods and services consumed fairly soon after purchase—include such items as groceries, fuel and holiday expenditures. Durables, by contrast, are typically consumed over long periods of time, and include such items as housing, cars, household appliances and furniture. To measure non-durable consumption of a household during a particular period, it is generally sufficient to measure expenditure on non-durables in that period. However, measuring durables consumption is more difficult. First, the full stock of durables held by the household needs to be known; some durables may have been purchased in the period being examined, but most will have been purchased previously. Second, we need to estimate the value of the consumption services delivered by those durables in the period—for example, impute a rental value for owner-occupied housing—something that is inherently difficult to do.

### Income mobility

In this report, income mobility refers to the extent to which individuals' household incomes change *relative to each other*. It is measured by sorting incomes in each period (e.g. year) from lowest to highest and then examining changes in each individual's *rank* in the distribution. The greater the changes in individuals' ranks—that is, the more individuals change ranks and the bigger the change in each individual's rank—the greater is income mobility.

### Income poverty

A variety of alternative definitions and measures of income poverty exist, but most common are measures that determine poverty status of an individual based on whether income falls below or above or below a particular threshold. A *relative poverty line* is an income poverty threshold that maintains its value relative to average community living standards over time. It is based on the notion that a person is in poverty if he or she is unable to afford the goods and services needed to enjoy a normal or mainstream lifestyle in the country in which they live. In this report, we define a person to be in relative income poverty if household equivalised income is less than 50 per cent of the median household equivalised income. An *absolute poverty line* is an income poverty threshold which has its real value held constant over time rather than adjusted with changes in average living standards. It is 'absolute' in the sense that the *purchasing power* of the poverty line—the basket of goods and services that it can purchase—remains fixed over time. The level at which an absolute poverty line is set may nonetheless be based on the level of a relative poverty line obtained at a particular point in time, for example the beginning of the time-period under study.

### **Jobless households and job-poor households**

In this report, two alternative definitions of a jobless household are employed. The first definition, 'current' joblessness, relates to the household's employment status at the time of the HILDA Survey interview, whereby a household is jobless if no household member was in paid employment (or on paid leave from employment) at the time of interview. The second definition, "financial year" joblessness, relates to the household's employment status over the course of the financial year immediately preceding the HILDA Survey interview, whereby a household is jobless if no household member was in paid employment (or on paid leave from employment) at any time in that year.

There is no accepted standard for determining whether a household is 'job-poor'. In this report, a household is defined to be currently job-poor if total usual hours of paid employment of all household members combined are less than 35 hours per week. A financial year measure is also employed, whereby a household is job-poor if the sum across all members of the household of the proportion of the year in employment is less than 100 per cent.

### **Labour force status**

Analysts of the labour market distinguish three main labour force states: employed, unemployed and not in the labour force. Both the unemployed and those not in the labour force are not employed, but the unemployed are actively seeking and available for employment. It is common to further disaggregate these three categories of labour force status. Among the employed, full-time workers (35 or more hours per week) are distinguished from part-time workers, and among part-time workers, the underemployed—those seeking more hours of employment—are distinguished from other part-time workers. Among the unemployed, a distinction is sometimes drawn between unemployed seeking full-time work and unemployed seeking part-time work. Among those not in the labour force, several distinctions are often made based on degree of 'attachment' to the labour market. This includes identifying the marginally attached—people who want to work and are either available to start work but are not currently looking, or are looking for work but are not currently available.

### **Logit and probit models**

Logit and probit models are statistical techniques used to estimate the effects of factors on a 'qualitative dependent variable', such as labour force status. Estimates are interpreted as the effects of the *probability* of an outcome. For example, a logit model might be estimated of the probability an individual is employed. *Multinomial* logit and probit models are used when the dependent variable takes on

more than two values. For example, when examining the determinants of whether an individual is employed, unemployed or not in the labour force.

### **Mean, median and mode**

The mean, median and mode are all measures of central tendency. The mean is the statistical term used for what is more commonly known as the average—the sum of the values of a data series divided by the number of data points. The median is the middle data point in data sorted from lowest to highest value; 50 per cent of the data points will lie below the median and 50 per cent above it. The mode is simply the most-frequently occurring value of a data series.

### **Mean marginal effects**

In qualitative dependent variable models such as logit and probit, their non-linearity makes it difficult to interpret coefficient estimates. In particular, the effects of each explanatory variable will depend on the values of all other explanatory variables. Mean marginal effects estimates provide a straightforward way of ascertaining the effects of explanatory variables that are analogous to those obtained in linear regression models—that is, the effect on the dependent variable of a 1-unit increase in the explanatory variable. For example, if the variable 'years of age' is included in a probit model of the probability a person is employed, then the mean marginal effect estimate for this variable is the mean effect on the probability of employment, evaluated over all members of the sample, of a one-year increase in age.

### **NESB immigrant**

Non-English-speaking background immigrant, a person born in a country other than the main English-speaking countries of Australia, the United Kingdom, United States, New Zealand and South Africa.

### **Ordinary Least Squares (OLS) regression**

OLS regression is a technique for estimating linear associations between a dependent variable (such as earnings) and one or more independent (or explanatory) variables (such as age and educational attainment). The method finds the linear combination of the explanatory variables that minimises the sum of the squared distances between the observed values of the dependent variable and the values predicted by the regression model.

### **Random effects regression model**

An econometric technique often applied to panel data, random effects regression differs from fixed effects regression by allowing estimation of the effects of characteristics that do not change over time, made possible by assumptions about the distribution and nature of unobserved fixed individual traits.

### Relative standard error

The standard error of an estimate is a measure of the precision with which the estimate is estimated. For example, assuming statistical independence of the values in the sample, the standard error of the mean of a variable (such as income) is the standard deviation of the variable divided by the square root of the sample size, and there is a 95 per cent probability that the true mean lies within 1.96 standard deviations of the estimated mean. The relative standard error of an estimate is the ratio of the standard error to the value of the estimate. In this report, we have marked with an asterisk (\*) estimates which have a relative standard error greater than 25 per cent. Note that a relative standard error that is less than 25 per cent implies there is a greater than 95 per cent probability the true quantity lies within 50 per cent of the estimated value.

### SEIFA

Socio-Economic Index for Areas, constructed by the Australian Bureau of Statistics using Census data. SEIFA is a suite of four indexes that can be used to explore different aspects of socio-economic conditions by geographic areas. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia. In analysis presented in this report, the SEIFA index used is the *Index of Relative Socio-Economic Disadvantage*, which is derived from Census variables such as low income, low educational attainment, unemployment, and dwellings without motor vehicles. For more information, see ABS (2008) *Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA)*, Catalogue No. 2039.0, ABS, Canberra.

### SF-36 general health measure

The SF-36 Health Survey is a 36-item questionnaire that is intended to measure health outcomes

(functioning and wellbeing) from a patient point of view. It was specifically developed as an instrument to be completed by patients or the general public rather than by medical practitioners, and is widely regarded as one of the most valid instruments of its type. See <<http://www.sf-36.org/>> for further details.

### Statistical significance

In the context of statistical analysis of survey data, a finding is statistically significant if it is unlikely to be simply due to sampling variability—that is, if it is unlikely to be due to random factors causing specific characteristics of the survey sample to differ from the characteristics of the population. A common standard is to regard a difference between two estimates as statistically significant if the probability that they are the different is at least 95 per cent. However, 90 per cent and 99 per cent standards are also commonly used. Note that a statistically significant difference does not mean the difference is necessarily large or significant in the common meaning of the word.

### Welfare reliance

While a person may be regarded as to some extent reliant on welfare if *any* welfare payments are received by that person's household, welfare reliance is usually conceived as a situation in which welfare represents the primary or main source of income. In this report, two alternative specific definitions of welfare reliance are adopted:

1. *The household received income support payments and more than 50 per cent of household income came from income support and non-income support payments.*
2. *The household received income support payments and more than 90 per cent of household income came from income support and non-income support payments.*

