

Families, Incomes and Jobs, Volume 3:

A Statistical Report on Waves 1 to 5 of the HILDA Survey



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of Families, Housing, Community Services and Indigenous Affairs*

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Introduction to the Annual Statistical Report on HILDA for 2007

This is the third Annual Statistical Report of the Household Income and Labour Dynamics in Australian (HILDA) Survey. Like the previous volumes (Headey, Warren and Harding, 2005; Headey and Warren, 2007), it contains short reports and statistical tables covering the four main areas of HILDA: households and family life; incomes; employment and unemployment/joblessness; life satisfaction, health and well-being. Our target audiences are policy makers and the informed public.

The ambitious aim of the HILDA Survey is to provide, on an annual basis, a new type of social statistics for Australia; *longitudinal panel statistics* describing the ways in which people's lives are changing. The Australian social statistics we are all familiar with are *cross-sectional*. That is, they provide snapshots—still photographs—of the percentages of Australians who, at one moment in time, are married or single, income rich or income poor, employed or unemployed, healthy or sick. *Repeated cross-sections* of the kind provided by the Australian Bureau of Statistics yearbooks and annual surveys inform us about aggregate social trends, about whether and by how much the percentages who are married, poor, unemployed ... are changing.

Panel data are quite different and add a new dimension to social statistics. A panel survey is longitudinal rather than just cross-sectional. It follows people's lives over time; the same households and individuals are interviewed every year, so we can see how individual lives are changing. We can see whether the same people remain married, income poor or unemployed every year. As readers of this volume will see, the panel method opens up new understandings. Cross-sectional statistics only change slowly and usually record only small changes from year to year. So it seems 'natural' or obvious to infer that the same people remain married, poor or unemployed year after year. Panel data in Australia and in many other Western countries show that, while the first inference happens to be correct, the second and third are more wrong than right. That is, it is true that more or less the same people stay married year after year (only 2–3% of Australian marriages end each year, even though eventually over 30% end in separation), but it is false to believe that the same people stay income poor and/or unemployed year after year. On the contrary, most poor people cease to be poor within a year or two, and most unemployed people get jobs within a year, although long-term unemployment has increased in recent decades. On the other hand, panel data also show that people who have been poor or unemployed in the past are at greater risk of returning to poverty and unemployment than others.

So panel data offer something like video evidence rather than the photographic evidence of cross-sectional surveys. In social science jargon, panel data tell us about *dynamics*—family, income and labour dynamics—rather than *statics*. They tell us about *duration/persistence*, about how long people remain poor or unemployed, and about the correlates of entry into and exit from poverty and unemployment. For these reasons panel data are vital for government and public policy analysis. The aims of policy include trying to reduce poverty and unemployment, so it is vital for policy makers to distinguish between short, medium and long termers—different policy interventions may be needed to assist different groups—and to gain an understanding of reasons for entry and exit from these states.

It is probably fair to say that panel studies in other Western countries have transformed and greatly improved understanding of many social and economic trends. It is hoped that the HILDA Survey will perform the same service in Australia.

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 and should be undertaken. It is hoped that some readers will make their own analyses, and in this context it should be mentioned that the HILDA Survey data are available at nominal cost to approved users.¹

The HILDA Survey sample

The HILDA Survey is commissioned and funded by the Australian Government Department of Family and Community Services and conducted by the Melbourne Institute at the University of Melbourne. The HILDA Survey Director is Professor Mark Wooden.

The HILDA Survey is a nation-wide household panel survey with a focus on issues relating to families, income, employment and well-being. Described in more detail in Watson and Wooden (2004), the HILDA Survey 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, with each wave being approximately one year apart.

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.

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%. Within the 7,682 households at which interviews were conducted, there were 19,917 people, 4,790 of whom were under 15 years of age on the preceding 30 June 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, and 10,392 in wave 5 in 2005.

The total number of respondents in each wave, however, is greater than this 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.

In fact, additions to the HILDA sample now exceed drop-outs, so the total number of respondents giving interviews is now going up rather than down, and is likely to continue to do so in future. The total of respondents fell from 13,969 in 2001 to 12,408 in 2004, but then rose to 12,759 in 2005 and further to 12,905 in 2006.

Despite a net increase in numbers in the last two years, *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. The HILDA Survey data managers analyse attrition each year and supply *weights* to 'correct' for differences between the panel sample and the population. To give a straightforward example, if it were found that men had dropped out of the

panel at a greater rate than women, and that consequently men were under-represented by 2% and women similarly over-represented, then the weights would have the effect of multiplying all men's results by 102/100 and all women's results by 98/100.

In this Report, cross-sectional weights are always used when cross-sectional results are reported and longitudinal (multi-year) weights are used when longitudinal results are reported.

Estimates based on the HILDA Survey like all sample survey estimates are subject to sampling error. It would be cumbersome to report the sampling errors for all statistics in this volume. So we have adopted an ABS convention and marked with an asterisk (*) tabulated results which have a standard error more than 25% of the size of the result itself.² This is a conservative approach, given that most academic papers treat as statistically significant estimates which have standard errors of up to 50%. The calculation and treatment of standard errors were covered in detail in Appendix 1 of the first Annual Report on HILDA (2005).

Overview of contents

The four parts of this volume each begin with an overview of a central topic, focusing on *change* within the HILDA Survey panel. So Part 1 on Households and Family Life begins with an article about generational differences in attitudes towards marriage and children. Subsequent articles deal with changes in marital status; parenting stress; who in the family does the domestic chores; child care; contact between non-resident parents and their children, and so on.

Part 2 on Incomes starts with an overview of changes in the material standard of living of Australians in 2001–2005, followed by an article on income mobility—the extent to which households moved up or down the national income distribution in 2001–2005. It then covers topics such as the duration of income poverty, the duration of reliance on welfare payments, and perceived financial stress. This section concludes with an article about household incomes of immigrants, one of two articles contributed by Roger Wilkins. All other articles in the Report are written by the editors.

Part 3 on Employment and Unemployment/Joblessness begins with an overview of labour mobility in 2001–2005 and then deals, *inter alia*, with such topics as whether low paid and part-time jobs frequently or only infrequently lead to better paid full-time jobs, the pay-off in increased earnings from adult education and job training, the characteristics of jobless households and the duration of joblessness, and transitions to retirement.

Part 4 is on Life Satisfaction, Health and Well-being. Issues relating to life satisfaction have attracted a great deal of interest among HILDA

Survey data users and, in recent times, within the economics profession. Most researchers in the life satisfaction field believe that personality traits make a substantial difference to satisfaction. Partly for this reason measures of the so-called 'Big Five' traits—extroversion, neuroticism, openness to experience, agreeableness and conscientiousness—were included in the HILDA Survey for the first time in 2005. Thus, Part 4 begins with an overview article on these personality traits and their potential value in social and economic research, then comes an article on life satisfaction and satisfaction with many other aspects of life. Later articles deal with physical and mental health, with social networks and, finally, with a comparison of how men and women use their time.

Concluding points

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.

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Deputy Director, HILDA Survey*

Endnotes

- 1 Readers who would like to enquire about the HILDA Survey data should view <<http://www.melbourneinstitute.com/hilda>>.
- 2 As an approximation to these relative standard errors (RSEs), cell entries in the tables in this volume which are based on under 20 respondents are marked as not statistically reliable. An exception is results relating to income, where under 50 respondents is a more appropriate cut-off.

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HOUSEHOLDS AND FAMILY LIFE

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Generational differences in attitudes about marriage and children

In the last fifty years, there have been substantial changes in demographic patterns in most Western countries. Cohabitation has become much more common; fertility rates have fallen; and the rate of divorce has increased (Parker, 2002). People are also marrying and having their first child at a later age. The labour force participation rates of women have increased substantially (ABS, 2006), and subsequently women have more financial and social independence. Scott (2006) suggests that these changes, which have enhanced women's autonomy, have also increased the costs of marriage and motherhood, and reduced the importance of traditional family values.

In 2005, new questions about attitudes towards marriage and children were added to the HILDA Survey. Respondents were asked to rate on a scale of 1 to 7 how strongly they agreed or disagreed with statements such as *'It is alright for a couple with an unhappy marriage to get a divorce even if they have children'* and *'Homosexual couples should have the same rights as heterosexual couples do'*. A rating of 1 out of 7 means 'strongly disagree' and 7 out of 7 means 'strongly agree'.¹ It could be expected that older people have more traditional or conservative views about lone parent families, de facto relationships and the importance of marriage. However, the following figures show that sometimes this is not the case.

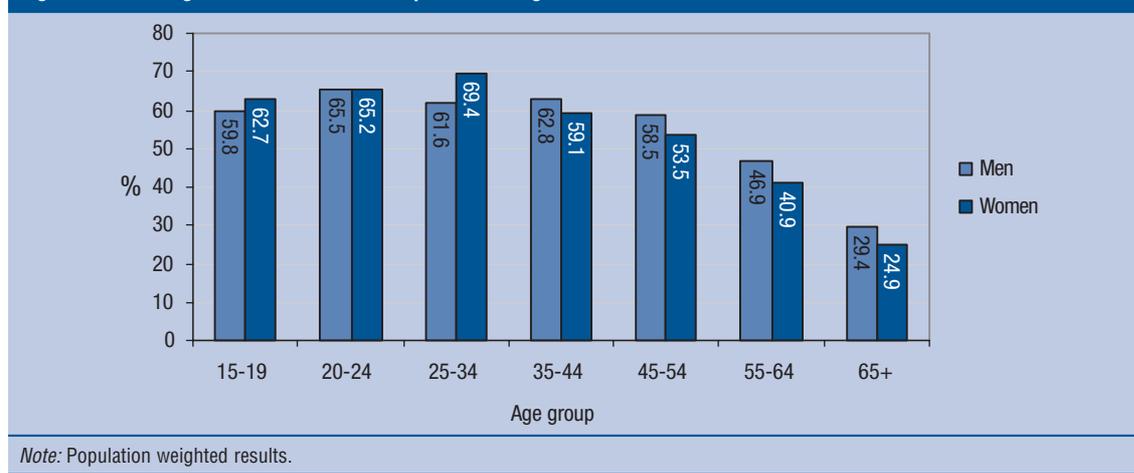
Figure 1 shows the proportion of men and women who agreed with the statement *'It is alright for an unmarried couple to live together even if they have no intention of marrying'*. Given that de facto relationships are much more common today than they were 20 or 30 years ago, it is not surprising that the proportion of men and women who agreed with the statement 'It is alright for an unmarried

couple to live together even if they have no intention of marrying' decreased with age. Overall, 54.6% of men and 52.8% of women agreed with this statement. However, only 29.4% of men and 24.9% of women aged 65 or over agreed. Of course, a very high proportion of people who were in de facto relationships (83.8% of men and 86.4% of women) agreed with the statement, compared to 44.9% of married men and 44.7% of married women.

With the exception of men in the 20 to 24 age group, more men than women agreed with the statement *'Marriage is a lifetime relationship and should never be ended'*. Overall, 39.7% of men and 35.0% of women agreed with this statement. Figure 2 shows that, compared to other age groups, it was less common for men and women aged between 35 and 54 to agree with this statement, with only 25.5% of women and 30.3% of men aged between 45 and 54 agreeing. As expected, the proportion of separated or divorced men and women who agreed with this statement was lower than average. However, around one in four men and one in five women who were separated or divorced still agreed with the sentiment that marriage should not be ended.

Just over 55% of women and 45% of men agreed with the statement *'It is alright for a couple with an unhappy marriage to get a divorce, even if they have children'*. Figure 3 shows that there are substantial differences in the proportion of men and women agreeing with this statement, particularly in younger age groups. For men, the proportion who agreed increased from 32.4% of men aged between 15 and 19 to 51.5% of men aged between 55 and 64. The proportion of women who agreed was around 60% for women aged between 20 and 54.

Figure 1: It is alright for an unmarried couple to live together

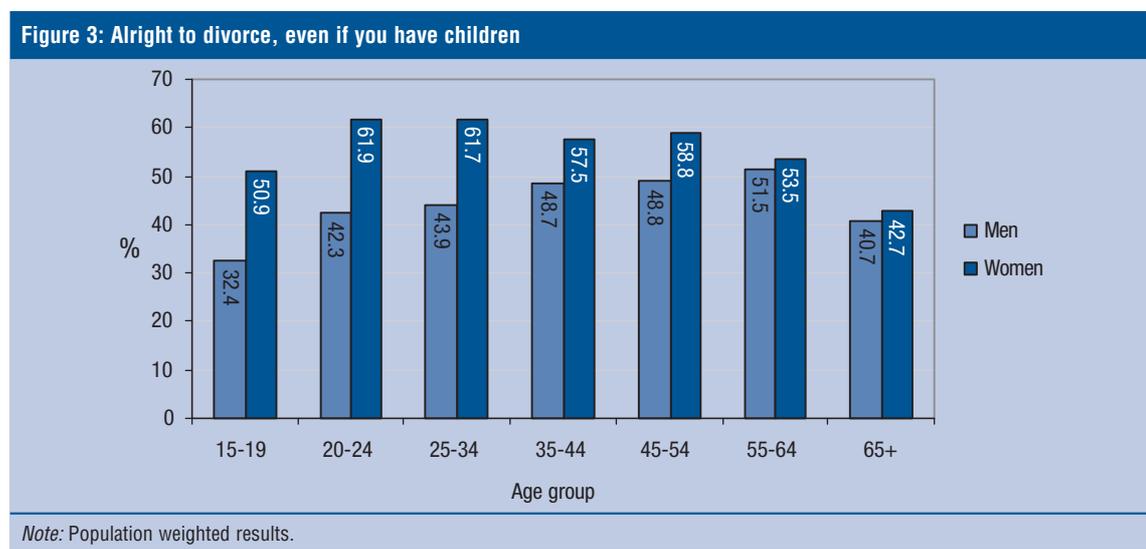
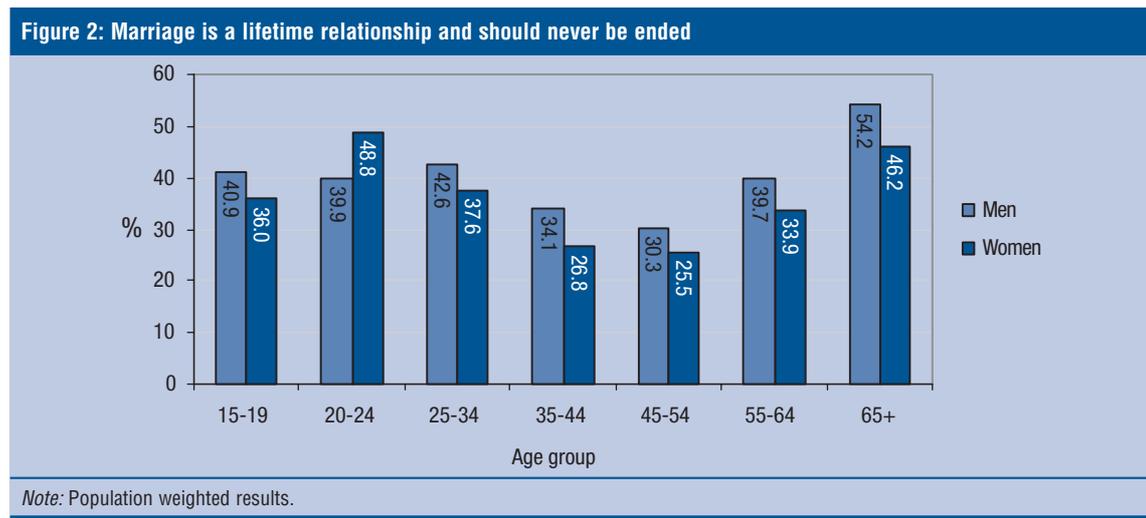


When asked whether they thought marriage was an outdated institution, only 9.7% of men and 7.3% of women agreed. Figure 4 shows that, while the proportion of men and women who agreed with this statement in the 55 to 65 and 65 and over age groups were almost equal, in younger age groups agreement was more common among men than women. Only 5.6% of teenage women agreed with this statement, compared to 8.3% of teenage men. Just over 10% of men aged between 25 and 54 agreed, compared to around 7% of women in this age group.

Compared to widows, married couples and people who had never been married and were not living with a partner, men and women who were separated, divorced or living in a de facto relationship more commonly agreed that marriage was an outdated institution: 21.6% of separated men, 18.7% of divorced men and 19.5% of men who were in a de facto relationship said that marriage was outdated, compared to 11.9% of men who were never married not in a de facto

relationship, 11.2% of men who were widowed and only 5.7% of married men. A high proportion (16.9%) of separated women also said that marriage was outdated, compared to 11% of women who were divorced, 12.6% of women in de facto relationships, 8% of widows, 7.1% of women who had never married and 5.4% of married women.

Figure 5 shows that it was much more common for women than men to agree with the statement '*Homosexual couples should have same rights as heterosexual couples do*'. Overall, 23.3% of men and 34.1% of women agreed with this statement. The proportion of women who agreed with this statement decreased with age, from 52% of women aged between 15 and 19 to only 15.2% of women aged 65 and over. It was also more common for younger men to agree with this statement, with 27.6% of men aged between 15 and 19 and 30.7% of men aged between 25 and 34 agreeing, but only 14.4% of men aged 65 or more saying they agreed.



Attitudes about children

As in most other Western nations, women in Australia are having fewer children and the age at which they are having their first child is rising. The median age of all women who gave birth in 1995 was 29.1 years; by 2005 this had increased to 30.7 years (ABS, 2007). The average number of children that women have has fallen from 3.5 in 1961, to 1.9 in 1981 and 1.8 in 2005 (ABS, 2007).

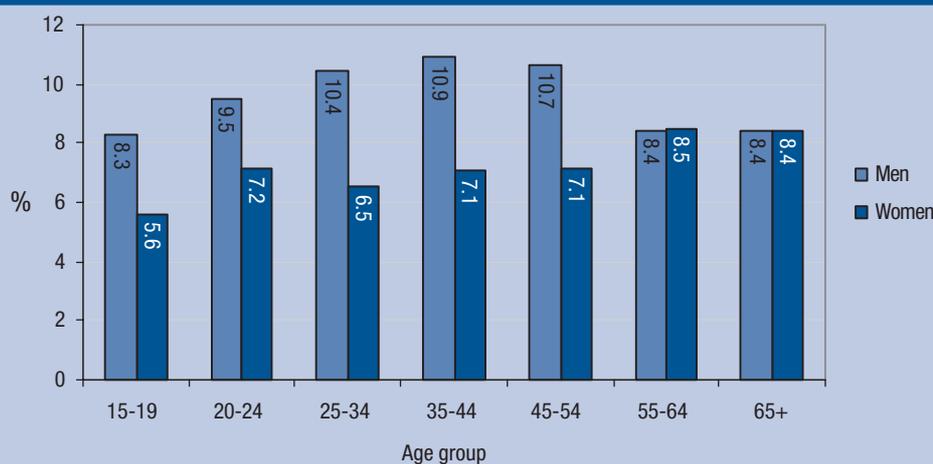
Has having a family become less important today than it was in the past? Figures 6 and 7 show the proportion of men and women who agreed with the statements '*A woman has to have children in order to be fulfilled*' and '*A man has to have children in order to be fulfilled*'.

Overall, 8.3% of men and 7% of women agreed with the statement '*A woman has to have children in order to be fulfilled*'. Fewer than 5% of teenagers and 10% of people aged between 20 and 54 agreed with this statement. On the other hand,

15.8% of men and 14.7% of women aged 65 and over agreed that a woman needs to have children in order to be fulfilled. The proportion of men and women who agreed with this statement was higher for those who had children than those who did not—9.3% of men and 8.3% of women who were parents agreed, compared to 6.7% of men and 3.9% of women with no children.

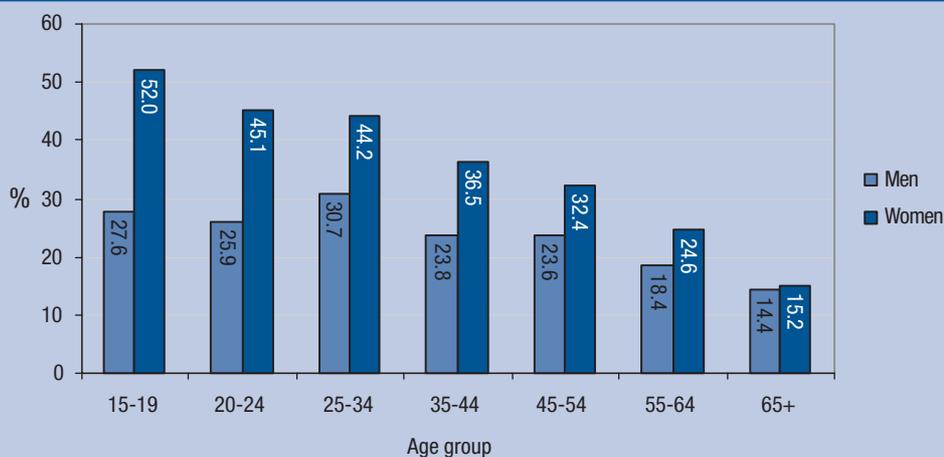
It was also more common for older people to agree with the statement '*A man has to have children in order to be fulfilled*'. However, Figure 7 shows that, even in the older age groups, it was much more common for men than women to agree with this statement. Fewer than 5% of women under the age of 65, and only 10% of women over 65 agreed with this statement, compared to 10.4% of men aged between 20 and 24 and 16.2% of men over the age of 65. Again, the proportion of parents who agreed with this statement was slightly higher than that of people with no children; 9.7% of men and 5.8% of women who

Figure 4: Marriage is an outdated institution



Note: Population weighted results.

Figure 5: Homosexual couples should have same rights as heterosexual couples



Note: Population weighted results.

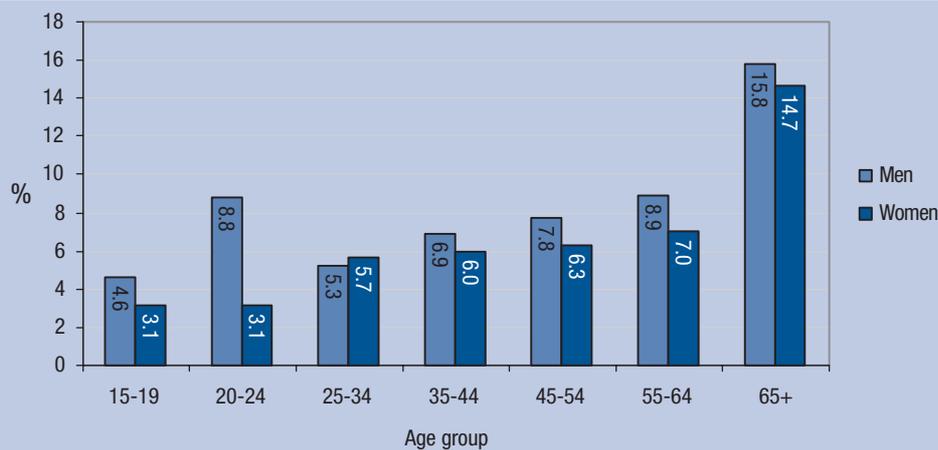
had children agreed, compared with 7.3% of men and 3.2% of women who were not parents.

The proportion of men and women who agreed with the statement '*Children will usually grow up happier if they have a home with both a father and a mother*' is shown in Figure 8. Overall, 69.4% of men and 52% of women agreed that it was better for children to grow up with both parents. In every age group, the proportion of men who agreed with this statement was at least 10% higher than the proportion of women who agreed. The greatest difference was among teenage men and women, where 64.2% of men agreed, compared to only 38.5% of women. Some possible explanations for this gender difference are that when parents separate, children usually live most of the time with their mother, and boys growing up in this situation often lack a male role model. On the other hand, women who have been lone mothers are likely to think they have done a good job raising the children and are therefore more likely to disagree with

this statement. Men and women who had children were much more likely to agree with this statement than non-parents—74% of men and 56.7% of women with children agreed, compared to 62% of men and 41% of women who were not parents.

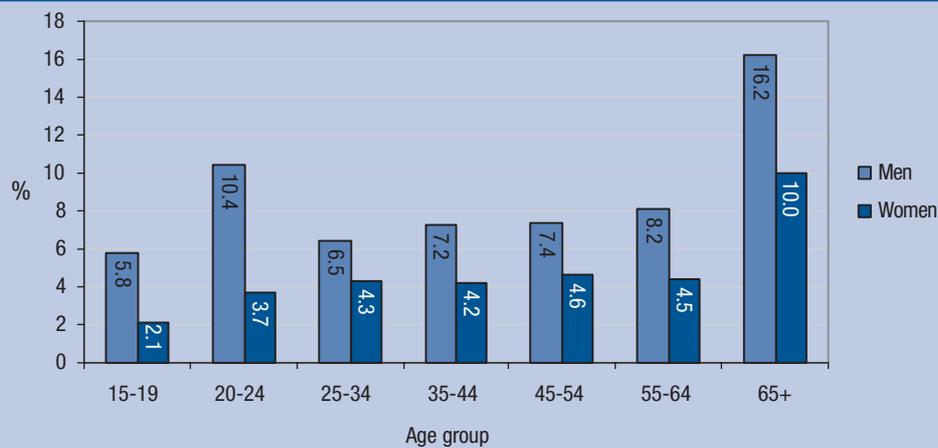
For men, the proportion who agreed with this statement ranged from 60.9% for those who were living with their mother and stepfather at age 14, to 70% for those who were living with both parents. For women, the proportion who agreed was 32.4% for women who were living with their mother and stepfather at the age of 14, 38.1% for women who were living with their mother only (i.e. no father or stepfather) at that age, 51.5% for women who were living with their father and stepmother at the age of 14, 53.6% for women who had lived with just their father and 54.7% for women who had lived with both parents. It seems that many women who had grown up without their father did not feel that they would have been happier if their parents had stayed together.

Figure 6: A woman has to have children in order to be fulfilled



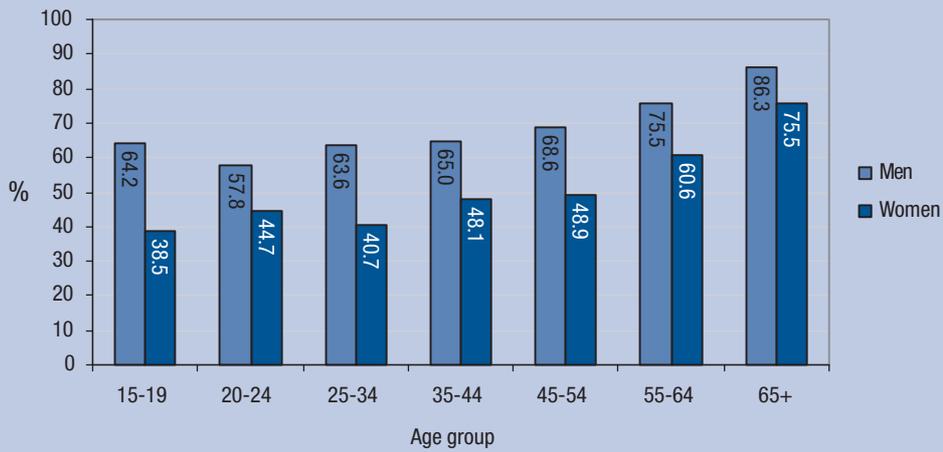
Note: Population weighted results.

Figure 7: A man has to have children in order to be fulfilled



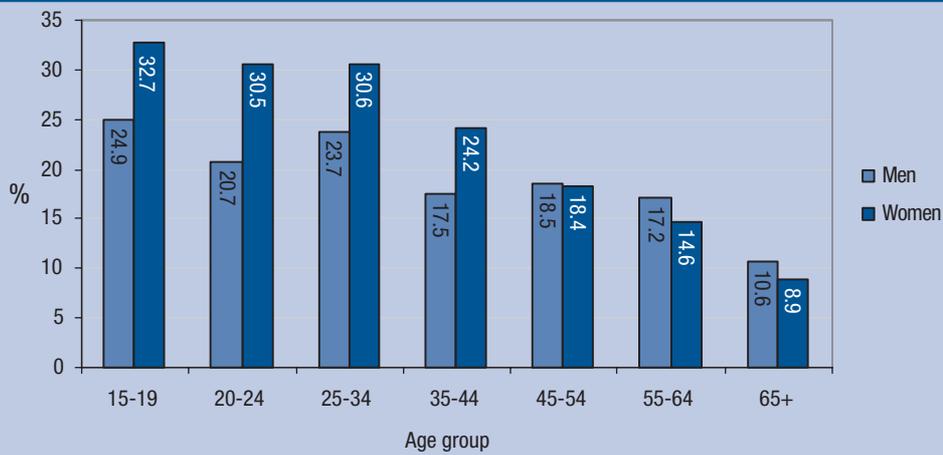
Note: Population weighted results.

Figure 8: Children happier living with both mum and dad



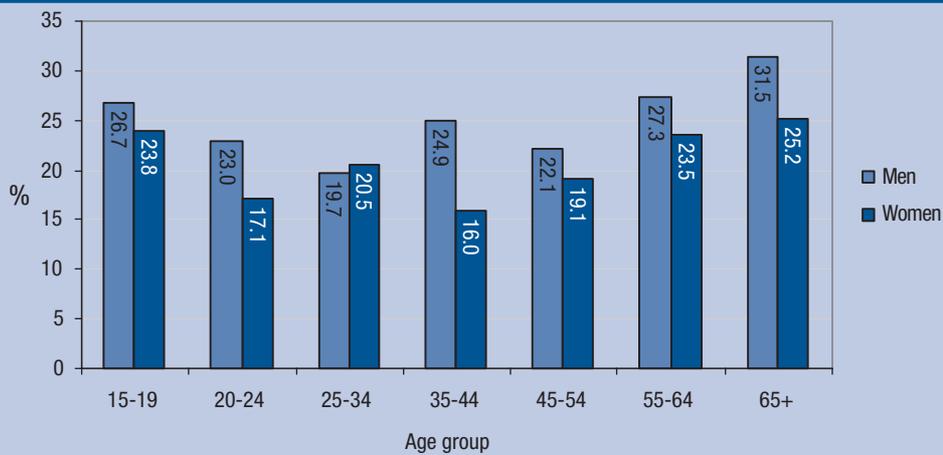
Note: Population weighted results.

Figure 9: Alright for a woman to have a child as a lone parent



Note: Population weighted results.

Figure 10: At 18-20 children should start to live independently



Note: Population weighted results.

Figure 9 shows the proportion of men and women who agreed with the statement *'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'*. Overall, 18.6% of men and 21.8% of women thought it was alright for a woman to be a lone mother and not want to be in a stable relationship with a man. For women, the proportion who agreed decreased with age, from 32.7% of teenage women to only 8.9% of women over the age of 65. In younger age groups (under 45) the proportion of women who agreed with this statement was much higher than that of men, but for men and women aged 45 and over, it was slightly more common for men than for women to say it was alright for a woman to be a lone mother.

The HILDA Survey data indicate that in 2005, 49.3% of men and 33.1% of women aged between 20 and 24 were still living at home, compared with 10.4% of men and 5.8% of women aged between 25 and 34. When asked if they agree with the statement *'When children are about 18–20 years old they should start to live independently'*, 24.8% of men and 20.6% of women agreed.

In most age groups it was more common for men than women to agree that children should start to live independently around the age of 18. For men, the proportion who agreed with the statement decreased from 26.7% of men aged between 15 and 19 (most of whom were still living in their parents' home) to 19.7% for men aged between 25 and 34, then rose to 31.5% of men aged 65 and over. Only 16% of women aged between 35 and 44 and 17.1% of women aged between 20 and 24 agreed with this statement, compared to 23.8% of teenage women and 25.2% of women aged 65 or older. Not surprisingly, compared to people who had already left home, it was less common for men and women in their early twenties who were still living in their parents' home to agree that children should start to live independently around the

age of 18–20. Only 13.9% of men and 9% of women aged between 20 and 24 who were still living in their parent's home agreed with the statement, compared with 31.5% of men and 21.1% of women in the same age group who had already left home.

Concluding points

Older people had more traditional views about de facto relationships; marriage being a lifetime commitment and the importance of having children. However, the proportion of people aged between 55 and 64 who agreed that it was alright to get a divorce, even if you have children, was higher than the proportion of teenagers who agreed with that statement. In general, men had more conservative views than women about the rights of homosexual couples, the importance of marriage and women choosing to have children without being in a stable relationship.

Endnote

- 1 In this article, people who 'agreed' are those who gave a rating of 6 or 7 out of 7.

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Changes in marital status and marriage satisfaction: 2001–2005

The divorce rate in Australia is increasing, and eventually about 32% of marriages end in divorce (ABS, 2006). In 2005, 52,399 couples got divorced in Australia, an increase of 5.4% on the number granted in 1995, and a 31.6% increase on the number granted in 1985 (ABS, 2006). These figures might give rise to the impression that many marriages are unhappy for years before they eventually founder. However, the HILDA Survey Data indicate that only about 2% of marriages end each year, and it is likely that many marriages are happy for years before one or both partners becomes dissatisfied and initiates separation.¹

In the previous HILDA Survey Statistical Report (Headey and Warren, 2007) we found that 93.8% of people who were married in 2001 were still married in 2004; 97.7% of people who were widowed in 2001 retained that status in 2004; 12.9% of people who were single and had never married in 2001 had moved into a de facto relationship by 2004; 58.5% of the separated individuals who changed status between 2001 and 2004 proceeded with a divorce; and most of the 22.2% of de factos who got married since 2001 married the person they were already living with. Table 1 summarises the changes in marital status among respondents interviewed in both 2001 and 2005.²

In the five years from 2001 and 2005, the most stable group were the widowed, with 98% retaining

that status in 2005. Of those who were married in 2001, 93.2% were still married in 2005 (99.3% to the same person). 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 since 2001 had proceeded with a divorce, and almost all of the 28.7% of de facto couples who got married since 2001 married the person they were living with. Of those who were in a de facto relationship in both years, 89.9% were still living with the same partner. Just over 20% of people who were never married and not living with a partner in 2001 had a partner by 2005, 12.6% had moved into a de facto relationship and 9.2% were married.

Relationship satisfaction

In last year's Statistical Report we also found that, compared to men and women in de facto relationships, relationship satisfaction was higher, on average, among men and women who were married. In 2005 this was still the case—the average level of relationship satisfaction for married men was 8.5 out of 10, compared to 8.1 out of 10 for men in de facto relationships.³ For women, the average level of relationship satisfaction was only slightly higher for married women—8.2 out of 10 compared to 8.1 out of 10 for women in a de facto relationship. Table 2 compares the relationship

Table 1: Changes in marital status, 2001–2005 (%)

Marital status in 2001	Marital status in 2005						Total
	Married	De facto	Separated	Divorced	Widowed	Never married and not de facto ^a	
Married	93.2	0.7	2.3	1.3	2.5	–	100.0
De facto	28.7	54.1	2.3	3.8	*0.3	10.8	100.0
Separated	8.1	11.9	45.6	28.9	*5.4	–	100.0
Divorced	6.9	6.7	0.8	81.0	4.6	–	100.0
Widowed	*0.4	*0.0	*0.0	*1.6	98.0	–	100.0
Never married and not de facto	9.6	12.6	*0.6	*0.2	*0.0	77.1	100.0
Total	54.8	9.2	2.9	6.1	6.5	20.5	100.0

Notes: Population weighted results. * Estimate not reliable. ^a People who had never been married and were not living in a de facto relationship at the time of interview.

Table 2: Relationship satisfaction, 2005 (%)

	Satisfaction with relationship with partner			Total
	Low (0–3)	Medium (4–7)	High (8–10)	
Men—married	2.9	16.7	80.4	100.0
Men—de facto	3.5	20.7	75.8	100.0
Women—married	4.0	21.5	74.5	100.0
Women—de facto	3.3	26.6	70.2	100.0

Note: Population weighted results.

satisfaction of married men and women with those in de facto relationships in 2005.

Just over 80% of married men reported high levels of relationship satisfaction, compared to 75.8% of men in de facto relationships. Only 70.2% of women in de facto relationships reported high levels of relationship satisfaction, compared to 74.5% of women who were married.

Marital status and life satisfaction

Lucas (2007) found that, in terms of life satisfaction, marriage 'buoyed the spirits for about two years', but people do not get a lasting boost in life satisfaction from getting married. Table 3 compares the average life satisfaction and men and women according to their marital status and the duration of their relationship if they are married or living with a partner.

There does not appear to be any difference in average life satisfaction for men who have been married for less than 2 years and men who have been married longer, although average life satisfaction is slightly lower for men who were in de facto relationships compared to men who were married. Men who were separated had lower levels of life satisfaction (7.1 out of 10), but men who had proceeded with a divorce seemed to recover somewhat, with average life satisfaction of 7.6 out of 10.

Women who were married for less than 2 years had the highest average life satisfaction, and com-

pared to other women in this group, average life satisfaction was slightly lower for women who had been married for 2 years or more and for women who were in de facto relationships. For women who were separated or divorced, average life satisfaction was only 7.2 out of 10.

For both men and women, those who were widowed had the highest average life satisfaction. However, it should be noted, that this is an 'age effect' rather than a 'causal effect'. That is, it is not generally the case that being widowed causes higher average life satisfaction, but the fact that older people generally report higher levels of life satisfaction, and are also more likely to be widowed than younger people.

Table 4 shows the average levels of relationship satisfaction for men and women who were either married or living with a partner in 2005. On average, men and women who have been married for less than 2 years report the highest levels of relationship satisfaction—8.8 out of 10 for men and 9 out of 10 for women. For men, average relationship satisfaction dropped to 8.5 out of 10 after 2 years of marriage, but the average was the same for men who had stayed married for 5 years or more. Average relationship satisfaction also dropped to 8.5 out of 10 for women who had been married for between 2 and 5 years, and down to 8.1 out of 10 for women who had been married for 5 years or longer. For men in de facto relationships, average satisfaction with the

Table 3: Life satisfaction by age and marital status, 2005 (means)

<i>Relationship status</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Married less than 2 years	7.9	8.3	8.1
Married 2–5 years	8.0	7.9	8.0
Married 5 years or more	7.9	8.1	8.0
De facto less than 2 years	7.7	8.1	7.9
De facto 2–5 years	7.6	7.8	7.7
De facto 5 years or more	7.9	7.9	7.9
Separated	7.1	7.2	7.1
Divorced	7.6	7.2	7.3
Widowed	8.1	8.2	8.2
Single and never married	7.8	7.8	7.8
Total	7.8	7.9	7.9

Note: Population weighted results.

Table 4: Relationship satisfaction by duration of relationship, 2005 (means)

<i>Relationship status in 2005</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Married less than 2 years	8.8	9.0	8.9
Married 2–5 years	8.5	8.5	8.5
Married 5 years or more	8.5	8.1	8.3
De facto less than 2 years	8.5	8.6	8.5
De facto 2–5 years	8.2	8.2	8.2
De facto 5 years or more	8.1	7.7	7.9
Total	8.3	8.0	8.2

Note: Population weighted results.

relationship was 8.5 out of 10 for men who had been living with their partner for less than 2 years, and 8.1 out of 10 for men who had been in a de facto relationship for 5 years or more. For women in de facto relationships, average relationship satisfaction ranges from 8.6 out of 10 for women who have lived with their partner for less than 2 years, to only 7.7 for women who had been in a de facto relationship for 5 years or more.

Conclusion

Compared to people in de facto relationships, men and women who are married have, on average, slightly higher levels of overall life satisfaction. On average, life satisfaction was highest in the first two years of marriage, and for those in de facto relationships, average life satisfaction was also highest during the first two years.

Endnotes

- 1 2.1% of people who were married in 2001 were no longer married (i.e. separated, divorced or widowed) in 2002, and 2.0% of people who were married in 2002 were no longer married in 2003.
- 2 It should be noted that the term 'legally married' was used in the HILDA Survey questionnaire in 2001, but

was changed to 'registered marriage' in 2002 and subsequent years to be consistent with the ABS definition of marriage. 96.8% of people who were in a de facto relationship in 2001 and married in 2005 had married the person they were living with in 2001.

- 3 The difference in relationship satisfaction for married and de facto men is statistically significant at the 5% level, but the difference in relationship satisfaction between married women and women in de facto relationships is not statistically significant.

References

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- Headey, B.W. and Warren, D., 2007, *Families, Incomes and Jobs, Volume 2: A Statistical Report on Waves 1 to 4 of the HILDA Survey*, Melbourne Institute of Applied Economic and Social Research, Melbourne.
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Couples living apart

About one-quarter of all single adults in Australia are not actually alone, they just do not live with their partner. The 2005 HILDA Survey has revealed that 1,264,000 single Australian adults had a regular partner who lived in a different household. This represented 13% of all adults who were in a couple relationship (living together or not) and 24% of all adults who were living in a single state (not married and not in a cohabiting relationship). Questions about couples living apart were included for the first time in the 2005 HILDA Survey as a component of the international survey programme on Generations and Gender coordinated by the United Nations Economic Commission for Europe. The incidence of couples living apart in Australia is very similar to that found in a recent British survey (Haskey,

2005). Table 1 shows the proportion of single adults in ongoing non co-residential relationships.¹

Not unexpectedly, most Australian singles that had a partner living elsewhere were young with 548,000 aged 18–24 and 352,000 aged 25–34. Around one-third of all singles under the age of 35 had a partner living elsewhere and their relationships were relatively new, being under two years duration on average. Nevertheless, 22% (282,000) of singles aged 35–54 and 6% (81,000) of singles aged 55 and over had a partner living elsewhere.

Some people who are not currently living with their partner may decide to do so in the future, but for others a definite choice has been made not to live together. Table 2 shows the proportion of

Table 1: Characteristics of single adults in ongoing non co-residential relationships, 2005

	Age group				Total
	18–24	25–34	35–54	55+	
Population of Australia^a	1,922,570	2,851,972	5,699,323	4,596,298	15,070,164
Single persons	1,528,656	1,046,696	1,295,202	1,453,745	5,324,299
Single persons in an ongoing non co-residential relationship	547,988	352,052	282,462	81,094	1,263,596
In an ongoing non co-residential relationship? (% of singles)					
Yes	36.1	33.3	21.6	6.0	23.8
No	63.9	66.7	78.4	94.0	76.2
Average length of relationship (years)	1.5	1.8	3.0	5.0	2.1
<i>Notes: Population weighted results. ^a Data weighted to population numbers.</i>					

men and women in non co-residential relationships who said that they or their partner had made a definite decision not to live together, at least for the time being (Table 2).

Around 60% of men and women who had a non co-residential partner said that there had been a definite decision not to live together. The proportion who had made this decision increased with age; from 45.9% of men and 59.7% of women aged between 15 and 24 to around 77% of men and women aged 55 or older.

Table 3 shows that, compared to men and women whose non co-residential relationship had only recently started, it was much more common for people who had been in a non co-residential relationship for several years to say that a definite decision had been made not to live together. It is plausible that most people would want to take some time to decide whether or not to move in together.

Only 42.1% of men and 54.2% of women whose non co-residential relationship began less than six months ago said that a definite decision not to live

together had been made, compared to 62.6% of men and 72.5% of women whose relationship had been going for between two and five years, and 85.2% of men and 62.9% of women whose relationship had lasted five years or longer.

People who said that a definite decision had been made not to live with their partner were then asked who had made that decision. Table 4 shows that most respondents (82.8% of men and 80% of women) said that the decision not to live together was a joint one.

It was more common for women than men to say that they had made the decision not to live with their partner, with 16.9% of women and 12.4% of men saying they had made this decision. It was quite unusual for people to say that they had no influence on the decision. Only 4.7% of men and 3.1% of women said the decision to live apart was made solely by their partner.

For some, non co-residential relationships are not a permanent decision. Many people in non co-residential relationships intend to live together in the future, even those who have made a definite

Table 2: Definite decision not to live together, by gender and age group, 2005 (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
Men	45.9	53.4	63.4	65.4	76.7	54.7
Women	59.7	60.7	68.3	76.1	76.9	63.5
Total	53.2	56.3	65.5	71.1	76.8	58.8

Note: Population weighted results.

Table 3: Definite decision not to live together, by gender and length of relationship, 2005 (%)

	Length of relationship					Total
	Less than 6 months	6 months to < 1 year	1 to < 2 years	2 to < 5 years	5 years or more	
Men	42.1	55.2	48.6	62.6	85.2	55.9
Women	54.2	61.0	60.3	72.5	62.9	62.1
Total	47.8	57.9	55.0	66.6	73.5	58.9

Note: Population weighted results.

Table 4: Whose decision not to live together, by gender and age group, 2005 (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
Men						
My decision	*11.9	*10.4	*21.0	*15.3	*5.8	12.4
Partner's decision	*1.0	*3.5	*5.6	*8.8	*13.7	4.7
Joint decision	87.1	86.2	73.3	75.9	80.4	82.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Women						
My decision	*8.0	*18.2	*32.5	*23.6	*38.9	16.9
Partner's decision	*4.9	*0.0	*3.9	*2.7	*0.0	3.1
Joint decision	87.1	81.8	63.6	73.7	*61.1	80.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Intend to start living together during the next 3 years, by gender and age group (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
Men						
Definite decision not to live together now	63.1	66.8	66.6	*56.1	*18.4	58.9
No decision not to live together now	70.5	79.6	*49.1	*52.5	*41.1	68.5
Total	67.1	72.6	60.2	54.9	*23.0	63.0
Women						
Definite decision not to live together now	70.4	79.3	53.9	*35.6	*14.3	63.0
No decision not to live together now	80.5	95.4	*81.6	*35.6	*62.3	80.8
Total	74.4	85.7	62.9	35.6	*25.3	69.4

Notes: Population weighted results. * Estimate not reliable.

Table 6: Likelihood of marrying partner in the future, by gender and age group, 2005 (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
Men						
Definite decision not to live together now	73.5	77.5	48.5	*16.1	*19.7	58.6
No decision not to live together now	57.4	62.2	*37.0	*19.7	*24.0	52.8
Total	64.8	70.4	44.3	*17.3	*20.0	55.8
Women						
Definite decision not to live together now	75.1	56.1	*23.9	*14.5	*7.1	53.1
No decision not to live together now	70.9	72.0	56.1	37.0	30.7	66.2
Total	73.4	62.4	34.1	*19.9	*12.5	57.8

Notes: Population weighted results. * Estimate not reliable.

decision not to live together for the time being. Table 5 shows the proportion of people who were in non co-residential relationships who said they intend to start living together in the next three years, broken down by whether they had made a definite decision not to live together for the time being or not.

Overall, 63% of men and 69.4% of women said they intended to start living with their partner within the next three years. This was particularly the case among individuals aged between 25 and 34. In this age group 79.6% of men and 95.4% of women said they intended to move in with their partner. Their current relationship may perhaps be regarded as an extension of 'dating' and what used to be termed 'going steady'; it is a precursor to cohabitation or marriage. For some people in this age group, it may also be a case of saving enough money to move out of a parental home and set up their own place.

How many people who are currently in non co-residential relationships intend to get formally married? Table 6 shows the proportion of men and

women who said that it was likely that they would eventually marry, again broken down by whether or not they had made a definite decision not to live together for the time being.²

Well over half of both men and women who had a non-resident partner said it was likely that they would marry in the future. It was more common for young people to say that they would marry, with 73.5% of men and 75.1% of women aged between 15 and 24 and 77.5% of men and 56.1% of women aged between 25 and 34 saying that it was likely they would do so. By contrast, a substantial proportion of men and women aged 35 and over (46.4% of 35 to 44 year olds, 78.8% of people aged between 45 and 54, and 89.6% of people aged 55 and over) who were not living with their current partner were separated, divorced or widowed and had presumably made the decision not to marry again.

How much time do people spend with partners who they are not living with? Table 7 shows that most people saw their partner several times a week.

Table 7: How often do you see your partner, by age group, 2005 (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
Every day	30.4	21.6	23.9	16.3	*13.0	24.7
4-6 times a week	36.7	34.9	26.3	30.3	*22.5	33.4
2-3 times a week	21.3	28.5	32.9	26.9	32.3	25.9
Once a week	5.3	*2.8	*7.2	*11.2	*6.5	5.5
2-3 times a month	*1.6	*1.9	*2.5	*7.1	*9.6	2.8
Once a month or less	*4.7	*10.4	*7.2	*8.3	*16.1	7.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 8: Where does your partner live, by age group, 2005 (%)

	Age group					Total
	15-24	25-34	35-44	45-54	55+	
In the same town or city	85.5	78.2	72.2	61.1	60.1	77.2
In the same state, in a different town or city	12.6	*11.1	*20.4	*22.4	*29.7	15.5
In a different state	*0.7	*1.4	*3.1	*7.9	*7.2	*2.4
Overseas	*1.2	*9.3	*4.4	*8.6	*3.0	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Most people with non co-residential partners (89.5%) said they saw their partner at least once a week, with 24.7% seeing their partner every day, 33.4% seeing their partner 4 to 6 times a week, and 25.9% seeing their partner 2 or 3 times a week. Younger people had more contact with non co-residential partners than older people. Just over 30% of people aged between 15 and 24 who had a non co-residential partner saw their partner every day, and 36.7% of people in this group saw their partner 4 to 6 times a week.

Of course, how often people see their non co-residential partner depends on how far away that partner lives. Table 8 shows that most people's non co-residential partners live in the same town or city.

Almost 80% of men and women with a non co-residential partner reported that their partner lived in the same town or city. Around 15% had partners who lived in the same state, but in a different town, and 7.3% had a partner who lived either in a different state or overseas. The proportion of people whose partner lived in the same town as themselves decreased with age, from 85.5% of 15 to 24 year olds to 60.1% of people aged 55 or older.

How satisfied are people with their non co-residential relationship?

In last year's HILDA Statistical Report we found that, compared to men and women in de facto relationships, relationship satisfaction was higher among men and women who were formally married. We can now ask about the satisfaction levels of individuals in non co-residential relationships.

HILDA respondents rate their relationship with their partner on a scale from 0 to 10, with 0 meaning 'completely dissatisfied' and 10 meaning 'completely satisfied'. Table 9 compares the relationship satisfaction of men and women in three groups: those who are married, those in cohabiting de facto relationships and those in non co-residential relationships.

Men and women in non co-residential relationships were less satisfied than either married people or those in de facto relationships. In fact, relationship satisfaction for men and women aged between 25 and 34 who were not living with their partner was substantially lower than for people in the same age group who were living with their partner. For men in this age group who were not living with their partner, average relationship satisfaction was 7.3 out of 10, compared to 8.2 for men in de facto relationships and 8.6 for men who were married. Average relationship satisfaction for women aged between 25 and 34 who were not living with their partner was 6.9, compared to 8.3 for women in a de facto relationship and 8.5 for married women. In age groups 35-44 and 45-54, differences were in the same direction although less large. But in the oldest age group (55 and over) the differences were again quite sharp. Average relationship satisfaction for men aged 55 and over who were not living with their partner was 7.6, compared to 8.5 for men in de facto relationships and 8.9 for married men. For women aged 55 and over, average relationship satisfaction was 8.5 among those who were married, 8.3 for those in a de facto relationship and 7.0 for women who were non co-residential.

Table 9: Relationship satisfaction, by gender, age group and marital status, 2005 (means)

	Age group					Total
	15–24	25–34	35–44	45–54	55+	
Men						
Married	9.0	8.6	8.0	8.3	8.9	8.5
De facto	8.5	8.2	8.1	8.0	8.5	8.2
Non co-residential	8.0	7.3	7.4	7.7	7.6	7.6
Total	8.2	8.3	8.0	8.2	8.9	8.4
Women						
Married	9.4	8.5	7.8	8.0	8.5	8.2
De facto	8.4	8.3	7.6	7.8	8.3	8.1
Non co-residential	8.2	6.9	7.2	7.1	7.0	7.6
Total	8.4	8.3	7.8	7.9	8.5	8.1

Note: Population weighted results.

Concluding points

In 2005 more than 20% of adults who were not married and not living in a de facto relationship were in an ongoing relationship with someone they were not living with. Most people who were not living with their partner saw him/her several times a week and about 25% saw their partner every day. Around 60% of men and women who had a non co-residential partner reported that there had been a definite decision not to live together, at least for the time being. However, more than 60% said that they intended to live with their partner in the near future. Compared to men and women who were married or de facto, relationship satisfaction among men and women who did not live with their partner was substantially lower.

Endnotes

- 1 Less than 2% of non co-residential relationships were same sex relationships.
- 2 Note that the question asks about the likelihood of getting married in the future, but does not directly ask about the likelihood of marrying their current partner. Respondents are asked to rate on a scale of 1 to 5 how likely it is that they would ever marry or remarry in the future, with 1 meaning 'very likely' and 5 meaning 'very unlikely'. The percentages in Table 6 show the proportion who said it was either likely or very likely that they would marry in the future.

Reference

Haskey, J., 2005, 'Living arrangements in contemporary Britain: Having a partner who usually lives elsewhere and living apart together (LAT)', *Population Trends*, vol. 122, pp. 35–45.

Fertility: Behaviour and intentions, 2005

As in most other Western nations, women in Australia are having fewer children. Until recently, Australia had been experiencing a long period of fertility decline. The average number of children that women have has fallen from 3.5 in 1961, to 1.7 in 2001 and since then has remained relatively stable, with an average of 1.8 children in 2004 (ABS, 2007). This trend is reflected in the HILDA Survey, with younger females having, and planning to have, fewer children than earlier generations.

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 (for example, a boy followed by a girl). Demographers are acutely interested in fertility intentions as one factor determining likely future population levels. Fertility intentions were asked in detail for the first time in the HILDA Survey in 2005.

In 2005, women between the age of 18 and 44, men over 18 with a female partner under the age of 45 and single men aged between 18 and 54 were asked:¹

Would you like to have a child of your own/more children in the future?

This question was answered on a 0 to 10 scale where 0 meant 'definitely not' and 10 meant 'definitely would'. Then, on a similar scale, respondents were asked:

And how likely are you to have a child/more children in the future?

A final question asked how many children the respondent intended to have in the future.

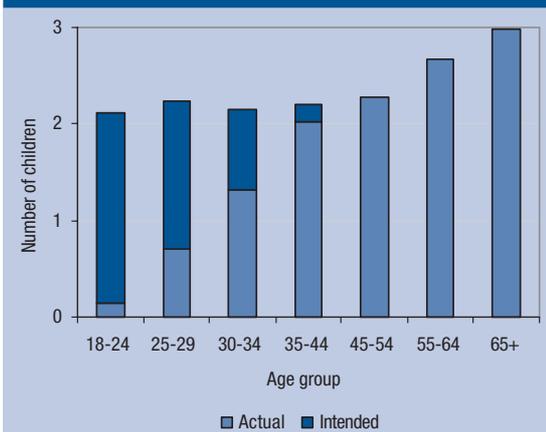
Figure 1 relates to women only. For women in younger age groups (age 18–44) it shows both the number of children they already have and the number they intend to have eventually. For the older age groups (age 45 and over) only actual fertility is shown. The evidence indicates that, while women aged 65 years and over have had an average of 3 children, women aged between 18 and 34 are now planning to have only 2 children. The average number of intended children for women aged between 18 and 24 was 2.1, and 2.2 for women aged 25 to 44.

In the first HILDA Statistical Report (Headey, Warren and Harding, 2005) a tendency for men to desire fewer children than women was identified. However, if one compares the evidence for men in Figure 2 with the evidence already given for women, it is clear that in the two youngest age groups fertility intentions are now on average almost identical.

In the 18–24 age group both men and women mostly intended to have two children; the statistical average being 2.1. In the 25–29 age group there was also almost no gender difference, with the statistical average being 2.2 for both men and women. Only in the 30–34 and 35–44 age groups was there a very slight tendency for men to want fewer children. However, there is some evidence (see Table 1) that rather more men than women, especially in older age groups, do not want to have any children.

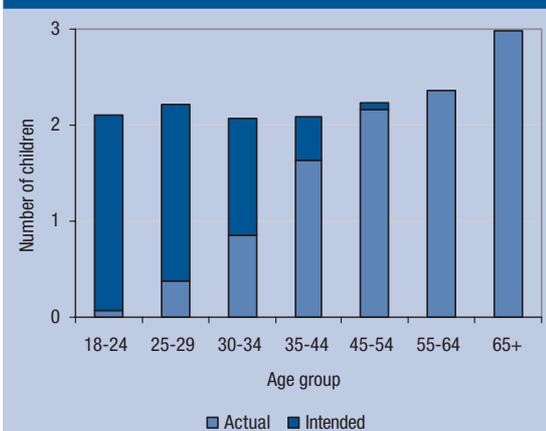
While the majority of people do intend to have children eventually, for many their plans do not relate to the immediate future. Table 1 shows when men and women aged between 18 and 44, who currently have no children, intend to have their first child.

Figure 1: Actual and intended number of children, women in 2005 (means)



Note: Population weighted results.

Figure 2: Actual and intended number of children, men in 2005 (means)



Note: Population weighted results.

Table 1: When do you intend to have your first child? Men and women 18–44, 2005 (%)

	<i>When intend to have first child</i>			<i>Total</i>
	<i>Within 3 years</i>	<i>Within 4–5 years</i>	<i>6 or more years from now</i>	
Men				
18–24	12.2	27.7	60.1	100.0
25–29	37.9	42.1	20.1	100.0
30–34	60.1	24.0	*15.8	100.0
35–39	61.8	*29.2	*9.0	100.0
40–44	69.3	*26.4	*4.3	100.0
Women				
18–24	16.3	32.5	51.2	100.0
25–29	48.2	37.4	14.4	100.0
30–34	72.3	26.3	*1.4	100.0
35–39	74.9	*19.2	*6.0	100.0
40–44	*87.4	*12.6	–	100.0

Notes: Population weighted results. * Estimate not reliable.

Most men and women aged between 18 and 24 who said they wanted children said that having their first child was at least four years away, and over 60% of men and more than 50% of women in this age group said they did not intend to have their first child for at least six years. The proportion of men in their late twenties who said they wanted to have their first child in the next three years was 37.9%, and for women in their late twenties it was 48.2%. Over 60% of men and 70% of women aged between 35 and 44 who want children but do not have already have them said they intended to have a child within three years.

Men and women aged between 18 and 44 who said they intended to have children, or more children if they already had children, were asked what factors were important when making the decision about whether to have a child. Respondents were

asked to rate the importance of the statements shown in Table 2 on a scale of 1 to 4, with 1 meaning 'not important' and 4 meaning 'very important'. The distribution of responses is shown in Table 2.

For women, age was very important in the decision about whether to have another child, with around 30% of women saying how old they are was very important, compared to around 20% of men. Compared to men and women who already had children, being able to buy a better home, being able to make major purchases and giving their parents grandchildren was more important in the decision to have children for those men and women who were not yet parents. Just over 40% of women who had not yet had any children said that the security of their own or their partner's job was very important. Child care was an important factor for men and women regardless of whether they

Table 2: Factors important in the decision about whether to have a child/more children, men and women aged 18–44, 2005 (%)

	<i>Not important</i>	<i>Of limited importance</i>	<i>Important</i>	<i>Very important</i>	<i>Total</i>
How old you are					
Men—no children yet	22.8	22.2	34.9	20.0	100.0
Men—already parents	29.7	21.9	30.8	17.6	100.0
Women—no children yet	13.7	13.6	43.7	29.1	100.0
Women—already parents	22.4	15.5	31.3	30.9	100.0
The stress and worry of raising children					
Men—no children yet	20.3	26.0	34.2	19.6	100.0
Men—already parents	22.3	28.6	31.9	17.2	100.0
Women—no children yet	16.1	24.2	36.0	23.7	100.0
Women—already parents	15.5	21.9	34.8	27.8	100.0
Being able to buy a home or a better home					
Men—no children yet	12.5	16.9	35.3	35.3	100.0
Men—already parents	24.9	25.0	31.6	18.6	100.0
Women—no children yet	11.5	20.2	34.4	34.0	100.0
Women—already parents	25.7	24.3	28.5	21.5	100.0

CONTINUED ON PAGE 17

TABLE 2 CONTINUED FROM PAGE 16

	<i>Not important</i>	<i>Of limited importance</i>	<i>Important</i>	<i>Very important</i>	<i>Total</i>
<i>Being able to make major purchases</i>					
Men—no children yet	13.5	30.0	37.1	19.4	100.0
Men—already parents	23.6	35.6	29.8	10.9	100.0
Women—no children yet	13.9	32.2	35.5	18.5	100.0
Women—already parents	27.1	34.4	28.1	10.4	100.0
<i>Having time for leisure and social activities</i>					
Men—no children yet	9.5	27.4	39.9	23.2	100.0
Men—already parents	11.6	28.2	40.7	19.4	100.0
Women—no children yet	9.8	30.3	39.4	20.6	100.0
Women—already parents	15.8	35.3	34.2	14.7	100.0
<i>Giving your parents grandchildren</i>					
Men—no children yet	31.2	28.6	25.9	14.4	100.0
Men—already parents	53.9	24.8	13.6	7.7	100.0
Women—no children yet	33.1	26.3	23.7	16.9	100.0
Women—already parents	58.7	20.8	12.9	7.7	100.0
<i>Having someone to care for you when you are old</i>					
Men—no children yet	33.5	28.0	23.6	14.9	100.0
Men—already parents	44.0	26.6	18.9	10.5	100.0
Women—no children yet	32.3	26.0	22.2	19.6	100.0
Women—already parents	45.3	22.1	19.6	13.0	100.0
<i>Having someone to love</i>					
Men—no children yet	10.2	12.6	34.9	42.4	100.0
Men—already parents	15.3	11.5	29.1	44.1	100.0
Women—no children yet	12.2	12.7	31.3	43.8	100.0
Women—already parents	16.7	12.3	23.0	48.1	100.0
<i>Providing more purpose to life</i>					
Men—no children yet	12.4	17.8	41.3	28.5	100.0
Men—already parents	18.0	14.7	37.5	29.8	100.0
Women—no children yet	15.3	18.8	36.5	29.5	100.0
Women—already parents	17.1	16.7	32.9	33.4	100.0
<i>Having time and energy for your career</i>					
Men—no children yet	12.6	26.9	42.9	17.6	100.0
Men—already parents	23.0	30.0	33.1	13.9	100.0
Women—no children yet	13.7	29.1	39.0	18.3	100.0
Women—already parents	28.7	28.2	30.0	13.1	100.0
<i>Your spouse or partner having time and energy for a career</i>					
Men—no children yet	11.0	23.4	44.7	21.0	100.0
Men—already parents	18.8	29.3	37.3	14.6	100.0
Women—no children yet	8.3	20.2	48.0	23.4	100.0
Women—already parents	17.7	22.1	42.0	18.2	100.0
<i>The security of your or your partner's job</i>					
Men—no children yet	13.0	16.1	36.6	34.4	100.0
Men—already parents	19.8	19.4	31.5	29.3	100.0
Women—no children yet	9.1	12.5	38.3	40.1	100.0
Women—already parents	19.4	16.6	31.0	33.0	100.0
<i>The availability and affordability of good quality child care</i>					
Men—no children yet	15.7	19.7	33.4	31.2	100.0
Men—already parents	22.0	17.3	31.7	29.0	100.0
Women—no children yet	11.5	17.0	33.7	37.9	100.0
Women—already parents	24.2	16.7	27.9	31.2	100.0

Note: Population weighted results.

Table 3: Preferred gender of next child, 2005 (%)

	Preferred gender of next child			Total
	Boy	Girl	Doesn't matter	
Men				
No children	34.4	5.0	60.7	100.0
Only boys	*9.1	25.7	65.3	100.0
Only girls	44.3	*4.7	51.0	100.0
At least one boy and one girl	*17.9	*7.2	74.9	100.0
Total	32.0	7.0	61.1	100.0
Women				
No children	22.2	15.6	62.2	100.0
Only boys	*3.5	38.2	58.3	100.0
Only girls	24.7	*8.3	67.0	100.0
At least one boy and one girl	*12.8	*16.0	71.2	100.0
Total	19.6	17.6	62.8	100.0

Notes: Population weighted results. * Estimate not reliable.

already had children, with 71.6% of women and 64.6% of men who were not yet parents and 59.1% of women and 60.7% of men who were already parents saying that the availability and affordability of good quality child care was either important or very important in their decision about whether to have a child (or another child). It is also interesting to note that the proportion of men and women who said that being able to buy a home, make major purchases, having the time and energy for their career and giving their parents grandchildren was very important was quite similar once whether or not they already had children was controlled for.

Some of the responses about the factors important in the decision whether to have a child or another child differed substantially with age. For example, 37.2% of women aged between 35 and 44 who had not yet had children and 43.4% of women aged between 35 and 44 who already had children said how old they were was very important in the decision about whether to have a child, compared to 28.2% of women aged between 18 and 34 who were not yet mothers and 18.9% of women aged between 18 and 34 who already had children. Overall, compared to men and women aged between 18 and 34, a higher proportion of men and women aged between 35 and 44 said age and the stress and worry of raising children were very important. On the other hand, the other factors described in Table 2, such as being able to buy a home or a better home and having the time and energy for a career were more important for men and women aged between 18 and 34 than they were for men and women aged between 35 and 44.

Is there a gender preference?

In many countries there has traditionally been a preference for male children. Table 3 summarises the responses of men (aged 18–54 or had a partner aged 18–44) and women (aged 18–44) who were asked whether they would prefer their next child to be a boy or a girl. In some 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(s) of their existing children.

While over 60% 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—34.4% of men who had not already had a child wanted their first child to be a boy, compared with 5.0% who wanted a girl; 22.2% of women who had not had children said they first wanted a boy and 15.6% wanted a girl.

There is also some evidence of a desire for at least one boy and one girl, with 44.3% of men and 24.7% of women with at least daughter and no sons saying that they would prefer that their next child be a boy, and 25.7% of men and 38.2% of women who had at least one son and no daughters saying they would like their next child to be a girl.²

How many do not intend to have children at all?

In 2003 we found that, compared to women, quite a lot of men did not intend to have children.³ Table 4 shows that in 2005 the proportion of men aged between 18 and 44 who said they did not intend to have any children was higher than that

Table 4: Men and women who do not have children and do not intend to have children, 2005 (%)

Age group	Men	Women	Total
18–24	13.5	13.5	13.5
25–29	11.0	13.1	12.0
30–34	14.3	9.4	11.8
35–44	14.7	10.0	12.3
Total (18–44)	13.7	11.2	12.5

Note: Population weighted results.

of women, but not by very much. In the older age groups the difference was more marked.

In 2005, 11.2% of women and 13.7% of men aged between 18 and 44 said they did not intend to have any children. The proportion of men and women aged between 18 and 24 who said they did not intend to have any children was 13.5%, compared to 11% of men and 13.1% of women aged between 25 and 29, 14.3% of men and 9.4% of women aged between 30 and 34 and 14.7% of men and 10.0% of women aged between 35 and 44.

Medical reasons for not having children

Respondents were asked if, based on medical advice, they knew of any physical or health reason that would make it difficult for them (or their partner) to have children. 8.1% reported a medical reason that would make it difficult to have children.⁴ Respondents aged between 18 and 44 were also asked if they or their partner had ever had an operation such as a tubal ligation, hysterectomy or vasectomy, that makes it impossible to have children (or any more children). Table 5 shows that 13.9% said that they or their partner had had such an operation.

Overall, it was more common for women than men to have had an operation that prevents them from having any (more) children, with 11.3% of men and 16.4% of women saying they had undergone such an operation. The proportion of men and women who had an operation increased substantially with age, from less than 1% of men and women aged between 18 and 24 to 25.7% of men and 35.1% of women aged between 35 and 44.

It was much more common for men and women who already had children to have undergone an operation to prevent them having children, with 34.1% of men and 39.2% of women who had already had children saying they had undergone such an operation, compared to only 3.7% of men and 11.4% of women aged between 35 and 44 who had not had any children.

Birth control

Respondents who did not report any reasons why they would not be able to have children were then asked about birth control. Table 6 shows the proportion of men and women who said they used some form of contraception.⁵

Overall, 71.7% of men and 71.3% of women who were married or living in a de facto relationship said that they used some form of contraception, compared to 70% of men and 76.2% of women who were in an ongoing relationship but not living with their partner. Almost 50% of single men and 40.8% of single women used contraception. The proportion of men and women who said they used contraception decreased with age, particularly for men and women who were not living with a partner. Men and women who said that they currently used some type of contraception were asked what type of birth control they used. The responses are summarised in Table 7.

Condoms were the most common type of contraception used. More than 95% of single men who said they used some type of contraception said they used condoms. The contraceptive pill was the second most common type of contraception

Table 5: Had an operation that makes it impossible to have children, 2005 (%)

Age group	No children			Has children			All		
	Men	Women	All	Men	Women	All	Men	Women	All
18-24	*0.3	*0.6	*0.4	*2.2	*2.6	*2.4	0.4	0.8	0.6
25-29	*0.2	*0.5	*0.3	2.9	6.8	5.3	0.8	2.9	1.8
30-34	*2.4	*1.4	2.1	14.7	15.9	15.5	8.3	11.1	9.7
35-44	3.7	11.4	6.5	34.1	39.2	36.9	25.7	35.1	30.6
Total	1.2	2.1	1.6	25.7	28.3	27.2	11.3	16.4	13.9

Notes: Population weighted results. * Estimate not reliable.

Table 6: Use of contraception, 2005 (%)

Age group	Men				Women			
	Single	Non co-residential partner	Living with spouse or partner	All	Single	Non co-residential partner	Living with spouse or partner	All
18-24	50.5	74.8	78.1	60.7	40.4	79.4	72.6	60.3
25-29	52.1	65.6	73.8	64.1	55.7	86.9	76.3	71.6
30-34	48.4	67.0	72.8	66.2	39.3	68.9	67.9	61.8
35-44	38.6	62.9	68.8	60.0	29.4	56.0	70.4	61.2
Total	48.0	70.0	71.7	62.3	40.8	76.2	71.3	63.0

Note: Population weighted results.

Table 7: Type of contraception, 2005 (%)

Type of contraception	Men				Women			
	Single	Non co-residential partner	Living with spouse or partner	All	Single	Non co-residential partner	Living with spouse or partner	All
Condoms	95.6	70.2	43.0	61.8	47.1	54.0	61.6	57.5
Contraceptive pill	15.9	51.6	54.1	56.5	67.0	65.4	53.5	41.8
Withdrawal	6.8	*5.0	5.8	5.9	*0.4	*5.3	6.1	4.9
Implants (e.g. Norplant)	*0.8	*3.1	5.1	3.6	*6.5	*5.3	5.4	5.6
Injectables (e.g. Depo-Provera)	*0.0	*1.9	*2.4	1.7	7.6	*6.8	2.5	4.2
Safe period method (rhythm method)	*1.0	*0.8	2.9	2.0	*0.0	*1.5	4.9	3.4
Intra-uterine device (IUD)	*0.3	*0.0	3.1	1.8	*1.8	*1.5	3.8	3.0
Foam/cream/jelly/suppository	1.3	*0.4	*0.1	*0.5	*0.7	*0.0	*0.1	*0.2
Hormonal emergency contraception afterwards 'morning after pill'	*0.5	*1.6	*0.1	*0.5	*1.1	*0.8	*0.2	*0.5
Diaphragm	*0.3	*0.4	*0.1	*0.2	*0.4	*0.4	*0.2	*0.3
Persona	*0.0	*0.0	*0.0	*0.0	*0.0	*0.4	*0.1	*0.1
Other	*0.8	*0.8	*0.6	*0.7	*1.8	*0.8	*0.9	*1.0

Notes: Population weighted results. * Estimate not reliable. Multiple response question, columns do not add to 100.

used, with 67% of single women, 65.4% of women in non co-residential relationships and 53.5% of women who were living with a spouse or partner saying that they used the pill. Contraceptive injections such as Depo-Provera were more commonly used by single women than women who were living with a spouse or partner, while IUD and the rhythm method were more commonly used by women who were living with their partner.

Concluding points

In 2005, fertility preferences among women and men were almost identical. On average, men and women aged between 18 and 44 wanted to have two children. However, for many, having their first child was not something they planned to do in the near future. Most 18 to 24 year olds said having their first child was something they wanted to do at least six years from now. In making the decision about whether or not to have children, or to have another child, child care was an important factor for men and women regardless of whether they already had children.

Compared to men and women who already had children, being able to buy a better home; being able to make major purchases; and giving their parents grandchildren was more important in the decision to have children for men and women who were not already parents. Furthermore, compared to men and women aged between 18 and 34, a higher proportion of men and women aged between 35 and 44 said age and the stress and worry of raising children were very important, while other factors, such as being able to buy a home and having the time and energy for a career were more important for men and women aged

between 18 and 34 than they were for men and women aged between 35 and 44.

Endnotes

- 1 Men and women who were over 18 but still living at home with their parents were excluded from these fertility questions.
- 2 Kippen, Evans and Gray (2006) also found that, in Australia, mothers with two children of the same gender were more likely to have a third child than mothers with a son and a daughter, suggesting a desire for at least one son and one daughter.
- 3 In the 18–24 age group, 25.2% of men said they did not want any children, compared to 16.4% of women.
- 4 Women who were pregnant at the time of interview and men with a partner or spouse who was pregnant at the time of interview were not asked these questions.
- 5 The question asked was 'Do you (and your partner) use birth control measures? That is, are you using some form of contraception including natural methods such as the rhythm method?'

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- Kippen, R., Evans, A. and Gray, E., 2006, 'Parental desire for sons and daughters in a western industrial setting: Evidence and implications', ANU Working Papers in Demography No. 98, <<http://demography.anu.edu.au/Publications/WorkingPapers/98.pdf>>.

Parental leave

Australian parents are currently entitled to a period of up to 52 weeks of unpaid parental leave at the time of birth of a child. While female employees may take up to 52 weeks of unpaid maternity leave during or after their pregnancy, male employees are only entitled to one week of unpaid leave within a week of the birth of his child, and a longer period of continuous unpaid parental leave only if the father is to be the child's primary care giver (Andrews, 2006). Since 1993, working parents in permanent full-time jobs have had access to 52 weeks unpaid parental leave to be shared between the parents, and in 2000, this entitlement was extended to long-term casuals (Baird, 2004).¹

Furthermore, Australia is one of the few countries in the world to have no general provision for paid maternity leave. Figures from the Australian Bureau of Statistics show that in August 2005, only 43.7% of female employees and 34.5% of male employees were entitled to paid parental leave (ABS, 2007).

In 2005, HILDA Survey respondents with children aged 24 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 1 shows the proportion of men and women who were working before their children was born, by the year of birth of the child.²

The proportion of women who had worked at some time in the 12 months before having a baby

increased from 49.2% in 1983 to 66.6% in 2005. In most years between 1981 and 2005, over 90% 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 2 shows that the proportion of men and women who took (paid or unpaid) parental leave when their children were born has increased substantially.³

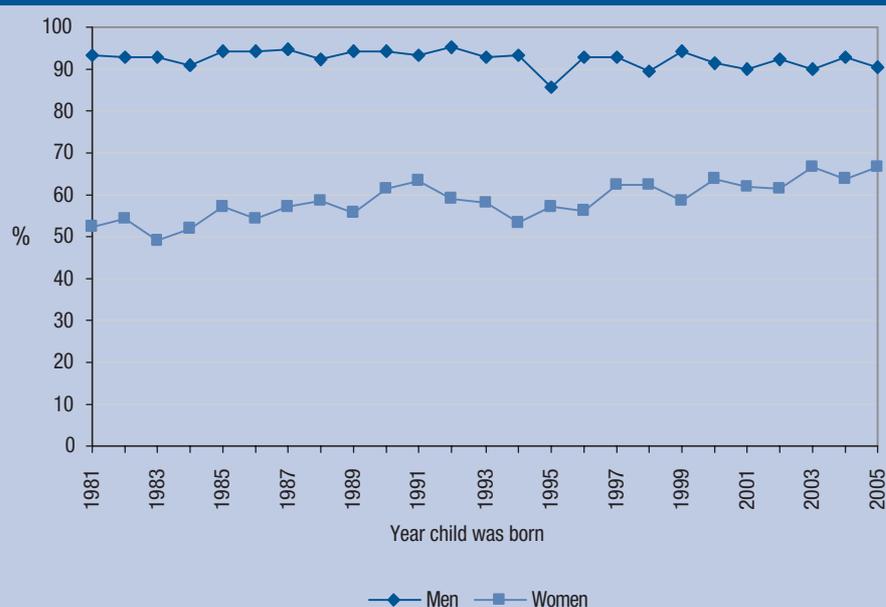
The proportion of women who were employed at some time in the 12 months before their child was born and then took formal maternity leave was 23.9% in 1982 and had risen to almost 60% by 2004. The proportion of men who took some paternity leave when their child was born increased from 6.9% in 1982 to 29.3% in 2005.

How long before the birth of a child do women stop working?

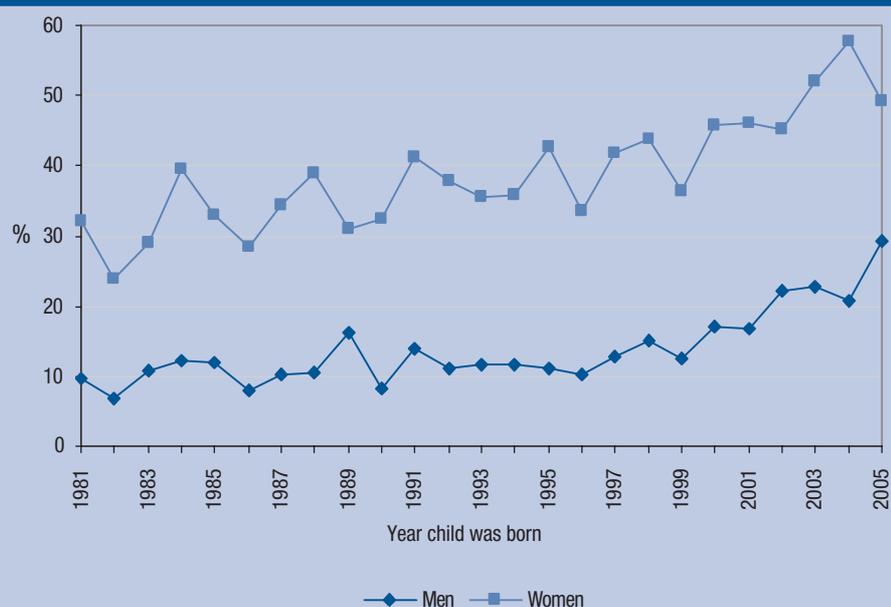
Women who were aged between 18 and 44 who had at least one child were also asked how long before the birth of their youngest child they stopped working, and when they returned to work after the birth of their youngest child. Table 1 shows the distribution of responses to the question 'How long before the birth (of your youngest child) did you stop paid employment?'⁴

The proportion of women who took no time off work at all before the birth of their youngest child has increased slightly in the last two decades, with 8.9% of women whose youngest child was born in 2001 or later saying they did not take any time off

Figure 1: Proportion of men and women who were employed in the 12 months before their child was born, 1981–2005



Note: Population weighted results.

Figure 2: Proportion of men and women who took formal parental leave when their child was born, 1981–2005

Note: Population weighted results.

Table 1: How long before the birth of your youngest child did you stop paid employment? Women aged 18–44 in 2005 (%)

	Year of birth of youngest child				Total
	1990 or before	1991–1995	1996–2000	2001–2005	
Did not stop work ^a	6.3	4.6	8.0	8.9	7.1
1–2 weeks	11.6	13.6	15.2	16.8	14.5
3–4 weeks	13.5	16.0	14.2	16.0	15.0
5–6 weeks	*5.1	7.0	5.4	9.3	6.8
7–8 weeks	7.7	7.3	9.1	10.0	8.7
9–12 weeks	10.5	9.4	7.9	8.0	8.8
13–26 weeks	*6.1	7.2	*3.8	10.0	6.9
27–52 weeks	*4.4	*5.4	*3.4	6.1	4.8
More than 12 months	34.8	29.6	33.1	14.9	27.5
Total	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable. ^a This category includes women whose baby was born earlier than expected.

Table 2: How long after the birth of your youngest child did you start paid employment again? Women aged 18–44 in 2005 (%)

	Year of birth of youngest child					Total
	1990 or before	1991–1995	1996–2000	2001–2003	2004–2005	
1 month or less	8.3	7.5	7.7	9.3	4.4	7.8
2–3 months	8.8	7.7	7.3	6.6	10.6	8.0
4–5 months	*3.2	*3.8	4.8	3.9	2.7	3.8
6–7 months	*4.9	*7.0	5.3	4.9	5.0	5.5
8–9 months	*3.3	3.3	5.4	4.6	6.3	4.3
10–11 months	1.5	*2.6	2.6	6.7	5.4	3.3
12–17 months	7.2	9.8	9.4	10.8	2.7	8.6
18–23 months	*1.6	*3.9	*2.5	5.2	*0.6	2.9
24–60 months	17.4	18.2	16.6	8.5	n.a.	14.4
More than 5 years	23.7	11.5	*4.8	n.a.	n.a.	9.7
Has not returned yet	20.2	24.5	33.7	39.6	62.4	31.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

work before the birth of their youngest child, compared to 8% of women whose youngest child was born between 1996 and 2000, 4.6% of women whose youngest child was born between 1991 and 1995 and 6.3% of women whose youngest child was born in 1990 or before. Furthermore, the proportion of women who left work only one or two weeks before their child was born has also increased, from 11.6% of women whose youngest child was born in 1990 or before, to 16.8% of women whose youngest child was born in 2001 or later.

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 were employed had fallen to two years, and by 2006 that figure had halved again, to just one year. Furthermore, in 1996, only 32% of women with a baby aged less than 12 months were back at work, compared to 40% in August 2006 (Megalogenis, 2007).⁵ Presumably, more women are returning to work sooner after the birth of a child because many are not entitled to paid maternity leave and cannot cope with the loss in household income. Table 2 shows the distribution of responses when mothers with children aged under 25 in 2005 were asked how long it was before they started employment again after the birth of their youngest child.

Just under 8% of women with a child under the age of 25 had returned to work within one month of the birth of their youngest child, and a further 8% had returned to work within two or three months. The proportion of women who were back at work within three months of having a baby has not changed much in the past two decades, with 17.1% of women who had their youngest child in 1990 or before returning to work in less than four months, compared to 15.9% of women who had their youngest child between 2001 and 2003. Overall, the proportion of women who had returned to work within 12 months of the birth of a child increased from 30% of women whose youngest child was born in 1990 or before, to 36.0% of women who had had a child between 2001 and 2003.

Concluding points

Parental leave for both mothers and fathers has become much more common in the last 20 years, with all parents now entitled to up to 52 weeks of unpaid parental leave. However, in 2005, only 41% of female employees and 31.5% of male employees were entitled to paid parental leave. The proportion of women who took very little or no time off work before the birth of their youngest child has increased slightly over the past two decades. Furthermore, the proportion of women

who had returned to work within 12 months of the birth of a child has increased slightly from 30% of women whose youngest child was born in 1990 or before, to 35.4% of women who had had a child in the five years up to 2005.⁶

Endnotes

- 1 MacDermott (1996) argued that this unpaid leave means that women, who tend to utilise unpaid maternity leave more than men, not only bear the child but also the economic cost, necessitating a period of dependency on their partner.
- 2 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 some recall bias here, as for some mothers, the birth of their youngest child was over twenty years ago.
- 3 Note: formal maternity leave includes paid and unpaid parental leave agreed to by their employer.
- 4 The proportion of women who had never worked before the birth of their youngest child was 29.4% for mothers whose youngest child was born in 1990 or before, 20.3% for mothers whose youngest child was born between 1991 and 1995, 18.9% for mothers whose youngest child was born between 1996 and 2000, and 8.7 for mothers whose youngest child was born in 2001 or later.
- 5 These numbers relate to mothers in a couple family. For sole parents, the average age of the youngest child when mothers returned to work was 6 in both 2001 and 2006 (Megalogenis, 2007).
- 6 The increasing proportion of women returning to work sooner after the birth of the youngest child may be offset by more fathers taking time off after the birth or parents sharing the responsibilities of staying at home with the children. For instance the lower income earner may stay at home to care for the children when they are very young.

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Child care: Issues and persistence of problems, 2005

Issues related to child care have become more important over the last two decades. Changes in women's employment patterns and changes in family structures (e.g. a growing number of lone parent families) have created a growing need for child care that is both accessible and affordable. According to the Australian Institute of Health and Welfare (2005), 61,000 Australian children were prevented from attending child care in 2003 because of a lack of child care places, a further 30,000 children were not in child care because the cost was too high, and 22,000 could not access a place because there were none in the area.

In last year's HILDA Statistical Report (Headey and Warren, 2007), we found that in 2004, 28.6% of households had at least one resident child under the age of 15 and 42.8% of those households had used, or considered using, some type of child care in the past 12 months. Of those households where work-related child care was used for school aged children, 65.2% used informal child care only, and the most common type of informal child care was a grandparent who was not living with the family. For those who used formal child care, most used out of hours care at the child's school, and very few used family day care or a paid sitter. Child care arrangements for pre-school age children were quite different to that of school aged children. Almost 65% of the households who used child care for pre-school age children while the parents were working used formal child care, the most common types being private or community long day care centres and family day care. Non work-related child care was less common, but, as with work-related child care, the majority of non

work-related child care used for school aged children was informal, while for pre-school age children more formal child care was used.

Child care in 2005

Table 1 shows the number of households with children under 15, and the proportion of households who had used, or had considered using, child care in the 12 months prior to their 2005 interviews. In 2005, 28.4% of households had at least one resident child under the age of 15 and 43.9% of those households had used, or considered using, some type of child care in the past 12 months. While 49.3% of households with children under 2 years old had used or considered using child care in the last 12 months, it was more common for parents with children aged between 2 and 5 to consider using child care, with 60.1% of households with children aged 2 to 3 years and 54% households with children aged 4 to 5 years using or considering using child care, compared to 47.8% of households with children aged between 6 and 9 years, and only 29.9% of households with children aged between 10 and 14 years. Overall, work-related child care was more common than non work-related child care, with 41.3% of households with children under 15 using work-related child care, compared to 24.4% of households who use child care while the parents are doing non work activities.

The following tables describe the types of child care used, and the average number of hours spent per week in child care for school age children and pre-school age children.

Table 1: Proportion of households with resident children, by age of children, 2005 (%)

	<i>Proportion of households with children in this age group</i>	<i>Proportion who used or considered using child care in the past 12 months</i>	<i>Proportion who used work-related child care in the past 12 months</i>	<i>Proportion who used non work-related child care in the past 12 months</i>
Households with at least one child aged under 2 years	6.5	49.3	39.7	37.1
Households with at least one child aged 2–3 years	6.2	60.1	48.4	43.1
Households with at least one child aged 4–5 years	6.0	54.0	45.3	31.2
Households with at least one child aged 6–9 years	10.8	47.8	43.9	23.9
Households with at least one child aged 10–14 years	13.6	29.9	32.8	14.8
Total—households with children aged under 15 years	28.4	43.9	41.3	24.3
<i>Note: Population weighted results.</i>				

Work-related child care

Table 2 shows the types of child care used in a usual week for school aged children in households where child care was used while the parents were at work. Of those households where work-related child care was used for school aged children, 59.8% used informal child care only, 22.3% only used formal child care and 17.9% used a combination of formal and informal child care. Overall, almost 78% of households who used child care for their school aged children while the parents were working used informal child care, while only 40.2% used some type of formal child care.

School aged children spent an average of 8.7 hours a week in child care while their parents were at work. The most common type of work-related child care used for school aged children was formal outside of school hours care, which was used by 32.8% of households where child care was used for their school aged children. Other types of formal child care, such as family day care or a paid sitter or nanny were quite uncommon. In terms of informal care, school age children look after themselves while their parents are at work in 20.3% of households, 24.8% of school aged children are cared for by a non-resident grandparent, 19.5% are cared for by an older brother or sister, 11.7% are looked after by another non-resident relative and 12.9% go to a friend or neighbour's home.

Compared to school aged children, child care arrangements for children who were not yet old enough to attend school were quite different—it

was much more common for pre-school age children to be in formal child care. Table 3 shows the types of work-related child care used for pre-school age children.

Of those households where work-related child care was used for children who were not old enough to go to school, 45.6% only used formal child care, 25.3% only used informal child care and 29.1% used a combination of formal and informal care.

Pre-schoolers who were in child care while their parents were working spent an average of 21 hours per week in child care. The obvious explanation for the difference in hours of child care used for pre-school children and school aged children is that pre-school aged children need extra child care for the hours when the school aged children are in 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 non-resident grandparent, with 33.7% of pre-schoolers being cared for by a grandparent while their parents are at work. The most common form of formal child care for pre-school age children was a private or community long day care centre, with 34.8% attending this type of child care while their parents were at work.

Non employment-related child care

In 2005, non employment-related child care (child care used while parents are not at work) is less common than work-related child care, particularly for school aged children. Table 4 shows the types of non work-related child care used for

Table 2: Work-related child care for school aged children, 2005

	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
Informal child care		
The child's brother or sister	19.5	4.8
Child looks after self	20.3	5.0
Child comes to my (or my partner's) workplace	*4.0	*8.0
Child's grandparent who lives with us	*3.5	*11.6
Child's grandparent who lives elsewhere	24.8	6.5
Other relative who lives with us	*0.7	*13.6
Other relative who lives elsewhere	11.7	7.6
A friend or neighbour coming to our home	*2.5	*3.3
A friend or neighbour in their home	12.9	5.6
Child's other parent not living in household	*0.2	–
Total—informal child care	77.7	7.7
Formal child care		
Formal outside of school hours care	32.8	6.6
A paid sitter or nanny	5.6	5.3
Family day care	*2.8	*7.9
Total—formal child care	40.2	6.7
Total—formal and/or informal child care	100.0	8.7
<i>Notes: Population weighted results. * Estimate not reliable. The sample included in this table is households where child care is used for school age children while the parents were at work. Hours not asked for care by other parent not living in household.</i>		

school aged children, and the average number of hours per week spent in non employment-related child care.

Of those households where non employment-related child care was used for school aged children, 84.0% used informal care only, 11.1% only used formal child care, and 4.9% used a combination of formal and informal care. The average amount of non work-related child care for school aged children was 5.5 hours per week. Like work-related child care, the majority of non work-

related child care used for school aged children was informal, and the most common type of informal child care was a non-resident grandparent.

Compared to school aged children, non employment-related child care was a lot more common for children who were not yet old enough to go to school. Table 5 shows the types of non work-related child care used for pre-school aged children, as well as the average number of hours per week pre-school aged children spent in non work-related child care.

Table 3: Work-related child care for pre-school aged children, 2005

	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
Informal child care		
The child's brother or sister	*1.8	*5.3
Child's grandparent who lives with us	*1.4	23.7
Child's grandparent who lives elsewhere	33.7	11.9
Other relative who lives with us	*1.5	16.5
Other relative who lives elsewhere	13.7	10.7
A friend or neighbour coming to our home	4.8	6.8
A friend or neighbour in their home	*4.5	*13.0
Total—informal child care	54.4	19.7
Formal child care		
A paid sitter or nanny	5.3	10.2
Family day care	26.3	19.1
Long day care centre at workplace	8.1	17.7
Private or community long day care centre	34.8	20.0
Kindergarten or preschool	11.4	12.2
Total—formal child care	70.9	12.9
Total—formal and/or informal child care	100.0	21.0
<i>Notes: Population weighted results. * Estimate not reliable. The sample included in this table is households where child care is used for pre-school age children while the parents were at work.</i>		

Table 4: Non work-related child care for school aged children, 2005

	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
Informal child care		
The child's brother or sister	18.9	2.4
Child's grandparent who lives with us	*2.7	*4.3
Child's grandparent who lives elsewhere	29.9	5.3
Other relative who lives with us	*4.3	*9.4
Other relative who lives elsewhere	22.2	4.0
A friend or neighbour coming to our home	*8.3	*3.8
A friend or neighbour in their home	25.1	3.6
Total—informal child care	88.9	5.2
Formal child care		
A paid sitter or nanny	*8.0	*3.8
Family day care	*0.0	n.a.
Private or community long day care centre	*1.1	*1.6
Formal outside of school hours care	*7.7	*8.4
Total—formal child care	16.0	5.9
Total—formal and/or informal child care	100.0	5.5
<i>Notes: Population weighted results. * Estimate not reliable. The sample included in this table is households where child care is used for school aged children while the parents were not at work.</i>		

The number of hours pre-school aged children spent in non work-related child care varied significantly between formal and informal child care types. The average time spent in informal child care was 5.1 hours per week, but pre-school age children who spent time in formal child care spent an average of 8.6 hours per week in non work-related child care.

The most common type of informal child care used for pre-school children while parents were undertaking non work-related activities was a non-resident grandparent, with almost 50% of households who use non work-related child care for their pre-school aged children using this option. The common type of formal non work-related child care used for pre-school age children was a private or community long day care centre.

Difficulties with child care

Each year, parents who had used or considered using child care were asked about the difficulties they had encountered. They were asked to rate the level of difficulty they had 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 6 shows the proportion of couple and lone parent households who had difficulties with these aspects of child care (i.e. gave a rating of 8 or more out of 10) in each of the five years from 2001 to 2005.

The most common problem encountered was finding care for a sick child, with around 24% of couple households and around 37% of lone parent households reporting this difficulty in 2005. 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 other problems, which can usually be sorted out over time. Finding care for a sick child at short notice was more of a problem for lone parent households than couple households, possibly because, compared to couple families, they have fewer family members available to take care of their children at short notice (i.e. couple families are more likely to have two sets of grandparents to rely on).

It was also quite common for people to report difficulties with the cost of child care. Over 20% of couple households reported this problem every year, and between 15 and the proportion of lone parent households who reported problems with the costs of child care ranged from 14.7% in 2002 to 25.6% in 2005.

Difficulties with child care: Are people in regional and remote areas worse off?

One might expect that, compared to families living in major cities, households in regional and remote areas of Australia would have more difficulties finding appropriate child care for their children. Table 7 compares the child care difficulties reported in 2005 by families living in major cities, in inner regional areas and in outer regional and remote areas of Australia.¹

Difficulties finding good quality child care, getting care for the hours you need and finding a place at the child care centre of choice were most common in outer regional and remote areas, while families in inner regional areas had the least amount of problems with these aspects of child care. Only 8.3% of

Table 5: Non work-related child care for pre-school aged children, 2005

	<i>Proportion of households that used this type of child care (%)</i>	<i>Average number of hours per child per week</i>
Informal child care		
The child's brother or sister	*1.8	*2.4
Child's grandparent who lives with us	*1.1	*3.1
Child's grandparent who lives elsewhere	47.3	5.2
Other relative who lives with us	*4.2	*3.3
Other relative who lives elsewhere	25.6	2.9
A friend or neighbour coming to our home	*10.3	*2.3
A friend or neighbour in their home	*4.5	*6.6
Total—informal child care	77.9	5.1
Formal child care		
A paid sitter or nanny	*6.1	*4.1
Family day care	11.4	9.9
Private or community long day care centre	12.1	8.1
Kindergarten or preschool	*4.0	*7.0
Total—formal child care	29.0	8.6
Total—formal and/or informal child care	100.0	6.5

Notes: Population weighted results. * Estimate not reliable. The sample included in this table is households where child care is used for pre-school aged children while the parents were not at work.

households who used child care in inner regional areas reported high levels of difficulty (8 or more out of 10) with finding good quality child care, compared to 17.4% of households in major cities and 23.6% of households in outer regional and remote areas. Similarly, 7.8% of households in inner regional areas reported problems finding a place at the child care centre of their choice, compared to 17.1% of households in major cities and 20.8% of households

in outer regional or remote areas. Compared to households in inner regional areas, it was more common for parents living in major cities to say that finding the right person to take care of their child was a problem. Difficulties with cost of child care was also a more common problem in major cities, with 27.7% of households using child care in major cities reporting high levels of difficulties, compared to 16.4% of households in inner regional areas.

Table 6: Difficulties with child care, 2001–2005 (%)

	2001	2002	2003	2004	2005
Couple households					
Finding good quality child care	14.1	14.0	15.6	15.9	16.0
Finding the right person to take care of your child	16.3	16.8	14.9	17.2	14.6
Getting care for the hours you need	16.1	15.3	16.9	16.8	16.8
Finding care for a sick child	28.7	28.8	27.6	28.6	23.7
Finding care during school holidays	11.7	13.8	12.4	12.4	8.9
The cost of child care	22.4	20.8	21.4	23.8	23.1
Juggling multiple child care arrangements	12.2	13.8	12.4	11.0	8.0
Finding care for a difficult or special needs child	5.6	*10.7	*10.7	*12.9	*2.0
Finding a place at the child care centre of your choice	17.2	19.5	21.7	21.4	14.9
Finding a child care centre in the right location	14.0	15.9	18.4	19.1	11.2
Finding care your child/children are happy with	9.0	10.1	9.7	11.6	9.7
Any of the above	48.2	47.0	47.1	49.3	48.2
Lone parent households					
Finding good quality child care	18.8	14.3	14.9	*9.8	15.0
Finding the right person to take care of your child	19.3	19.4	19.3	19.8	20.7
Getting care for the hours you need	24.2	21.2	22.6	13.6	21.5
Finding care for a sick child	41.9	46.2	39.0	38.3	36.7
Finding care during school holidays	20.6	18.3	18.9	14.3	18.5
The cost of child care	23.3	14.7	18.6	16.9	25.6
Juggling multiple child care arrangements	19.7	15.7	16.4	*14.8	15.5
Finding care for a difficult or special needs child	20.3	*22.9	*32.7	*23.0	*6.4
Finding a place at the child care centre of your choice	20.0	13.9	20.4	*15.5	14.7
Finding a child care centre in the right location	16.1	12.9	17.6	*12.0	11.8
Finding care your child/children are happy with	16.4	13.6	16.3	*10.9	13.4
Any of the above	60.4	54.9	54.3	50.4	61.6

Notes: Population weighted results. * Estimate not reliable.

Table 7: Difficulties with child care in cities, regional and remote areas, 2005 (%)

	Major city	Inner regional	Outer regional and remote	Total
Finding good quality child care	17.4	8.3	23.6	15.9
Finding the right person to take care of your child	17.5	10.4	*20.2	16.1
Getting care for the hours you need	18.6	13.3	24.7	18.0
Finding care for a sick child	24.5	26.8	36.2	26.3
Finding care during school holidays	10.4	8.3	*19.8	10.9
The cost of child care	27.7	16.4	*15.8	23.7
Juggling multiple child care arrangements	10.3	*8.2	*6.8	9.5
Finding care for a difficult or special needs child	*3.0	*2.8	*4.0	3.1
Finding a place at the child care centre of your choice	17.1	7.8	20.8	15.2
Finding a child care centre in the right location	13.0	*6.5	*15.4	11.7
Finding care your child/children are happy with	11.2	*6.9	16.1	10.7
Any of the above	52.4	43.3	58.5	50.9

Note: Population weighted results. * Estimate not reliable.

Concluding points

Work-related child care is more common than non work-related child care, with 41.3% of households with children under 15 using work-related child care, compared to 24.4% of households who use child care while the parents are doing non work activities. Compared to school aged children, non employment-related child care was a lot more common for children who were not yet old enough to go to school. For both work-related and non work-related child care, it was 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 was more commonly used for school age children.

The most common child care problem encountered was finding care for a sick child. It was also quite common for people to report difficulties with the cost of child care—around 20% of households who used child care reported this problem. Households in regional and remote areas had the most difficulties finding good quality child care, getting the child care hours they needed and find-

ing a place at the child care centre of their choice, while households in major cities had more difficulties with the cost of child care and finding the right person to take care of their child.

Endnote

1 Accessibility/Remoteness Index of Australia (ARIA) regions are used throughout this Report. Note that under this classification Hobart is 'inner regional' and Darwin is 'outer-regional'. The other capital cities are metropolitan.

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Parenting stress and work–family stress

Most parents feel stressed from time to time. This stress may be a result of juggling work and family arrangements, finding adequate child care, taking care of ill or disabled children, parenting adolescents or teenagers, troubles getting along with stepchildren, or just the daily stresses associated with being a parent.

In each year of the HILDA Survey, men and women 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).

In previous HILDA Statistical Reports we found that the majority of parents fell into the category of medium parenting stress, and sole parents

reported higher levels of parenting stress than parents who were married or in a de facto relationship. Table 1 shows the percentage of parents who reported high levels of parenting stress (6 or 7 out of 7) in the five years from 2001 to 2005.¹

In all five years, lone mothers reported the highest levels of parenting stress and partnered fathers reported relatively low levels of parenting stress. In 2005, 16.9% of lone mothers and 11.4% of lone fathers reported high levels of parenting stress, compared to 9.1% of partnered mothers and only 4.3% of fathers with partners.

Work–family stress

Parents in who were in paid work were also asked how strongly they agreed or disagreed with statements relating to *work–family stress*, such as 'Because of my family responsibilities, the time I spend working is less enjoyable and more pressured'

Table 1: Proportion of parents with high levels of parenting stress by gender and marital status, 2001–2005 (%)

	2001	2002	2003	2004	2005
Lone mothers	16.3	17.3	15.4	13.3	16.9
Partnered mothers	13.9	11.9	9.8	9.2	9.1
Lone fathers	12.1	*5.1	*7.4	*8.7	11.4
Partnered fathers	7.7	5.7	4.9	4.5	4.3
Total	11.5	9.6	8.3	7.8	8.1

Notes: Population weighted results. * Estimate not reliable.

Table 2: Proportion of parents with high levels of work–family stress by gender, marital status and working hours, 2001–2005 (%)

	2001	2002	2003	2004	2005
Employed full-time					
Lone mothers	*9.6	*12.9	*13.9	*10.9	*12.7
Partnered mothers	9.3	11.4	10.7	7.1	5.7
Lone fathers	*7.8	*5.1	*8.5	*4.9	*7.8
Partnered fathers	6.5	6.6	5.3	5.0	6.6
Total	7.3	7.7	7.0	5.8	6.8
Employed part-time					
Lone mothers	*6.6	*9.2	*7.5	*6.0	*4.5
Partnered mothers	5.0	6.1	4.7	5.3	5.3
Lone fathers	*12.1	*0.0	*0.0	*12.7	*13.7
Partnered fathers	*10.0	*2.9	*5.5	*3.4	*5.4
Total	5.9	6.1	5.0	5.4	5.4
All employed					
Lone mothers	8.4	11.1	10.4	8.5	10.8
Partnered mothers	6.8	8.1	7.0	5.9	5.6
Lone fathers	*8.7	*4.7	*6.6	*5.8	*12.1
Partnered fathers	7.2	6.5	5.4	5.0	6.1
Total	7.2	7.3	6.4	5.7	6.7

Notes: Population weighted results. * Estimate not reliable.

Table 3: Proportion of parents with high levels of parenting stress by gender, marital status and age of youngest child, 2005 (%)

Age of youngest child	Lone mothers	Partnered mothers	Lone fathers	Partnered fathers	All
0–5	18.8	8.9	19.5	4.4	8.2
6–12	15.1	9.5	*3.5	3.8	7.6
13–17	*13.4	7.7	*6.5	4.1	7.2
Total	16.3	8.9	9.2	4.2	7.8

Notes: Population weighted results. * Estimate not reliable

and ‘Because of the requirements of my job, I miss out on home or family activities that I would prefer to participate in’.²

In 2004, we found that parents who worked full-time reported higher levels of work–family stress than parents who worked part-time; sole parents had higher work family stress than parents with partners, and women had higher work–family stress than men.

Table 2 shows that this was the case in all five years from 2001 to 2005. Overall, levels of work–family stress have dropped slightly since 2001. The proportion of parents who were employed full-time and reported high levels of work–family stress dropped from 7.3% in 2001 to 5.8% in 2004 and 6.8% in 2005. For parents who were working part-time, the proportion with high levels of work–family stress had also fallen slightly—from 5.9% in 2001 to 5.0% in 2003 and 5.4% in 2004 and 2005.

In all five years, it was more common for parents who worked full-time to report high levels of

stress than parents who worked part-time. This is particularly the case for partnered mothers. In 2002, 11.4% of partnered mothers who worked full-time reported high levels of work–family stress, compared to 6.1% of partnered mothers who were working part-time. However, the difference in work–family stress between these two groups was quite small in 2005, when 5.7% of partnered mothers who worked full-time and 5.3% of partnered mothers who worked part-time reported high levels of work–family stress.

Compared to mothers with partners, it was more common for lone mothers to report high levels of work–family stress. In 2005, 10.8% of lone mothers reported high levels of work–family stress, compared to only 5.6% of partnered mothers.

Is family stress higher for parents with young children?

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? Table 3 shows

Table 4: Proportion of parents with high levels of parenting stress by gender, marital status and number of children, 2005 (%)

	<i>Lone mothers</i>	<i>Partnered mothers</i>	<i>Lone fathers</i>	<i>Partnered fathers</i>	<i>All</i>
Children aged 5 or under					
1	18.2	7.4	*19.3	3.8	7.5
2	*29.5	10.7	*20.3	5.7	9.4
3 or more	*17.4	19.5	–	*4.8	12.5
Children aged under 18					
1	10.0	5.8	*11.0	3.3	5.7
2	17.2	9.7	*5.3	4.4	8.0
3 or more	28.5	11.4	*13.9	5.0	10.4

Notes: Population weighted results. * Estimate not reliable.

the levels of parenting stress by the age of children in the household and the gender and marital status of the parent.

In general, parents whose youngest child is under the age of 6 have the highest levels of parenting stress.³ However, partnered fathers with young children seemed to escape this stress, with only 4.4% reporting high levels of parenting stress, compared to 8.9% of partnered mothers, 19.5% of lone fathers and 18.8% of lone mothers.

One would also expect that the level of stress that parents feel would be higher if there is more than one child. Table 4 shows the proportion of parents who reported high levels of parenting stress, according to the number of children aged 5 or under they have and also the number of children under the age of 18.

Table 4 shows that parenting stress is higher for people with more than one child, particularly for women. While 10% of lone mothers with one child under 18 reported high levels of parenting stress, 28.5% of lone mothers with 3 or more children under 18 had high levels of stress. For partnered women, the proportion who reported high levels of parenting stress rose from 5.8% for those with only one child under 18, to 11.4% of partnered women with three or more children under

18, and 19.5% of partnered women with three or more children between the ages of 0 and 5.

Persistence of family-related stress, 2001–2005

Last year, we found that while some parents managed to reduce their parenting stress, for others the problem had persisted for a fairly long time. More than 60% of the people who reported high levels of parenting stress in 2001 had reduced their stress to a medium level by 2004, but only 14.7% of men and 2.6% of women managed to reduce high levels to low, and 24.5% of men and 31.5% of women who had high parenting stress in 2001 still had high levels in 2004. Changes in levels of work–family stress were similar to that of parenting stress—75.1% of men and 66.2% of women who reported high levels of work–family stress in 2001 had reduced their work–family stress to a medium level by 2004, but only 5.6% of men and 6.5% of women who had high work–family stress in 2001 reported low levels of work–family stress in 2004.

Of course, the household situation may have changed during this time. For example, parents may have had a new baby, causing higher levels of parenting stress; the stress may have eased for parents whose children are now school age and

Table 5: Persistence of parenting stress, 2001–2005 (%)

<i>Parenting stress in 2001</i>	<i>Parenting stress in 2005</i>			<i>Total</i>
	<i>Low (0–2)</i>	<i>Medium (3–5)</i>	<i>High (6–7)</i>	
Men				
Low (0–2)	42.2	56.3	*1.5	100.0
Medium (3–5)	16.8	79.3	3.9	100.0
High (6–7)	*9.0	77.4	*13.6	100.0
Total	21.2	74.8	4.0	100.0
Women				
Low (0–2)	47.0	49.7	*3.3	100.0
Medium (3–5)	12.5	79.9	7.6	100.0
High (6–7)	*3.3	58.6	38.1	100.0
Total	15.8	72.7	11.4	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 6: Persistence of work–family stress, 2001–2005 (%)

Work–family stress in 2001	Work–family stress in 2005			Total
	Low (0–2)	Medium (3–5)	High (6–7)	
Men				
Low (0–2)	42.2	56.7	*1.1	100.0
Medium (3–5)	15.9	77.6	6.4	100.0
High (6–7)	*4.3	73.5	*22.2	100.0
Total	20.7	72.7	6.6	100.0
Women				
Low (0–2)	46.1	51.8	*2.1	100.0
Medium (3–5)	14.2	80.1	5.6	100.0
High (6–7)	*7.4	63.4	*29.2	100.0
Total	21.6	71.5	7.0	100.0

Notes: Population weighted results. * Estimate not reliable.

more able to look after themselves; parents working hours may 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 5 and 6 compare the levels of parenting stress and work–family stress in 2001 and 2005 for men and women who had parenting responsibilities in all four years.

While very few parents who reported high levels of parenting stress in 2001 had reduced their stress levels to low, 77.4% of men and 58.6% of women who reported high levels of parenting stress in 2001 had medium levels of parenting stress in 2005. Around 80% of parents who said their parenting stress was medium in 2001 still reported medium levels in 2005, and 16.8% of men and 12.5% of women had gone from having medium levels of parenting stress in 2001 to low levels in 2005. Around half the parents who reported low levels of parenting stress in 2001 reported medium levels of parenting stress in 2005, but very few had gone from low parenting stress in 2001 to high parenting stress in 2005.

While few men and women who reported high levels of work–family stress in 2001 had been able to reduce their stress to low, 73.5% of men and 63.4% of women had lowered their level of work–family stress to medium. As with parenting stress, around 50% of men and women who had

low levels of stress in 2001 reported medium levels of work–family stress in 2005.

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.

Endnotes

- 1 Our measure of parenting stress is calculated by taking the average of the responses to the following four statements: ‘Being a parent is harder than I thought it would be’, ‘I often feel tired, worn out, or exhausted from meeting the needs of my children’, ‘I feel trapped by my responsibilities as a parent’ and ‘I find that taking care of my child is much more work than pleasure’.
- 2 Our measure of work–family stress is calculated by taking the average of the responses to the following four statements: ‘Because of my family responsibilities, I have to turn down work opportunities that I would prefer to take on’, ‘Because of my family responsibilities, the time I spend working is less enjoyable and more pressured’, ‘Because of the requirements of my job, I miss out on home or family activities that I would prefer to participate in’, and ‘Because of the requirements of my job, my family time is less enjoyable and more pressured’.
- 3 We are not implying that stress is related *only* to the age of the youngest child, there could be a combination of factors causing the stress, for example, a parent of a 5 year old and a teenage child may be stressed because of the older child.

Men and women: Comparing time spent on paid work, housework and leisure

The time use (activities) or time budgets of most people—their lives if you like—can be divided into four main components: paid work and commuting; housework and household errands; leisure and sleep. The HILDA Survey does not directly ask about time spent sleeping or in leisure activities but it does ask about the amount of time spent doing paid work and housework.

Research on time use, including research by ABS (1997) and the Office for the Status of Women (Bittman, 1991), has focused heavily on gender differences, and we continue this tradition. Previous research has commonly emphasised that, in couple households where both partners have paid jobs, women do most of the housework. This has often been interpreted very explicitly as an unfair or even exploitative division of labour. In this article we suggest that, while the data permit this interpretation, other interpretations are also reasonable. In particular, if time budgets or activities are divided into two main groups—those which people are more or less ‘required’ to undertake and may or may not enjoy—and leisure activities which are clearly a matter of choice, then it appears that women and men, including those in couples, spend approximately the same amount of

time on ‘required’ activities, and so, by inference, have approximately the same amount of leisure or discretionary time.

We begin by describing the time uses of the total population of men and women. Then we focus particularly on couples and the controversial division of labour within couple households. Table 1 shows number of hours per week men and women spent working and commuting to work, doing housework and household errands, and doing outdoor tasks.¹

The average time spent working, commuting to work, doing household chores and doing outdoor tasks is slightly higher for men and women with partners than for those who are single.²

On average, men who worked full-time spent 48.9 hours per week working and commuting, compared to 44.7 hours per week for women who worked full-time. Men who worked full-time spent an average of 8.1 hours per week doing housework and household errands and 4.2 hours doing outdoor tasks, while women who worked full-time did an average of 14.6 hours of housework but only 2.4 hours doing outdoor tasks. So, while it is true that women still do most of the housework, we find that

Table 1: Time use by gender, employment status and relationship status, hours per week, 2005 (means)

	Average hours per week							
	Employment and commuting to work		Housework and household errands		Outdoor tasks		Total	
	Men	Women	Men	Women	Men	Women	Men	Women
Partnered								
Employed full-time	49.7	44.4	8.3	16.9	4.9	2.7	62.4	63.5
Employed part-time	21.1	20.7	9.6	24.7	6.9	3.1	37.6	48.5
Unemployed	n.a.	n.a.	13.5	24.2	7.1	3.3	20.6	27.5
Not in the labour force	n.a.	n.a.	11.8	29.3	9.3	3.8	21.1	33.1
Total	33.8	18.9	9.4	24.4	6.2	3.3	48.9	46.1
Single								
Employed full-time	47.0	45.1	7.6	10.7	2.6	1.9	57.0	57.0
Employed part-time	19.5	20.0	5.5	11.2	1.6	2.2	33.3	30.8
Unemployed	n.a.	n.a.	8.0	16.9	4.0	2.3	19.2	15.1
Not in the labour force	n.a.	n.a.	11.5	17.2	4.2	3.1	20.2	18.5
Total	26.2	17.3	8.3	13.8	3.0	2.5	33.3	35.0
Total								
Employed full-time	48.9	44.7	8.1	14.6	4.2	2.4	60.8	61.1
Employed part-time	20.2	20.5	7.3	19.6	4.0	2.8	31.4	42.7
Unemployed	n.a.	n.a.	9.6	19.9	4.9	2.7	14.5	22.6
Not in the labour force	n.a.	n.a.	11.7	24.5	7.3	3.5	19.0	28.0
Total	31.0	18.3	9.0	20.3	5.0	3.0	44.5	41.1

Note: Population weighted results.

the amount of time spent by men and women on 'required' (non-discretionary) activities is about the same—men spend on average 60.8 hours per week and women spend 61.1 hours.

Men and women who worked part-time spent an average of just over 20 hours working and commuting to work, but women who worked part-time did considerably more housework than their male counterparts—an average of 19.6 hours per week compared to only 7.3 hours for men who worked part-time. Among men who worked part-time, time spent on outdoor tasks did not make up for the difference in time spent on housework and household errands—the total amount of time they spent working, commuting and doing household chores was 31.4 hours per week, compared to 42.7 hours per week for women who worked part-time.

Women who were unemployed or not in the labour force also did considerably more housework than men in the same situation. Women who were not in the labour force spent an average of 28 hours per week on household chores, while men who were not in the labour force averaged 19 hours per week. Unemployed women spent 22.6 hours per week on household chores, compared to 14.5 hours per week for unemployed men.

Time use in couple households

In last year's Statistical Report we found that in couple households where both partners worked full-time, the total amount of time spent working, commuting and doing household chores seemed to even out, with men spending an average of 63.9 hours per week on these tasks, while women spent an average of 63.2 hours per week. However, in couple households where men were working part-time or not working at all, women spent more time doing these tasks than men did. In couple households where both partners were working part-time, men spent an average of 36.8 hours on work, commuting and household chores, while women spent an average of 44.9 hours. In couple

households where both partners were not working, the average time per week spent on household chores and outdoor tasks was 21.1 hours for men and 32.2 hours for women. Table 2 shows the time use of men and women in couple households in 2005, according to the work arrangements of the couple.

The total amount of time spent on work, commuting and household chores was almost even for couples where both partners worked full-time—63.1 hours per week for the men and 63.2 hours for the women.

In couple households where the woman works more hours than the man, it seems that men take more responsibility for household chores. In households where the woman works full-time and the man is not in paid work, men spent an average of 19.3 hours per week doing housework and household errands, and in households where the woman worked part-time and the man was not working, men did an average of 12.8 hours per week of domestic chores. This was also the case in households where the woman worked full-time and the man worked part-time, where men did an average of 12.9 hours per week of housework and household errands. On the other hand, in households where the man works full-time and the woman is not in paid work, men do the least amount of housework—around 7 hours per week.

The largest difference in total hours was in households where the woman was working full-time and the man was not working (a relatively uncommon pattern). In this scenario men spent an average of 27 hours per week on household and outdoor tasks, but the women spent an average of 42.9 hours working and commuting, and also spent 17.4 hours per week on household chores and 2.7 hours per week doing outdoor tasks.³

Extra help with domestic chores

In 2005, some additional questions were asked about whether people regularly paid someone to

Table 2: Time use in couple households, hours per week, 2005 (means)

	Average hours per week							
	Employment and commuting to work		Housework and household errands		Outdoor tasks		Total	
	Men	Women	Men	Women	Men	Women	Men	Women
Both work full-time	49.6	44.3	9.1	16.7	4.8	2.7	63.1	63.2
Man FT, woman PT	50.9	21.2	8.3	25.1	5.0	3.0	64.1	49.2
Man FT, woman not working	48.6	n.a.	7.2	32.4	4.9	3.4	59.6	35.9
Woman FT, man PT	24.3	45.1	12.9	16.9	6.5	2.5	43.8	64.4
Woman FT, man not working	n.a.	42.9	19.3	17.4	7.8	2.7	27.0	63.1
Both work part-time	22.3	18.8	8.4	22.3	5.3	4.1	36.0	45.2
Man PT, woman not working	18.3	n.a.	8.4	25.1	8.0	4.2	34.8	29.3
Woman PT, man not working	n.a.	18.9	12.8	22.3	9.8	3.3	22.6	44.3
Both not in paid work	n.a.	n.a.	11.2	26.9	9.3	4.0	20.5	31.0
Total	33.9	18.6	9.5	24.3	6.3	3.3	49.0	45.7

Note: Population weighted results.

do any of the household chores such as cleaning, ironing and cooking. One would expect that it would be more common for higher income households to use these services, especially in couple households where both partners are working full-time, and also for older people and people with an illness or disability who are not able to do these chores themselves. Table 3 shows the proportion of households who regularly paid someone to do housework, by household type and quintile of equivalised household income.

Overall, 10.2% of households regularly pay someone to help with the housework, and, as expected, paying someone to help with the housework is more common in high income households, with 18% of households in the highest quintile of equivalised income paying someone to help with the housework, compared to 9.0% of households in the lowest income quintile. Help with the housework was most common in lone person households and couple households either with no children or children under the age of 15.⁴ In couple households, regardless of whether or not they have resident children, having paid help with the housework was most common for couples where both partners work full-time, where 15.8% had help with housework, compared to 12.3% of couples where the man worked full-time and the woman worked part-time, 10.2% of couples where both partners were not in paid work, and 4.7% of couples where the man worked full-time and the woman was not in paid work. In single person households, paying someone to help with the housework seems to be done more on the basis of needing that help than not wanting to do the housework for yourself, with 13.6% of men and 19.5% of women who were living alone and not in the labour force paying someone to help with housework, compared to 5% of men and 11.6% of women who lived alone and worked full-time. Paying someone to help with household chores was more common in households where at least one person had a long-term health condition or disability, where 12% of households said they regularly paid someone to help with chores. HILDA

Survey respondents were also asked whether they regularly paid someone to do the gardening or lawn mowing. Table 4 shows the proportion of households who regularly paid someone to do the gardening or lawn mowing, by household type and quintile of equivalised household income.

Overall, the proportion of households who regularly paid someone to do the gardening or lawn mowing was 16.1%. However, it seems that paid help with gardening is not more common in high income households—17.8% of households in the top income quintile regularly paid someone to do the gardening or lawn mowing, as did 18.6% of households in the lowest quintile of household income. Paid help with gardening and lawn mowing was most common in lone parent households where the children were aged 15 or older, in which 23.5% paid someone to do lawn mowing or gardening; and lone person households, where 22.7% regularly paid someone to do the gardening. As with housework, it seems that paying for someone to help with the gardening is more commonly done because the household members are not capable of doing these chores themselves, rather than just not wanting to do these jobs. In couple households where both partners were in full-time work, 12.5% paid someone to help with the gardening, compared to 17.3% of couple households where both partners were not in paid work. There is a similar pattern for single person households, where 16% of men and 31.2% of women who were not in the labour force paid someone to help with the gardening, compared to 11.7% of men and 22.2% of women who were working full-time. In households where at least one member had a long-term health condition, 18.7% regularly paid someone to do gardening or lawn mowing.

Do you do your fair share around the house?

Last year we found that most men thought they did their fair share of household chores and looking after the children, while women, particularly those with resident children and those who

Table 3: Regularly pay someone to do housework, 2005 (%)

Household type	Quintile of equivalised household income					Total
	1 (lowest)	2	3	4	5 (highest)	
Couple family without children	8.3	10.0	10.9	7.2	15.5	11.0
Couple family with children under 15	5.8	4.2	6.2	13.7	29.3	10.9
Couple family with children aged 15 or older	6.5	*3.1	*2.4	11.9	14.8	9.0
Lone parent with children under 15	*0.0	4.3	6.1	8.8	12.8	4.0
Lone parent with children aged 15 or older	*2.9	9.2	*0.0	13.7	18.7	8.9
Lone person	12.3	12.4	6.5	6.8	17.7	11.4
Group household	5.8	*0.0	*0.0	*0.0	15.1	5.4
Other related family without children under 15	30.4	3.8	*0.0	*0.0	*0.0	7.8
Multi-family household	*0.0	*0.0	*2.3	3.5	19.1	4.1
Total	9.0	7.7	6.2	9.8	18.0	10.2

Notes: Population weighted results. * Estimate not reliable.

worked full-time, thought they did more than their fair share of domestic chores. Table 5 shows the perception of domestic division of labour by gender and labour force status in 2005.

The results in Table 5 are quite similar to what we found last year. Regardless of labour force status, just over half the men said they did their fair share of domestic chores, while it was much more common for women to say they did a bit more or much more than their fair share of work around the house—51.5% of women who worked full-time and 55.2% of women who worked part-time said they did more than their fair share of domestic chores.

In the previous HILDA Statistical Report we also found that it was more common for men and women with resident children to say that they do more than their fair share around the house, and for women in couple households, the presence of children in the households had a substantial impact on perceptions of the division of household chores. Table 6 shows the distribution of responses for men and women in couple households, broken down by household type.⁵

In couple households, more than half the men said they did their fair share of the household chores, and the proportion who said they did more than their fair share was higher for men with children aged 15 or over than men with children under the age of 15 and men with no resident children—12.3% of men in couple households with no resident children said they did more than their fair share of the household chores, compared to 11.6% of men who lived with a partner or spouse and children under the age of 15 and 18.4% of men who had resident children aged 15 or over and no children under the age of 15. Compared to men, the proportion of women who said they did more than their fair share of the household chores was much higher; 46.5% of women who were living with a spouse or partner but no resident children thought they did more than their fair share of the domestic chores. It is clear that for partnered women, the presence of children in the household has a substantial impact on their perception of the division of household chores—69.1% of partnered women with children under the age of 15 and 65.5% partnered women with children aged 15 or

Table 4: Regularly pay someone to do gardening or lawn mowing, 2005 (%)

Household type	Quintile of equivalised household income					Total
	1 (lowest)	2	3	4	5 (highest)	
Couple family without children	13.0	21.2	16.8	12.0	15.7	15.7
Couple family with children under 15	15.5	7.5	8.0	13.0	17.7	11.1
Couple family with children aged 15 or older	4.3	3.7	13.9	10.9	13.4	10.7
Lone parent with children under 15	9.9	15.0	15.9	13.2	19.3	13.5
Lone parent with children aged 15 or older	19.5	24.9	23.4	23.8	25.0	23.5
Lone person	24.6	25.5	15.4	20.5	24.8	22.7
Group household	22.9	13.8	20.9	10.2	13.4	15.1
Other related family without children under 15	37.4	*3.8	*0.0	*5.5	6.0	11.0
Multi-family household	33.2	12.7	31.1	3.5	21.7	19.9
Total	18.6	16.5	13.8	13.9	17.8	16.1

Notes: Population weighted results. * Estimate not reliable.

Table 5: Perception of domestic division of labour, by gender and labour force status, 2005 (%)

Labour force status	Share of work around the house					Total
	I do much more than my fair share	I do a bit more than my fair share	I do my fair share	I do a bit less than my fair share	I do much less than my fair share	
Men						
Employed full-time	7.8	8.4	54.1	24.9	4.8	100.0
Employed part-time	6.7	7.6	52.7	28.6	4.3	100.0
Unemployed	12.4	*7.2	51.8	19.2	*9.4	100.0
Not in the labour force	9.8	8.0	55.9	18.9	7.3	100.0
Total	8.3	8.2	54.4	23.5	5.6	100.0
Women						
Employed full-time	28.9	22.6	38.2	8.7	1.5	100.0
Employed part-time	28.8	26.4	34.1	8.9	1.8	100.0
Unemployed	26.2	19.6	41.7	*11.3	*1.2	100.0
Not in the labour force	28.2	19.5	41.7	6.8	3.9	100.0
Total	28.5	22.4	38.5	8.1	2.5	100.0

Notes: Population weighted results. * Estimate not reliable.

over (and no children under the age of 15) said they did either a bit more or much more than their fair share of the household chores.

Do women with children also think they do more than their fair share of child care? Parents with responsibility for children under the age of 17

were asked whether they thought they did their fair share of looking after the children.⁶ The results are shown in Table 7.

Most partnered fathers said they did their fair share of looking after the children. Only 8.8% said they did more than their fair share. Compared to

Table 6: Perception of domestic division of labour in couple households, by gender and household type, 2005 (%)

	<i>Share of work around the house</i>					<i>Total</i>
	<i>I do much more than my fair share</i>	<i>I do a bit more than my fair share</i>	<i>I do my fair share</i>	<i>I do a bit less than my fair share</i>	<i>I do much less than my fair share</i>	
Men—partnered						
With no children	4.3	8.0	59.5	22.8	5.4	100.0
With at least one child under 15	4.3	7.3	55.7	26.5	6.1	100.0
With at least one child aged 15 or over (no children under 15)	8.9	9.5	52.5	24.7	*4.3	100.0
Women—partnered						
With no children	21.4	25.1	46.4	4.8	2.3	100.0
With at least one child under 15	35.1	34.0	27.5	3.2	*0.2	100.0
With at least one child aged 15 or over (no children under 15)	38.2	27.3	30.0	*3.2	*1.3	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 7: Perception of division of child care, by gender, labour force status and relationship status, 2005 (%)

<i>Labour force status</i>	<i>Share of looking after the children</i>					<i>Total</i>
	<i>I do much more than my fair share</i>	<i>I do a bit more than my fair share</i>	<i>I do my fair share</i>	<i>I do a bit less than my fair share</i>	<i>I do much less than my fair share</i>	
Men—partnered						
Employed full-time	2.6	4.2	64.6	24.6	4.0	100.0
Employed part-time	*9.6	*8.7	65.6	*14.0	*2.0	100.0
Unemployed	*19.5	*14.1	*55.5	*5.5	*5.4	100.0
Not in the labour force	*11.1	*6.6	64.2	*13.0	*5.1	100.0
Total	4.0	4.8	64.4	22.8	4.0	100.0
Men—no partner						
Employed full-time	19.7	*10.7	48.5	*11.5	*9.6	100.0
Employed part-time	*39.4	*4.9	*40.8	*7.2	*7.6	100.0
Unemployed	*39.7	*33.2	*14.2	*5.6	*7.3	100.0
Not in the labour force	*41.0	*12.2	*21.8	*9.7	*15.2	100.0
Total	27.3	11.4	40.5	10.3	*10.4	100.0
Women—partnered						
Employed full-time	31.4	27.7	39.4	*1.6	*0.0	100.0
Employed part-time	33.2	36.0	30.7	*0.0	*0.1	100.0
Unemployed	*46.7	*22.4	*30.9	*0.0	*0.0	100.0
Not in the labour force	35.8	28.1	35.0	*1.1	*0.0	100.0
Total	33.9	31.0	34.3	*0.8	*0.0	100.0
Women—no partner						
Employed full-time	74.7	*12.9	*11.2	*1.2	*0.0	100.0
Employed part-time	75.4	*11.2	13.3	*0.0	*0.0	100.0
Unemployed	79.4	*0.0	*20.6	*0.0	*0.0	100.0
Not in the labour force	82.3	*6.9	*9.8	*1.1	*0.0	100.0
Total	78.3	9.0	12.0	0.7	*0.0	100.0

Notes: Population weighted results. * Estimate not reliable.

partnered fathers it was much more common for partnered mothers to say they did more than their fair share of the child care, with 59.1% of partnered mothers who worked full-time, 69.2% of partnered mothers who worked part-time and 63.9% of partnered mothers who were not in the labour force saying they did more than their fair share. A very high proportion of lone mothers (78.3%) said they did much more than their fair share of looking after the children, compared to only 27.3% of lone fathers.⁷ This is not surprising as most children tend to live with their mother when their parents separate.

Conclusions

Most men thought they did their fair share of household chores and looking after the children. A high proportion of partnered women, particularly women with resident children, thought they did more than their fair share of household chores. Compared to partnered men, partnered women thought they did more than their fair share of looking after the children, and almost 80% of lone mothers said they did much more than their fair share of child care.

The HILDA Survey data show that, on average, women spend more hours per week doing housework and household errands than men do, but men spend more time working, commuting and doing outdoor tasks than women do. In couple households where the woman works more hours than the man, men take more responsibility for household chores. In households where the man works and the woman is not in paid work, men do the least amount of domestic chores. Overall, it appears that women and men, including those in couples, spend approximately the same amount of time on 'required' activities (working, commuting, and indoor or outdoor household tasks) and, by inference, may have approximately the same amount of leisure or discretionary time.

Paying for help with housework was more common in high income households and in households where a household member had a long-term health condition or disability. However, the proportion of low income households who paid someone to help with gardening and lawn mowing was slightly higher than that of high income households, suggesting that many people who cannot do these tasks themselves have to pay someone else to do it.

Endnotes

- 1 All figures refer to a '7-day week', rather than a 'working week'.
- 2 Using data from the 1997 Australian Bureau of Statistics Time Use Survey, Craig (2004) found that sole mothers in Australia provided their children with very similar amounts and types of care to that available to children in couple families. However, sole mothers did not spend as much time doing housework as partnered women did, and they enjoyed more leisure without their children present than did partnered mothers.
- 3 It may be the case that men in this household have a work limiting health condition that also prevents them from doing physically demanding household chores. In 2005, 25.9% of men in couple households where the woman worked full-time and the man was not in paid work reported a long-term health condition or disability.
- 4 Note that there are two groups of couple families: young couples who may need help if both partners are working full-time, and older couples who may need help if they are no longer capable of doing these tasks on their own.
- 5 Lone parent households and single persons are not included in the table as most said they do their fair share, or more than their fair share.
- 6 This question is not restricted to parents with children who live with them most of the time (i.e. parents with non-resident children are also included). When restricted to parents with children living with them most of the time, almost all say they do their fair share or more than their fair share.
- 7 The evidence on child care in HILDA is far from ideal for making this distinction. In particular, although a question is asked about time spent with one's children, no attempt is made to distinguish between enjoyable leisure activities and more or less 'required' caring activities.

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Parents disagree about who takes care of the children

In 2005, new questions about how parenting tasks are divided within the household were added to the HILDA Survey. Parents with resident children aged 13 or less were asked who does tasks such as helping the children with their homework and ferrying the children to and from places such as school, child care and leisure activities. Table 1 shows how these child-related tasks are divided between mothers and fathers.¹

More than half (56.6%) of mothers said that they were the one who stayed home with the children when they were ill, compared to only 4.9% of fathers. While 70.9% of fathers said that time spent playing with the children and taking part in leisure activities was shared equally between both parents, only 54.4% of mothers agreed, and 41.3% said it was usually or always them. Dressing the children and putting the children to bed was also more commonly done by mothers than fathers, and 37.9% of mothers said that they were always the one who took the children to school or other activities, compared to only 5.8% of fathers.

Table 1 shows that it is mothers who do most of the child-related tasks, but it does not account for the time that each parent spends at work. It would seem reasonable for a stay at home mother or father to do most of these tasks if their partner were working full-time. The previous HILDA Statistical

Report (Headey and Warren, 2007) showed that, although women spend more time each week doing household chores, men, on average, spend more hours each week working, commuting and doing outdoor tasks around the house than women do, and overall these tasks amount to around 60 hours per week for both women and men. Tables 2 to 5 show parents' perceptions of how these child-related tasks are divided in households where both parents work full-time, where the father works full-time and the mother works part-time, where the father works full-time and the mother is not in paid work, and where both parents are not in paid work.²

In households where both parents work full-time, mothers still take more responsibility for seeing that the children are properly dressed, putting the children to bed, helping with homework and taking the kids to school or other activities. Over 70% of mothers and fathers who worked full-time said that time spent playing with the children and taking part in leisure activities was shared equally with their partner, and, while 40% of mothers in households where both parents worked full-time said the task of helping the children with their homework was shared equally with their partner, 45.3% said that they were the ones who either usually or always helped with homework. When it came to staying home from

Table 1: Child-related tasks, all parents, 2005 (%)

	Always me	Usually me	Me and my partner about equally	Usually my partner	Always my partner	Another person(s) in the household	Someone not living in the household	Total
Staying at home with the children when they are ill								
Mothers	56.6	23.7	16.0	2.3	*0.4	*0.5	*0.5	100.0
Fathers	4.9	3.0	25.0	42.2	23.7	*0.4	*0.8	100.0
Playing with the children and/or taking part in leisure activities with them								
Mothers	21.9	19.4	54.4	3.2	*0.4	*0.5	*0.1	100.0
Fathers	3.5	6.0	70.9	18.1	*1.4	*0.1	*0.0	100.0
Dressing the children or seeing that the children are properly dressed								
Mothers	45.6	36.2	16.8	*0.7	*0.2	*0.6	*0.0	100.0
Fathers	3.5	1.9	28.2	53.5	12.0	*1.0	*0.0	100.0
Putting the children to bed and/or seeing that they go to bed								
Mothers	33.4	22.0	39.5	4.1	*0.9	*0.1	*0.0	100.0
Fathers	3.6	7.7	55.4	26.9	6.1	*0.2	*0.0	100.0
Helping the children with homework								
Mothers	35.7	28.0	29.2	4.9	*1.1	*1.1	*0.1	100.0
Fathers	4.9	7.4	41.3	36.5	8.1	*1.5	*0.2	100.0
Ferrying the children to and from places such as school, child care or other leisure activities								
Mothers	37.9	31.2	23.9	4.7	1.1	*0.6	*0.5	100.0
Fathers	5.8	6.4	36.2	40.9	10.0	*0.5	*0.3	100.0

Notes: Population weighted results. * Estimate not reliable.

work when the children were ill, 25.5% of the mothers said that they were the one who always stayed home, compared to only 2.1% of fathers.

Table 3 shows parents' perceptions of how child-related tasks are divided in households where the father works full-time and the mother works

part-time. Compared to households where both parents worked full-time, in households where the father worked full-time and the mother worked part-time, mothers took on more responsibility for taking care of the children. For parents with this type of work arrangement, it was more common

Table 2: Child-related tasks, couple households where both parents work full-time, 2005 (%)

	<i>Always me</i>	<i>Usually me</i>	<i>Me and my partner about equally</i>	<i>Usually my partner</i>	<i>Always my partner</i>	<i>Another person(s) in the household</i>	<i>Someone not living in the household</i>	<i>Total</i>
Staying at home with the children when they are ill								
Mothers	25.5	34.4	32.7	5.4	0.4	0.4	1.1	100.0
Fathers	2.1	4.7	36.9	43.2	10.6	0.3	2.1	100.0
Playing with the children and/or taking part in leisure activities with them								
Mothers	5.8	13.4	72.9	7.2	0.7	0.0	0.0	100.0
Fathers	1.5	10.9	71.4	15.1	1.2	0.0	0.0	100.0
Helping the children with homework								
Mothers	14.0	31.3	40.0	10.6	2.1	1.4	0.5	100.0
Fathers	1.2	11.0	45.8	32.8	8.6	0.6	0.0	100.0
Dressing the children or seeing that the children are properly dressed								
Mothers	24.7	37.7	34.6	1.3	0.8	1.0	0.0	100.0
Fathers	0.5	1.3	39.2	45.1	13.0	0.8	0.0	100.0
Putting the children to bed and/or seeing that they go to bed								
Mothers	12.2	26.3	49.2	8.2	3.8	0.3	0.0	100.0
Fathers	1.3	9.7	55.0	27.8	5.8	0.5	0.0	100.0
Ferrying the children to and from places such as school, child care or other leisure activities								
Mothers	16.0	27.1	46.5	6.9	2.4	0.5	0.8	100.0
Fathers	2.4	9.4	50.0	30.9	6.8	0.0	0.5	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 3: Child-related tasks, couple households where father works full-time, mother works part-time, 2005 (%)

	<i>Always me</i>	<i>Usually me</i>	<i>Me and my partner about equally</i>	<i>Usually my partner</i>	<i>Always my partner</i>	<i>Another person(s) in the household</i>	<i>Someone not living in the household</i>	<i>Total</i>
Staying at home with the children when they are ill								
Mothers	42.0	38.2	17.3	1.7	*0.0	*0.1	*0.6	100.0
Fathers	1.0	2.0	23.3	49.9	22.9	*0.0	0.9	100.0
Playing with the children and/or taking part in leisure activities with them								
Mothers	5.6	22.0	70.5	1.2	*0.4	*0.3	*0.0	100.0
Fathers	*0.8	2.6	76.4	19.2	1.0	*0.1	*0.0	100.0
Helping the children with homework								
Mothers	17.6	41.0	37.0	3.6	*0.8	*0.0	*0.0	100.0
Fathers	*0.8	5.1	43.0	45.1	5.8	*0.3	*0.0	100.0
Dressing the children or seeing that the children are properly dressed								
Mothers	29.0	52.2	18.3	*0.4	*0.0	*0.1	*0.0	100.0
Fathers	*0.4	*0.5	28.1	61.0	9.5	*0.5	*0.0	100.0
Putting the children to bed and/or seeing that they go to bed								
Mothers	16.6	28.3	49.6	5.2	*0.1	*0.1	*0.0	100.0
Fathers	1.1	8.7	57.1	29.2	3.7	*0.1	*0.0	100.0
Ferrying the children to and from places such as school, child care or other leisure activities								
Mothers	23.2	47.1	26.6	2.8	*0.3	*0.0	*0.0	100.0
Fathers	1.1	3.8	36.4	48.7	9.6	*0.3	*0.1	100.0

Notes: Population weighted results. * Estimate not reliable.

for mothers than fathers to help the children with homework, only 5.9% of fathers said that they were usually or always the parent who helped with homework, compared to 58.6% of mothers. It was also more common for mothers to stay home when the children were ill, and although 36.4% of

fathers said that the task of ferrying the children around to school or leisure activities was shared, over 70% of mothers said that they were either usually or always responsible for this task. In households where the father worked full-time and the mother worked part-time, most parents (70.5%

Table 4: Child-related tasks, couple households where father works full-time, mother not in paid work, 2005 (%)

	<i>Always me</i>	<i>Usually me</i>	<i>Me and my partner about equally</i>	<i>Usually my partner</i>	<i>Always my partner</i>	<i>Another person(s) in the household</i>	<i>Someone not living in the household</i>	<i>Total</i>
Staying at home with the children when they are ill								
Mothers	76.5	19.5	3.6	*0.2	*0.3	*0.0	*0.0	100.0
Fathers	*0.8	0.5	6.6	47.4	44.4	*0.3	*0.0	100.0
Playing with the children and/or taking part in leisure activities with them								
Mothers	9.4	25.7	61.6	2.7	*0.5	*0.1	*0.0	100.0
Fathers	*0.6	3.2	67.5	26.8	1.9	*0.0	*0.0	100.0
Helping the children with homework								
Mothers	25.1	31.3	36.9	5.8	*0.9	*0.0	*0.0	100.0
Fathers	2.4	4.8	38.5	41.0	13.3	*0.0	*0.0	100.0
Dressing the children or seeing that the children are properly dressed								
Mothers	43.6	44.9	11.2	*0.3	*0.0	*0.0	*0.0	100.0
Fathers	*0.6	0.8	16.3	67.1	14.9	*0.3	*0.0	100.0
Putting the children to bed and/or seeing that they go to bed								
Mothers	19.9	24.6	50.5	4.6	*0.4	*0.0	*0.0	100.0
Fathers	1.3	6.2	54.1	30.6	7.8	*0.0	*0.0	100.0
Ferrying the children to and from places such as school, child care or other leisure activities								
Mothers	39.1	36.2	20.4	2.4	*0.7	*1.0	*0.1	100.0
Fathers	2.5	2.2	26.5	51.8	16.3	*0.7	*0.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Child-related tasks, couple households where both parents are not in paid work, 2005 (%)

	<i>Always me</i>	<i>Usually me</i>	<i>Me and my partner about equally</i>	<i>Usually my partner</i>	<i>Always my partner</i>	<i>Another person(s) in the household</i>	<i>Someone not living in the household</i>	<i>Total</i>
Staying at home with the children when they are ill								
Mothers	25.7	13.3	60.7	*0.0	*0.0	*0.3	*0.0	100.0
Fathers	*3.8	*0.0	66.9	22.2	*7.1	*0.0	*0.0	100.0
Playing with the children and/or taking part in leisure activities with them								
Mothers	6.9	19.2	65.9	6.7	*1.1	*0.3	*0.0	100.0
Fathers	*2.5	6.5	74.5	11.9	4.5	*0.0	*0.0	100.0
Helping the children with homework								
Mothers	15.0	25.0	41.6	9.4	*1.9	*7.1	*0.0	100.0
Fathers	*0.8	*9.7	37.4	31.8	*8.3	*12.0	*0.0	100.0
Dressing the children or seeing that the children are properly dressed								
Mothers	31.3	34.6	29.6	*2.9	*0.0	*1.6	*0.0	100.0
Fathers	*5.7	*2.3	32.3	34.5	24.9	*0.4	*0.0	100.0
Putting the children to bed and/or seeing that they go to bed								
Mothers	16.0	12.7	66.3	2.6	*1.6	*0.7	*0.0	100.0
Fathers	*1.3	10.2	65.4	12.6	10.1	*0.4	*0.0	100.0
Ferrying the children to and from places such as school, child care or other leisure activities								
Mothers	11.9	32.6	31.5	17.6	*3.6	*0.4	*2.4	100.0
Fathers	10.0	13.1	41.7	23.1	6.8	*3.0	*2.2	100.0

Notes: Population weighted results. * Estimate not reliable.

of mothers and 76.4% of fathers) said that time spent playing with the children or taking part in leisure activities with the children was shared equally with their partner, but 19.2% of fathers said that it was usually the mother who spent this time with the children.

Table 4 shows that in households where the father worked full-time and the mother was not in paid work, the mother took on more of the child-related tasks than mothers who worked either full-time or part-time. In households where the father worked full-time and the mother stayed home with the children, the mother was almost always the one who took the children to school or other activities and made sure the children were dressed properly. The proportion of mothers who said they always stayed home when the children were sick was 76.5%, compared to 42% of mothers who worked part-time and 25.5% of mothers who worked full-time. Over 60% of parents in households where the father worked full-time and the mother was not in paid work said that the time they spent playing with the children and taking part in leisure activities with them as shared about equally.

Table 5 shows that, compared to households where one or both parents were working, in households where both parents were not in paid work, the child-related tasks seem to be shared more equitably, although mothers still took on more responsibility for some of these tasks, such as staying home with the children when they were sick, than fathers did.

Concluding points

In households where women worked more than men (either the woman was in paid work and the man was not, or the woman worked full-time and the man worked part-time) the most common response to all these questions, for both women and men was that the tasks were shared equally between themselves and their partner. Furthermore, in households where the father was not working and the mother worked either full-time or part-time, on average, mothers took on more child care responsibilities than fathers did.³

Can it be assumed that the women's perceptions are correct and the men's incorrect, or are women overestimating the amount of work they do in taking care of the children? More men than women seem to think that child-related tasks are shared equally between the two parents. It seems that either some fathers do not realise the extent of these tasks, or they are not as concerned as mothers are about things like when the children go to bed or if they are dressed properly.

Endnotes

- 1 These responses are subjective and in some cases may not reflect what actually goes on in the household.
- 2 Of course, in sole parent households, almost all of these tasks are done by the resident parent, and almost all sole parents answered either 'always me; or 'usually me' to these questions.
- 3 In some households it may be the case that health condition or disability prevented the father from working and helping out with the children.

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Economic well-being in Australia: The value of longitudinal household accounts including consumption measures

The HILDA Survey is moving towards providing a full set of household financial accounts on a longitudinal multi-year basis. A full set of accounts, which includes measures of wealth and consumption as well as income, will enable us to make much improved estimates of the *economic well-being* of Australians. The term ‘economic well-being’ is used here interchangeably with ‘material standard of living’, or ‘material resources’. So the aim is to improve assessment of the amount and distribution of material resources owned and/or used by Australian individuals and households.

In this article, the main focus will be on the contribution made by the addition to household accounts of measures of *household consumption*, which were included in HILDA for the first time in 2005. In 2006 household wealth will be measured as well, so then a complete set of accounts will be available. It will then be possible to trace the economic well-being of a representative sample of households through time, describing and, it is hoped, explaining their changing fortunes.

Household expenditures and consumption

Households spend money on both non-durable and durable goods and services. Non-durables—goods consumed fairly soon after purchase—include such items as groceries, fuel and holiday expenditures. Durables, by contrast, may be ‘consumed’ over long periods of time. Durables include housing, cars and white goods. In measuring non-durable expenditure during a particular time period, the market price is all we need to know. In the case of durables, it is necessary to *estimate* a use value or rental value if no market rental value is immediately available. For example, in the case of homeowner housing, an imputed rent may be estimated, which is conceived of as the rent the property would attract if it were rented out.

When media commentators and academics write about people’s economic well-being or standard of living, they usually cite evidence relating to incomes. This is conventional and it is certainly true that income data are more readily available than other measures. Arguably, however, income data do not provide the best measure of economic well-being and they certainly provide only an incomplete measure. If one were forced to select just one single measure of a household’s or individual’s standard of living right now, then a consumption measure would almost certainly be best.

One’s standard of living right now (this week or this year) is *one’s level of consumption*. By ‘level of consumption’ we mean the value of goods and services used. Goods and services include both consumption goods and durables. Consumption goods, for example food and clothing, are fairly quickly consumed or used up. In the case of durables, like housing and cars, use may be spread over a long period.

The distinction between income and consumption (and between income and wealth) would be of no practical importance if income and consumption were very highly correlated; that is, if the same individuals and households had high or low levels of both. But they do not—Household Expenditure Surveys, regularly conducted by the Australian Bureau of Statistics, invariably show only moderate correlations between household income (before or after tax) and consumption. Further, these measures show that nearly half of all households appear to consume more than they earn, or to be more exact, more than their disposable income.

This discrepancy between consumption and earnings might seem surprising, but is precisely what economists who have tried to understand *lifetime incomes and lifetime consumption* would expect. It is well known that people’s earnings tend to increase from the time they start work until roughly their early or mid-fifties, then taper downwards towards retirement. A rational individual (or household) would anticipate this trajectory and would rationally decide to smooth his/her consumption, so that consumption was more equal year after year than income. Typically, households headed by young parents consume more than they earn when their children are young, save money (earn more than they consume) in later middle age, and then in retirement consume much more than they earn. The current understanding of ‘lifetime income’ (or ‘permanent income’) and ‘consumption smoothing’ owes much to the work of the Nobel Laureate, Milton Friedman (see Friedman, 1957).

Measuring consumption in HILDA

In the past it has been generally believed that the only valid way to measure household consumption is to get household members to fill in weekly ‘shopping diaries’ of the kind used in national household expenditure surveys, including ABS surveys. The general view has been that to ask

expenditure questions in a standard interview format would yield invalid data because, without the assistance of a diary, respondents would be unable to remember how much they spent on various goods and services. However, recent work in Canada has shown that, in fact, some items of expenditure are more accurately reported in standard surveys than a diary, in part because respondents can say how much they 'usually' spend on items, whereas a diary records expenditure in a specific time period (usually just a week), which may or may not be typical for an individual respondent or household (Browning, Crossley and Weber, 2003). Further, the Canadian researchers showed that total household expenditure can be accurately extrapolated from the validly reported items.¹ The official Canadian statistical agency, Statistics Canada, now regularly uses standard survey methods to collect expenditure data. It should be noted, however, that their instrument appears too long for inclusion in a panel survey like HILDA.

For the HILDA panel, we have tried to develop a set of questions to provide valid measurement of a wide range of household expenditures, but not all. Our approach is to divide expenditure into weekly, monthly and annual items. It seems natural, or at least sensible, for some items (e.g. groceries, public transport and taxis) to ask how much is spent in 'a typical week'. For other items (e.g. motor vehicle fuel and telephone calls) we ask how much is spent in 'a typical month', and for a third set (e.g. holidays, costs of education) we ask about the whole year.

In the 2005 HILDA Survey all the consumption goods on which households spend at least a moderate amount of money were included: groceries, meals eaten out, alcohol, cigarettes and tobacco, public transport and taxis, motor fuel, car repairs, telephone costs, other utilities (gas, electricity, water), home maintenance, education, health insurance, clothing and footwear, health care, child care, holidays and hobbies. The only consumer durable that was included was housing—both mortgages and rents. Other durables were omitted, but will be attempted in 2006.

The obvious way to assess measurement validity is to make an adjustment for inflation and benchmark results against the latest ABS Household Expenditure Survey (HES) for which published data are available, namely the HES conducted in 2003–04. It transpires that HILDA appears to have recorded accurate measurement (to within plus or minus 10%) of 53% of total household expenditure on goods and services. The validly measured items were the first twelve on the list in the previous paragraph, starting with groceries, plus housing and rent. The items for which HILDA estimates proved inaccurate were the last five on the list, starting with clothing and footwear.

In the case of the validly measured items, the total expenditure figure in HILDA differs by only 3.8% from the HES total for the same items, after adjusting for inflation.² A key point is that the so-called validly measured items correlate 0.76 with total household expenditure.³ Further, and relevant to the measurement of poverty, the same correlation (0.76) was found for low income households.

Clearly we need to keep trying to improve our household expenditure instrument, but arguably, a correlation of 0.76 means that it is reasonable to extrapolate total household expenditure, or, as done in this article, to simply to assume that households are placed in correct ratio scale order for total expenditure on the basis of their consumption expenditures plus housing. Here it needs to be conceded that the distinction being made between household expenditure and consumption is fairly crude. Conceptually, the difference is that expenditure is out-of-pocket expenses, whereas consumption also includes benefits in kind. In this article, expenditure estimates are treated as equivalent to consumption, except in the case of owner–occupier housing.⁴ Here the consumption benefit has been equated to a rental value set at 6% of the current value of the house if sold today (as estimated by HILDA Survey respondents).⁵

Finally, in regard to measurement issues, it should be noted that about 84% of households provided information about their expenditures for all items included in the 2005 HILDA Survey. Imputed values were added for the remaining 16% of households with some missing data.⁶

Evidence that consumption is much more equally distributed than income: Consumption smoothing

If it is accepted that HILDA provides reasonably valid consumption data, then the implications for an assessment of the economic well-being of Australian households are quite profound. In particular, consumption data suggest a quite different view of the degree of equality/inequality of economic well-being in this country than is derived from more standard analyses which use income data (see also Barrett, Crossley and Worswick, 2000).

Household disposable income

Household disposable income is the combined income of all household members after receipt of public transfers (government pensions and benefits) and deduction of taxes. It could also be termed 'household post-government income'.

Household gross income

Household gross income is the combined cash income of all household members from all sources: labour income, asset income, private transfers and public transfers (government pensions and benefits).

In Table 1, households have been divided into deciles—equal 10% groupings—according to their shares of (i) total equivalised household disposable income and (ii) total household consumption. It should be understood that households do *not* necessarily fall into the same income and consumption deciles. Issues to do with the relationship between current (and lifetime) income and consumption are discussed below (see Table 2). In order to provide more valid comparisons of the economic well-being of different households, both income and consumption have been adjusted for household size, using the standard OECD equivalence scale.

Equivalised income

The purpose of constructing measures of equivalised income is to get a measure of material standard of living which adjusts for differences in household size. The most obvious adjustment would be household income per head, but this would make no allowance for economies of scale in larger households. Equivalised income is defined as household disposable income (i.e. income after taxes and transfers; pensions and benefits) divided by an equivalence scale based on household size. Normally, all individuals in a household are given the same equivalised income; the assumption being that income is shared, so that everyone's standard of living is the same.

Equivalence scale

An equivalence scale is used to calculate equivalised income. In this Report, we have used the OECD equivalence scale, which allows 1.0 for the first adult in the household, 0.5 for other adults, and 0.3 for children under 15. So a household of two adults and two children would have an equivalence score of 2.1 (1.0 + 0.5 + 0.3 + 0.3). Equivalised income is calculated by dividing household disposable income (income after taxes and transfers) by the equivalence score for the household.

The key result in Table 1 is that household consumption is a good deal more equally distributed than income. The bottom decile of the income distribution receives 3.1% of total national household disposable income, whereas the bottom decile in the consumption distribution is estimated to consume 4.0% of all goods and services consumed by the household sector. At the other end of these distributions, the top income decile receives 24.2% of all disposable income, while the top consumption decile uses 21.0% of goods and services.

A summary measure of inequality is the Gini coefficient, which runs between zero and one. A Gini of zero would mean that incomes or consumption were exactly equally distributed, whereas a Gini of one would mean that one household received all income, or consumed all goods and services. In 2005, according to HILDA, the Gini coefficient of disposable (equivalised) income was 0.314, whereas the Gini for consumption was 0.250. This means that consumption was just over 20% more equally distributed than income.⁷

So, what explains this divergence? One hypothesis, tested in Table 2, is that in order to have what they regard as a tolerable standard of living, households near the bottom end of the income distribution may generally consume more than their current income, whereas households towards the top end consume less than their income. This would of course imply that lower income households either go into debt, or draw down on assets, or perhaps receive gifts from, say, their parents. Conversely, household near the top end of the distribution would be saving money if their incomes exceeded their consumption. These points follow from a standard equation, given in economics textbooks, which stipulates that, in any given year, a household's consumption equals its income minus its change in wealth.⁸

Table 2 asks the question, 'In 2005 what was the share of consumption of each of the ten income deciles?' It is clear from the evidence in Table 2 that the lower income deciles consume a great deal more than a naïve observer might expect, and the higher income deciles consume much less. The lowest income decile in 2005 consumed 7.6% of total household consumption, despite receiving only 3.1% of household disposable income. As it happens, the second and third income deciles are also estimated to have consumed 7.6% of total consumption, despite receiving considerably less than this share of total income. At the top end of the income distribution a good deal of saving is occurring. The top income decile received nearly a quarter of all disposable income, but had just over a 15% 'share' of consumption. Overall, the correlation between household disposable income and household consumption in HILDA 2005 was only 0.55.⁹

Table 1: Decile shares of income and consumption in 2005 (%)

<i>Decile of income or consumption</i>	<i>Share of total household equivalised income</i>	<i>Share of total household consumption</i>
Decile 1 (lowest income or consumption)	3.1	4.0
Decile 2	4.6	5.7
Decile 3	5.8	6.8
Decile 4	7.0	7.8
Decile 5	8.1	8.7
Decile 6	9.3	9.6
Decile 7	10.6	10.6
Decile 8	12.4	11.9
Decile 9	15.0	13.9
Decile 10 (highest income or consumption)	24.2	21.0
Total	100.0	100.0

Notes: Population weighted results. Both income and consumption have been equivalised, using the standard OECD equivalence scale. See the Glossary for a description of this scale.

Table 2: Share of income or consumption of each income decile in 2005 (%)

<i>Decile of income</i>	<i>Share of total household income</i>	<i>Share of total household consumption</i>
Decile 1 (lowest income group)	3.1	7.6
Decile 2	4.6	7.6
Decile 3	5.8	7.6
Decile 4	7.0	8.6
Decile 5	8.1	9.2
Decile 6	9.3	9.9
Decile 7	10.6	10.5
Decile 8	12.4	11.0
Decile 9	15.0	12.7
Decile 10 (highest income group)	24.2	15.4
Total	100.0	100.0

Notes: Population weighted results. Both income and consumption have been equivalised, using the standard OECD equivalence scale. See the Glossary for a description of this scale.

A naïve observer, unfamiliar with concepts of lifetime (or ‘permanent’) income and consumption smoothing, might jump to the conclusion that many households are living beyond their means and are headed towards insolvency and perhaps poverty. In some cases the naïve observer could be right (more discussion below), but many other things are going on. More detailed analysis shows that, as permanent income theory predicts, many households headed by young couples or single persons who have a ‘good’ education, and so may reasonably expect high future earnings, currently consume considerably more than they earn. So also do some households which hold a large amount of housing equity; that is, they have paid off all or part of their mortgage. Their high level of consumption is in part simply due to the fact that, as explained above, 6% of housing equity is treated as imputed rent and included as part of overall consumption. Finally, and as expected, many of those who consume more than they receive in cash income are retirees. In a large majority of cases, they own their homes outright and, additionally, some are using up their superannuation and other savings.

It remains true that some individuals and households without obvious prospects of higher future incomes and without substantial housing equity consumed a lot more than they earned in 2005. Some were families with children and also with low incomes, who appear to be struggling to maintain a minimum adequate level of consumption.¹⁰ Others were young single people, especially young women, who may perhaps have been receiving subsidies from parents or other relatives.¹¹ Other households may indeed be going into debt and may be headed towards insolvency, but without having up-to-date information on their

savings and assets, it is not possible to say for how long their current budgeting could persist.

The focus so far has been on households whose consumption exceeds their income. There are also, as Table 2 makes clear, many households which save substantial amounts. The largest group comprises high income pre-retirement households who have good prospects of being at least partly self-funding in retirement. In the wake of recent Federal Budgets, these pre-retirement households now have substantial incentives to save.

Discussion: Implications for economic well-being

The HILDA consumption data for 2005 have quite significant implications for an understanding of economic well-being and economic inequality in this country. In future years, as longitudinal data that cover a full set of household accounts become available, clearer evidence of consumption smoothing will emerge, and it should be possible to assess medium-term and long-term economic well-being. It is also obvious that data on consumption, in conjunction with data on income and wealth, will have important implications for an improved assessment of other public policy issues, including financial poverty. Poverty researchers have frequently observed that, in principle, poverty is best defined as involuntary low consumption rather than low income (Townsend, 1979), or perhaps as low consumption *and* low income (Ringen, 1987) or even as low consumption, low income and low net worth (Headey, 2006).

In the future, the HILDA Survey will attempt to provide the detailed household accounts needed to estimate how many and which kinds of households are not coping financially. It will also provide valuable data on savings, wealth accumulation and many other aspects of economic well-being.

Endnotes

- 1 It is far from certain, however, that a *longitudinal series of estimates* of total expenditure could be validly obtained in this way. In other words, a few items may or may not provide an adequate basis for estimating annual *changes* in expenditure. Clearly, the prime purpose of HILDA is to provide longitudinal estimates.
- 2 The HILDA figure was higher which is what would be expected, given real growth in incomes between the time HES was conducted in 2003–04 and the HILDA Survey in September–October 2005.
- 3 This correlation was supplied by ABS, based on the 2003–04 Household Expenditure Survey.
- 4 This seems realistic, given the list of items is accurately measured. Clearly it would not be realistic if more consumer durables, in addition to housing, were included.
- 5 6% of current sale value is a fairly standard rule of thumb for the rent that a dwelling would be likely to

attract. Clearly, however, actual rental values in specific suburbs can differ quite widely from this guideline.

- 6 The imputation was done by the authors, using the SPSS MVA (missing values analysis) program. The imputation is likely to be revised in future years, when it is expected that the HILDA statistical team will undertake a longitudinal imputation of the kind already done for individual and household incomes.
- 7 That is, $(0.314 - 0.250)/0.314 = 0.206$.
- 8 This assumes that both realised and unrealised capital gains are treated as income.
- 9 This is the correlation for unadjusted household disposable income and consumption. The correlation for the equivalised measures was lower at 0.40.
- 10 Consumption is quite strongly related to household size, even when, in a regression equation, household income is controlled. This remains true, when years of education (a proxy for earning capacity) are also controlled.
- 11 In principle, HILDA collects information about inter-household transfers, but as in all surveys these are probably under-reported.

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Medium-term income poverty in Australia: How many were medium-term poor in 2001–2005?

The availability now of five years of HILDA data provides the first real opportunity in Australia to assess the prevalence of *medium-term poverty*. A big advantage of a longitudinal survey like HILDA is that it enables us to distinguish between individuals and households who experience short-term income poverty and those who suffer longer term poverty. Clearly, medium and longer term poverty matter a great deal more than short-term poverty. Medium-term and long-term poverty are likely to have more serious negative effects on adults' careers and children's life prospects than short-term poverty.

Distinguishing between short-term and medium-term relative income poverty

Almost all previously published results in Australia describe only short-term income poverty. Annual poverty rates are usually quite stable, so it is 'natural' to infer that the same people tend to remain poor year after year. But is this true? With five years of data, HILDA is able to give some preliminary results about the persistence of poverty.

How should medium-term poverty be defined? In this article two alternative approaches are used. The more conventional approach is to use a 'count' method, which involves counting the number of years out of five in 2001–2005 that individuals fell below an income poverty line. Individuals are then defined as medium-term poor if they were poor for all five years, or for (say) three or four years running. An alternative approach, used in Goodin et al. (1999), is to calculate a poverty line for all five years combined and then to designate people as poor if their income for the entire period fell below that poverty line.

Limitations of the relative income approach to poverty

For the purposes of this article, poverty is defined in terms of *low income*. However, the income poverty approach, while widely used in Australia and elsewhere, is probably too narrow. At least three other approaches, which define poverty in terms of multiple dimensions of disadvantage, have attracted interest in Western governmental

Relative income poverty

A person or a household 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. Two different relative income poverty lines are used in this Report. One defines individuals as poor if their equivalised household income is less than 50% of median equivalised income. The second relative poverty line uses a cut-off of 60% of median household income.

Wealth/net worth

Household wealth is measured by the net worth (total assets minus total debts) of all members of the household. Assets include housing and other property, pensions and superannuation, businesses and farms, equity investments (shares and managed funds), cars and other vehicles, and cash in bank accounts. The most common types of debt are mortgages on properties, loans for businesses or farms, HECS (student) debt and credit card debt.

and policy-making circles. Poverty and disadvantage may be defined in terms of low capabilities (Sen, 1999), or as social exclusion and barriers to participation (European Commission, 2000), or as material deprivation based on measuring both low income and low consumption (Ringen, 1987; see also Townsend, 1979 who favours an approach based only on consumption deprivation rather than also on income). Headey (2007) has suggested extending this last approach to take account of wealth (net worth) as well.

One reason for these multidimensional approaches to poverty is that it is widely recognised that an approach based solely on income has both conceptual and empirical limitations. Conceptually, income provides a household with *potential* command over economic resources. Whether a household actually has an adequate standard of living (however adequate is defined) depends on its actual consumption level; that is, its expenditures plus its consumption of benefits in kind, including public services. Empirically, there are serious difficulties in measuring low incomes. One important problem is that receipt of government income support payments tends to be under-reported in surveys.¹

The provision of housing support, either through supply of public housing or rent assistance, is a major benefit to those on low incomes. Capturing and quantifying these data is challenging and their absence from calculations of income poverty can distort the apparent circumstances of those identified as income poor.

The limitations of using income to define poverty are perhaps best exemplified through some analysis of financial stress, as reported in the previous Statistical Report. While experience of financial stress is not equivalent to experience of poverty—a person who has adapted to live within very meagre means and therefore does not report experience of financial stress may nonetheless still be poor—it is telling that only about a third of those who were poor as measured by the 50% of median income poverty line reported financial problems in 2004. Conversely 79.2% of those who indicated they were in financial stress were not in income poverty.

Defining relative income poverty and medium-term poverty

What do we mean by income poverty, and what cut-off points should be used to determine who is poor? In a developed country like Australia almost any statement about who is poor and how many

are poor is bound to be politically sensitive and controversial. Some observers reject any concept of poverty except ‘absolute poverty’. To be in absolute poverty means to lack the basics: food, clothing and shelter. Clearly, few people in Western countries live in absolute poverty. So the concept of income poverty now used by most researchers and by some governments and international organisations is one of ‘*relative poverty*’. A person or a household 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.

Absolute poverty

Confusingly, absolute poverty has two meanings in social science research. In this Report, absolute poverty means lacking the basics: food, clothing and shelter. However, sometimes fixed or ‘anchored’ poverty lines, like the American ‘adequate diet’ poverty line, are referred to as absolute poverty lines. They are absolute rather than ‘relative’ in the sense that they are not adjusted upwards as mainstream living standards rise.

It turns out that there is a moderate degree of public consensus in Western countries about the level of income required to avoid relative poverty. Survey evidence regularly confirms that most members of the public believe that if a household has a disposable income under about 50% of the median or typical income, then that household is poor (Citro and Michael, 1995). However, it has to be recognised that definitions of relative income poverty are essentially arbitrary, even if based on a degree of public consensus.

For many years OECD and other international bodies defined relative income poverty as having a household income below 50% of median. More recently, the European Union and some member governments moved to a poverty line set at 60% of median income. In this article, we shall mostly (but not exclusively) use the older 50% line, which has been regularly used by Australian researchers. It should be understood, however, that no Australian Government has ever adopted an official poverty line.

As indicated above, two alternative approaches to defining medium-term poverty are used in this article. In previous reports on HILDA we have defined medium-term poverty as being poor for several years running, that is, three or four years. Here we continue with this approach and, with five years of data now available, we can assess how many Australians were five-year poor.

Table 1: Household incomes and relative poverty lines, 2001–2005 (\$)

	<i>Household disposable income (median)</i>	<i>Equivalent income (median)</i>	<i>Poverty line: 50% of median equivalent income</i>	<i>Poverty line: 60% of median equivalent income</i>
2001	48,992	24,962	12,481	14,977
2002	49,750	25,087	12,544	15,052
2003	49,721	25,617	12,809	15,370
2004	51,648	26,387	13,194	15,832
2005	52,780	26,680	13,340	16,008
2001–2005 mean	50,539	26,297	13,148	15,778

Note: Population weighted results.

Perhaps equally validly, however, we can also average incomes over the full five years, calculate 50% and 60% poverty lines for the entire period, and then define individuals as five-year poor if their average annual income during the entire period fell below the five-year poverty line. Of course, many of these individuals had periods within the five years when their incomes were temporarily above the five-year line.

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.

Equivalent incomes and relative poverty lines in 2001–2005

In calculating income poverty rates, it is normal to use measures of equivalent income, that is, income adjusted according to household needs. The way in which ‘equivalent income’ is calculated was explained in a previous article in this Report.

As preliminary information, Table 1 shows annual median household disposable incomes for 2001–2005, and also median equivalent incomes. The final two columns show poverty lines for 2001–2005 set at (i) 50% of median equivalent income and (ii) 60% of median equivalent income. The final row gives incomes and poverty lines based on average incomes for the five years combined. All figures are given in constant 2001 dollars (inflation adjusted).²

Median equivalent incomes are estimated to have risen by 6.9% in real terms in this period (i.e. after adjusting for inflation). So, by definition, the annual poverty lines rose by the same amount; that is, what is implied by using *relative* income poverty lines.

Table 2: Relative poverty contrasted with measures of the persistence of poverty, 2001–2005 (% poor)

	<i>50% poverty line</i>	<i>60% poverty line</i>
Annual poverty rates		
2001	14.0	20.9
2002	13.1	20.6
2003	12.8	20.5
2004	12.7	20.5
2005	12.9	20.4
Persistence of poverty:		
Number of years poor in 2001–2005		
Never poor	71.2 ^a	61.6
1 year poor	12.6	12.9
2 years poor	6.4	7.9
3 years poor	3.7	5.1
4 years poor	2.8	5.2
All 5 years poor	3.3	7.4
Total	100.0	100.0
Average income for 2001–2005 below 5-year line		
	9.0	16.5

Notes: Population weighted results. All longitudinal results are based on a five-year balanced panel of respondents for whom income data are available for all waves. ^a So, 28.8% were poor one or more times, using the 50% line, and 38.4% were poor one or more times, if the 60% line is used.

Short-term relative income poverty and poverty persistence

Table 2 gives annual rates of relative poverty in 2001–2005 and also measures of the *persistence* of poverty. One set of persistence measures show how many people had incomes below the poverty line in none of these years (i.e. they were zero years poor in 2001–2005), how many were poor in just one out of the five years, how many were poor in any two of the three years, any three years, any four years, and then how many were poor in all five years. The second set of persistence measures, given in the bottom row of the table, show the percentages who had average (mean) incomes below the five-year 50% and 60% poverty lines.

It should be understood that describing a household as poor in a particular year, or as poor on

average for the half-decade, does *not* mean that it had a poverty income for the entire period in question. It means that its equivalent income, taken over the period, was below the designated relative poverty line.

Defining relative poverty as having an income below 50% of median, the HILDA Survey finds that 14.0% of individuals were poor in 2001, 13.1% in 2002, 12.8% in 2003, 12.7% in 2004 and 12.9% in 2005. If the 60% of median cut-off is used, estimated poverty rates were 20.9% for 2001, 20.6% for 2002, 20.5% for 2003 and 2004 and 20.4% for 2005. On both measures, relative poverty generally declined to a modest extent, reflecting both a strong economy and the fact that government pensions and benefits continued to remove many people from poverty. The finding that relative poverty rates are a lot higher if the 60% cut-off is used is partly due to the fact that several Australian Government payments, including the couple old age pension, raise people above the 50% line, but not the 60% line.

The most interesting results in Table 2 relate to poverty persistence. At first sight (although not after some thought), the two different approaches to the measurement of persistent poverty might appear to yield somewhat contradictory results. The multi-year count measures apparently provide much lower assessments of poverty persistence than the five-year average measures (last row of Table 1). Using the 50% of median line, well over a quarter of the population (28.8%) were poor in at least one year in 2001–2005. But ‘only’ 3.3% were poor in all five years. If the 60% poverty line is used, it transpires that 38.4% were poor in at least one year, and 7.4% were poor in all five years. The five-year income averaging approach appears to indicate much ‘worse’ outcomes. Using the 50% poverty line, 9.0% are assessed as five-year poor and, if the 60% line is used, 16.5% are assessed as five-year poor.

The way to resolve the apparent contradiction between the two approaches is to reconsider the multi-year rates and to note that, using the 50%

line, 9.8% were poor in three or more (i.e. a majority) of the five years; a figure similar to the 9.0% who were poor on average during the period. Results for the 60% poverty line indicate that 17.7% were poor for three or more of the five years, which is not greatly different from the 16.5% who were poor on average in 2001–2005.

Both sets of estimates of medium-term poverty could be regarded as misleading in one respect. We do not know when those people who were already poor in 2001 first became poor, some were probably poor for several years before 2001.³

Income poverty transitions: Some preliminary indications

The purpose of this section is to give preliminary evidence about *poverty transitions*—‘entries’ into and ‘exits’ from poverty.

Research based on longer running panel data in other Western countries has yielded some consistent results about *poverty transitions*, even though international differences in poverty rates and poverty persistence are large (Goodin et al., 1999). These results are likely to be confirmed by the HILDA Survey data, but cannot be regarded as completely certain for Australia yet:

- *Most people who become poor soon cease to be poor.*
- *The longer one has been in poverty, the lower their chance is of ceasing to be poor.*
- *People who have been poor before, and then ceased to be poor, are more likely than average to become poor again.*

In regard to the first point, consider the HILDA respondents who were not poor in 2003 and then became poor in 2004. What happened to them in 2005? 26.8% of them remained poor for (at least) another year, while 73.2% were no longer poor and so had ‘only’ been poor for about a year. But did those who ceased to be poor have incomes only just above the poverty line, or did they move out of poverty by a considerable margin? To answer this question equivalised incomes have been divided into deciles (Table 3), that is, equal groupings of 10%. In interpreting Table 3, it should be remembered that in these years the entire first decile was poor, plus a few per cent at the bottom of the second decile.

Table 3 shows that many in this group escaped poverty by moderate or even fairly large margins. 23.6% now had incomes in the top half of the national distribution, and just over half (51.4%) were now in deciles 3, 4 or 5; quite well above the poverty line, but still below median income. However, about a quarter (24.9%) were in the second decile, but just above the 50% of median income poverty line.

Now consider a second group of HILDA respondents—those who were not income poor in 2001

Table 3: Decile position in the equivalised income distribution of individuals who were not poor in 2003, then became poor in 2004, and then became not poor again in 2005 (%)

<i>Decile position in 2005 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	24.9
3rd decile	22.9
4th decile	18.0
5th decile	10.5
Top half—deciles 6–10	23.6
Total	100.0

Note: Population weighted results.

but were in 2002, 2003 and 2004. The 'exit rate' in 2005 among those who had already been poor for three years was a great deal lower than the exit rate of the one-year poor discussed above; it was 30.5% as compared with 73.2%. Table 4 gives the 2005 incomes of the group who exited poverty in that year.

It can be seen that a majority were not much above the poverty line in 2005; 33.1% were just above the poverty threshold in the second decile of equivalised income and another 48.6% were in deciles 3, 4 and 5 combined, and 18.2% had moved to the top half of the income distribution.

Next, we consider the group who had been poor for four consecutive years in 2001–2004 but who were not poor in 2005 (Table 5). It should be noted that, unlike the previous groups, we do not know when these individuals first became poor. Some may have been poor for many years prior to 2001.

In this group, 83.6% remained poor in 2005 and, among the small minority who exited poverty, 64.3% were in the second decile and just above the poverty line in 2005. Another 32.7% were in deciles 3–5 and the remaining 2.9% were now in the top half of the equivalised income distribution.

Finally, consider a fourth group who were not poor in 2002, then poor in 2003, and again not poor in 2004. If HILDA results are similar to results for other Western countries, we expect to find that

Table 4: Decile position in the equivalised income distribution of individuals who were poor in 2002–2004, then became not poor in 2005 (%)

<i>Decile position in 2005 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	33.1
3rd decile	37.9
4th decile	3.9
5th decile	6.8
Top half—deciles 6–10	18.2
Total	100.0

Note: Population weighted results.

Table 5: Decile position in the equivalised income distribution of individuals who were poor every year in 2001–2004, then became not poor in 2005 (%)

<i>Decile position in 2005 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	64.3
3rd decile	24.2
4th decile	7.2
5th decile	1.3
Top half—deciles 6–10	2.9
Total	100.0

Note: Population weighted results.

Table 6: Decile position in the equivalised income distribution in 2004 and 2005 of individuals who were not poor in 2002, then poor in 2003 and not poor in 2004 (%)

<i>Decile position</i>	<i>Decile position in 2004</i>	<i>Decile position in 2005</i>
Below poverty line	n.a.	19.2
2nd decile (but just above poverty line)	34.3	21.2
3rd decile	25.9	14.5
4th decile	15.4	15.5
5th decile	7.2	10.1
Top half—deciles 6–10	17.2	19.4
Total	100.0	100.0

Note: Population weighted results.

these individuals are at worse than average risk of falling back into poverty in 2005. In fact, 24.7% of these individuals were poor once again in 2005, confirming that they are much more at risk than the rest of the population. Table 6 gives the decile position of these people in both the intermediate year of 2004 when they were not poor, and also in 2005 when some were poor and some not.

Compared with the groups previously portrayed in Tables 3–5, this is an intermediate group. Some escaped poverty by a considerable margin in 2004 and 2005, but others appear quite likely to be moving in and out of poverty, at least for the next few years.

Discussion

Clearly, from a public policy standpoint, medium-term and long-term poverty matter more than short-term poverty. It is also crucial, for policy purposes, to understand reasons for entry into and exit from poverty. These are precisely the issues that HILDA will be able to continue to address in detail as the panel survey continues.

Endnotes

- 1 Even ABS surveys, which have more detailed questions on income support payments than any other source, have experienced the problem; see Siminski et al., 2003. It is clear that the HILDA Survey also under-records income support payments, although detailed analyses of the issue have not yet been undertaken.
- 2 In all poverty calculations in this article, people with non-positive disposable incomes and negative private incomes are excluded. The basis for these exclusions is that, although a few people genuinely have negative or zero incomes, the data are often not reliable. More generally, households have access to economic resources, including wealth and benefits in kind, which are not adequately reflected in measures of financial year income. While this can affect analysis of the entire poverty population, it is most serious for households reporting zero or negative incomes. Hence their exclusion in the analyses reported here.
- 3 Technically, this is known as a problem of 'censoring' or specifically 'left censoring'. The now standard approach to

cope with censoring is to use spell (hazard) analysis (Bane and Ellwood, 1986). However, spell analysis does not work well with just five years of data; a longer panel is needed.

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Children in income poor households

Child poverty, especially persistent poverty, is an especially serious concern because of the damage it may do to children's future careers and life prospects. In Australia, at least until the late 1980s, it used to be the case that child poverty was at considerably higher levels than adult poverty, partly because of the circumstances of lone mothers and their children (Abello and Harding, 2004). Indeed, in most Western countries it remains true that child poverty rates—annual rates and poverty persistence rates—are higher than adult rates (OECD, 2007).

What is the situation now in Australia? Is child poverty still higher than adult poverty, and how persistent is it? Successive governments have attempted to address the issue both by reforming the child support system—the system by which non-resident parents, usually fathers, are required to support the children of their previous partnership(s)—and by progressively increasing the value

of family payments, which now mainly take the form of Family Tax Benefits.

Resident and non-resident parents

Parents with children who live in their household at least 50% of the time are 'resident parents'. Parents who have children who live in a non-private dwelling—such as boarding schools, university halls of residence, or institutions—are also considered to be resident parents. Non-resident parents are parents who have children who live in another household more than 50% of the time.

This article reports evidence based on the same measures of current and persistent poverty as the previous article. Table 1 focuses on annual and multi-year poverty rates for children under 15. All children are included regardless of the type of household in which they live.

The results in Table 1 clearly show that in 2001–2005 *the persistence of child poverty was*

Table 1: Children under 15: Annual relative income poverty rates in 2001–2005 and measures of the persistence of poverty: 50% and 60% of median income poverty line (%)

	Annual poverty rates: 50% line	Annual poverty rates: 60% line	Number of years poor	Poverty persistence: 50% line	Poverty persistence: 60% line
2001	12.2	20.3	Never poor	73.7	61.5
2002	11.1	19.9	1	12.4	14.3
2003	10.5	19.7	2	6.6	8.1
2004	10.4	18.8	3	3.7	5.1
2005	12.9	20.9	4	2.4	6.6
			All 5 years	1.3	4.5
			Total	100.0	100.0
			Average over 5 years	6.8	15.3

Note: Population weighted results.

lower than national and adult poverty persistence. Using the 50% poverty line, five-year poverty persistence among children under 15 was 1.3%, compared with a national average of 3.3%. Using the 60% line, child poverty persistence was 4.5%, compared to a national average of 7.4%. If we use the alternative persistence measure, based on having an average income over five years below the poverty line, then the picture is the same. Using the 50% poverty line, 6.8% of children were poor in 2001–2005—the national average was 9.0%—and using the 60% poverty line, 15.3% were poor, compared to a national average of 16.5%.

Arguably, from a public policy standpoint, annual (cross-sectional) poverty rates are less important than persistence rates. However, it should be reported that in partial contrast to persistent poverty, annual rates among children were similar to, or perhaps just a little below national averages. In 2005, however, child and adult rates were about the same.

Lone mothers and their children

Children living in lone mother households in fact constitute a high percentage of all Australian children living in poverty.¹ In 2005 about 40% of children in poverty were in lone mother households, despite the fact that such households include only about 17% of all children in Australia under 15. Children in other types of household in fact have poverty rates well below the national average. The

same applies to poverty persistence; children in lone mother households have higher than national average rates of poverty persistence, whereas children in other households have far lower than average rates.

Concluding points

Detailed simulations by the National Centre for Economic Modelling (NATSEM) have shown that both the system of child support payments introduced in 1989, plus changes to family payments, especially since 2001, have reduced child poverty viewed cross-sectionally (Abello and Harding, 2004). This article has extended the analysis by also examining the persistence of child poverty. We find that child poverty is also less persistent than poverty persistence in the population as a whole.

Endnote

1 The numbers of children in lone father households in the HILDA sample in 2001–2005 was too small to yield statistically reliable results.

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Households at greater and lesser risk of income poverty: 2001–2005

In the two previous articles in this Report, we have reviewed national poverty rates, and then looked at the special issue of child poverty. Let us now consider which types of households are at high risk of relative income poverty and which are at low risk. Table 1 shows poverty rates in 2001–2005 for eight types of household: those headed by working age (25–54) couples without children; working age couples with children; one person working age male households; one person working age female households; lone mother households;¹ elderly couples (65 and over); elderly one person male households and elderly one person female households. In this article we will just use the 50% of median income poverty line, which is more commonly used in Australia than the 60% line.

It is clear from Table 1 that poverty rates vary widely among different types of household. Working age couple households have the lowest poverty rates in the community and form the majority of households. The group with the highest incidence of income poverty is elderly people living alone; most rely on the single age pension,

which is below the 50% poverty line. As is well known, lone mothers and their children have high poverty rates.

A less well known result, perhaps, is that working age people living in one person households also have high poverty rates. In 2001–2005, 14–19% of working age men living alone were income poor, as were a somewhat higher percentage of women. For most household types shown in Table 2, poverty was lower in 2005 than in 2001.

Table 2 gives income poverty persistence rates for the same types of household. It should be noted that only individuals who remained in the same type of household for all five years are included in the analysis.

The evidence of poverty persistence shows even more starkly how the risk of poverty differs among different types of household. Couple households are at low risk of five-year poverty. In 2001–2005 only 0.3% of couples with no children were income poor for all five years, and only 0.5% of those with children were in this position. Using

Table 1: Relative income poverty rates in 2001–2005 of different types of household: 50% of median equivalent income poverty line (%)

	<i>Working age couple household, no children^a</i>	<i>Working age couple household, children</i>	<i>Working age lone male</i>	<i>Working age lone female</i>	<i>Lone mother household</i>	<i>Elderly couple household</i>	<i>Elderly lone male</i>	<i>Elderly lone female</i>
2001	5.5	5.8	19.1	20.2	24.9	28.5	53.1	58.5
2002	5.8	5.0	16.9	17.6	21.8	27.2	50.6	54.8
2003	4.9	6.4	13.9	18.9	21.6	26.8	57.1	59.5
2004	4.3	6.3	15.8	20.1	17.6	26.9	52.0	56.4
2005	3.8	6.9	14.3	19.1	22.3	26.4	48.1	52.5

Notes: Population weighted results. ^a In couple households, the male member of the couple has arbitrarily been designated as the 'reference person', so it is his age which determines whether the household is designated as working age.

Table 2: Income poverty persistence in 2001–2005 of different types of household: 50% of median equivalent income poverty line (%)

<i>Years poor in 2001–2005</i>	<i>Working age couple household, no children^a</i>	<i>Working age couple household, children</i>	<i>Working age lone male</i>	<i>Working age lone female</i>	<i>Lone mother household</i>	<i>Elderly couple household</i>	<i>Elderly lone male</i>	<i>Elderly lone female</i>
Never	88.4	86.7	69.2	69.9	43.7	43.5	30.6	24.1
1	7.6	8.0	12.0	9.7	16.0	21.0	8.6	11.4
2	1.9	2.5	4.1	3.3	13.7	9.7	10.4	11.8
3	1.0	1.7	3.2	3.6	13.9	7.8	9.3	7.0
4	0.8	0.6	2.8	3.5	8.9	8.2	7.5	10.7
All 5 years	0.3	0.5	8.7	10.0	3.7	9.8	33.6	35.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average poverty incidence between 2001 and 2005	2.1	2.3	12.3	13.9	24.3	27.4	53.8	56.3

Notes: Population weighted results. ^a In couple households, the male member of the couple has arbitrarily been designated as the 'reference person', so it is his age which determines whether the household is designated as working age.

the alternative five-year average income measure, just 2.1% of couples without children and 2.3% of those with children were poor in this period. By contrast, over a third of elderly people living alone were persistently poor if the 'count' measure is used, while over 50% were poor using the five-year averaging method. The situation was particularly serious among lone elderly women.

Working age men living alone had a five-year poverty rate of 8.7% using the count method and of 12.3% using the averaging method. Among working age women living alone 10.0% were five-year poor according to the count method and 13.9% according to the averaging method.

Over half (56.2%) of lone mothers and their children were poor in at least one year in 2001–2005, using the count method, and 3.7% in all five years. Nearly a quarter (24.3%) were persistently poor, assessed by the five-year averaging method. Research on the experiences of lone mothers has shown that the reasons why they move in and out of poverty include spending periods in part-time work and shifting between different government income support payments (Gregory and Klug, 2002).

Concluding points

This article completes a set of three articles dealing with rates of poverty among different categories of individuals and households. These articles are potentially of value for policy purposes because they show who remains at highest risk of poverty. Of course, it is a matter of policy choice to decide whether or not to assist those who continue to have persistently low (equivalent) incomes. The purpose of this article is simply to contribute some evidence on which to base informed choice.

Endnote

- 1 Results here differ from those in the previous article in this Report. This article uses households as the unit of analysis and indicates the percentage of such households (not the percentage of children) who were poor.

Reference

Gregory, R. and Klug, E., 2002, *A Picture Book Primer: Welfare Dependency and the Dynamics of Female Lone Parent Spells*, Department of Family and Community Services, Canberra.

The impact of government on income poverty in 2001–2005

One of the key social policy objectives of the Australian Government, and the Department of Families, Community Services and Indigenous Affairs (FaCSIA) in particular, is reduction of poverty and disadvantage. As a FaCSIA publication in 2002 stated, ‘... the primary focus of Australia’s social security system is protection against poverty. In most other OECD countries, the primary principle is one of income maintenance across the life-cycle’ (Whiteford and Angenent, 2002). In Australia, the poverty reduction objective is mainly pursued by means of income support payments targeted at those in greatest need. Payments come from general revenue and are mostly means tested. In most OECD countries, by contrast, a social insurance system, to which working people contribute, is intended to provide sufficient funds for an income fairly close to a person’s normal earnings during periods when those earnings are not available, for example due to ill health, unemployment or retirement.

As noted in previous articles, there is no official poverty line in Australia and in practice, protection against poverty is balanced against other sometimes competing objectives. In recent times social policy has been increasingly integrated with economic policy, and in this context, it is seen as important that income support programs should not act as disincentives to paid work. Clearly, this concern only applies to people of working age, and not directly to children or people of retirement age.

The most direct method of pursuing the aim of poverty reduction is through taxes and public transfers. The main transfers which reduce income poverty are Australian Government income support payments, including payments to retired people, the unemployed, people with disabilities, and lone parents. Also important are Family Tax Benefits (FTB) which, unlike most Australian Government transfers, are not tightly targeted to those in greatest need. FTB-A is paid to all families with dependent children up to a high family income cut-off. For example, in the case of families with two dependent children between 0 and 17 years old, benefits do not completely cut out until a family income of well over \$100,000 is reached, although they taper down from middle income levels upwards (Buddelmeyer, Freebairn and Kalb, 2006).

In this article, the focus is only on transfers and direct taxes (income tax and Medicare Levy). No attempt is made to assess the impact of non-cash benefits, like health and education programs, which can also reduce disadvantage. Nor do we assess the effects of GST, other indirect taxes, local taxes, rent assistance or public housing.

As in the previous article, two alternative definitions of income poverty are used. A household is defined as being in poverty if it has an equivalised income below (i) 50% or (ii) 60% of median equivalised income in the year in question. We use these OECD and EU definitions in the absence of any officially endorsed definition of poverty.

Table 1 shows annual poverty rates before and after government taxes and benefits in 2001–2005. Also shown is an estimate of the percentage change (plus or minus) in poverty due to government. This is calculated as the poverty rate *before* taxes and benefits minus the poverty rate *after* taxes and benefits divided by the rate *before* taxes and benefits, multiplied by 100 (Ringen, 1991). In the tables that follow, the poverty rate before taxes and benefits is labelled ‘pre-government poverty’ and the rate after taxes and benefits is labelled ‘post-government poverty’.

The purpose of constructing a measure of ‘pre-government poverty’ is to try and establish a counterfactual; that is, to say what the poverty rate might have been in the absence of government, or less unrealistically, if there was only a ‘night-watchman state’ in which government was confined to maintaining law and order and basic property rights, and the welfare state was abolished. It is logically impossible to assess the impact of government on poverty without establishing some kind of counterfactual. At the same time, it is fairly obvious that, if there were only a night-watchman state, the distribution of earned income and many kinds of social and economic behaviour would be quite different from what they are now. In particular, in order to avoid extreme hardship, some people would be obliged to take very low paying jobs and work very long hours. Also, in order to achieve economies of scale, and reduce housing costs in particular, some households would presumably amalgamate.

Table 1 now gives estimates of pre- and post-government poverty for each year in 2001–2005 and also shows the percentages of people ‘transferred out’ of poverty by government. It can be seen from Table 1 that Australian taxes and transfers make a very substantial impact in reducing poverty. In 2001, using the 50% poverty line, the reduction was 47.4% in 2002 it was 52.0%, in 2003 51.7%, in 2004 51.3% and in 2005 51.1%. These large reductions are in part due to the fact that some income support payments, notably the aged pension, are in practice set just above the 50% of median income poverty line.

Reductions in poverty measured at the 60% line are still substantial—close to a third. This is initially

surprising, since no specific income support payments are by themselves set at a level high enough to lift households above the 60% line. However, it can be inferred from the evidence in Table 1 that some combinations of payments, coupled with Family Tax Benefits, are moving many households above the 60% line. Rules allowing benefit recipients, including old age pensioners and lone parents, to keep some earnings without necessarily facing prohibitive 'effective marginal tax rates' (i.e. income losses due to foregone benefits and higher taxes combined) also presumably have an effect.

Which types of household get most and least assistance?

The figures in Table 1 represent averages for the whole population. However, different sections of the community are not expected to be equally reliant on government payments. Households headed by men or women of prime working age

are mostly expected to earn their own incomes, whereas retirement age households and younger ('student age') households are likely to be more reliant on government support. Table 2 gives pre- and post-government poverty estimates for these six types of household in 2005: prime age couple (25–54) households without dependent children or students; prime age couples with dependent children; prime age lone parent households; prime age lone persons; elderly (65 and over) couple households and elderly single or widowed persons.

The estimates in Table 2, both those relating to the 50% poverty line and those relating to the 60% line, indicate that pre-government poverty is much higher among retirement age households and higher among lone parent households than couple households where the reference person is of prime working age. Indeed, as is well known, among retirement age households, the large majority would be in poverty but for receipt of the age pension and other benefits. The Australian Government

Table 1: The impact of government taxes and transfers on income poverty 2001–2005: All individuals (%)

	<i>Pre-government poverty rate</i>	<i>Post-government poverty rate</i>	<i>Change due to government</i>
Panel A: 50% poverty line			
2001	26.6	14.0	–47.4
2002	27.1	13.1	–52.0
2003	26.5	12.8	–51.7
2004	26.7	13.0	–51.3
2005	26.4	12.9	–51.1
Panel B: 60% poverty line			
2001	30.6	20.9	–31.7
2002	30.6	20.6	–32.7
2003	30.4	20.5	–32.6
2004	30.7	20.7	–32.6
2005	30.5	20.4	–33.1

Note: Population weighted results.

Table 2: The impact of government on income poverty in 2005: Six types of household (%)

	<i>Pre-government poverty rate</i>	<i>Post-government poverty rate</i>	<i>Change due to government</i>
Panel A: 50% poverty line			
Prime age couple households, no children	7.6	4.0	–47.4
Prime age couple households with children	14.3	6.4	–55.2
Prime age lone parent households	52.7	26.1	–50.5
Prime age lone person households	18.8	16.0	–14.9
Elderly couple households	60.1	24.4	–59.4
Elderly 'single' households	75.6	44.7	–40.7
Panel B: 60% poverty line			
Prime age couple households, no children	8.9	6.4	–28.1
Prime age couple households with children	18.4	11.3	–38.1
Prime age lone parent households	58.7	36.8	–37.1
Prime age lone person households	20.4	19.1	–6.4
Elderly couple households	64.7	41.1	–36.5
Elderly 'single' households	77.8	61.3	–21.2

Note: Population weighted results.

has only in recent years, since the introduction of the Superannuation Guarantee, made a major policy commitment towards encouraging most households to be financially self-reliant in old age.

Household reference person

In many analyses, it is useful to classify households according to the characteristics (e.g. the age) of one main person; the household reference person. For the purposes of this Report, the male partner is treated as the reference person in couple households, although the female partner would do equally well. In lone parent households the reference person is the parent. In lone person households the reference person is that person. No reference person has been designated in multi-family and group households.

How do government payments affect the different types of household? Focusing on the 50% line, the estimates in Table 2 indicate that most prime age couple households and most lone parent households, who would otherwise be below this poverty line, receive payments sufficient to raise them above the line. However, many lone parent households (26.1%) still remain below the line. Elderly households headed by a single or widowed person mostly remain poor according to this standard. Prime age lone person households also receive comparatively little financial assistance, in their case the work disincentive argument runs against giving them much support, and it may also be fair to say that they lack political clout.

The impact of different types of payments

We now extend the analysis by looking at the impact of different types of government payments on the finances of households. As noted earlier, government payments are conventionally divided into two main categories: income support payments and family benefits. The main income support payments were listed above. The family benefits considered here are FTB-A, FTB-B and maternity benefit.¹

The estimates given in Tables 3a and 3b first show the *separate impact* of each category of government transfer, and then show their combined impact together with direct taxes.² Table 3a reports results for the whole population, and then Table 3b focuses on families with children in order to show the substantial effects of FTB on family finances. It should be explained that the middle columns in the tables, which are labelled 'Post-intervention poverty rate', are intended to indicate what the poverty rate would have been, if the 'intervention' in question had occurred separately (and not with others simultaneously). Clearly, this is again a counterfactual, designed to assess the impact of different interventions.

It is clear that, for the population as a whole, income support payments do much more to reduce poverty than family payments. However, for families with dependent children, family payments make about an equal contribution. In fact, the more children the family has, the more significant a share

Table 3a: The impact of income support payments, family benefits and direct taxes on poverty in 2005: All individuals (%)

	<i>Pre-government poverty rate</i>	<i>Post-intervention poverty rate</i>	<i>Change due to government</i>
Panel A: 50% poverty line			
Separate effect of income support payments	26.4	17.1	-35.2
Separate effect of family benefits	26.4	23.7	-2.7
Combined effects of transfers and taxes	26.4	12.9	-51.1
Panel B: 60% poverty line			
Separate effect of income support payments	30.5	23.3	-23.6
Separate effect of family payments	30.5	27.0	-11.5
Combined effects of transfers and taxes	30.5	20.4	-33.1
<i>Note: Population weighted results.</i>			

Table 3b: The impact of income support payments, family benefits and direct taxes on poverty in 2005: Households with dependent children (%)

	<i>Pre-government poverty rate</i>	<i>Post-intervention poverty rate</i>	<i>Change due to government</i>
Panel A: 50% poverty line			
Separate effect of income support payments	30.0	21.7	-27.7
Separate effect of family benefits	30.0	22.7	-24.3
Combined effects of transfers and taxes	30.0	13.6	-54.3
Panel B: 60% poverty line			
Separate effect of income support payments	35.3	28.6	-13.3
Separate effect of family payments	35.3	26.7	-24.3
Combined effects of transfers and taxes	35.3	21.6	-38.8
<i>Note: Population weighted results.</i>			

Table 4: Impact of government on number of years in poverty, 2001–2005: All individuals (%)

Number of years poor (0–5)	Pre-government poverty rate	Post-government poverty rate	Change due to government
Panel A: 50% poverty line			
Never poor	59.0	71.2	+20.7
1 year	10.8	12.6	
2 years	5.5	6.4	
3 years	5.1	3.7	
4 years	5.1	2.8	
All 5 years	14.5	3.3	-78.3
Total	100.0	100.0	
Panel B: 60% poverty line			
Never poor	53.7	61.6	+14.7
1 year	12.0	12.9	
2 years	6.5	7.9	
3 years	5.0	5.1	
4 years	5.7	5.2	
All 5 years	17.2	7.4	-57.0
Total	100.0	100.0	
<i>Note: Population weighted results.</i>			

of the budget family benefits become. On average, family benefits have a bigger impact than income support payments in reducing poverty among families with more than one child; and among families with more than two children, family benefits play a much the more important role.

Impact of government on persistent poverty

The panel nature of the HILDA Survey data also enables us to investigate the impact of government on *persistent* poverty, which is plainly of greater policy concern than one-year or cross-sectional poverty. Table 4 gives evidence for the whole population, showing how many individuals would have been poor for zero years, for just one year, for two years, three years, four years and all five years in a counterfactual night-watchman state, and then how many were poor for 0–5 years in fact.³

The most interesting results in Table 4 are those showing very large reductions in persistent or five-year poverty in 2001–2005. If the 50% poverty line is used, the percentage of the population who would have been five-year poor in the absence of government intervention was 14.5%. This was reduced to 3.3% by government intervention. Using the 60% poverty line, the reduction was from 17.2% to 7.4%. In fact, poverty persistence was substantially reduced for all types of household, regardless of whether the 50% or 60% poverty line is applied.

Discussion

Compared with the situation in most other OECD countries, Australian Government transfer payments absorb a relatively low proportion of GDP. However, they are tightly ‘targeted’ towards those on low incomes (Whiteford and Angenent, 2002). Because Australia does not have an official poverty line, researchers in this country tend to use standard

OECD or European Union poverty lines. Using these standards, it transpires that much poverty reduction is achieved, especially if the focus is on persistent poverty. However, substantial numbers of elderly single (including widowed) people, prime age singles and lone parent households remain poor.

Endnotes

- 1 FTB-B is only paid to mothers who are not in paid work. Child care benefits have not been included, because following the convention applied by the Australian Bureau of Statistics, we treat them mainly as payments in kind, not in cash.
- 2 Note that, in order to assess the separate and combined effects of transfers and taxes, it was necessary to equivalise them all, using the same OECD equivalence scale as is used for disposable income. Having done this, one can then decompose the effect of each type of government intervention on equivalised income poverty.
- 3 As in previous articles one-year poverty means poor in *any* one year in 2001–2005, two-year poverty means poor in any two years, and so on. In this article only the ‘count’ method of assessing poverty persistence (counting years in poverty out of five) is used. The five-year average income method, employed in previous articles, is omitted here.

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Australian living standards: How have they changed between 2001 and 2005?

Five years of HILDA data provide an opportunity to take stock of medium-term changes in the material standard of living of Australian individuals and households. 2001–2005 have been years of good economic growth, so we would certainly expect to find that most people's living standards have risen. But what percentage of the population are actually better off, and what percentage are worse off? Which types of households have done particularly well during the long economic boom, and which households have fared relatively poorly?

It is worth noting that these questions can only be answered with panel data. Cross-sectional income data of the kind collected in most surveys could not possibly tell us what percentage of Australian households have become better or worse off. So, the HILDA Survey data provide a first opportunity to make this assessment. It should be noted, however, that the National Centre for Economic Modelling (NATSEM) uses simulated data to make longitudinal estimates of the kind given in this article.¹

Equivalised income—the best available measure of material standard of living

How can we best assess changes in living standards? Our preferred measure is *equivalised income*. This measure is selected because it is the best available indicator of material standard of living.² Equivalised income is defined as income after taxes and transfers (pensions and benefits) and after adjusting for household size and needs. Clearly, disposable income (i.e. income after government taxes and transfers) is a better measure of material living standards than private income or market income. Also, a household with, say, four members would clearly be worse off with the same income than a lone person household. The obvious adjustment would be to divide income by the number of individuals in the household in order to get household per capita income. But this would make no allowance for economies of scale in larger households (e.g. members do not each need a separate house) or for the fact that children are generally cheaper to keep than adults. So the standard procedure in OECD and in academic circles is to construct 'equivalised income' in order to take account of different household needs. In this Report, we use the OECD equivalence scale, which is constructed by dividing household disposable income by an equivalence score and allows 1.0 for the first adult in the household, 0.5 for other adults, and 0.3 for children under 15. So a household of two adults and two children would have an equivalence score of 2.1 (1.0 + 0.5 + 0.3 + 0.3). If it had

a combined of \$50,000, it would be attributed an equivalent income of \$23,810 ($\$50,000/2.1$). The same equivalent income is then assigned to each household member; the assumption being that all income is pooled and equally shared, giving every member the same standard of living.

Combining years—changes in equivalised incomes between 2001–2002 and 2004–2005

Having decided on equivalised income as a preferred measure, there still remain some important issues of measurement validity in deciding how to assess the extent of income change in 2001–2005. The obvious approach would be just to compare average (mean) equivalised incomes in 2001 and 2005, and then calculate average gains or losses realised by different individuals and households. This approach would have at least two defects. The first relates to what is technically (in statistics books) called regression-to-the-mean. Whenever one measures changes over time in any phenomenon, it is nearly always found that those who started out at the bottom of the distribution have made considerable ('surprisingly large') gains between time 1 and time 2, and those who started out at the top have made much smaller gains or even substantial losses in the same period. This type of regression-to-the-mean is found even for seemingly very objective phenomena such as the measurement of individuals' body weights. The problem is that only some of the change apparently measured is 'real', while much of it is measurement error. Take body weight, for example. Some of the individuals measured as being near the bottom end of the weight distribution at time 1 will be there because their weight was slightly mismeasured or under-reported (if the evidence is based on self-reports rather than standing on a weighing scale). Others will have accurately recorded their weight, but their weight on the particular day of measurement will be exceptionally and temporarily low due to health problems or heavy dieting. The opposite errors will be found for some of the individuals who appear to be at the top end of the distribution at time 1; some will have over-reported their weight and some will be temporarily much heavier than is normal for them.

Now comes the problem in measuring change. By the time these individuals have their weight measured again—say a month or a year later—nearly all of them will record a weight which is normal for them. The ones who misreported at time 1 are unlikely to do so again at time 2, and those who were temporarily overweight or underweight at

Table 1: Changes in equivalent income between 2001–2002 and 2004–2005: Individuals^a

	<i>Prime age (25–54)</i>	<i>Children under 15</i>	<i>All</i>
Mean 2001–2002 (\$)	31,840	25,316	28,894
Mean 2004–2005 (\$)	33,344	26,616	30,128
% change	+4.7	+5.3	+4.3
Median 2001–2002 (\$)	28,852	22,590	25,678
Median 2004–2005 (\$)	30,216	24,354	27,006
% change	+4.7	+7.8	+5.2
% whose equivalised income rose	58.8	61.4	58.0

Notes: Population weighted results. ^a Equivalised incomes are expressed in constant 2001 dollars. Only individuals who were in the relevant age group throughout the five-year period are included.

time 1 will not be in the same condition at time 2.³ Then when ‘change in weight’ is calculated, the apparent changes for these individuals will be too large; they will appear to have ‘regressed’ or moved back towards the mean (the average), with many low weight individuals apparently gaining a lot of weight and high weight individuals apparently losing a lot of weight.

If, as is usually the case, the researcher wants to know about typical or ‘representative’ changes in the community, regression-to-the-mean is a source of error; it leads to exaggerated estimates of change. And when the phenomenon in question is something less easily and accurately recorded than weight, the problem gets worse. Here we are concerned with incomes, where plainly there is likely to be more error in measurement—including regression-to-the-mean—than is the case with measuring weight.

There is no single agreed solution to problems arising from regression-to-the-mean, and many of the solutions offered by statisticians are not applicable with just five years of panel data. A simple partial remedy used here is to calculate change in income in 2001–2005 by combining years. The measure here is:

$$\text{Change in income} = \text{the average (mean) of equivalised incomes in 2004 and 2005, minus the average for 2001 and 2002.}^4$$

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 1 for those who started at the very top or very bottom ends of the distribution in 2001–2002 exaggerate the changes in income which actually occurred by 2004–2005.⁵

A second measurement issue is much less difficult. Income distributions have a long right tail; the millionaires at the top end. So when average (mean) percentage changes in income are reported, results tend to be misleading due to huge changes which can occur in rich people’s incomes. It is therefore preferable to calculate median as well as mean changes. The median case—the median

individual or household—is the one in the exact middle of the distribution. In assessing what has happened to typical Australian incomes, it is sensible to focus attention primarily on the medians rather than means.

Changes in material standard of living: Results for individuals

It is useful to give results both for *individuals* and then separately for different types of *household*. For most purposes, household analysis is more useful. However, we begin with evidence for three sets of individuals. Table 1 shows changes in equivalent income for all Australians, for prime age individuals (25–54) and for children under 15. Equivalent incomes are expressed in constant 2001 dollars.⁶

Perhaps the two most interesting pieces of evidence in Table 1 relate to the percentages recording a positive change in equivalent income (bottom row; highlighted) and, secondly, the increases recorded by median individuals (also highlighted)—58.0% of all individuals, 58.8% of prime age people and 61.4% of children under 15 recorded gains in income in this period. The median individual was 5.2% better off at the end of the period, while for prime age individuals the median increase was 4.7% and for children 7.8%.

Given the good rate of national economic growth in this period, it is perhaps initially surprising that gains were not more widely shared. The household analyses given in Table 2 will cast some light on this outcome, but it still remains largely unexplained. The relatively favourable results for children probably reflect the steadily increasing value of Family Tax Benefits.

Changes in material standard of living: Results for households

An improved understanding of the changes which have occurred can be gleaned from summarising results for different types of household (Table 2). From Table 2, it can be seen that a majority of all types of household recorded an increase in equivalent income. Prime age couples with no children—most of whom are double income earners—recorded the highest gains; 72.4% of them made real

Table 2: Changes in equivalent income between 2001–2002 and 2004–2005: Households^a

	<i>Prime age couples, no children</i>	<i>Prime age couples, with children</i>	<i>Prime age lone men</i>	<i>Prime age lone women</i>	<i>Lone mother households^b</i>	<i>Elderly couples (65+)</i>	<i>Elderly lone men (65+)</i>	<i>Elderly lone women (65+)</i>
Mean 2001–2002 (\$)	37,342	28,477	31,615	22,585	17,416	20,929	20,768	16,913
Mean 2004–2005 (\$)	41,844	29,363	33,070	24,800	18,939	20,021	19,906	16,867
% change	+12.1	+4.3	+4.4	+9.8	+8.7	-4.3	-4.2	-0.2
Median 2001–2002 (\$)	35,061	25,911	27,851	19,861	15,341	16,103	13,071	13,217
Median 2004–2005 (\$)	39,743	28,085	29,103	20,763	16,974	16,211	13,925	13,869
% change	+13.4	+8.4	+4.2	+4.5	+10.6	+0.7	+6.5	+4.9
% whose equivalised income rose	72.4	59.9	55.3	66.1	63.0	55.5	57.8	61.0

Notes: Population weighted results. ^a Equivalised incomes are expressed in constant 2001 dollars. Only households with reference persons in the relevant age group throughout the five-year period are included. It is possible that this method may lead to a sample selection problem, for example, a prime age person who remained single and childless in all five years may not have the same characteristics as a prime age person who was single and childless in at least one, but not all of the five years. ^b The number of lone father households is too small to yield reliable results.

income gains, with the median gain being 13.4%. Lone mother households also made substantial gains, although coming off a low base; 63.0% of them recorded real income increases, with the median gain being 10.6%. These outcomes probably reflect both increases in Family Tax Benefits and perhaps also increasing pressure on lone parents to find paid work. Elderly couples fared least well; 55.5% had made some gain by 2004–05 but the median gain was only 0.7%. However, this result needs to be put in policy context. Many elderly households run down their assets as they continue to age; indeed, the superannuation system in general, and allocated pension schemes in particular, are based on an assumption that this is what will happen.

Concluding points

This article has described gains in real (constant dollar) equivalent incomes between 2001–2002 and 2004–2005. The mid-points of these two time periods are 30 June 2001 and 30 June 2004. During this period the national economy grew by approximately 10% and GDP per capita grew by close to 7% (OECD, 2007). So it is an interesting and only partly explained puzzle that, according to HILDA's estimates, only 58% of Australian residents recorded a gain in equivalent income. Further the median gain was just 5.2%.

A first guess to explain this puzzle might be that equivalent income inequality must have increased during the period, so that gains were heavily concentrated in higher income groups. In fact, as a subsequent article in this volume will indicate, this did not occur. In the 1980s and 1990s there was a small increase in equivalent income inequality (ABS, 1997) but the trend did not continue into the period covered here. A very limited and partial explanation may be that an increasing share of national income went to profits rather than to wages and salaries. So, the puzzle remains and it is one that may well claim the attention of both policy makers and researchers in the future.

Endnotes

- 1 No direct comparisons can be made between the estimates given in this article and estimates given in NATSEM publications. However, in general terms, NATSEM also estimates that the incomes of all types of household have risen, that couples without children have done particularly well, and that most lone mother households have made gains.
- 2 In principle, a measure of consumption might be preferable, but detailed consumption measures were not available in HILDA until 2005 (see other articles in this volume).
- 3 Unless they have a bias (perhaps due to social desirability) towards misreporting their weight. In this case they may well repeat their error. The data would then be characterised by 'serial autocorrelation'; a problem well known to econometricians but too technical for consideration here.
- 4 Reminder: throughout this Report income (or equivalent income) in 2001 refers to financial year 2000–01, income in 2002 to financial year 2001–02, and so on.
- 5 The averaging procedure will be more valuable in reducing 'error' due to regression-to-the-mean, the longer HILDA continues. For example, in estimating income change over a 20-year period, one could calculate change as the difference between the first and last 5 years of income. Presumably, in this scenario the impact of regression-to-the-mean would be zero or negligible.
- 6 As in other articles in Section 2 of the Report, only individuals and households with positive disposable (post-government) incomes and non-negative private incomes are included in analyses.

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Income mobility: Five years of change, 2001–2005

Social science textbooks often present an image of society as being like a layer cake or a pyramid. Better off and higher status people are pictured on the top layer (or at the top of the pyramid) and the impression is given that they remain there for long periods, or perhaps for an entire lifetime, or even inter-generationally. Middle income or middle class people are pictured as remaining long term in the middle layers of society, and the poor or lower status people are shown in the lower layers, or at the bottom of the pyramid. This is a static view of society and of the income distribution. An alternative view is that society and the economy are or should be characterised by a high degree of opportunity and mobility. This is a more dynamic view of how society is or should be.

Panel studies, like the HILDA Survey, are ideally placed to investigate the extent to which the income distribution is relatively static or dynamic. However, the reader should be aware that the best evidence about *current levels* and *recent trends* in income comes from regular surveys conducted by the Australian Bureau of Statistics (ABS).¹ ABS surveys include very detailed questions on individual and household incomes and also have very high response rates. As explained in the introduction to this Report, the HILDA Survey has a lower response rate and unavoidably suffers some respondent attrition. HILDA questions on income are much more detailed than in most academic surveys, but less detailed than ABS questions. 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). It should be pointed out that household incomes, as measured in the HILDA Survey, are somewhat higher than in ABS surveys, although it is not clear that HILDA is less accurate.²

Defining income mobility—changes in households' positions in the income distribution

In this section of the Report, the focus is on household income mobility. By 'mobility' we mean the

extent to which household incomes change *relative to each other*. So the question here is not whether household incomes were rising or falling—in this period of steady economic growth most incomes rose in real terms—but the extent of mobility up and down the distribution. Do most households scarcely change their relative position in the distribution, or is it quite common, over say five or ten years, to move from low points in the distribution into the top half, and vice versa? Which groups in society are most and least income mobile, and what are the main determinants of mobility?

Income mobility

Income mobility is the extent to which incomes change relative to each other. How many people—and with what characteristics—are moving up the income distribution, and what kinds of people are moving down the distribution?

To analyse income mobility, we divide household incomes into quintiles; that is equal 20% groupings such that quintile 1 is the lowest income group and quintile 5 the highest income group.³ Five years is too short a period to gain a really good understanding of income mobility. Nevertheless some interesting and perhaps unexpected patterns of change are observable.

To give an overview of income mobility, the measure of income used is *equivalised income*. As explained in the previous article, this measure is preferred because it is the best available measure of a household's material standard of living.⁴ Equivalised income is defined as income after taxes and transfers (pensions and benefits) and after adjusting for household size and needs.

Overview of mobility 2001–2005

Table 1 is a transition matrix showing what had happened by 2005 to individuals starting out in different equivalised income deciles in 2001.^{5,6} Printed in bold italics along the top left to bottom right diagonal are results for people whose relative income position did not change at all.

Table 1: What happened by 2005 to individuals starting in different equivalised income quintiles in 2001? (%)

Quintile in 2005	Quintile in 2001				
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Quintile 1	58.5	21.3	9.8	5.3	5.0
Quintile 2	24.2	37.3	21.0	12.3	5.2
Quintile 3	9.8	24.9	34.4	20.0	10.8
Quintile 4	4.0	11.8	24.8	38.6	20.9
Quintile 5	3.5	4.6	9.9	23.8	58.1
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 2: Income mobility of different types of household, 2001–2005 (%)

<i>Change between 2001 and 2005</i>	<i>All households</i>	<i>Prime age couple households no children</i>	<i>Prime age couple households with children</i>	<i>Prime age lone mother households</i>	<i>Prime age lone person households</i>	<i>Elderly couple households</i>	<i>Elderly lone person households</i>
Up 4 quintiles	0.4	*0.9	*0.2	*0.0	*0.6	*0.2	*0.6
Up 3 quintiles	1.7	*3.2	*0.3	*0.2	*1.4	*1.3	*1.0
Up 2 quintiles	5.2	*5.8	*4.2	*11.6	*3.9	*3.0	*1.9
Up 1 quintile	17.8	17.4	24.7	20.6	15.0	11.7	11.0
No change	51.0	48.6	45.1	57.1	58.7	56.9	69.6
Down 1 quintile	15.6	13.8	18.7	*10.5	13.2	18.5	10.6
Down 2 quintiles	5.4	*8.8	*4.3	*0.0	*4.3	*5.2	*2.5
Down 3 quintiles	2.0	*1.2	*1.9	*0.0	*1.2	*2.0	*1.0
Down 4 quintiles	0.9	*0.4	*0.6	*0.0	*1.6	*1.2	*1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

A calculation based on the results along the diagonal, shows that in 2005 over 40% of individuals remained in the same quintile as in 2001. Approximately one-third of those in the middle quintile in 2001 had moved up the income distribution by 2005, while 30.8% had moved down and 34.4% had remained in the middle quintile. Similarly, almost 40% of those in the second quintile in 2001 had moved up the income distribution, while 37.3% remained in the second quintile and 21.3% had moved into the lowest quintile. Most of those who changed had moved up or down by just one quintile. The apparently greater stability of incomes at both the top and bottom ends, relative to the middle, is in some respects misleading. People who start in the top or bottom quintile can only subsequently change in one direction, while everyone else can change both ways. Also, most incomes are packed close to the middle of the distribution, so that a smaller percentage change in household income is needed to change quintiles in the middle than at either end of the scale.

Despite an overall picture of moderate stability, a minority registered large changes in equivalised income. Of those who started in the bottom quintile in 2001, 7.5% (4.0% + 3.5%) were in the top two quintiles by 2005. Conversely, among those who started in the top deciles 10.2% (5.0% + 5.2%) were in the bottom two quintiles by 2005.

It is important to realise that many factors can bring about change in a household's and therefore an individual's position in the equivalised income distribution. Changes in the labour income of the household reference person and/or his/her partner are important, but so too are increases or decreases in the number of earners in a household, and changes in household composition. So if another household member goes out to work (e.g. a female partner or a teenager), the household's relative income position is likely to improve, whereas if a member stops working, the household's relative income position usually declines.

Quintile changes—income mobility of different types of household

Another method of summarising income mobility is to print the percentages of households who moved up or down the distribution by a certain number of quintiles. Table 2 divides households into six main groups: prime age (25–54) couple headed households without children; prime age couple households with children; prime age lone mother households;⁷ prime age lone persons, elderly (65 and over) couples, and elderly lone persons.^{8,9}

Just over 50% of all households experienced no change in income quintile between 2001 and 2005—25.1% moved up in the distribution and 23.9% moved down. The most income-stable group were lone person (single or widowed) elderly households. Most of them were living wholly or partly on the old age pension. Few registered very large relative losses in income in 2001–2005, although about 11% moved upwards by one quintile and about the same percentage moved downwards in either direction. Elderly couples were also a fairly stable group, although rather more moved down the income distribution than up. Downward movement was probably partly due to running down superannuation holdings.

Lone mother households were also a fairly stable group but with many more moving up the income distribution than down. It is likely that upward change was substantially due to increased Family Tax Benefits in the 2001–2005 period.

Prime age couple households were somewhat more mobile, in part because, with at least two potential earners available, there is more chance that at least one of them will have entered or left the labour force during this period. Prime age lone person households were a bifurcated group in which 58.7% recorded no change in their relative income position, but also with subsets recording substantial upward or downward mobility. More detailed analysis shows that it was young singles

who tended to be upwardly mobile, and older lone persons who were downwardly mobile.

Discussion—factors associated with upward and downward mobility

There is a large American literature, but little Australian work, on the range of factors associated with income mobility (Duncan, 1984; Bane and Ellwood, 1986). Among the factors associated with upward income mobility (measured by equivalised income) are:

- *Getting married/partnered*
- *Getting a job*
- *Additional household members entering the labour market*
- *Being well educated and gaining further education*
- *Children leaving home*
- *Getting well after being sick*

Additional factors associated with downward mobility are:

- *Women separating from their spouses/partners*
- *Becoming unemployed or voluntarily exiting the labour force*
- *Having more children*
- *Becoming sick*

Endnotes

- 1 In 2003–04 ABS conducted a new Household Expenditure Survey which also collected data on household incomes and wealth (ABS, 2006).
- 2 In 2006 ABS made a comparison between income estimates in its main Surveys of Income and Housing and small area estimates mainly derived from tax returns submitted to the Australian Taxation Office (ATO). The small area estimates were treated as ‘gold standard’, or at least as ‘best available’. Interestingly, the SIH’s main estimates of labour income and gross income were about 4% lower than the small area estimates. By contrast, HILDA estimates are generally 2–3% higher than the small area estimates. One reasonable surmise is that the HILDA estimates are plausible because it might be expected that taxpayers would tend to slightly understate rather than slightly overstate their incomes on tax returns.
- 3 In previous HILDA Statistical Reports, the income distribution was divided into deciles; equal groupings of 10%. In this Report, quintiles are preferred because, as explained in the previous article, the use of larger groupings reduce the risk of misleading results due to ‘regression-to-the-mean’.

- 4 In principle, a measure of consumption might be preferable, but detailed consumption measures were only included in HILDA for the first time in 2005 and so are not yet available for analysis of mobility.
- 5 In this and subsequent articles, reference to 2001 incomes means income received in financial year 2000–01, 2002 incomes are incomes received in financial year 2001–02, and so forth.
- 6 People with non-positive disposable incomes and with negative private incomes are excluded from analysis. Some people genuinely have such incomes, but generally the data are unreliable.
- 7 Lone father households are not represented in sufficient numbers for results to be reliable.
- 8 In couple households, the male partner is deemed the reference person. In lone person households, the reference person is that person, and in lone parent households, it is the lone parent. No reference person was designated for multi-family and group households. Households are only included if they retained the same reference person who remained in the same age group throughout 2001–2005. Note that households with reference persons under 25 are omitted, partly because of small numbers, partly because they are a self-selected group who have left the parental home (and are thus likely to be different from young people generally), and partly because they are a highly diverse groups consisting of, for example, students and young workers.
- 9 When an equivalised income measure is used, gender differences in incomes and income mobility are minor, because household incomes are assumed to be equally shared. So gender differences (as distinct from differences by gender of household reference person) are not reported in this article.

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Income mobility at the top end of the distribution: 2001–2005

In Australia, unusually among Western countries, the incomes of the well-off are just about as volatile as the incomes of the poor. It is widely believed that the same individuals and families usually remain well-off for long periods, or even for several generations. But in reality most well-off people are 'self-made' rather than inheriting wealth (Business Review Weekly, 2004), and the evidence here suggests that it is not particularly easy to remain at the top of the pile.

The rich can be defined in terms of wealth (assets) or income. Wealth has been covered in previous Reports. The focus here is on high income households and their ability or inability to retain high incomes in 2001–2005.

So the well-off are defined here as *individuals* living in households with incomes in the top decile—the top 10%. Obviously this cut-off point is arbitrary, but the results relating to volatility would be much the same if we took the top 5% or 20%. In 2005, using the 10% cut-off line, the typical (median) well-off person lived in a dual earner couple household, where the couple were in their later forties and both had tertiary education. They had a median household income before taxes and transfers of \$185,000. In 2002, when HILDA measured wealth, they had a median net worth of \$572,000, mainly in the form of housing equity.

Income mobility of the richest 10% by equivalent income

Table 1 gives an overview of income mobility at the top end by showing how many households never made it into the top 10%, how many did it once, how many twice, and how many managed to stay there five years running. Several measures of income are used. In the first column, results are given for the same measure as was used for assessing poverty—equivalised disposable income.

As explained in a previous article, this is a very useful measure of a household's material standard of living. Then successive columns give income measures for these same individuals; measures which could be regarded as 'prior' to equivalised income. Column 2 deals with individual labour income; the main source of income for most people. Column 3 covers household labour income; the sum of the earnings of all household members. In column 4 'household pre-government income' means all income derived from market sources (labour income, asset income, private superannuation etc), plus gifts, bequests and child support payments. The only income sources omitted here are government benefits and taxes. Household pre-government income is the best measure of how well households are doing under their own steam; that is, without government support or intervention. In column 5 is household disposable income; that is, household income after taxes and benefits, but not equivalised to adjust for differing household needs.

Household labour income

Household labour income is the sum of the wage, salary and self-employment earnings of all household members.

Household pre-government income

Household pre-government income means all income derived from market sources (labour income, asset income, private superannuation etc), plus inter-household gifts and bequests. The only income sources omitted here are government benefits and taxes.

At some risk of exaggeration, it might be said that it is easy to become well-off but hard to stay that way. If it was easy to stay (comparatively) rich, then close to 10% would have been at the top of the distribution in all five years. But in fact, 21.5% were in

Table 1: Income mobility of the richest 10%, by income, 2001–2005 (%)

Number of times rich in 2001–2005	1	2	3	4	5
	Richest 10% (equivalised income)	Richest 10% (individual labour income)	Richest 10% (household labour income)	Richest 10% (household pre-government income)	Richest 10% (household disposable income)
0 times	78.5	83.4	78.9	79.2	78.4
1	9.2	4.8	8.7	8.2	9.0
2	4.4	2.4	4.2	4.6	4.7
3	2.7	2.0	2.9	2.6	2.8
4	2.6	2.3	2.2	2.3	2.3
5 times	2.7	5.0	3.1	3.2	2.8
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 2: Comparing the income mobility of richest and poorest 10% by income, 2001–2005 (%)

<i>Number of times rich in 2001–2005</i>	<i>Richest 10% (equivalised income)</i>	<i>Poorest 10% (equivalised income)</i>	<i>Richest 10% (household pre-government income)</i>	<i>Poorest 10% (household pre-government income)</i>
0 times	78.5	74.8	79.2	82.1
1	9.2	12.8	8.2	5.9
2	4.4	5.7	4.6	2.8
3	2.7	2.9	2.6	2.3
4	2.6	2.0	2.3	2.5
5 times	2.7	1.8	3.2	4.3
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

the top decile of equivalised incomes at least once in 2001–2005. Only 2.7% managed to stay there every year. As might be expected, individual labour incomes were somewhat more stable, with 16.6% making it into the top decile at least once and 5.0% doing so every year. Household labour incomes, household pre-government incomes and household disposable incomes were all quite unstable. The result relating to household pre-government incomes is particularly interesting, because this measure gives the best indication of how households would have fared in the absence of government intervention.

Comparing the income mobility of the well-off and poor

In contrast to results for some other Western countries, it appears that Australia's rich are a group that is almost as volatile as the poor (Burkhauser and Poupore, 1997). Table 2 directly compares the income mobility of the richest and poorest 10% of individuals as measured by equivalent incomes. The household pre-government incomes of these individuals are also given. It should be noted that the 'poverty line' used here differs from the one used in the previous article on poverty; the aim here being to provide an exact comparison between deciles.

Table 2 does not yield unambiguous results about whether the well-off are a more or less volatile group than the income poor. Focusing on pre-government incomes, it appears that more people made it into the top decile in this period (20.8%) than found themselves in the bottom income decile (17.9%). By contrast, more people were in the bottom decile every year (4.3%) than were in the top decile every year (3.2%).¹ The unambiguously greater volatility of poverty incomes, measured on an equivalised basis, is thus clearly due to government intervention; that is, due to government transfers moving some people out of poverty.

By international standards Australia appears to be characterised by relatively high volatility at the top end of the distribution. The evidence from other countries which run panel surveys, including

Britain, Germany, the Netherlands and the US, suggests broadly similar rates of mobility among the poor as we find in Australia but less mobility among the rich.²

In thinking about the reasons for high rates of household income mobility, it is important to remember that changes in income are not solely due to changes in market earnings, but also to changes in household composition (e.g. a son or daughter leaves home to get married) and to household members joining or leaving the labour force.

How downwardly mobile are those who drop out of the top 10%?

Do most of the people who drop out of the top decile descend a long way in the income distribution, or do they move only just below the top 10% line? Table 3 shows the decile position in 2005 of individuals who had been in the top decile in 2001.

From Table 3, it can be seen that 47.4% of those who were in the top decile in 2001 remained there in 2005, and another 18.6% just dropped to the 9th decile. On the other hand, 13.1% were now in the bottom half of the income distribution.

The data so far have related to the entire population. This means that people who would be expected to have a large change in income because they went through a major life-cycle change (e.g. left the parental home or retired) are included. If we confine the analysis to people in their main earning period (25–54), then a slightly

Table 3: Decile position in 2005 of members of the top equivalised income decile in 2001 (%)

<i>Decile position in 2005</i>	<i>Proportion of those in top decile in 2001</i>
Top decile	47.4
9th decile	18.6
6th–8th deciles	20.9
1st–5th deciles (bottom half)	13.1
Total	100.0

Note: Population weighted results.

Table 4: Income mobility of the richest 10% by income 2001–2005: All prime age people and prime age household reference persons (%)

Number of times rich in 2001–2005	All aged 25–54		Household reference persons aged 25–54	
	Richest 10% (household pre-government income)	Richest 10% (equivalised income)	Richest 10% (household pre-government income)	Richest 10% (equivalised income)
0 times	76.4	73.1	81.0	75.7
1	9.4	10.9	8.0	9.1
2	5.4	5.6	3.4	4.7
3	3.1	3.5	2.5	3.4
4	2.4	3.3	2.1	3.4
5 times	3.4	3.6	3.0	4.6
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

less fluid picture emerges. Table 4 gives results for all prime age people, and then separately for prime age household reference persons.³

The evidence in Table 4 still suggests considerable mobility at the top end. In the total population (Table 1), we found that 3.2% remained in the top decile of household pre-government incomes for all five years, and 2.7% remained in the top decile of equivalised incomes. The figures for prime age people indicate only slightly less volatility: 3.4% remained in the top decile of pre-government incomes and 3.6% in the top decile of equivalised incomes. The picture is much the same if analysis is confined just to household reference persons.

Discussion

An assessment of why high incomes are relatively volatile would require complicated statistical analysis. However, one factor is that better off people tend to rely more on asset incomes—incomes from businesses and investments—than less well-off people. In the long run at least, asset incomes are somewhat more volatile than labour incomes (they are ‘higher risk, high return’), so the more reliant a

household is on asset income, then the more volatile its annual income is likely to be.

Endnotes

- 1 In interpreting this comparison, it should be remembered that many individuals and households at the bottom end of the distribution have zero or very low pre-government (mainly market) incomes.
- 2 Unpublished results calculated from the American Panel Study of Income Dynamics, the British Household Panel Study, the Dutch Socio-Economic Panel and the German Socio-Economic Panel.
- 3 In couple households, the male partner has been designated as the household reference person. In lone parent households the reference person is the lone parent. In one person households, it is that person. Multi-family and group households are omitted.

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Welfare reliance: Annual rates and medium-term persistence in 2001–2005

There has been considerable concern in Australia that increasing numbers of people are heavily reliant on income support payments. The McClure Report (2000) on welfare reform documented a sharp increase in recent decades and recommended policy changes—some of which have been adopted—to decrease ‘welfare reliance’ or ‘welfare dependence’. There has been a particular focus on trying to reduce welfare reliance among people of prime working age, including lone mothers. A specific policy aim following the McClure Report, has been to increase paid work and reduce welfare reliance among lone parents whose children have reached school age—the age of six.

Welfare reliance

In this Report, households are defined as welfare reliant if more than 50% of their gross income (income from all sources) comes from Government income support payments and family payments.

This article assesses whether welfare reliance has diminished in 2001–2005, especially in households with a prime age ‘reference person’, including lone mother households. A second concern is the persistence of welfare reliance. Do the same people tend to rely on government income support payments as their main source of income every year, or do people move on and off welfare as the need arises? When welfare reliance is under discussion, it is often implicitly assumed that the same families remain on government payments year after year. This is widely believed to be damaging for the families concerned—they have low incomes and tend to be stigmatised and marginalised. It may be particularly bad for children growing up in homes where welfare and not work may be the norm.

But how valid are assumptions about continuous welfare reliance? After all, it could be the case that, even though welfare reliance has increased, the people receiving payments keep changing and few remain recipients for long. HILDA longitudinal data enable us to address this issue directly. Previous research has mainly used administrative data which provide detailed information about the circumstances of benefit recipients during periods when they are on income support, but no information for other periods (Gregory and Klug, 2002).

What is meant by welfare reliance? The definition used here is that a household is welfare reliant if more than half its gross income (i.e. income from all sources) comes from government payments, including income support payments, family tax benefit and maternity benefit.¹ This definition of welfare reliance is widely used (e.g. in the McClure Report), but it should be understood that households range between zero and a hundred per cent welfare reliance. Also, there are stages of the life cycle, notably retirement years, in which total welfare reliance has historically been the norm and is certainly not stigmatised.

Welfare reliance in 2001–2005: Has the dependence of prime age households on income support diminished?

Welfare reliance can be analysed both for *different categories of individuals* and for *different types of household*. Table 1 gives annual results for 2001–2005 for all individuals and then separately for children under 15. Secondly, it gives results for three types of household: couple households with a prime age reference person (25–54), those headed by a lone mother; and those headed by a person of retirement age (65 and over).

Table 1: Welfare reliance: Annual results for 2001–2005 (%)

	Households				
	Individuals		Couple households, reference person 25–54	Lone mother households	Retirement age households (65+)
	All persons	All children under 15			
2001	19.4	20.3	6.2	53.7	60.7
2002	20.5	22.2	6.6	51.6	61.2
2003	19.4	19.2	6.6	49.6	58.9
2004	20.4	20.6	6.2	41.3	60.4
2005	19.7	19.8	6.0	38.7	58.4

Note: Population weighted results.

It is clear that in the population as a whole, around 19–21% were welfare reliant in each of these five years. Among children, the rate of welfare reliance was at about the same level (or a little higher) and was also more or less unchanged in this period, starting at 20.3% in 2001 and then 19.8% in 2005.

However, when we switch from individual level analysis to household analysis, a more differentiated picture emerges. In prime age couple households, the rate of welfare reliance was comparatively low, at between 6.0% and 6.5%. In line with current policy objectives, lone mother households have recorded a steady and substantial reduction in welfare reliance from 53.7% in 2001 to 38.7% in 2005. The fall has been even larger among lone mothers specifically targeted by policy—those whose have children aged six and over who are in school. In this group, the rate of welfare reliance fell from 45.6% in 2001 to 30.0% in 2005.

In retirement age households, the rate of welfare reliance hovers around 60%. It should be remembered that the share of the elderly in the total population is growing all the time, and is one reason why, despite a decline in reliance among lone mother households, the overall population rate of welfare reliance was basically unchanged in 2001–2005.

Persistence of welfare reliance: Individuals and households

How persistent is welfare reliance? Table 2 gives results for the same groups of individuals and households as the previous table, but this time the question is how many years out of five in 2001–2005 were these groups welfare reliant?² Were they never welfare reliant, reliant for one of the five years, for any two, three or four of these years, or for all five years?

At first sight the evidence of medium-term or five-year welfare reliance looks alarming. 11.0% of Australian residents were welfare reliant for all

five years in 2001–2005 and another 8.5% were reliant for three or four of these years. Among children medium-term welfare reliance was lower than for the general population. 9.4% of children under 15 were in welfare reliant households for all five years and another 8.7% were in this situation for three or four years in 2001–2005.

Again, when we focus on households rather than individuals, a more interpretable account emerges. Among households headed by men or women aged 25 to 54—prime working age—89.9% were not welfare reliant in any of these years and only 2.1% were reliant for all five years, with another 2.8% reliant for three or four years out of five.

So who tends to be continuously welfare reliant? The answer is retirement age households and, despite the decline in this period, lone mother households. A third group is comprised of one person working age households, where 12.2% were five-year welfare reliant in 2001–2005. 49.3% of retirement age households were welfare reliant for all five years, and a further 16.8% were reliant for three or four years. 36.8% of lone mother households were welfare reliant for five years and another 23.3% for three or four years.³

Concluding points

There is clear evidence that welfare reliance has declined among lone mother households. Also, and partly as a consequence of the somewhat improved position of these households, the percentage of children living in situations of welfare reliance is lower than for the population as a whole. These outcomes indicate that government policy is having measurable impact. As the HILDA Survey continues, it will be possible to assess whether additional policy measures introduced in the 2005 and 2006 Australian Government budgets have continued to reduce reliance on income support payments, particularly medium-term to long-term reliance.

<i>Number of years welfare reliant (0-5)</i>	<i>Individuals</i>		<i>Households</i>		
	<i>All persons</i>	<i>All children under 15</i>	<i>Couple households, reference person 25–54</i>	<i>Lone mother households</i>	<i>Retirement age households (65+)</i>
0 years	70.1	68.6	89.9	26.6	26.5
1	6.5	8.5	3.9	7.6	3.7
2	3.9	4.9	1.4	5.6	3.8
3	3.7	3.1	1.6	6.7	4.8
4	4.8	5.6	1.2	16.6	12.0
All 5 years	11.0	9.4	2.1	36.8	49.3
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Endnotes

- 1 Child care benefit is not included because, in line with ABS practice, it is regarded as primarily a benefit in kind rather than cash income support payment.
- 2 Only individuals or households that remained in the same group or category for all five years are included in the analysis. This may introduce some biases. In particular, it might be expected that lone mothers who remained in lone mother households rather than repartnering would have a higher rate of persistent welfare reliance than those who repartnered.
- 3 See endnote 2. It is important to realise that the lone mother households in Tables 1 and 2 are quite different groups. Table 1 shows welfare reliance for households

headed by lone mothers in particular years. Some of these women subsequently repartnered. Table 2 gives results for households headed by the *same* lone mother for all five years.

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Household incomes of immigrants

Roger Wilkins

First generation immigrants constitute over 20% of the Australian population. Understanding how well they adapt to Australian society, and how well Australian society adapts to them, is correspondingly relevant to our understanding of how well Australian society is functioning. Income is an important component of well-being, and as such knowledge of the income outcomes of immigrants compared with the native born is fundamental to understanding how immigrants are faring in Australia. More specifically, it is valuable to compare income levels, income mobility and income poverty of immigrants and native born persons, and to also examine differences in these income outcomes across immigrants characterised by place of birth and length of time in Australia.

The income measure examined here is annual household disposable income adjusted for household size and composition using the OECD equivalence scale. We begin in Tables 1 and 2 by providing essentially cross-sectional information on the household incomes of immigrants compared with Australian born persons. Table 1 presents measures of average household equivalent income of persons aged 15 years and over.¹ As is the convention in Australian immigrant research, immigrants from the main English-speaking countries (ESB immigrants) are distinguished from other immigrants (NESB immigrants). The upper two panels show that ESB immigrants consistently have higher average incomes than the native born—generally of the order of one to two thousand dollars higher. Income growth between 2001 and 2005 also appears to have been somewhat stronger for ESB immigrants than for the native born, at approximately 25% compared with approximately 20%. NESB immigrants, by contrast, have substantially lower average incomes, although income growth appears to have been slightly stronger for NESB immigrants than for the native born.

The lower panel of Table 1 considers differences between relatively recent arrivals—those settling in Australia in the 10-odd years leading up to the 2001 wave—and other (more established) immigrants. Differences between these two groups of immigrants could arise from ‘assimilation’ effects—effects that are a function of length of residency in Australia—and from compositional differences between the two groups, for example in age and educational attainment. In addition, there may be unobserved ‘cohort’ effects, by which is meant systematic differences across arrival cohorts in unobserved characteristics.²

For ESB immigrants, the more recent arrivals have higher median incomes than the pre-1991 arrivals. For NESB immigrants, initially the more established immigrants have higher average incomes, although this ordering is reversed by 2005. Indeed, the striking finding from the lower panel is the very strong growth in median income for the post-1991 arrivals for both ESB and NESB immigrants. This is circumstantial evidence of an ‘assimilation’ effect, although it should be noted that the distribution of life cycle stages of immigrants who arrived between 1991 and 2001 is likely to differ from the distribution for the native born and for other immigrants.

Table 2 considers the location of immigrants in the income distribution more fully, presenting the proportion in each quintile (20%) of the distribution. Consistent with Table 1, the standout feature of Table 2 is the relative concentration of NESB immigrants in the bottom quintile, and the low representation of NESB immigrants in the top quintile. Approximately 30% of NESB immigrants are located in the first quintile, while only 15% are located in the fifth quintile. However, perhaps more interesting is the contrast evident between natives and ESB immigrants in the form of the higher relative concentration of ESB immigrants in

Table 1: Mean and median household equivalent income of persons aged 15 years and over (\$)

	2001	2002	2003	2004	2005	% change 2001–2005
Mean						
Australian born	29,166	30,430	31,122	32,640	34,757	19.2
ESB immigrants	31,036	32,490	33,322	34,846	38,788	25.0
NESB immigrants	25,703	26,740	27,583	28,644	30,692	19.4
Median						
Australian born	25,911	26,756	27,800	29,403	31,133	20.2
ESB immigrants	26,393	27,563	29,020	30,292	33,420	26.6
NESB immigrants	22,380	22,596	23,771	25,362	27,583	23.2
Median income by period of arrival in Australia						
ESB immigrants—recent	30,135	32,240	33,881	39,338	42,381	40.6
ESB immigrants—other	25,322	26,879	28,310	29,585	32,208	27.2
NESB immigrants—recent	19,914	19,404	20,626	26,154	28,837	44.8
NESB immigrants—other	23,255	24,827	24,942	25,461	26,695	14.8

Notes: Population weighted results. *ESB immigrants* are those born in New Zealand, UK, Ireland, South Africa or Northern America. *NESB immigrants* are all other persons born outside Australia. *Recent* immigrants are those who arrived in Australia between 1991 and 2001.

Table 2: Proportion in each quintile of the distribution of household income among all persons aged 15 years and over (%)

	2001	2002	2003	2004	2005
Native born					
1st quintile	18.7	19.4	19.8	19.9	18.9
2nd quintile	18.6	18.4	18.5	18.6	18.8
3rd quintile	19.6	20.0	20.1	19.1	19.4
4th quintile	21.1	20.7	20.4	20.9	20.9
5th quintile	21.9	21.3	21.0	21.4	22.0
ESB immigrants					
1st quintile	20.2	18.3	20.3	20.3	20.2
2nd quintile	17.9	17.1	17.7	16.3	17.6
3rd quintile	17.9	19.0	16.2	18.6	13.2
4th quintile	18.5	20.2	19.7	18.6	18.8
5th quintile	25.5	25.3	26.1	26.2	30.1
NESB immigrants					
1st quintile	27.4	30.7	29.6	30.1	28.6
2nd quintile	19.8	18.5	18.7	18.2	18.8
3rd quintile	17.3	14.5	17.3	18.2	17.8
4th quintile	19.7	20.7	18.5	17.8	20.2
5th quintile	15.9	15.5	15.8	15.5	14.5

Note: Population weighted results.

Table 3: Income quintile transitions 2001–2005: Persons aged 15 years and over (%)

	Up 3 or 4 quintiles	Up 2 quintiles	Up 1 quintile	No change	Down 1 quintile	Down 2 quintiles	Down 3 or 4 quintiles
Australian born	2.4	6.1	17.8	44.3	17.5	6.5	3.5
ESB immigrants	3.0	7.4	15.0	44.7	19.5	6.5	3.4
NESB immigrants	2.8	5.3	18.0	46.4	16.2	5.5	3.2
Immigrants by period of arrival							
ESB immigrants—recent	4.9	9.7	10.7	47.5	18.0	5.0	2.9
ESB immigrants—other	2.6	7.0	15.7	44.3	19.8	6.7	3.4
NESB immigrants—recent	3.0	7.5	19.9	45.6	13.8	5.1	2.4
NESB immigrants—other	2.8	4.4	17.4	46.9	16.9	5.7	3.6

Notes: Population weighted results. Quintiles are for the distribution of household equivalised income among all persons.

both the 1st and 5th quintiles, implying a more dispersed or unequal distribution of income.

Income mobility

Table 3 makes use of the longitudinal structure of the data to consider income mobility, as captured by the change in the income quintile of an individual between 2001 and 2005. Specifically, Table 3 presents the proportion of persons in each of seven categories for change in income quintile from 2001 to 2005. For example, the upper left cell indicates that 2.4% of native born persons moved up 3 or 4 quintiles—that is, from the first or second quintile in 2001 to the fifth quintile in 2005, or from the first quintile in 2001 to the fourth quintile in 2005.

The general impression is that income mobility of immigrants does not substantially differ from that of native born persons. Similar proportions moved up the distribution, moved down the distribution, and stayed in the same quintile of the distribution. The lower panel shows that there are, however, discernible differences in income mobility between the cohort arriving after 1990 and the cohort arriving before then. These differences can reasonably be characterised as recent immigrants exhibiting greater upward mobility, and less downward mobility. For example, 30% of recent NESB immigrants moved to a higher income quintile, compared with 25% of other NESB immigrants. While post-migration adaptation to the new country may be part of the explanation for

this, it is likely that differences in life cycle stage between recent and other immigrants are also at least part of the explanation.

Income poverty

Adopting the ‘below half-median income’ definition of poverty, poverty rates in each year are presented in Table 4. NESB immigrant poverty rates are substantially higher than ESB immigrant and native born poverty rates. This is true for both the cohort arriving after 1990 and the cohort arriving up until 1990.

Persistence of poverty is described in Table 5. Interestingly, NESB immigrants are equally likely to experience one year of poverty (and no more) in the five-year period as ESB immigrants and native born persons. They are, however, 2½ to 3 times more likely to be in poverty in all five years. The lower panel of Table 5 indicates that this is driven by NESB immigrants who arrived in Australia prior to 1991, with over 10% of this immigrant group in poverty the entire period spanned by the HILDA Survey. It is thus clear that persistent poverty is a significant issue for NESB immigrants who arrived in Australia prior to 1991.

Discussion

The main result emerging from the analysis is that income outcomes are comparatively poor for NESB immigrants, particularly those who migrated to Australia some time ago. While this result is consistent with previous research (e.g. Chiswick

Table 4: Income poverty rates: Persons aged 15 years and over (%)

	2001	2002	2003	2004	2005
Australian born	13.1	14.9	14.6	14.1	14.1
ESB immigrants	13.3	13.7	15.9	13.7	13.4
NESB immigrants	21.3	24.3	23.2	25.1	23.6
Immigrants by period of arrival					
ESB immigrants—recent	13.0	9.8	13.1	7.5	12.6
ESB immigrants—other	13.4	14.5	16.1	14.8	13.5
NESB immigrants—recent	23.2	29.3	30.0	24.8	23.5
NESB immigrants—other	20.5	22.3	19.8	24.4	24.0

Note: Population weighted results.

Table 5: Distribution of number of years in poverty: Persons aged 15 years and over (%)

	None	1 year	2 years	3 years	4 years	5 years
Australian born	71.2	11.6	6.2	3.7	3.3	4.0
ESB immigrants	69.5	14.2	5.6	5.0	2.7	3.0
NESB immigrants	60.6	11.4	8.6	5.0	5.1	9.2
Immigrants by period of arrival						
ESB immigrants—recent	75.4	13.2	3.4	6.1	0.0	1.9
ESB immigrants—other	60.6	9.7	10.9	6.4	5.9	6.5
NESB immigrants—recent	68.5	14.4	5.9	4.8	3.2	3.2
NESB immigrants—other	60.8	11.8	7.7	4.5	4.9	10.3

Note: Population weighted results.

and Miller, 1985; Tran-Nam and Nevile, 1988; and Beggs and Chapman, 1991), the longitudinal nature of the HILDA Survey data has facilitated greater depth of understanding of the nature of these income outcomes—most notably, the relatively high incidence of persistent income poverty. However, as has been noted, it is unclear the extent to which this derives from differences in age composition, and other characteristics, as opposed to an effect of being an NESB migrant per se.

Endnotes

- 1 Since immigrant status is not directly recorded for children, we focus on persons over 15 years of age. Note, however, that in analysis of location in the household income distribution, the distribution is defined with respect to all persons, not just those aged 15 years and over. As elsewhere in this Report, we exclude persons with non-positive gross household income or negative private household income.
- 2 In examining differences in immigrant outcomes by length of Australian residency, ideally more disagre-

gated arrival cohorts would be examined, particularly with respect to the initial post-migration years. However, sample sizes do not support such analysis. Also note that new-entrant immigrants after 2001 are under-represented in HILDA because of the sample selection method. Specifically, a migrant who arrives in Australia after 2001 can only enter the sample if that person joins a household already in the sample.

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EMPLOYMENT AND UNEMPLOYMENT/JOBLESSNESS

3

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Labour mobility and movement into and out of unemployment: 2001–2005

How mobile is the Australian labour force? Do the same people remain in jobs year after year while others are persistently unemployed, or is there a high degree of movement in and out of the labour force? Standard statistical summaries divide the working-aged population into three groups—those who are employed, either full-time or part-time; those who are unemployed and looking for work; and a third category ‘not in the labour force’ (and not seeking work).¹ Because the HILDA Survey collects data from the same respondents every year, we are in a position to assess many aspects of labour mobility.

Labour mobility

Measures of labour mobility deal with how many people change jobs each year, and how many move into and out of the labour force; that is, how many people go from being unemployed (or not in the labour force) to employed, and vice versa?

Table 1 provides an overview by showing what had happened in the four years to 2005 to people who started out in different labour force status groups in 2001—the first year of the HILDA Survey.² It is clear from Table 1 that almost 90% of those who were employed in 2001 were employed four years later. By contrast, among those who were classified as unemployed in 2001, only 15.3% were unemployed in 2005. More than 60% had found a job, and 23% had shifted to being ‘not in the labour force’ (not seeking work). Of those who were not in the labour force in 2001, 76.9% were still not seeking work four years later (presumably these are people who had retired from the labour force), 20.9% had taken a job and 2.2% were unemployed and looking for work.

Labour mobility of the prime age population

Having provided a population overview, it will now be more useful to confine the remaining analysis to persons of prime working age (25–54). The main issues would be blurred by including people of student age and older people who are mostly retired. Table 2 presents the same data as

Table 1, but is confined to the prime age group and shows employment differences between men and women.

Among prime age men, 95.3% of those who had jobs in 2001 were employed in 2005, and for women, the comparable figure was 87.7%. Of the men who had been unemployed in 2001, 60.1% were in work in 2005. For women who were unemployed in 2001, the proportion who were working in 2005 was 64.1%. The relatively high percentage of prime age people who moved from unemployed in 2001 to ‘not in the labour force’ in 2005 may be an indicator that there are some ‘discouraged workers’. The rate of shifting from unemployed to ‘not in the labour force’ was higher among women (25.6%) than men (17.1%).

Do people find jobs with the working hours they want?

Table 2 shows that 47.7% of men and women who were unemployed in 2001 were employed one year later and 61.8% of those who were looking for work in 2001 (and interviewed in 2005) had jobs in 2005. But do people who want full-time jobs get them, or do many have to settle for part-time work? And do those who prefer part-time work get what they want?

In previous years, we have found that, while the national economy is doing well, most people were able to find jobs with the hours they wanted. Table 3 shows the labour force status in 2005 of prime age men and women who were unemployed in 2001.

Of the prime age men and women who were unemployed in 2001, 60% of men and 64.2% of women were employed, either full-time or part-time, in 2005. It seems that while some got what they wanted in terms of weekly working hours, others had to settle for fewer hours, while others still remained unemployed or left the labour force.³ Only 45.6% of men who were looking for full-time work in 2001 were working full-time in 2005. Of the women who were unemployed in 2001, 22.2% were working full-time in 2005, 42%

Table 1: Labour mobility: Changes in employment status between 2001 and 2005 for people aged 15 and over in 2001 (%)

	Employed in 2001				Unemployed in 2001				Not in the labour force in 2001			
	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
Employed	91.9	90.4	88.9	88.4	44.3	55.9	60.3	61.6	10.6	14.7	17.6	20.9
Unemployed	2.1	1.6	1.8	1.5	30.6	19.9	12.7	15.3	3.6	3.4	3.4	2.2
Not in the labour force	6.0	8.0	9.3	10.1	25.0	24.2	27.0	23.0	85.8	82.0	79.0	76.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

were working part-time, and the remaining 35.8% were either unemployed and looking for work or had left the labour force.

Overall, only 38% of men and women who were looking for full-time work in 2001 were working full-time in 2005—21.2% had settled for part-time work, 20.6% were unemployed and 13.1% were no longer in the labour force.

Work-hour preferences of people in paid work

Each year, men and women who are employed at the time of their interview are asked whether they are happy with their weekly working hours, or

whether they would prefer to work more hours or fewer hours. Table 4 shows work-hour preferences of employees in the five years from 2001 to 2005.⁴

On average, men who were working full-time preferred around 43 hours of work per week, compared to around 23 hours per week for men who were working part-time. For women working full-time, average preferred weekly hours were around 37, compared to around 22 hours per week for women who were working part-time.

Each year, around 30% of men and 40% of women working full-time reported a preference for fewer work hours. The proportion of men working full-time

Table 2: Labour mobility: Changes in employment status of prime age men and women (aged 25 to 54) between 2001 and 2005 (%)

	Employed in 2001				Unemployed in 2001				Not in the labour force in 2001			
	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
Men												
Employed	95.9	95.4	94.7	95.3	49.3	57.4	56.3	60.1	18.1	25.4	26.3	32.5
Unemployed	2.1	1.6	1.4	1.7	29.9	20.2	17.2	22.9	*8.0	*5.5	*4.6	*2.4
Not in the labour force	2.0	3.0	3.9	3.0	20.9	22.4	26.5	17.1	73.9	69.1	69.0	65.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women												
Employed	91.3	88.1	88.2	87.7	45.5	58.3	61.3	64.1	17.9	24.1	32.1	37.6
Unemployed	1.6	1.1	1.5	1.7	24.2	17.2	*7.8	*10.3	4.8	5.8	4.4	5.8
Not in the labour force	7.0	10.8	10.2	10.6	30.3	24.5	30.9	25.6	77.3	70.1	63.5	56.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All persons												
Employed	93.9	92.1	91.9	91.9	47.7	57.8	58.3	61.8	17.9	24.3	31.0	36.7
Unemployed	1.9	1.4	1.4	1.7	27.5	18.9	13.5	17.6	5.5	5.8	4.4	5.1
Not in the labour force	4.2	6.5	6.7	6.5	24.7	23.3	28.3	20.6	76.5	69.9	64.6	58.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 3: Labour force status in 2005 of prime age men and women who were unemployed in 2001 (%)

	Labour force status in 2005					Total
	Employed full-time	Employed part-time	Unemployed, looking for full-time work	Unemployed, looking for part-time work	Not in the labour force	
Men						
Looking for full-time work	45.6	*13.5	*23.1	*0.4	*12.9	100.0
Looking for part-time work	*32.4	*34.2	*10.1	*8.7	*7.2	100.0
All unemployed	43.8	16.2	*21.4	*1.5	*12.1	100.0
Women						
Looking for full-time work	*21.2	*38.3	*14.1	*0.0	*13.6	100.0
Looking for part-time work	*23.3	*46.2	*5.8	*0.0	*12.8	100.0
All unemployed	22.2	42.0	*10.3	*0.0	*13.2	100.0
Total						
Looking for full-time work	38.0	21.2	20.3	*0.3	13.1	100.0
Looking for part-time work	*25.8	*42.8	*7.0	*2.4	*11.2	100.0
All unemployed	34.7	27.0	16.7	*0.9	*12.6	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 4: Work-hour preferences of employees, 2001–2005 (%)

	2001	2002	2003	2004	2005
Men—working full-time					
Prefer fewer hours	31.7	32.2	30.6	32.1	29.5
Prefer current hours	55.9	56.5	59.2	58.0	60.8
Prefer more hours	12.4	11.3	10.2	9.9	9.6
Total	100.0	100.0	100.0	100.0	100.0
Average preferred hours	43.0	42.9	42.6	42.3	42.2
Men—working part-time					
Prefer fewer hours	6.8	3.6	5.8	5.5	5.0
Prefer current hours	46.6	47.8	44.0	52.5	56.2
Prefer more hours	46.6	48.6	50.1	42.0	38.8
Total	100.0	100.0	100.0	100.0	100.0
Average preferred hours	23.4	23.5	24.4	23.5	24.3
Women—working full-time					
Prefer fewer hours	40.7	37.7	40.1	40.2	41.2
Prefer current hours	52.9	57.0	56.3	55.4	53.6
Prefer more hours	6.4	5.3	3.6	4.4	5.2
Total	100.0	100.0	100.0	100.0	100.0
Average preferred hours	37.4	37.8	37.4	37.2	37.4
Women—working part-time					
Prefer fewer hours	9.0	7.7	9.3	9.1	9.6
Prefer current hours	58.8	60.0	56.4	60.1	59.6
Prefer more hours	32.2	32.3	34.3	30.8	30.7
Total	100.0	100.0	100.0	100.0	100.0
Average preferred hours	22.1	22.0	22.1	21.8	22.4

Note: Population weighted results.

Table 5: Duration of unemployment, prime age persons, 2005 (%)

<i>Duration of unemployment</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Less than 6 months	*21.2	41.5	32.2
6 months to < 1 year	*6.7	*8.6	7.7
1 to < 2 years	*10.3	23.0	17.2
2 to < 5 years	26.3	*12.2	18.6
5 years or more	35.5	*14.7	24.2
Total	100.0	100.0	100.0
Average unemployment duration (years)	3.5	2.5	2.9

Notes: Population weighted results. * Estimate not reliable.

Table 6: Persistence of unemployment: Number of years unemployed, prime age persons 2001–2005 (%)

<i>Number of years unemployed</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
0	89.2	89.1	89.2
1	7.9	7.9	7.9
2	1.5	1.9	1.7
3	*0.8	*0.7	0.7
4	*0.6	*0.3	0.4
5	*0.1	*0.0	0.1
Total	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

who said they would prefer to work more hours dropped from 12.4% in 2001 to 9.6% in 2005. For women working full-time, the proportion reporting a preference for more hours dropped from 6.4% in 2001 to only 3.6% in 2003, but then rose to 5.2% in 2005.

Around 60% of women who were working part-time were happy with their current working hours, while over 30% of women in this group said they would prefer to work more hours each week. For men, the proportion of part-time workers who were content with their working hours increased from 46.6% in 2001 to 56.2% in 2005, while the proportion of men working part-time with a preference for more hours dropped from 50.1% in 2003 to 38.8% in 2005. Given that this decrease in men working part-time with a preference for more working hours was most common among men aged between 25 and 54, it suggests preference for a better work–family balance.

Duration of unemployment in 2001–2005

The HILDA Survey data enable us to make a preliminary assessment of the percentage of the prime working age population who are short-term and medium-term unemployed. Table 5 shows the duration of unemployment for prime age men and women who were unemployed at the time of their 2005 interview.

For prime aged men who were unemployed in 2005, the average duration of unemployment was 3.5 years, compared to 2.5 years for women. However, 61.8% of the prime aged men who were unemployed in 2005 had been unemployed for 2 years or more, and 35.5% had been unemployed for at least five years. Only 26.9% of unemployed prime aged women had been unemployed for 2 or more years, and 41.5% had been unemployed for less than 6 months.⁵

Only 3.0% of prime age men and 3.4% of prime age women were unemployed at the time of their 2005 interview, but how many had been unemployed at some time in the last four years? Table 6 shows the percentage of the prime age population who were never unemployed in the five years between 2001 and 2005; those who were unemployed in any one year out of the five; in two of the five years; in three out of five years; in four of the five years; and in all five years from 2001 to 2005.

Table 6 shows that 89.2% of men and women between the ages of 25 and 54 were never unemployed at the time any of their interviews between 2001 and 2005, which means that 10.8% were unemployed on at least one occasion—7.9% were unemployed in one out of five years, 1.7% were unemployed in two of the five years, and the remaining 1.5% were unemployed in three or more of the five years.⁶

However, there are reasons for thinking the picture given by Table 5 is too optimistic. It is known that some people who would prefer to work become discouraged and stop seeking work, and so become classified as 'not in the labour force'. One piece of evidence for this is that far more people go from being unemployed to 'not in the labour force' than move in the opposite direction (Table 2). A second piece of evidence is that, among those prime aged men and women who were not working and not currently seeking work in 2005, 37.3% (43.9% of prime age men and

35.5% of prime age women) said they would like a job, and a further 6.7% answered 'maybe' when asked if they would like a job.

The most common reason men who wanted to work gave for not looking for work was 'own health or disability' (48.5%), while 35.4% of women who were not in the labour force but said they would like to work said they were not looking for work because of child care responsibilities. For some of these women, it appears they stopped looking for work because the task appeared hopeless—9.8% said they stopped looking for work because they lacked the necessary training, qualifications or experience; had language, reading or writing difficulties; or employers thought they were too old.

Endnotes

- 1 People who work 35 hours or more in a usual working week (in all jobs) are considered to be full-time workers.
- 2 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 are the ABS Labour Force Surveys: see ABS (2006).
- 3 It is also possible that for some people, preferences changed since 2001.
- 4 This analysis is restricted to employees as it is assumed that people who are self-employed are able to choose their own working hours.
- 5 This could be because women 'give up' looking for work more quickly than men, (e.g. 29.5% of women who were unemployed in 2001 were 'not in the labour force' by 2002, compared to 20% of men).
- 6 Labour force status at the time of interview—respondents could have had periods of unemployment between interviews.

Reference

Australian Bureau of Statistics, 2006, *Labour Force, Australia*, ABS Catalogue No. 6202.0, Canberra.

Changes in working time preferences: 2001–2005

On average, Australians are working longer hours than ever before and the number of hours worked per week is higher than in most other western countries.

Do people working more or less hours than they want eventually get what they want? Using the HILDA Survey data to compare work-hour preferences in 2002 and 2004, Wooden (2006) found that while in any year 40 to 45% of employed were not working their preferred hours, many were working their preferred hours a few years later, but overemployment (preference for fewer hours) is more persistent. Tables 1 and 2 show the differences in work-hour preferences for prime age and women in 2001 and the proportion who had resolved their hours mismatches, or changed their working time preferences, by 2005.

Of the prime age men who were working full-time in 2001 and preferred fewer hours, 51% were still in the same situation in 2005 and 36.1% were still working full-time but were happy with their hours—either they reduce their working hours or they changed their preference. Of the men who were full-time workers and happy with their work hours in 2001, 61.3% were still working full-time and had no desire to change the number of hours they were working each week, 27% were working full-time but now had a preference for fewer hours and 5% were still working full-time and wanted to work more hours. More than half the men who were working full-time in 2001 and wanted to work more hours were content with their (full-time) working hours in 2005, only 18.4%

of men in this group still expressed a preference for more working hours, and 14.7% said they would prefer to work fewer hours.

Over 60% of the men who were working part-time in 2001 and wanted to work more hours were working full-time at the time of their 2005 interview, as were 45.6% of men who were unemployed and looking for full-time work in 2001; 20.5% of prime age men who were not in the labour force in 2001; and 36.8% of men who said they were happy with their part-time hours in 2001.

The changes in working time preferences of prime age women between 2001 and 2005 are shown in Table 2. Over 40% of prime age women who were working full-time 2001 and expressed a preference for fewer hours were still in the same situation in 2005; 22.5% were happy with their current full-time hours; 17.4% were content working part-time; and 4.7% were working part-time but had a preference for more work hours. Of the women who had no preference to change their full-time hours in 2001, 42% were still happy with their full-time hours in 2005; 25.8% were working full-time and expressed a preference for fewer hours, 10.6% had changed to part-time work and were content with their working hours, and 5% were working part-time but wanted to work more hours.

Just under 30% of women who were working part-time and preferred to work fewer hours in 2001 were in the same situation in 2005; 26.9% of women in this group were now content with their part-time hours. Of those women who were happy

Table 1: Work-hour preferences of prime age men, 2001–2005 (%)

Work hours and preferences in 2001	Work hours and preferences in 2005								
	Working full-time			Working part-time			Not in paid work		
	Prefer fewer hours	Prefer current hours	Prefer more hours	Prefer fewer hours	Prefer current hours	Prefer more hours	Unemployed	Not in the labour force	Total
Working full-time									
Prefer fewer hours	51.0	36.1	4.0	*0.7	*2.8	*1.6	*1.8	*2.1	100.0
Prefer current hours	27.0	61.3	5.0	*0.1	1.9	*1.4	*0.9	2.4	100.0
Prefer more hours	14.7	52.4	18.4	*0.8	*1.1	*4.0	*2.7	*6.0	100.0
Working part-time									
Prefer fewer hours	*57.3	*5.4	*0.0	*15.5	*13.3	*8.4	*0.0	*0.0	100.0
Prefer current hours	*25.6	36.8	*0.0	*0.4	*17.5	*9.2	*4.1	*6.4	100.0
Prefer more hours	*13.5	38.1	*10.0	*0.0	*8.1	*17.8	*5.2	*7.3	100.0
Not in paid work									
Unemployed	*10.9	21.8	*11.1	*0.0	*6.7	*9.5	22.9	17.1	100.0
Not in the labour force	*8.4	8.6	*3.5	*0.0	*5.9	*6.1	*2.4	65.0	100.0
Total	30.1	46.3	6.2	*0.4	3.3	3.3	2.7	7.9	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 2: Work-hour preferences of prime age women, 2001–2005 (%)

<i>Work hours and preferences in 2001</i>	<i>Work hours and preferences in 2005</i>								
	<i>Working full-time</i>			<i>Working part-time</i>			<i>Not in paid work</i>		
	<i>Prefer fewer hours</i>	<i>Prefer current hours</i>	<i>Prefer more hours</i>	<i>Prefer fewer hours</i>	<i>Prefer current hours</i>	<i>Prefer more hours</i>	<i>Unem- ployed</i>	<i>Not in the labour force</i>	<i>Total</i>
<i>Working full-time</i>									
Prefer fewer hours	43.6	22.5	*1.0	*2.3	17.4	4.7	*0.1	8.4	100.0
Prefer current hours	25.8	42.0	*3.0	*2.2	10.6	5.0	*2.6	8.9	100.0
Prefer more hours	*9.3	*60.0	*9.8	*0.0	*5.2	*5.3	*6.3	*4.0	100.0
<i>Working part-time</i>									
Prefer fewer hours	*12.2	*3.9	*0.0	29.4	26.9	*14.1	*1.0	*12.4	100.0
Prefer current hours	10.9	11.1	*0.6	7.8	45.1	11.7	*1.6	11.1	100.0
Prefer more hours	13.9	14.8	*3.0	*1.9	24.9	21.0	*2.6	17.9	100.0
<i>Not in paid work</i>									
Unemployed	*8.3	*13.9	*0.0	*2.6	*23.8	*15.5	*10.3	25.6	100.0
Not in the labour force	3.0	6.1	*0.4	*2.1	18.0	7.8	5.8	56.8	100.0
Total	17.7	18.5	1.4	4.0	22.4	9.1	3.1	23.9	100.0

Notes: Population weighted results. * Estimate not reliable.

with their part-time working hours in 2001, 45.1% were still working part-time and had no desire to change their working hours; 11.7% were still working part-time but wanted to work more hours; 11.1% were working full-time and content with their working hours, and 10.9% were working full-time but had a preference for fewer work hours.

More than 30% of women who were working part-time and had a preference for more working hours in 2001 were working full-time in 2005; 21% were still working part-time and had a preference for more work hours, and 24.9% were now happy with their part-time hours.

Concluding points

For prime age men and women, it seems that the most difficult work-hours preference problem to

resolve is that of full-time workers who have a preference for fewer hours—51% of men and 43.6% of women who were working full-time in 2001 and expressed a preference for fewer hours were still in the same situation in 2005. On the other hand, it was more common for men and women who had a preference for more working hours to get what they wanted, with 52.4% of men who were working full-time in 2001 and wanted more hours saying they had no preference to change their full-time working hours in 2005.

Reference

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

Jobless households, 2001–2005: Characteristics and persistence

Research initiated by Professor Bob Gregory and Boyd Hunter of the Australian National University and Professor Peter Dawkins of Melbourne Institute has shown that the distribution of work in Australia has become more unequal, which is one driver of increased earnings inequality (Gregory and Hunter, 1995; Dawkins, 1996). The evidence points to increasing numbers of households in which one or two members work long hours and, at the other end of the spectrum, increasing numbers of 'jobless households' in which no one has paid work.

The HILDA Survey provides the first available evidence about medium-term 'persistently' jobless households in Australia. Nearly all previous evidence has been cross-sectional—evidence collected at one moment in time. Clearly, even short-term household joblessness is a concern, but medium-term to long-term joblessness is a more serious policy issue because of the implications for a family's long-term income, wealth, and physical and mental health. Long-term jobless families probably tend to suffer some degree of social stigma and marginalisation. It also seems possible that children's long-term career chances might be damaged by growing up in jobless households. Concern has been expressed 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).

Jobless households

In this Report, a jobless household is defined as a household in which no one was in paid work for more than 26 weeks (50% of the time) in the last financial year.

In this article, a jobless household is defined as one in which no household member was in paid work for more than 26 weeks (half the year) in the last financial year.¹ Clearly, other definitions are also possible. If we said that *any* paid work done by a household member during the year would mean that the whole household was to be defined as working, then the jobless rates would be lower than those given below. On the other hand, if we said that in order for the household to be classified as working, at least one person would need to spend the entire year in work, the joblessness estimates would be raised. However, it is clear from more detailed sensitivity analyses that alternative reasonable definitions give essentially the same results regarding the types of households at high and low risk of joblessness (Headey and Verick, 2005).

The HILDA Survey has now been running for five years and provides the first Australian data on

Table 1: Individuals in jobless households, 2001–2005: Comparing cross-sectional and longitudinal results (%)

	All persons	Aged under 65 and not in retired household
Cross-sectional results		
2001	21.5	11.6
2002	22.6	12.1
2003	22.6	10.9
2004	22.0	9.2
2005	21.3	9.7
Persistence: Years in a jobless household		
Never	68.5	81.1
1 year	6.0	6.3
2 years	4.1	4.3
3 years	3.2	2.8
4 years	3.8	2.3
5 years	14.5	3.0
Total	100.0	100.0

Note: Population weighted results.

whether household joblessness is usually a short-term phenomenon, or whether it is a persistent problem for many. It is important to note that the cross-sectional estimates of all persons living in a jobless household (including, in this first cut, retired people and others not expected to work) were almost unchanged in 2001–2005. They remained steady at around 21–23%. It might seem obvious or 'natural' to infer from such stable figures that the same individuals remained in jobless households each year. Is this true, or is it misleading?

Table 1 compares cross-sectional with longitudinal results for 2001–2005 for two groups whom one would expect to have quite different joblessness rates. First, the entire population. Commentators sometimes quote figures for the entire population, or sometimes for the entire working age population defined as people aged 15–64 (Saunders, 2004). This is tendentious because some retired people and also full-time students are included, so the figures are bound to show a high joblessness rate. It is more sensible to focus on individuals who do not live in a household where the reference person is retired, and who themselves are under the age of 65. The expectation would be that most of these people would be in households that had work.

If the focus is the entire population, then the joblessness rate looks alarmingly high and stable. 21–23% were in jobless households each year and 14.5% were jobless in all five years.² But focusing on people below retirement age, Table 1 shows that the numbers in jobless households have declined from

11.6% in 2001 to 9.7% in 2005. Even so, it might seem 'natural' or even obvious to infer that many of the same people remain in jobless households year after year. The longitudinal results show that this is not so. While 18.9% were in a jobless household for one or more years (i.e. 100% minus 81.1%), 'only' 3.0% were in this situation for all five years. A further 2.3% were jobless for four of these years; 2.8% for three years; and 4.3% for two of these years.

In order to get a better handle on the issue, we need to switch from individual level analysis to the *household level*. Table 2 highlights the two types of households which are *least* and *most* at risk of household joblessness: couple households and lone mother households.³ Analysis is restricted to households with prime age reference persons (25–54) who were not full-time students.

Prime age couple households, which have at least two potential earners, are rarely jobless. About 3–4% of these households were jobless each year in 2001–2005, and the longitudinal results in Table 2 indicate that only 1.3% were jobless every year.

Clearly, there is a strong societal expectation that at least one person in a couple household will undertake paid work. But community expectations about whether lone mothers should work are ambivalent. In the past there was probably an expectation that they would not normally work, at least while the children were in school. In recent years, however, the Australian Government has changed the income support system to encourage lone mothers to undertake work, education or training. Table 2 clearly shows that the joblessness rate in lone mother households has fallen sharply. In 2001–2003 it was

over 40%; in 2003–2005 it came down close to 30%. Just over a fifth of all lone mother households (20.1%) were jobless in all five years in 2001–2005.

Table 3 is about the number of children growing up in jobless households. The Table shows the jobless household rates for all children in Australia, and then more specifically for children in lone mother households.⁴

The cross-sectional evidence indicates an overall decline in the total number of children in jobless households in 2001–2005, with the sharpest decline again coming in 2004–2005. The longitudinal data indicate a considerable degree of persistence: 5.5% were in jobless households for all five years, and a further 8.6% were in this situation for three or four years. Further analysis shows a high concentration in lone mother households. In 2001–2003 about half the children in lone mother households were in a jobless setting. By 2005, the figure had dropped to 43.6%. 29.2% of children in lone mother households were in a jobless setting for all five years, with another 21.2% being so for three or four years. More detailed analysis indicates that close to three-quarters of the children living in jobless households for three or more consecutive years in this period were in lone mother households (Headey and Verick, 2005).

So, if a major concern is the effect on children of being raised in a jobless household, then it is lone mother households that should be the main focus. However, this raises controversial policy issues about whether lone mothers should be expected to work. One view is that they should not work and instead concentrate on raising their children. A second view, which could be said to be reflected in the fact that sole parenting benefits normally cut out when children reach 16, is that lone mothers

Table 2: Groups at high and low risk of joblessness in 2001–2005: Comparing cross-sectional and longitudinal results (%)

	<i>Couple households: Reference person prime age (25–54)</i>	<i>Lone mother households^a (25–54)</i>
Cross-sectional results		
2001	4.4	45.1
2002	3.9	40.9
2003	4.4	46.8
2004	2.8	30.9
2005	3.0	30.5
Persistence: Years in a jobless household		
Never	94.6	44.4
1 year	1.8	5.9
2 years	1.3	8.0
3 years	0.7	14.1
4 years	0.2	7.1
5 years	1.3	20.1
Total	100.0	100.0

Notes: Population weighted results. Households with reference persons who are full-time students are excluded. ^a The reference person remained in this type of household for all five years.

Table 3: Children in jobless households—total population and lone mother households: Cross-sectional and longitudinal results (%)

	<i>Children in all households</i>	<i>Children in lone mother households</i>
Cross-sectional results		
2001	17.9	52.3
2002	18.6	51.9
2003	17.7	51.9
2004	15.8	47.6
2005	14.1	43.6
Persistence: Years in a jobless household		
Never	73.5	31.8
1 year	6.4	7.4
2 years	6.1	10.4
3 years	4.1	13.0
4 years	4.5	8.2
5 years	5.5	29.2
Total	100.0	100.0

Note: Population weighted results.

Table 4: Joblessness in lone mother households by age of youngest child, 2005 (%)

Number of years jobless	Lone mother households: Mother 25–54 and youngest child 6–15 ^a
0 years	53.3
1–3 years	*26.3
4–5 years	*20.3
Total	100.0

Notes: Population weighted results. * Estimate not reliable.
^a Excluding households in which the mother is a full-time student.

should work when the youngest child reaches this age. A third view, reflected in the McClure Report (2000) on welfare reform and also in the changes to income support payments for lone parents which took effect on 1 July 2006, is that lone mothers should be encouraged to work when their youngest child is six years old and goes to school.⁵

Unfortunately, the sub-sample size is too low to get reliable results for lone mother households in which the youngest child is aged under 6. So Table 4 is confined to lone mother households in which the youngest child is aged 6 to 15. Even here the sample number (N = 66) is low, but the results may be regarded as indicative.

Because numbers were small, the results for 1–3 year and 4–5 year jobless households were combined. Clearly, a 4–5 year joblessness rate of 20.3% in these households where children have reached school age appears quite high. It should also be noted that 56.7% were continuously in work in this period.

A final point: it is often stated that more women than men live in jobless households. This is true, but it is almost entirely due to the fact that lone mother households are much more common than lone father households. In non-lone parent households, that is, in all other types of household, men and women have about the same annual and five-year joblessness rates.⁶

Concluding points

Overall, the analysis shows the value of longitudinal data for distinguishing between short-term and medium-term rates of joblessness, and for identifying which specific population groups are most and least at risk of persistent joblessness. While 18.9% of all individuals were in a jobless household for one or more years, only 3.0% were in this situation for all five years. Concentrating on prime age couple households, only 3% to 4% of these households were jobless in each year from 2001 to 2005, and only 1.3% were jobless in all five years. Conversely, the proportion of lone mother households which were jobless in all five years was 20.1%. So, if a major concern is the effect on children of being raised in a jobless household, then it is lone mother households that should be the main focus. However, this raises controversial

policy issues about whether lone mothers should be expected to work.

Endnotes

- 1 Regardless of how many hours they worked.
- 2 The slight apparent increase between 2001 and 2005 is entirely due to an increased proportion of retirees in the population.
- 3 As in other articles in this volume, lone father households are omitted because the sub-sample size is too small for reliable analysis.
- 4 In this table, no age restrictions are imposed for household reference persons, and there is no exclusion of children in households where the reference person is a full-time student.
- 5 It is important to note that welfare to work does not apply to *all* lone parents. But rather to selected groups on income support or applying for entry to income support. In the case of parents, the July 2006 changes applied only to new entrants to income support. From July 2006, principal carer parents who were single with a youngest child aged 6 to 7 years applying for income support continue to go onto Parenting Payment, but have a requirement to look for and take up part-time work of at least 15 hours per week. Those with a youngest child aged 8 to 15 years go onto Newstart and are required to look for part-time work. Principal carers partnered with a youngest child aged 6 to 15 years go on to Newstart and are required to look for part-time work. Principal carers with a youngest child of less than school age continue to go onto Parenting Payment, with no activity test requirement. Furthermore, in addition to increased requirements on lone parents to look for work, there is also increased assistance provided through the Job Network to lone parents who want to work to find work.
- 6 There are some small exceptions to this generalisation. In particular, females with a disability are less likely to find work than males with a disability. Also, women still tend to retire at a younger age than men.

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Do low-pay jobs lead to higher pay jobs? Evidence for 2001–2005

For several decades the Australian Government has been imposing increasingly strict job search requirements on unemployed people. Under the rubric of ‘mutual obligation’, one aim of current policy is to ensure that, if citizens accept unemployment benefits, they must actively search for work. Clearly, case officers try to match jobs to each client’s qualifications, but in general terms, it is required that individuals must take any job they are capable of doing, or risk losing government benefits. One implied and sometimes stated justification for the latter requirement is that once a person enters or re-enters the job market, he/she may have an improved chance of finding a better paying or more satisfying job, compared with someone who remains unemployed. Simply put, the idea is that any job is better than none, and that low-pay jobs may lead to higher pay jobs.

An alternative view is that people in low-paying jobs are ‘trapped’ in ‘dead-end’ jobs and rarely get ahead in the labour market (Romeyn, 1992; Burgess and Campbell, 1998; Watson et al., 2003). On this view, a person who is unemployed may not be making a mistake by holding out for a well paid or more satisfying job, rather than taking almost any job offered.

These competing viewpoints can only be tested by using medium-term or long-term panel data—data which provide records of the labour force experiences of the same individuals for a period of years. Five years of data are now available from the HILDA panel, and although this is too short a period to provide ideal evidence, a preliminary attempt can be made to cast light on the issue.

Men in their thirties and forties—almost all want full-time jobs

Initially, the main focus is on men in their thirties and forties (30–49 inclusive) because for this

group, unlike other groups in the community, it is absolutely clear what they want. These are men in their main family-raising and working years. They have almost all completed their education, and they are not yet thinking of retirement or the pre-retirement possibility of shifting to part-time work. In virtually all cases, they want *full-time jobs*, and we can of course assume that they would prefer a high rate of pay to a low rate. In the HILDA panel in 2001, almost all men in this age group specifically reported that they wanted a full-time job. Only two of the men who were unemployed said they wanted a part-time job. In fact, 6.7% of men in this age group actually held part-time jobs, but they too mostly wanted full-time positions.

So, as a first cut at the issue, let us divide the 2001 sample of men in their thirties and forties into seven groups according to labour force status and current hourly earnings.¹ The groups are listed in ascending order of (assumed) preference.

1. *Unemployed*
2. *Part-time work*
3. *Full-time work but in lowest quintile (20%) of full-time earnings*
4. *Full-time work and second quintile of earnings*
5. *Full-time work and third quintile of earnings*
6. *Full-time work and fourth quintile of earnings*
7. *Full-time work and highest quintile of earnings.*

Table 1 reports the labour force status and earnings of these seven groups in 2005.² The key result here is that men who held low-paying jobs in 2001—that is, they were in the lowest quintile of

Table 1: Labour force status and earnings in 2005, by status and earnings in 2001: Men in their thirties and forties (%)

Status and earnings in 2005	Not in full-time work in 2001		In full-time work in 2001				
	Unemployed	Part-time work	Lowest quintile earnings	2nd quintile earnings	3rd quintile earnings	4th quintile earnings	Highest quintile earnings
Unemployed	18.2	4.8	0.0	0.0	0.8	0.0	2.7
Part-time work	13.4	19.0	2.8	0.9	1.4	0.0	2.4
Lowest quintile	21.1	23.4	43.2	25.9	9.5	5.4	4.9
2nd quintile	25.3	15.3	31.1	39.2	18.9	7.4	4.1
3rd quintile	13.5	22.2	15.1	23.1	35.7	18.4	5.6
4th quintile	0.0	7.8	6.6	6.9	24.2	47.3	15.8
Highest quintile	8.5	7.5	1.2	4.0	9.4	21.4	64.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

full-time earnings—achieved much better outcomes by 2005 than men who were unemployed in 2001. Almost all of these men still had a job in 2005, although 2.8% had changed from full-time to part-time. Just over 15% were now in the middle income quintile and 7.8% were in the top two quintiles. By comparison, the men who were unemployed in 2001 were still faring badly. 18.2% were still unemployed and 13.4% were in part-time jobs. On the other hand, 22.0% were in the top three quintiles.

A second important result is that the men who had part-time work in 2001 were also doing better in 2005 than those who had been unemployed at the start of the period. Only 4.8% of them, compared to 18.2%, were unemployed in 2005. Just under a fifth still held part-time jobs, while 37.5% were now in the top three quintiles.

Both these results appear to show that, for the sake of later advancement in the labour market, it is preferable for prime age men to have almost any sort of job—a part-time and/or low-paying job—rather than no job at all. However, it could be that the evidence in Table 1 is misleading, because the table is just a transition matrix, which does not tell us anything else about these men except their labour force status and earnings at two moments in time. It is possible, indeed likely, that the men who were initially unemployed or in part-time jobs had less human capital—less education, skill and work experience—than the men who were in full-time jobs in 2001. Human capital differences could entirely or partly account for the results.

In order to test this possibility, it is necessary to undertake more complicated multivariate analysis. An ordinal scale (ordered probit) regression analysis, based on the seven groups of prime age men classified in Table 1, confirmed the main results reported above.³ The analysis took account of (or ‘controlled for’) differences in age, years of education and years of work experience among the men in the seven groups. As the results in Table 2 clearly show, it remained the case that the men who already had part-time work in 2001 achieved significantly better outcomes in 2005 than the unemployed men, and that men in low-paying but full-time jobs at the start of the period

fared much better still. In concluding this section, it is worth pointing out that there is a good deal of earnings mobility (Table 3).

Among the men aged 30–49, who were in full-time jobs in both 2001 and 2005, 15.4% of those who started out in the bottom quintile of earnings were in the middle of the distribution (quintile 3) in 2005 and 8.0% were in the top two quintiles. There was somewhat less movement the downward direction—8.3% of those who started in the highest quintile were in the middle quintile or below by 2005. Clearly, if more years of data were available, it is almost certain that there would be a greater degree of mobility to report.

Women who wanted to change their job situation

Plainly, it is harder to determine the success rates of prime age women in getting ahead in the job

Table 2: Labour force status and hourly rates in 2005 of men in their thirties and forties by status and hourly rate in 2001: Ordered probit analysis

<i>Explanatory variables</i>	<i>Dependent variable: Labour force status and earnings quintile in 2005 (7 ranked categories)</i>
Employed part-time 2001 ^a	0.30**
Quintile 1 of full-time earnings 2001 ^a	0.67**
Quintile 2 in 2001 ^a	1.00**
Quintile 3 in 2001 ^a	1.41**
Quintile 4 in 2001 ^a	1.93**
Quintile 5 in 2001 ^a	2.45**
Age 2001	0.41*
Age squared (/10) 2001	-0.06*
Years of education 2001	0.11**
Work experience 2001 ^b	0.01**
Chi square (10)	572.86**
Pseudo R squared (%)	16.2
N	956

Notes: All results were substantially the same when annual earnings data were used, rather than hourly rates. ^a Reference group: men who were unemployed in 2001. ^b Percentage of time spent in paid work since completing full-time education. ** significant at 0.01; * significant at 0.05.

Table 3: Earnings quintiles in 2005, by earnings quintiles in 2001: Men aged 30–49 in full-time jobs (%)

<i>Quintile in 2005</i>	<i>Quintile in 2001</i>				
	<i>Quintile 1</i>	<i>Quintile 2</i>	<i>Quintile 3</i>	<i>Quintile 4</i>	<i>Quintile 5</i>
Quintile 1	45.0	26.9	8.6	6.2	8.6
Quintile 2	31.6	41.3	23.2	5.8	4.3
Quintile 3	15.4	21.2	36.1	22.1	5.4
Quintile 4	6.1	8.1	21.8	45.4	16.1
Quintile 5	1.9	2.5	10.3	20.6	65.7
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 4: Job outcomes in 2005 by preferences in 2001: Prime age women (25–54)

	1	2	3	4
	<i>Job situation and preference in 2001 (%)</i>	<i>Got exact preference by 2005 (% of col. 1)</i>	<i>In paid work in 2005 (% of col. 1)</i>	<i>Median hourly rate of pay in 2005 (\$)</i>
Unemployed, seeking FT or PT job	3.2	59.2	69.6	17.1
PT job, wants same or fewer hours	23.0	67.3	90.1	19.2
PT job, wants more hours	9.6	35.9	83.1	17.2
FT job, wants same or more hours	21.0	74.7	92.7	20.4
FT job, wants fewer hours	19.4	25.2	92.8	23.0
Does not want a job	23.7	n.a.	45.4	16.7

Note: Population weighted results.

Table 5: Earnings quintiles in 2005 by earnings quintiles in 2001: Women aged 25–54 (%)

<i>Quintile in 2005</i>	<i>Quintile in 2001</i>				
	<i>Quintile 1</i>	<i>Quintile 2</i>	<i>Quintile 3</i>	<i>Quintile 4</i>	<i>Quintile 5</i>
Quintile 1	37.6	25.6	17.3	9.4	10.2
Quintile 2	33.1	35.1	14.1	9.7	8.1
Quintile 3	15.9	25.1	30.4	19.9	8.9
Quintile 4	7.2	7.6	28.3	34.5	22.3
Quintile 5	6.3	6.6	10.0	26.5	50.5
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

market, because it cannot be assumed that they all want full-time well-paying jobs. In 2001–2005 about 45% of prime age employed women were in part-time jobs and the majority preferred to stay part-time. However, 25–30% of the part-timers wanted to work more hours, in most cases full-time. Among unemployed women, some want a full-time job, others say they will only take a part-time job, others will take either full-time or part-time. Clearly, child care and family responsibilities greatly affect women's job preferences and, since family demands change, so can preferences.

Table 4 provides evidence about whether the job preferences of women in 2001 were met by 2005. The analysis covers women aged 25–54 in this period—there is no advantage in restricting the analysis to a narrower range—unlike the situation for men. The first column of Table 4 indicates the job preferences of different groups in 2001; the second column shows the percentage of each group who achieved their exact preference for a full-time job *or* part-time job by 2005; column 3 gives the percentage in paid work in 2005, and the final column shows the median hourly rates of pay of each group.⁴

The evidence is far from conclusive, but the results in Table 5 suggest that women who were unemployed in 2001 had worse outcomes by 2005 than any other group. A higher percentage of all other groups (except those who had not wanted paid work at all in 2001) had jobs in 2005, and all other groups had higher hourly rates of pay.

The results relating to whether exact preferences were achieved indicate some rigidities in the job market. It was apparently easier to achieve a preference for moving from part-time to full-time work (35.9% of the relevant group achieved it) than the other way round (25.2% 'success rate'). Presumably many employers are reluctant to let employees shift from full-time to part-time.

Overall earnings mobility appears higher among women than men (Table 5).⁵ Among women in the lowest quintile of earnings per hour in 2001, 15.9% were in the middle quintile by 2005 and 13.5% were in the top two quintiles.⁶ Among women in the top quintile in 2001, 8.9% were in the middle quintile in 2005 and 18.3% were in the lowest two quintiles.

Discussion

It seems quite likely that the evidence supporting the proposition that prime age men who already have a part-time job, or a low-paying full-time job, are in a better position to move on to higher paying job than those who are unemployed, can be generalised to other sections of the workforce. It is harder to test the proposition for non-prime age men and for women because their job preferences are less clear-cut and more likely to change, so the outcomes they achieve cannot readily be ranked.

The findings here may seem obvious or 'commonsense'. To some observers it might seem overwhelmingly likely that employers, faced with a range of job applicants, would generally prefer

those who already had a job, especially if they also had good references, to those with no job. However, the findings do run counter to some research which claims that people in low-paying jobs tend to be 'trapped' and rarely move out of their 'dead-end' jobs. Overall, it is clear that there is considerable earnings mobility both for men and women.

Endnotes

- 1 All results were very similar when annual earnings were used, rather than current hourly earnings. Note that the 2.1% not in the labour force in 2001 are omitted. Also omitted are those with a long-term disability.
- 2 The table omits 3.3% of the sample who were classified in one of the seven groups in 2001, and who by 2005 were not in the labour force. They came disproportionately from the group who had been unemployed in 2001. In fact, 4.8% of the those unemployed in 2001 were not in the labour force in 2005, compared with 4.4% of the part-time group; 2.6% of quintile 1; 1.5% of quintile 2; 0.3% of quintile 3; 1.0% of quintile 4; and 1.6% of quintile 5.
- 3 In this analysis, it is explicitly assumed that the seven groups can be ordered according to the desirability (utility) of their situation in 2001 and again in 2005.

- 4 It is assumed that preferences remained unchanged during these five years. This assumption will not be correct in all cases. However, the alternative of accepting revised preferences (as stated in 2005) as valid is also flawed. It is well known that people tend to 'rationalise' by adapting their preferences to fit the situation they find themselves in. They adapt their 'ends' to their 'means', as well as the other way round (Simon, 1976).
- 5 Part-timers are included as well as full-timers.
- 6 The quintiles groups comprise women who were in paid work in both years.

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Adult education and job training, 2001–2005: Who does it? Does it improve future earnings?

Every year in the HILDA Survey, respondents are asked if they have recently undertaken any formal education: ‘Since we interviewed you last year on (date), have you spent any time enrolled in a course of study for a trade certificate, diploma, degree or any other educational qualification? (Do not include hobby or recreation courses, or study for a school-level qualification.)’ Since 2003, employees have additionally been asked whether, in the last 12 months they have undertaken any education or training *as part of their job*.

Very high participation rates

It transpires that an extraordinary number of adult Australians—people who are well past the conventional age of full-time formal education—are involved in education or job training, or both. In 2005, for example, 15.7% of prime working age (25–54) men and women enrolled in formal educational courses, and 45.5% of employees undertook some job training. The figures appear even more remarkable when we consider how many undertook education in the five years 2001–2005 combined. 32.4% of the prime age population were involved in formal education during this period, and in 2003–2004, 62.0% of employees undertook some form of job training.

The purpose of this article is to provide information about precisely who undertakes adult education and job training and what the aims of the courses are—job-specific skills, general skills, health and safety and so forth. Also, we make a preliminary attempt to assess whether education and training pay off in terms of higher future earnings.

Table 1 shows the percentages of prime age men and women who undertook formal education and job training in 2001–2005. For most of this period, including 2005, prime age women had a higher rate of participation in formal education than prime age men; 34.4% of women were enrolled in courses for all or part of the time, compared with

30.2% of men. Female employees (whether full-time or part-time) were also slightly more heavily involved than their male counterparts in job training. However, it should be pointed out, that since close to 90% of men in this age group are employed, compared to about 70% of women, there are actually more men in aggregate who are involved in some form of training. Enrollment in formal education declines with age, and is higher in the 25–34 age group than among 35–44 year olds, who in turn have higher participation rates than 45–54 year olds. By comparison, the relationship between age and participation in job training appears non-existent for men and quite weak for women.

It might perhaps be expected that individuals who already have more formal education dating from their childhood and adolescence would be more willing and able to undertake further education, and conceivably also more job training, during their prime working years. However, there were only weak positive relationships in this direction.¹ In hindsight, it appears that so many Australians are now participating in further education and training that there are no strong relationships with any standard demographic variables except age.

Table 2 shows the qualifications being sought by the prime age men and women who were undertaking educational courses in 2005. Recall that 15.7% of the prime age population were pursuing qualifications in that year. Table 2 shows the percentage of this total undertaking each type of course. It should be noted that some respondents undertook more than one course.

Trade certificates were the most commonly sought qualification, followed by Pass degrees (Bachelor degrees, Associate degrees and Advanced diplomas) and then Master’s degrees. More women than men were undertaking the first two types of qualification, but in 2005, more men were enrolled in all postgraduate degrees combined (Graduate

Table 1: Men and women aged 25–54 undertaking education and/or job training in 2001–2005 (%)

Age group	Education			Job training (employees only) ^a		
	Men	Women	Total	Men	Women	Total
25–34	40.4	42.1	41.3	72.1	74.6	73.2
35–44	30.5	36.0	33.5	73.6	73.8	73.7
45–54	18.5	24.4	21.6	70.1	70.6	70.4
Total (25–54)	30.2	34.4	32.4	72.3	73.9	73.1

Notes: Population weighted results. ^a In 2005 89.4% of prime age men were employed, as were 71.9% of prime age women.

Table 2: Educational qualifications sought by prime age men and women (25–54) in 2005 (% of total enrollees)

<i>Qualification</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Certificate 1 or 2	9.3	12.1	10.8
Certificate 3 or 4	27.1	29.1	28.1
Certificate (don't know level)	14.0	17.0	15.4
Diploma	6.9	9.4	8.2
Pass degree ^a	18.2	16.8	17.4
Honours degree	1.0	1.9	1.5
Graduate certificate or diploma	9.1	7.6	8.3
Master's degree	13.1	8.1	10.3
Doctoral degree	3.0	3.7	3.4
% of population group in formal education	14.8	16.3	15.7

Notes: Population weighted results. Note that some respondents undertook more than one course. ^a Includes Bachelor degrees, Associate degrees and Advanced diplomas.

Table 3: Aims of job training undertaken by prime age men and women (25–54) in 2005 (% of total employees who undertook training)

<i>Aims of training</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Getting started in job	6.3	7.0	6.7
Improving skills in current job	73.2	75.7	74.4
Maintaining or meeting professional or occupational standards	60.5	55.9	58.2
Skills for a possible future job or promotion	31.6	24.7	28.2
General skills	52.0	54.5	53.2
Health and safety	28.2	23.5	26.2
Other aims	0.6	0.8	0.7
% of employees who undertook training	45.5	45.0	45.5

Notes: Population weighted results. Also note that many respondents reported that their training had more than one aim.

certificates, Graduate diplomas, Master's degrees and PhDs), although there were actually more women doing PhDs.

Table 3 gives somewhat similar results for the 45.5% of employees who reported that they undertook job training in 2005. Job training does not always lead to a formal qualification, but it can be usefully classified according to its main aim or aims, as in Table 3.

The most common aims of training, reported by both male and female employees, were to enhance skills applicable to their current job, or similarly, to maintain or meet standards required in one's current profession or occupation. However, about half of those who undertook training saw it as aiming to enhance their general skills, and about a quarter—significantly more men than women—were aiming for a possible future job or promotion.

Do education and training pay off in increased future earnings?

From the point of view of both employees and employers, a key question is whether education and job training pay off in terms of increased subsequent earnings or, from the employer's standpoint, increased productivity. With only five years of HILDA data available, it is still early days to

assess pay-offs. One would nearly always expect a time lag between undertaking and completing education and training and any kind of monetary gain (except where additional qualifications automatically bring pay increases, as they do under some industrial awards). In general, one might expect the pay-offs from formal education to take longer to register than gains from training focused on job-specific skills.

Preliminary analysis indicated that virtually all apparent pay-offs to education, which had registered by 2005, were in fact due to courses undertaken in 2001 and/or 2002, rather than later years. With this in mind, Table 4 compares median percentage gains in nominal annual earnings (i.e. with no adjustment for inflation) recorded between financial year 2000–01 and financial year 2004–05 by individuals who undertook formal education in 2001 or 2002, or in both of these years, compared with those who were not enrolled in either year.² Also shown are weaker results comparing gains in earnings for those who participated in any educational course at any time in 2001–2004, compared with those who never participated. Results are only shown for men and women who were in full-time work at both the beginning and end of the period.³

The earnings of individuals who participated in educational courses in 2001 and/or 2002, grew

more than the earnings of those not enrolled. On the surface, this appears to be true for both men and women. It is also a reasonable inference that more of the apparent gains must have been due to education taken in 2001–2002, rather than in 2003–2004, since total apparent gains due to education are less for the total four-year period than for the first two years alone.⁴

The evidence in Table 4 is rudimentary. It is certain that many factors influence increased earnings besides education. Indeed, the apparent evidence that adult education has an impact could be seriously misleading. In order to investigate this possibility, it is essential to undertake multivariate statistical analyses in which account is also taken of other variables which affect earnings, including age, educational attainment during earlier school and student years, years of work experience and health. Analyses including these variables appeared to confirm that educational courses taken in 2001 and 2002 contributed significantly to earnings increases gained by men but not by women.⁵ However, even for the men it remains a possibility that other factors not measured in the HILDA Survey account for some or all of the gains. Such factors might include, for example, personality traits and ambition.

Table 5 now provides similar results for those who undertook job training, but here the period involved is only 2003–2005, so essentially we are just asking whether training undertaken in 2003 and 2004 had already shown a pay-off by 2005. Also, preliminary analysis showed that only skills-related training—whether for job-specific or general skills, or to maintain or enhance professional standards—appeared to pay off. So respondents who only undertook training dealing with health and safety (or ‘other aims’; see Table 3) are in the ‘No’ rather than the ‘Yes’ category in Table 5.

For men, but apparently not for women, there may be gains flowing from skills-related job training even after only a one or two-year time lag. However, as was true in regard to formal education, it is essential to undertake multivariate analyses to check whether findings still hold when other variables affecting earnings are taken into account.⁶ In the event, the gains for men who undertook skills training remained statistically significant after ‘controlling for’ age, education and health.⁷ For women there was no significant difference in earnings increases between those who received skills training and those who did not.

Discussion

Very large numbers of Australians in their prime working years are now making investments in further education and in skills-related job training. The short-term evidence from HILDA in 2001–2005 suggests that these investments are already paying off for prime age men, but apparently not for women. However, educational and

Table 4: Changes in annual earnings^a of prime age men and women in full-time work in both 2001 and 2005, by whether or not they participated in educational courses (%)

	Median change in earnings		
	Men	Women	Total
Education in 2001 or 2002 or in both years?			
Yes	33.3	26.9	31.2
No	22.2	23.3	22.7
Education at any time in 2001–2004?			
Yes	31.2	27.3	29.5
No	21.8	23.2	22.3

Notes: Population weighted results. ^a Percentage changes based on nominal dollars (no adjustment for inflation).

Table 5: Changes in annual earnings^a of prime age men and women in full-time work in both 2003 and 2005, by whether or not they participated in skills-related job training in 2003–2004 (%)

Skills-related training in 2003–2004?	Median change in earnings 2003–2005		
	Men	Women	Total
Yes	13.6	13.8	13.7
No	12.0	14.0	12.5

Notes: Population weighted results. ^a Percentage changes based on nominal dollars (no adjustment for inflation).

other human capital investments probably have their largest pay-offs after a time lag of several years. So it is a reasonable hypothesis that, when longer term data become available from HILDA, the apparent gender difference may disappear or be reduced. In any event, the panel will be able to provide more convincing and more detailed evidence about which kinds of investments pay and by how much, when several more years of data can be analysed.

Endnotes

- 1 For prime age employed men and women, the Pearson correlation between age of leaving school and undertaking formal education in 2001–2005 was 0.08. The equivalent correlation for undertaking job training in 2003–2005 was also 0.08.
- 2 Median rather than mean gains are shown because means are ‘distorted’ by a few individuals who recorded enormous gains in earnings in this period.
- 3 Results for part-timers are not shown, because they are ambiguous. Most part-timers are women who combine paid work with family responsibilities. In the absence of detailed preference data, it is not known how individual part-timers would compare and rank, for example, Job 1 which pays less overall but has shorter hours combined with a better hourly rate of pay, compared with Job 2 which pays more overall but has longer hours combined with a lower hourly rate of pay. In the case of full-timers, it can be more or less unambiguously assumed that increases in annual earnings are preferred, and that hours of work matter much less.

- 4 It is assumed that education undertaken in 2005 could not have already produced gains in labour income in the 2004–05 financial year.
- 5 The impact of education was significant at the 0.01 level for men. Individuals who recorded very large declines in income in this period (over 25%) were omitted from the analysis because, in the case of those who pursued formal educational qualifications, it seems likely that they did so not so much in hope of earnings gains, but because their present job had become insecure and their prospects were precarious. It should also be noted that, as is conventional, the natural logarithm of earnings (and earnings change) was used in order to create log-normal distributions and reduce the otherwise excessive impact on regression coefficients of those who made very large earnings gains.
- 6 As in the analysis of the effects of formal education, those whose earnings declined a great deal (over 25%) in this short period (2003–2005) were omitted from the analysis. Again, earnings variables were logged.
- 7 Significant at the 0.05 level.

Many people with low levels of education and human capital make good money—How?

It is probably widely believed that to have a good income it is necessary—perhaps increasingly necessary—to have a good education. The age of the self-made man or woman, who achieves a high income despite modest formal educational attainments, is thought to be past. The field of economics—specifically human capital theory—supports such beliefs. In economics, human capital is usually (but not always) defined quite narrowly to refer to education and work experience. A rule of thumb in human capital theory is that every extra year of education is worth about an extra 8% in earnings per hour (Harmon, Walker and Westergaard-Nielsen, 2003).

Without wishing to cast doubt on the value of education or the general validity of human capital theory, it is still worth pointing out that many people who lack much formal education still make good money. In 2005, only 22% of all prime age (25–54 year old) men, and just 20% of those in paid work, had less than 12 years of education. But among those men with little formal education who were in paid work, nearly a quarter had earnings in the top half of the distribution.¹ The same was true for over a quarter of employed women.

How do so many people with low levels of formal education manage to make good money? Here we pursue three lines of investigation. One is to stretch the concept of human capital to include not just education and work experience, but other

individual level variables, including personality traits, physical and mental health and social networks. This approach is not entirely new and is in fact being encouraged by the Council of Australian Governments (COAG) which has adopted a human capital reform agenda advocating a broad definition of human capital, including health and potentially social capital (COAG, 2006).

Social capital

Most measures of social capital are essentially measures of social networks, although measures of neighbourhood quality and safety are sometimes also included. One's social networks range from intimate attachments to spouse and family, through friendship and social support networks, to acquaintances (including neighbours) whom one may be able to rely on for relatively minor assistance.

A second line of investigation is based on hypothesising that certain behaviours and attitudes, including being married/partnered and not being risk averse, may be linked to higher earnings. A third line of inquiry is to find out in which particular industries people with little formal education are making good money.

Low levels of education but good money

Tables 1 and 2 document the fact that substantial numbers of Australians with relatively low levels of formal education earn well. Table 1 describes the employment status—full-time, part-time or not

Table 1: Employment status of prime age (25–54) men and women, by level of education in 2005 (%)

Employment status	Education Year 12 and above		Education less than Year 12	
	Men	Women	Men	Women
Full-time	84.6	44.1	71.8	26.5
Part-time	7.4	33.8	8.7	32.4
Not in paid work	8.0	22.1	19.5	41.1
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

in paid work—of prime age men and women. Table 2 then focuses only on those who were currently in paid work when interviewed in 2005. These sub-samples have been divided into those with less than 12 years of education and those with 12 years or more.

Among men who were working in 2005, 24.8% of those with less than a Year 12 education were in the top half of the male earnings distribution and 75.2% were in the bottom half. Among women the figures were even more remarkable; 29.2% of those with less than Year 12 education were in the top half of the distribution, while 70.8% were in the bottom half. Of course, these figures are in one sense slightly misleading; men and women with low levels of education were more likely than those with higher levels of education not to be working at all, or to be working part-time rather than full-time. Among prime age men, 80.5% of those with less than Year 12 education were in full or part-time work in 2005, compared with 92.0% of those with Year 12 or more education. For women, the equivalent figures were 58.9% and 77.9%. But these figures do not gainsay the fact that many individuals with little formal education are doing very well in the labour market.

Another way to make the same point is to show that standard human capital theory only does a moderately good job of accounting for differences (variance) in earnings per hour. Variables routinely included in human capital equations are:

- *Gender*
- *Age and age squared (the quadratic is included to allow for the fact that, in general, earnings rise until the early fifties and then trend downwards towards retirement)*
- *Years of education*
- *Job training²*
- *Years of work experience³*
- *Length of tenure with current employer*

These variables accounted for just 20.5% of the variance in the earnings of prime age men and women in the HILDA sample in 2005. Education, job training, work experience and tenure in fact did a somewhat better job of accounting for the earnings of men than women. 20.7% of the variance in men's earnings was accounted for, compared with 18.1% of the variance in women's

earnings. At the median men earned about 14% more than women.

Clearly, there is much room for improvement in accounting for differences in earnings. Human capital theory probably identifies the variables with the greatest impact, but much variance remains unaccounted for. Can we use the HILDA data to offer an improved explanation and cast some light on the issue of how and why some people with low levels of formal education achieve high earnings?

An improved explanation of earnings

The approach taken here is to focus separately on the sub-samples of prime age men and women. Men and women have different patterns of employment, as Table 1 makes clear, and the determinants of their earnings are also somewhat different (see below). We will *not* focus solely on those individuals with low levels of education coupled with high earnings; to do so would limit the search for additional determinants of earnings and would also make the sample size too small for reliable statistical analysis. However, after finding some factors which account for additional variance, we will come back to the issue of whether these 'really' account for the finding that many people with low education earn well.

The outcome to be explained is current earnings (hourly rates) in 2005.⁴ Individuals who reported earnings under \$3.00 per hour have been excluded, as it seems likely that the evidence is unreliable. Those who were not in paid work and so had zero earnings are included in the analysis in order to avoid possible selection bias.

In trying to find additional determinants of earnings, we need to fit all explanatory variables into an appropriate temporal and hence causal framework.

Step 1: Variables entered at Step 1 of the analysis were essentially characteristics that a person is born with. Clearly, these should be regarded as causally antecedent to all other variables. Included in the list were *parent's occupational status* and *personality traits*.⁵ Father's occupational status, measured on the Australian National University scale (Jones and McMillan, 2000), was included if available. Mother's occupational status was used if there was no information about the father.⁶ Personality traits were systematically measured for

Table 2: The relationship between education level and hourly earnings, 2005 (%)

<i>Employment status</i>	<i>Education Year 12 and above</i>		<i>Education less than Year 12</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
Above median	56.0	56.6	24.8	29.2
Below median	44.0	43.4	75.2	70.8
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

Personality traits

Psychologists think of personality traits as relatively stable dispositions which influence a person's behaviour in a wide range of situations. It is thought that personality is quite stable in adulthood, especially from age 30 onwards. There is a semi-consensus in psychology that the 'Big Five' personality traits capture most of what is known about adult personality. The 'Big Five' traits are NEO-AC: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness.

the first time in HILDA in 2005. The traits included that year were extroversion (loosely, sociability), neuroticism (emotional instability), openness to experience, agreeableness and conscientiousness. These are the so-called 'Big Five Personality Domains'; the domains most commonly measured by social psychologists (Costa and McCrae, 1991). Psychologists usually think of these traits as substantially hereditary and then further formed in childhood. Short, but well validated, versions of the scales were included in HILDA (Saucier, 1994). The scales are described in more detail in a later article in this Report. Prior to the inclusion of the Big Five, HILDA had included a measure of the trait of self-efficacy. Self-efficacy refers to a belief that one can control one's own life to a reasonable extent. Individuals who score low on the trait believe that their lives are controlled by powerful others, external forces or just fate (Pearlin and Schooler, 1978). In the HILDA Survey, this trait was measured with seven items asked on a 1–7 'strongly disagree' to 'strongly agree' scale. Typical items were 'I have little control over my life' and 'I can do just about anything I want'.

For both prime age men and women, parental occupational status and the personality traits of conscientiousness and self-efficacy were substantial and statistically significant determinants of earnings.⁷ Specifically, as sociologists might expect, there were substantial numbers of individuals with low and moderate levels of education who appeared to be earning well partly because of advantages transmitted via high status parents. The finding that the traits of conscientiousness and self-efficacy are related to earnings are plausible, at least post hoc. It makes sense that people who work conscientiously (or believe they do) earn more, and that people who feel they can control their own lives and decisions are better off (Pearlin and Schooler, 1978). It should be noted, however, that the other four personality traits included in HILDA were not related to earnings.

Step 2: Standard human capital variables—years of education, job training in 2003–2005,⁸ years of work experience and years of tenure with one's current employer—were entered at Step 2 of the analysis. They were entered at this step because they may all be regarded as antecedent to and hence potential 'causes' of earnings in 2005. All were in fact statistically significant determinants of hourly rates for both prime age men and women, with the sole exception of job training in 2003–2005 which appeared not (or not yet) to have affected women's earnings.⁹

Step 3: Individual behaviours and attitudes held in 2005 were entered at Step 3 of the analysis. Both men and women who were married/partnered in 2005 were significantly higher earners than non-partnered individuals.¹⁰ Having marital responsibilities may well be an incentive to earn more, but the direction of causation could also run the other way; that is, people who earn well may be more likely to find and retain a partner.

For both men and women, not being financially risk averse was quite a strong determinant of high earnings. Risk aversion was measured by a single question asked on a 1–4 scale with point 1 being 'I take *substantial* financial risks expecting to earn substantial returns' and point 4 being 'I am not willing to take *any* financial risks' (U.S. Federal Government, 1998). Financial risk aversion is usually thought of as a moderately stable individual characteristic but not as a hard-wired, substantially hereditary personality trait (Arrow, 1965). Economic experiments have shown that individuals measured as risk averse are much more reluctant to take 'reasonable' risks for the sake of potential monetary gains, at least under laboratory situations, than individuals who rate low on risk aversion (Ross, 1981). So the finding that not being risk averse is related to higher earnings is quite understandable. More detailed analysis showed that some individuals with low levels of formal education and a (self-reported) willingness to take risks appear to have higher earnings than might otherwise be predicted.

Step 4: The final step was to find which industries, if any, paid its employees more than would be expected on the basis of standard human capital variables. It transpired that men who worked in the mining, finance and computer industries were paid above the odds, as were women in the computer and utilities industries. However, the only industry in which a substantial number of men with low formal education were paid a premium was the mining industry. The numbers with low education in finance and computers were in fact very small, as were the numbers of women with little education in computers and utilities. It may be noted that neither for men nor women was there any pay premium due to being in the private sector rather than the public sector.¹¹

Discussion

This article has investigated an interesting puzzle; namely how do substantial numbers of individuals with little formal education have earnings in the top half of the distribution? Variables found to

make a significant difference, which are often omitted in research by labour economists, were parents' occupational status, the personality traits of conscientiousness and self-efficacy, and not being financially risk averse. People who were partnered had higher earnings than single people. Men working in the mining industry were paid well above what is usual for people with their level of education. Altogether, the variables included in this article accounted for 30.9% of the variance in the earnings of prime age men; an improvement of about 50% on standard human capital variables. For women the improvement was smaller; up from 18.1% to 21.6% of variance accounted for.

Some other variables which might reasonably have been expected to make a difference but did *not* do so were the personality traits of extroversion, neuroticism, openness and agreeableness. Being self-employed was not in general associated with higher earnings, nor, once education was taken into account, was working in the private rather than the public sector.

It is likely that further research will uncover additional variables which will help to solve the puzzle of low education coupled with high earnings. Variables which might make a difference and which are not included in the HILDA Survey, or at least not yet, are general intelligence, good looks, entrepreneurial talent and computer skills. More direct and detailed measures of literacy and numeracy, and also of job training, which are planned for future waves of the HILDA Survey, may also help to explain the puzzle.

Endnotes

- 1 That is, the earnings distribution for prime age men who were in work in 2005. Their position would appear even more favourable within the earnings distribution for *all* employees regardless of gender and age.
- 2 In HILDA questions about job training were first asked in 2003. So the variable included in analyses in this paper is job training in 2003–2005.
- 3 Expressed as a percentage of years since completing full-time education.
- 4 To be precise, the outcome variable is the natural logarithm (ln) of hourly earnings plus one. Earnings distributions are skewed to the right, so it is usual to take logs in order to create a log-normal distribution. One has been added to each individual's log earnings in order to be able to include those with zero earnings.

- 5 Age and its quadratic, plus employment status (full-time, part-time, not in paid work) were also included at Step 1, essentially as 'control' variables.
- 6 In general, father's occupational status predicted children's earnings better than mother's. Also many women in previous generations were not in the paid workforce and so could not be given an occupational status rating.
- 7 Statistically significant at the 0.05 level.
- 8 As noted above, questions about job training were not included in HILDA until 2003. The item here is just the sum of years (0–3) in 2003–2005 in which some job training was undertaken.
- 9 All were significant at the 0.05 level.
- 10 Significant at the 0.05 level for men, and at the 0.10 level for women.
- 11 That is, after taking account of standard human capital variables.

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Immigrant labour market outcomes

Roger Wilkins

How do immigrants fare in the Australian labour market? Are there initial integration difficulties? Do these difficulties diminish over time? These are some of the questions that have been of keen interest to Australian labour market researchers over many years. The HILDA Survey provides a new opportunity to consider these issues. Although sample sizes are not large when focusing on new arrivals to Australia, a particularly useful feature of the HILDA Survey data is the ability to follow immigrants over time. Much of the existing Australian research has relied on cross-sectional surveys, which—as Borjas (1985) first pointed out—are not well suited to investigating how immigrants adapt to their adopted country.

Labour market outcomes of interest include labour force status, hours of work, hourly wage rates and earnings over longer time frames, such as per week and per year, all of which are briefly considered here. Study is restricted to persons aged 15–64 years, and results are presented separately for males and females because of the quite different nature of male and female interactions with the labour market.

We begin in Table 1 by comparing labour force status of immigrants and the native born in each year. Immigrants from the main English-speaking countries (ESB immigrants) are distinguished from other immigrants (NESB immigrants), since limitations on

Table 1: Labour force status—all persons aged 15–64 years (%)

		2001	2002	2003	2004	2005	% change 2001–2005
Men							
Native born	Not in labour force	15.7	15.7	15.1	14.9	15.8	0.2
	Unemployed	5.7	5.0	4.7	4.2	4.2	–1.5
	Employed part-time	12.9	13.9	13.7	14.1	12.8	–0.1
	Employed full-time	65.7	65.4	66.5	66.7	67.1	1.5
	(Population share)	(72.3)	(73.2)	(73.9)	(74.3)	(74.6)	
ESB immigrants	Not in labour force	13.6	15.1	14.7	15.1	12.7	–0.9
	Unemployed	6.5	4.4	3.0	2.8	4.2	–2.2
	Employed part-time	8.1	9.5	8.2	8.4	9.3	1.2
	Employed full-time	71.8	71.0	74.1	73.7	73.7	1.9
	(Population share)	(10.7)	(10.5)	(10.3)	(10.3)	(10.3)	
NESB immigrants	Not in labour force	22.5	24.0	25.5	22.0	21.9	–0.6
	Unemployed	7.8	6.9	5.4	3.2	3.6	–4.2
	Employed part-time	12.0	12.3	12.0	13.9	12.4	0.4
	Employed full-time	57.7	56.8	57.1	61.0	62.1	4.4
	(Population share)	(17.1)	(16.3)	(15.9)	(15.4)	(15.1)	
Women							
Native born	Not in labour force	30.9	30.4	31.0	30.3	29.1	–1.8
	Unemployed	4.0	3.8	4.0	3.8	3.6	–0.3
	Employed part-time	31.7	34.1	33.0	33.6	34.7	3.0
	Employed full-time	33.4	31.6	31.9	32.4	32.6	–0.8
	(Population share)	(72.7)	(73.8)	(74.3)	(75.2)	(74.3)	
ESB immigrants	Not in labour force	31.5	29.8	32.6	32.3	31.7	0.3
	Unemployed	4.4	3.9	1.9	3.0	1.2	–3.2
	Employed part-time	28.6	29.3	32.2	30.9	30.2	1.6
	Employed full-time	35.5	37.0	33.3	33.8	36.8	1.4
	(Population share)	(9.5)	(8.9)	(8.8)	(8.8)	(8.6)	
NESB immigrants	Not in labour force	44.2	44.2	43.3	41.5	38.9	–5.3
	Unemployed	4.4	4.3	3.6	4.8	4.6	0.2
	Employed part-time	21.9	22.5	24.0	25.2	24.5	2.5
	Employed full-time	29.5	28.9	29.1	28.5	32.1	2.5
	(Population share)	(17.8)	(17.3)	(16.9)	(15.9)	(17.1)	

Notes: Population weighted results. *ESB immigrants* are those born in New Zealand, UK, Ireland, South Africa or Northern America. *NESB immigrants* are all other persons born outside Australia.

transferability of human capital, as well as other factors that potentially adversely affect labour market outcomes, such as cultural and language differences, are likely to be greater for NESB immigrants. Both male and female ESB immigrants have similar participation rates to their native born counterparts. NESB immigrants, by contrast, do not fare so well; they have considerably lower participation rates, as well as higher unemployment rates, compared with the native born. For example, in 2001, 44% of female NESB immigrants were not in the labour force, compared with approximately 31% of other (ESB immigrant and native born) females. However, it is also true that employment growth between 2001 and 2005 was strongest for NESB immigrants.

Limiting the focus to employed persons, in Table 2 median earnings outcomes are compared. Hourly earnings provide a measure of the 'price' or value per unit (hour) of labour, while weekly and annual earnings measures are products of both the hourly rate of pay and the number of hours worked. The table also reports annual 'private' income, which includes income from investments and from own business. It is included to allow for the possibility that non-labour sources of income differ in importance for immigrants

compared with native born persons. For example, if the rate of self-employment is higher for immigrants, this may act to increase non-labour private income.

For both males and females, median hourly rates of pay are highest for ESB immigrants, and are similar for NESB immigrants and the native born. Reflecting the higher hourly pay rates, and also the higher ratio of full-time to part-time employment evident in Table 1, median weekly and annual earnings of employed ESB immigrants are considerably higher than they are for employed native born persons and NESB immigrants. Notable, in light of the lower participation rates and higher unemployment rates of NESB immigrants, is that their earnings outcomes once employed are on average very similar to earnings outcomes of employed native born persons.

With regards to non-labour income, comparisons of estimates for annual private income with estimates for annual earnings reveal no evidence of immigrants tending to have higher levels of non-labour private income, at least as can be identified by examining median incomes.¹

Differences in labour market outcomes by period of arrival in Australia are presented in Table 3. For

Table 2: Median earnings—employed persons aged 15–64 years (\$)

		2001	2002	2003	2004	2005	% change 2001–2005
Men							
Native born	Hourly earnings	16.8	17.4	17.8	18.5	20.0	19.3
	Weekly earnings	720	735	759	800	850	18.1
	Annual earnings	33,000	34,600	36,000	37,719	40,000	21.2
	Annual private income	36,200	37,900	39,130	40,500	43,000	18.8
ESB immigrants	Hourly earnings	19.5	19.7	20.2	20.3	22.2	13.9
	Weekly earnings	850	850	914	900	940	10.6
	Annual earnings	39,000	40,000	44,300	45,000	49,000	25.6
	Annual private income	44,050	43,000	49,000	50,000	52,800	19.9
NESB immigrants	Hourly earnings	17.5	17.1	19.7	20.2	20.7	18.1
	Weekly earnings	700	726	769	800	824	17.7
	Annual earnings	35,000	36,000	36,000	37,000	40,000	14.3
	Annual private income	38,000	37,000	39,000	40,000	42,163	11.0
Women							
Native born	Hourly earnings	15.3	15.8	16.3	16.9	17.6	15.2
	Weekly earnings	494	491	503	533	550	11.3
	Annual earnings	23,000	22,065	23,000	24,000	25,000	8.7
	Annual private income	25,000	25,004	26,000	26,100	28,000	12.0
ESB immigrants	Hourly earnings	16.7	17.1	18.8	18.7	19.9	19.4
	Weekly earnings	566	550	590	600	650	14.8
	Annual earnings	28,000	27,448	27,000	30,000	30,000	7.1
	Annual private income	28,600	30,000	31,000	32,000	33,000	15.4
NESB immigrants	Hourly earnings	15.1	16.2	16.3	17.3	18.5	22.4
	Weekly earnings	522	534	525	595	609	16.7
	Annual earnings	22,500	25,000	26,769	26,000	30,000	33.3
	Annual private income	24,000	26,623	27,000	28,000	32,000	33.3

Note: Population weighted results.

ESB immigrants, the more recent arrival cohort generally has the better labour market outcomes, and changes over the five-year period are also more favourable. For NESB immigrants, changes are likewise more favourable for the more recent arrival cohort, although here it is a case of ‘catch-

ing up’ to the earlier arrival cohort. That is, outcomes are substantially worse for recent immigrants in 2001, but by 2005, are broadly similar to those experienced by NESB immigrants who arrived prior to 1991. Nonetheless, the changes over the five-year time frame are, for both ESB

Table 3: Labour force status and earnings by period of arrival in Australia—immigrants aged 15–64 years

		2001	2002	2003	2004	2005	% change 2001–2005
ESB immigrants							
Men							
Arrived between 1991 and 2001	Unemployed (%)	5.8	1.8	1.4	1.9	0.9	–4.9
	Employed part-time (%)	6.6	6.3	1.7	6.4	5.3	–1.3
	Employed full-time (%)	76.4	81.1	86.5	81.7	79.1	2.7
	Median hourly earnings (\$)	18.03	18.70	20.70	19.74	21.02	17.0
	Median annual earnings (\$)	39,000	40,000	50,000	43,000	60,000	54.0
Arrived before 1991	Unemployed (%)	6.5	4.8	2.7	2.7	5.0	–1.5
	Employed part-time (%)	8.5	10.3	9.7	8.9	10.6	2.1
	Employed full-time (%)	70.8	68.6	71.8	72.0	72.0	1.2
	Median hourly earnings (\$)	20.00	20.00	20.24	20.73	22.38	12.0
	Median annual earnings (\$)	40,000	40,000	42,000	45,000	48,000	20.0
Women							
Arrived between 1991 and 2001	Unemployed (%)	8.2	10.7	3.3	3.6	0.0	–8.2
	Employed part-time (%)	15.5	19.4	30.1	22.3	31.4	15.8
	Employed full-time (%)	41.8	49.6	41.7	39.9	40.0	–1.9
	Median hourly earnings (\$)	18.21	18.65	18.65	*19.74	21.18	16.0
	Median annual earnings (\$)	31,205	30,000	35,000	*38,000	35,000	12.0
Arrived before 1991	Unemployed (%)	3.6	2.5	1.5	3.0	1.5	–2.2
	Employed part-time (%)	31.6	31.1	32.6	32.9	30.3	–1.3
	Employed full-time (%)	33.8	34.4	31.4	31.8	35.7	1.9
	Median hourly earnings (\$)	16.50	17.00	18.93	18.58	19.89	21.0
	Median annual earnings (\$)	27,000	26,000	26,000	28,000	30,000	11.0
NESB immigrants							
Men							
Arrived between 1991 and 2001	Unemployed (%)	11.8	13.1	8.9	2.3	3.6	–8.2
	Employed part-time (%)	18.9	20.9	15.2	16.4	13.8	–5.1
	Employed full-time (%)	45.5	41.4	46.5	57.2	59.3	13.8
	Median hourly earnings (\$)	15.75	15.89	17.71	19.79	19.42	23.0
	Median annual earnings (\$)	26,000	28,000	30,000	33,000	38,000	46.0
Arrived before 1991	Unemployed (%)	5.8	3.6	2.9	3.2	2.5	–3.4
	Employed part-time (%)	8.6	8.4	10.0	11.9	10.8	2.2
	Employed full-time (%)	63.7	64.5	64.0	63.3	65.7	1.9
	Median hourly earnings (\$)	18.42	18.75	20.00	21.25	21.68	18.0
	Median annual earnings (\$)	39,995	38,000	40,038	40,000	40,000	0.0
Women							
Arrived between 1991 and 2001	Unemployed (%)	5.3	5.7	4.1	3.8	2.8	–2.4
	Employed part-time (%)	23.4	17.0	21.1	22.5	22.2	–1.2
	Employed full-time (%)	25.4	29.2	27.5	29.7	31.6	6.2
	Median hourly earnings (\$)	12.66	15.48	15.44	16.50	18.50	46.0
	Median annual earnings (\$)	16,000	21,000	24,000	26,000	30,000	88.0
Arrived before 1991	Unemployed (%)	3.9	3.6	3.0	4.6	5.2	1.4
	Employed part-time (%)	21.0	26.0	26.1	26.2	25.0	4.0
	Employed full-time (%)	31.8	28.8	30.7	29.1	33.6	1.7
	Median hourly earnings (\$)	16.00	16.60	17.10	17.55	19.21	20.0
	Median annual earnings (\$)	25,312	27,000	29,500	26,000	30,000	19.0

Notes: Population weighted results. * Estimate not reliable. Earnings estimates are for employed persons only.

and NESB immigrants, consistent with an ‘assimilation’ effect, whereby immigrant outcomes relatively improve with increased time since migration, reflecting acquisition of local skills, knowledge and contacts. The fact that in 2001 ESB recent immigrants already have outcomes similar to those experienced by the earlier ESB arrival cohort may simply reflect a higher ‘quality’ of the more recent cohort, for example, due to greater educational attainment.

Labour market mobility of immigrants is briefly considered in Tables 4 and 5, comparing individuals’ employment status and earnings at the time of their 2001 interview with their employment status and earnings at the time of their 2005 interview. Only persons aged 25–44 years in 2001 are examined, to limit the effects of differences in the distribution of life cycle stages across the groups compared. Table 4 examines employment status transitions, identifying the proportion in each of four categories: not employed in both waves; employed in both waves; employed in wave 1 and not employed in wave 5; and not employed in wave 1 and employed in wave 5.

It is difficult to discern clear patterns in transitions across the five groups distinguished in Table 4. For males, consistent with an ‘assimilation’ phenomenon, recent immigrants have relatively high proportions making the transition from non-employment to employment: 9.4% of male NESB recent immigrants and 6.7% of male ESB recent immigrants, compared with approximately 4% for other males. However, at odds with an assimilation process is the relatively higher rate of transition from employment to non-employment for NESB recent immigrants compared with other males, and the relatively high initial employment rate of recent immigrants, especially when compared to other immigrants. This may reflect progressively increasing emphasis of immigrant selection policy since the early 1980s on labour market skills of immigrants.

Females in the 25–48 years age-range exhibit greater mobility in employment status than males

in this age range, no doubt reflecting effects of child-rearing on labour market participation. NESB immigrants—both recent and non-recent—have a comparatively high proportion non-employed in both waves (22–26%), while ESB immigrants have a comparatively low proportion non-employed in both waves (10–11%). NESB immigrants, particularly non-recent immigrants, also have a comparatively low proportion making the transition from non-employment to employment. Also notable is that the proportion of female NESB recent immigrants employed in both waves is 49%, compared with 59% of Australian born females, 62% of female NESB non-recent immigrants, 63% of female ESB non-recent immigrants and 67% of female ESB recent immigrants. This large (18 percentage point) difference between NESB and ESB recent immigrants is particularly striking.

Earnings mobility among those employed is considered by presenting (in Table 5) the proportions in each of three categories: in a higher quintile of the earnings distribution in wave 5 than in wave 1; in the same quintile in both waves; and in a lower quintile in wave 5 than in wave 1. While only persons aged 25–44 years in 2001 are examined in Table 5 (and only persons employed in both waves), it is an individual’s location in the distribution of earnings among *all* employed persons that is being examined (although separately for males and females). Location in the hourly wage distribution (upper panel) provides information on the relative price of the individual’s labour, while location in the annual earnings distribution (lower panel) depends on both the hourly rate of pay and the number of hours worked.

For males, recent immigrants exhibit greater mobility in both the hourly earnings and annual earnings distributions, particularly in the upward direction, while mobility for non-recent immigrant males is broadly similar to that for native born males. For example, depending on the earnings variable (hourly or annual) and immigrant background (ESB or NESB), between 43% and 50% of recent immigrant males moved to a higher quintile,

Table 4: Labour force status transitions, 2001–2005—persons aged 25–44 years in 2001 (%)

	<i>Australian born</i>	<i>ESB immigrants</i>		<i>NESB immigrants</i>	
		<i>Recent</i>	<i>Other</i>	<i>Recent</i>	<i>Other</i>
Men					
Not employed in 2001 or 2005	5.1	1.9	8.1	3.4	7.9
Not employed in 2001 and employed in 2005	4.9	6.7	3.5	9.4	4.0
Employed in 2001 and not employed in 2005	4.1	0.0	4.0	6.9	4.9
Employed in 2001 and 2005	85.9	91.5	84.4	80.4	83.2
Women					
Not employed in 2001 or 2005	17.8	9.9	11.1	26.2	22.0
Not employed in 2001 and employed in 2005	15.0	16.1	16.2	12.0	8.7
Employed in 2001 and not employed in 2005	7.9	7.2	9.5	12.8	6.9
Employed in 2001 and 2005	59.3	66.7	63.1	49.0	62.4

Notes: Population weighted results. Recent immigrants are those who arrived in Australia between 1991 and 2001.

Table 5: Earnings quintile transitions, 2001–2005—persons aged 25–44 years in 2001 and employed in both 2001 and 2005 (%)

	<i>Australian born</i>	<i>ESB immigrants</i>		<i>NESB immigrants</i>	
		<i>Recent</i>	<i>Other</i>	<i>Recent</i>	<i>Other</i>
Hourly wage quintile					
Men					
Moved to higher quintile	33.9	43.3	24.2	49.5	26.8
Stayed in same quintile	41.5	23.8	50.5	26.5	51.5
Moved to lower quintile	24.7	33.0	25.4	24.1	21.6
Women					
Moved to higher quintile	35.9	21.3	30.5	38.6	32.0
Stayed in same quintile	36.2	36.2	41.9	56.0	40.9
Moved to lower quintile	27.9	42.5	27.6	5.4	27.1
Annual earnings quintile					
Men					
Moved to higher quintile	25.9	48.5	26.8	43.6	28.0
Stayed in same quintile	57.0	48.5	52.4	48.0	56.4
Moved to lower quintile	17.1	2.9	20.9	8.4	15.7
Women					
Moved to higher quintile	30.2	12.9	32.0	48.5	40.0
Stayed in same quintile	46.5	74.1	40.1	35.7	42.2
Moved to lower quintile	23.4	13.0	27.9	15.7	17.8

Note: Population weighted results.

compared with between 24% and 34% for the other male groups distinguished in Table 5.

For females, few clear patterns of earning mobility by immigrant background and period of arrival are evident. One exception is that, for both the hourly and annual earnings distributions, the proportion moving to a higher quintile is relatively high, and the proportion moving to a lower quintile is relatively low, for female NESB recent immigrants. Also notable is that the proportion of ESB recent immigrants moving to a lower quintile of the hourly earnings distribution is relatively high, and the proportion of these immigrants staying in the same quintile of the annual earnings distribution is, at 74%, very high.

Discussion

It is found that earnings outcomes for NESB immigrants and the native born are on average very similar, such that adverse labour market outcomes for NESB immigrants are entirely captured by access to employment—that is, lower participation rates and higher unemployment rates. Once NESB immigrants are in jobs, they on average experience no different outcomes from native born persons. ESB immigrants, by contrast, have very similar participation and unemployment rates to the native born, but when in employment, earn higher rates of pay and work higher average hours. Consistent with these patterns, but of particular note, is the very large difference between NESB and ESB female recent immigrants in employment rates, which perhaps reflects cultural differences, for example, in attitudes to mothers with dependent children taking up paid employment. These

employment rate differences could also derive from differences in other characteristics, for example in educational qualifications and work experience—as indeed could the other identified differences by immigrant status. These potential sources of differences in labour market outcomes are not considered in this article.

Sample size limitations constrain the ability to investigate the labour market adjustment process of immigrants in the post-migration years, but there are nonetheless indications of the existence of such a process—more so for males than females. Analysis by period of arrival in Australia shows more recent arrivals experiencing relative declines in unemployment and relative increases in employment and earnings over the five-year time frame of the HILDA Survey data. These patterns could also in part be due to increased emphasis on skilled migration in recent years. However, the evidence presented here should not be regarded as conclusive. For example, the extent to which the patterns found are driven by an earlier average life-cycle stage of the more recent immigrant cohort has not been investigated in this analysis.

Endnote

- 1 Examination of mean incomes similarly revealed no evidence of higher non-labour private income.

Reference

Borjas, G., 1985, 'Assimilation, changes in cohort quality, and the earnings of immigrants', *Journal of Labor Economics*, vol. 3, no. 4, pp. 463–89.

Job satisfaction: 2001–2005

How satisfied are people with the jobs they hold? In every year of the HILDA Survey, people who were employed at the time they were interviewed were asked to rate how satisfied they were 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 were also asked about their satisfaction with particular aspects of the job, including the pay, job security, the hours they worked and the flexibility available to balance work and non work commitments. Table 1 shows the average levels of these different aspects of job satisfaction in each year from 2001 to 2005.

Overall, most people were quite satisfied with their jobs, with the average job satisfaction in all five years being around 7.6 out of 10. On average, the aspect of their job that respondents were most satisfied was job security. The latest Morgan Job Security Poll, carried out in December 2006, found that 81% of Australian workers believed their current job was secure.

Aspects of the job that people were least satisfied with were their pay and the hours they worked, although scores still averaged over 5 on the 0–10 scale. By and large there were few gender differences in job satisfaction, but women—more of whom hold part-time jobs—were more satisfied than men with their ability to balance work and non work commitments.

Persistence of low job satisfaction

In the first HILDA Statistical Report we found that while 10.6% of people experienced low job satisfaction 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 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 a year. However, dissatisfaction with total pay, hours of work and job flexibility appear to be ongoing problems for some people. Table 2 shows the number of years the various aspects of job satisfaction persisted for people who were employed at the time of interview in all five years from 2001 to 2005.

While 12.2% of men and 10.9% of women experienced low job satisfaction (four or less out of 10) in one out of five years, it was very unusual for low job satisfaction to persist for more than one year. Only around 6% of men and women reported low job satisfaction in two or more of the five years. On the other hand, dissatisfaction with total pay was an ongoing problem for some people; 8.7% of men and 9.4% of women experienced three or more years of low satisfaction with their pay in the five years from 2001 to 2005. It was more common for men than women to experience ongoing dissatisfaction with hours of work or job flexibility. Low levels of satisfaction with their flexibility to balance work and non work commitments were reported in three or more of the five years by 9.3% of men and 6.1% of women. Only 5.5% of women were dissatisfied with their working hours in three or more of the five years, compared to 8.3% of men.

What do people with low job satisfaction do about it?

One would expect that people who were dissatisfied with their jobs would be more likely than others to

	2001	2002	2003	2004	2005
Men					
Satisfaction with total pay	6.7	6.7	6.8	6.8	6.8
Satisfaction with job security	7.5	7.7	7.8	7.9	7.8
Satisfaction with the work itself	7.6	7.6	7.6	7.6	7.6
Satisfaction with hours of work	7.0	7.0	7.0	7.0	7.1
Satisfaction with flexibility to balance work and non work commitments	7.2	7.3	7.3	7.3	7.4
Overall job satisfaction	7.5	7.6	7.6	7.5	7.5
Women					
Satisfaction with total pay	6.7	6.7	6.8	6.8	6.9
Satisfaction with job security	7.9	8.0	7.9	8.0	8.0
Satisfaction with the work itself	7.7	7.6	7.6	7.5	7.6
Satisfaction with hours of work	7.3	7.3	7.2	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	7.7	7.7	7.7	7.7

Note: Population weighted results.

be looking for a new job. In the first HILDA Statistical Report, we found that people with low levels of satisfaction with their current job were in fact much more likely to be looking for another job. Table 3 shows the proportion of employees who said they had looked for another job in the four weeks prior to their interview.

Men and women with low levels of satisfaction with their current job were in fact much more likely to be looking for another job. At the time of the 2005 interviews, almost 50% of men and women who reported low job satisfaction were searching for a new job, compared to around 25% of people with medium levels of job satisfaction and only 7.7% of men and 8.8% of women with high levels of job satisfaction.

So, people who were dissatisfied with their jobs were more likely to be looking for another job, but do they in fact leave their current jobs, or do they stay and somehow adjust and become more satisfied? Are those who changed jobs happier with their new jobs?

In the first HILDA Survey Statistical Report, we found that only 49.3% of employees with low job satisfaction in 2001 were still working for the same employer in 2002, compared to over 70% among those with medium or high job satisfaction.¹ By 2003, another 8.6% of employees who had experienced low satisfaction in 2001 had left that job, so only 40.7% still remained. Among these people, 27.7% still had a low level of job satisfaction, 47.4% had medium job satisfaction, and 24.9% now rated their satisfaction with their job as 8 or more out of 10. We also found that, on average, those people who had low levels of job satisfaction in 2001 and had changed jobs by 2002 were more satisfied with their new job, and, for those whose job satisfaction was already high in 2001, it made no difference whether they stayed in the same job, changed employers or became self-employed—their satisfaction levels remained high.

Table 4 shows the employment status in 2005 of people who were employees in 2001, grouped by their level of job satisfaction in 2001.

Table 2: Years of low job satisfaction, 2001–2005 (%)

	Number of years of low satisfaction (0–4 out of 10)						Total
	0	1	2	3	4	5	
Men							
Satisfaction with total pay	63.5	18.3	9.4	4.5	2.9	1.3	100.0
Satisfaction with job security	74.2	16.0	5.6	2.4	1.2	*0.5	100.0
Satisfaction with the work itself	80.6	12.6	4.6	1.5	*0.5	*0.3	100.0
Satisfaction with hours of work	65.9	18.4	7.4	4.9	2.5	0.9	100.0
Satisfaction with flexibility to balance work and non work commitments	64.4	17.8	8.5	4.9	3.1	1.3	100.0
Overall job satisfaction	81.7	12.2	3.8	1.8	*0.5	*0.1	100.0
Women							
Satisfaction with total pay	62.8	19.1	8.8	4.8	2.8	1.8	100.0
Satisfaction with job security	78.8	12.7	5.1	1.9	1.3	*0.1	100.0
Satisfaction with the work itself	77.6	14.2	5.0	1.9	*0.9	*0.5	100.0
Satisfaction with hours of work	68.3	18.8	7.3	3.3	1.5	*0.7	100.0
Satisfaction with flexibility to balance work and non work commitments	68.6	17.5	7.8	3.2	2.1	0.8	100.0
Overall job satisfaction	83.5	10.9	3.9	1.2	*0.3	*0.2	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 3: Employees looking for a new job, by satisfaction with current job (%)

Satisfaction with current job	2001	2002	2003	2004	2005
Men					
Low (0–4)	49.1	50.2	51.8	57.2	49.2
Medium (5–7)	21.7	23.8	22.7	24.3	25.6
High (8–10)	9.1	8.0	7.7	7.3	7.7
Total	16.7	16.5	15.7	16.5	16.4
Women					
Low (0–4)	46.9	48.3	52.2	45.7	48.3
Medium (5–7)	25.7	24.2	24.3	25.0	24.5
High (8–10)	7.5	8.9	9.4	8.8	8.8
Total	15.5	16.2	16.1	15.8	15.8

Note: Population weighted results.

Only 28.3% of male employees who reported low levels of job satisfaction in 2001 were still working for the same employer in 2005. Around 47% of these men had changed employers, compared to 42.8% of men who reported medium levels of job satisfaction in 2001 and 32.8% of male employees who were very satisfied with the job they had in 2001. Looking at female employees who were dissatisfied with their jobs in 2001, only 26.2% were still working for the same employer, compared to 41.6% of female employees who reported medium levels of job satisfaction and 51% of women who had high levels of job satisfaction in 2001.

Were those people who changed jobs partly due to dissatisfaction with their previous job more satisfied with their new job? Table 5 shows average job satisfaction in 2005, by job satisfaction in 2001, for people who were employed in 2001 and 2005.

Men and women who reported low levels of job satisfaction in 2001 and had since changed employers generally did have higher levels of job

satisfaction in 2005 than those who remained with the same employer, but the average level of job satisfaction of those who changed jobs was still lower than the average for employees who reported medium or high levels of job satisfaction in 2001. Among people who reported medium levels of satisfaction with their jobs in 2001 (5–7 on the 0–10 scale), those who changed employers or became self-employed experienced only a small increase in job satisfaction compared to those who remained in the same job. Among those whose job satisfaction was already high in 2001, their average job satisfaction levels were slightly lower if they had changed employers (but still high compared to other groups).

Concluding points

Overall, most people were quite satisfied with their jobs. On average, the aspect of their job that respondents were most satisfied with was job security people, while people were generally less satisfied with their pay and the hours they

Table 4: Employment status in 2005, by job satisfaction in 2001 (%)

Job satisfaction in 2001	Employment status in 2005					Total
	Still working for same employer as in 2001	Employee, but different employer since last interview	Employer/self-employed/unpaid family worker	Unemployed	Not in the labour force	
Men						
Low (0–4)	28.3	46.6	*9.6	*2.3	*13.1	100.0
Medium (5–7)	44.5	42.8	6.3	*1.9	4.5	100.0
High (8–10)	52.5	32.8	5.0	1.6	8.1	100.0
Total	47.7	37.6	5.8	1.8	7.2	100.0
Women						
Low (0–4)	26.2	45.4	6.4	*2.6	*19.4	100.0
Medium (5–7)	41.6	44.2	3.1	1.5	9.6	100.0
High (8–10)	51.0	30.5	4.0	1.5	13.0	100.0
Total	46.5	35.5	3.9	1.6	12.5	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Job satisfaction in 2005, by job satisfaction in 2001 (means)

Job satisfaction in 2001	Employment status in 2005			Total
	Still working for same employer as in 2001	Employee, but different employer since last interview	Employer/self-employed/unpaid family worker	
Men				
Low (0–4)	5.9	6.8	*6.7	6.5
Medium (5–7)	7.0	7.3	7.3	7.2
High (8–10)	8.0	7.9	8.0	7.9
Total	7.6	7.5	7.6	7.5
Women				
Low (0–4)	6.5	7.0	*8.1	6.9
Medium (5–7)	7.1	7.5	8.1	7.3
High (8–10)	8.1	7.8	8.4	8.0
Total	7.8	7.6	8.3	7.7

Notes: Population weighted results. * Estimate not reliable.

worked. Women were more satisfied than men with their ability to balance work and non work commitments.

It is very unusual for low job satisfaction to persist for more than one year, and the same can be said for low levels of job security. For some, dissatisfaction with total pay, hours of work, or job flexibility appear to persist for 2 or 3 years, but it is quite unusual for these dissatisfactions to continue for longer than 3 years.

People who reported low levels of job satisfaction and subsequently changed jobs had, on average, slightly higher levels of job satisfaction than people who were dissatisfied but had remained with the same employer. However, for men and women

who reported high levels of job satisfaction, changing employers caused a very small decrease in average job satisfaction—0.1% for men and 0.3% for women.

Endnote

- 1 We also found that the proportion of people who were employed in 2001 and either unemployed or not in the labour force in the following year was considerably higher for people who were dissatisfied with their job in 2001.

Reference

Roy Morgan Research, 2007, Morgan Job Security Poll, Finding No. 4120, <<http://www.roymorgan.com/news/polls/2006/4120/>>.

Job security: 2001–2005

In the past it was not uncommon for employees to work in the same job, or even have the same employer, throughout their career. Nowadays, there is a general perception that people change jobs more frequently, and also have to continuously upgrade their skills. Consequently there have been claims that people feel less secure in their jobs than they have in the past. However, the evidence does not support this view. Average employment tenure has changed little over the past two decades and direct measures of job security are currently at record highs (Commonwealth of Australia, 2007). The latest Morgan Job Security Poll, carried out in December 2006, found that an overwhelming majority (81%) of Australian workers say their current job is secure, and 63% of Australian workers said they would be able to find a new job quickly if they became unemployed.

In the first HILDA Statistical Report, we found that job insecurity had been *decreasing* since 2001, women reported lower job insecurity than men, and people who were employed on a permanent or ongoing basis reported lower chances of losing their jobs than casual employees and employees on fixed term contracts. We also found that people who had been in their current job for less than one year reported much higher levels of job insecurity than other employees, and less than half the employees who reported levels of job insecurity of 80% or more were still working for the same employer 12 months later, compared to more than 70% of employees who reported levels of job insecurity of less than 40%.

In each wave of the HILDA Survey, employees were asked the percentage chance that they would lose their job in the next 12 months. Table

Table 1: Percentage chance of losing your job in the next 12 months, by age group (means)

Age group	2001	2002	2003	2004	2005
Men					
15–24	17.8	11.2	11.0	10.6	9.6
25–34	14.2	12.0	10.3	12.4	10.5
35–44	15.5	12.1	12.5	10.5	9.5
45–54	15.3	12.3	12.4	11.2	8.8
55–64	21.8	8.7	11.5	9.3	13.3
65+	26.6	9.3	13.2	7.2	7.4
Total	16.2	11.6	11.5	11.0	10.0
Women					
15–24	13.3	10.4	9.9	9.4	9.1
25–34	13.0	11.0	9.6	9.4	10.2
35–44	13.0	10.8	10.6	9.6	8.9
45–54	12.5	11.0	9.3	8.0	8.5
55–64	11.2	9.4	6.8	6.4	5.2
65+	8.0	*8.0	8.0	13.8	12.8
Total	12.8	9.5	9.6	8.9	8.9

Notes: Population weighted results. * Estimate not reliable.

1 shows the average ‘percentage chance of losing your job’ for male and female employees, by age group, for the five years from 2001 to 2005.

For people who were employees at the time of interview in any given year, it appears that job insecurity has been *decreasing* since 2001. The average percentage chance of losing your job in the next 12 months declined from 16.2% in 2001 to 10% in 2005 for men, and from 12.8% in 2001 to 8.9% in 2005 for women. For men aged 55 and over, there has been a substantial drop in job insecurity since 2001, from 21.8% for men aged between 55 and 64 and 26.6% for men aged 65 and over in 2001 to 13.3% and 7.4% respectively in 2005. It is very likely that this increase in job security is a result of the improvement in the economic climate and decline in the unemployment rate over the past five years.

In all five years, women reported higher job security than men. However, the difference between average levels of job security between men and women has been declining over the five-year period. In 2005, the difference between average levels of job insecurity for male and female employees was only around 1%.

One would expect that people who are employed on a permanent basis would have higher levels of job security than those in casual jobs or on a fixed term contract. Table 2 shows the differences in job security for male and female employees, by type of employment contract.

Casual jobs

Casual employment means jobs with the absence of entitlement to both paid annual leave and paid sick leave.

As expected, men and women who were employed on a permanent or ongoing basis reported substantially lower chances of losing their jobs than casual employees and employees on fixed term contracts. For men who were employed on a casual basis, there has been a substantial decrease in the average percentage chance of losing their job—from 26.0% in 2001 to 14.1% in 2005. For men employed on fixed term contracts, job insecurity dropped from 20.5% in 2001 to 13.8% in 2005. Compared to other female employees, women employed on fixed term contracts have generally reported the highest levels of job insecurity, which increased from 16.8% in 2001 to 19.6% in 2004, but dropped to 15.6% in 2005.

Does job tenure affect job security?

One would expect that people who had been employed in the same job for many years would report lower levels of job insecurity. Table 3 shows the average levels of job insecurity for men and women according to the number of years they had been employed by their current employer.

People who had been employed with their current employer for less than one year understandably

reported higher levels of job insecurity. In many jobs, employees must undergo a probationary period, after which it is decided whether or not they will continue in that job. For women, job insecurity decreased with employment tenure. In most years, job insecurity also decreased with employment tenure for men, but in 2001 and 2003, men who had been with their current employer for 20 years or more had increased levels of job insecurity. It may be the case that they believe that older employees would be the first to be made redundant if their employer was in financial difficulty.

How does education and experience affect job security?

Do people with higher levels of education feel more secure in their jobs, or does experience give employees a greater feeling of job security? Tables 4 and 5 show the average levels of job insecurity for men and women according to their level of education and the number of years they have been working in their current occupation.

It appears that education has very little impact on job security. In four out of the five years, men whose highest level of education was Year 12 had lower average levels of job insecurity than men with bachelor degrees. Compared to women with bachelor degrees, women with diplomas had equal or lower levels of job insecurity in all five years, and in four out of the five years, women whose highest level of education was Year 11 or below had lower average levels of job insecurity than women with postgraduate degrees.

For women, average job insecurity tended to decrease with occupation tenure. Average job insecurity was highest for men who had been in an occupation for less than one year, but in three of the five years, average job insecurity was higher for men who had been in an occupation for 20 years or more than it was for men who had been in an occupation for between 10 and 19 years.

Is job insecurity higher in particular industries or occupations?

Are there any particular industries or occupations in which people feel more insecure about keeping their job? Tables 6 and 7 show the percentage chance of losing your job, broken down by occupation and industry.

On average, men who were labourers reported the highest levels of job insecurity, while for men who were associate professionals or clerical workers, job insecurity was quite low. For women, managers, administrators, professionals and associate professionals had high levels of job security, and job security for women who were intermediate production and transport workers was lower, on average, than that of women in other occupations.

Overall, men who worked in the education, health and community services and government

Table 2: Percentage chance of losing your job in the next 12 months, by type of employment (means)

Type of employment	2001	2002	2003	2004	2005
Men					
Employed on a fixed term contract	20.5	18.5	18.1	16.1	13.8
Employed on a casual basis	26.0	16.2	15.5	16.8	14.1
Employed on a permanent or ongoing basis	12.8	9.3	9.6	8.8	8.3
Other	*26.8	8.7	*15.5	*23.7	*30.9
Total	16.2	11.6	11.5	11.0	10.0
Women					
Employed on a fixed term contract	16.8	16.1	17.4	19.6	15.6
Employed on a casual basis	18.5	12.5	11.9	12.3	11.9
Employed on a permanent or ongoing basis	9.3	6.9	7.2	6.0	6.5
Other	*32.1	12.9	*16.0	*5.5	*51.2
Total	12.8	9.5	9.6	8.9	8.9

Notes: Population weighted results. * Estimate not reliable.

Table 3: Percentage chance of losing your job in the next 12 months, by years with current employer (means)

Years with current employer	2001	2002	2003	2004	2005
Men					
Less than 1 year	24.6	15.3	14.6	15.3	14.0
1–4 years	15.2	11.9	11.9	11.2	9.7
5–9 years	12.1	9.1	8.7	9.3	8.7
10–19 years	11.9	9.7	8.1	6.7	7.6
20+ years	12.8	7.9	12.4	7.6	6.6
Total	16.2	11.6	11.5	11.0	9.9
Women					
Less than 1 year	19.9	13.5	13.5	12.9	14.2
1–4 years	12.3	9.3	9.9	8.9	8.0
5–9 years	8.9	6.7	8.0	8.0	6.4
10–19 years	9.0	7.5	5.6	5.6	6.6
20+ years	6.4	5.1	4.5	2.3	2.3
Total	12.8	9.5	9.6	8.9	8.9

Note: Population weighted results.

Table 4: Percentage chance of losing your job in the next 12 months, by education (means)

Highest level of education	2001	2002	2003	2004	2005
Men					
Postgraduate degree	13.7	9.7	10.0	9.5	7.4
Bachelor degree	14.7	12.4	12.5	11.6	10.9
Diploma	13.5	9.6	8.2	8.1	9.7
Certificate	17.3	13.0	11.9	10.9	10.5
Year 12	14.9	10.5	10.7	11.4	9.8
Year 11 or below	18.3	11.7	12.6	11.8	9.9
Total	16.2	11.6	11.5	11.0	10.0
Women					
Postgraduate degree	10.8	11.0	9.8	7.7	8.9
Bachelor degree	12.0	9.8	10.7	11.1	10.4
Diploma	12.0	7.4	8.3	8.9	7.5
Certificate	14.0	9.8	11.5	9.1	8.7
Year 12	13.9	9.8	9.2	9.8	9.5
Year 11 or below	12.8	9.4	8.7	7.5	8.1
Total	12.8	9.5	9.6	8.9	8.9

Note: Population weighted results.

administration and defence had lower levels of job insecurity than men in other occupations. On the other hand, average job insecurity for men in the construction industry was relatively high (11% to 15%) in all five years. For men in the mining industry, average job insecurity dropped from 20.9% in 2001 to 12.4% in 2003 and 8.4% in 2005, indicating an increased demand for workers in the mining industry over the five-year period. Women who worked in the manufacturing or wholesale trade industries had higher average levels of job insecurity than other female employees, while job insecurity was low for

women who worked in the education industry and the health and community services industry.

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 8 shows employment status in 2005, according to their level of job insecurity in 2001, for people who were employees in 2001.

Table 5: Percentage chance of losing your job in the next 12 months, by experience (means)					
<i>Years in current occupation</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>
Men					
Less than 1 year	24.6	14.8	14.2	15.7	12.1
1–4 years	14.3	10.5	11.3	11.7	9.6
5–9 years	14.3	10.9	9.0	11.3	9.9
10–19 years	12.9	12.4	11.7	7.1	8.7
20+ years	18.1	9.8	11.1	8.1	9.5
Total	16.2	11.6	11.5	11.0	9.9
Women					
Less than 1 year	20.7	14.0	13.5	12.4	13.5
1–4 years	13.2	8.9	10.2	8.8	9.4
5–9 years	10.6	8.2	8.2	9.8	6.5
10–19 years	9.5	8.3	6.0	6.9	6.9
20+ years	8.2	7.2	8.5	4.2	4.7
Total	12.8	9.5	9.6	8.9	8.9

Note: Population weighted results.

Table 6: Percentage chance of losing your job in the next 12 months, by current occupation (means)					
<i>Current occupation</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>
Men					
Managers and administrators	13.2	9.9	12.0	10.0	7.4
Professionals	15.0	11.5	11.1	10.0	9.8
Associate professionals	11.9	9.8	8.8	8.7	8.6
Tradespersons and related workers	17.9	13.9	10.3	10.2	10.7
Advanced clerical and service workers	7.4	6.1	16.1	10.3	4.0
Intermediate clerical workers	14.6	10.9	9.8	11.9	9.9
Intermediate production and transport workers	18.1	11.5	13.5	11.7	11.4
Elementary clerical sales and service workers	16.4	9.7	11.7	11.2	7.6
Labourers and related workers	21.6	13.7	15.3	14.9	12.7
Total	16.2	11.6	11.5	11.0	10.0
Women					
Managers and administrators	8.8	5.9	10.4	9.0	8.9
Professionals	9.7	8.4	7.9	8.5	8.5
Associate professionals	11.1	11.9	9.8	7.7	7.7
Tradespersons and related workers	12.1	5.1	8.9	8.1	17.1
Advanced clerical and service workers	10.5	7.1	11.5	7.5	7.1
Intermediate clerical workers	15.5	10.3	10.2	9.1	9.5
Intermediate production and transport workers	17.9	15.0	14.6	19.0	9.7
Elementary clerical sales and service workers	11.6	9.3	8.8	8.1	8.2
Labourers and related workers	19.1	11.1	9.7	11.1	9.5
Total	12.8	9.5	9.6	8.9	8.9

Note: Population weighted results.

Table 7: Percentage chance of losing your job in the next 12 months, by current industry (means)

<i>Current industry</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>
Men					
Agriculture, forestry and fishing	22.4	11.0	13.1	11.0	11.1
Mining	20.9	20.6	12.4	13.4	8.4
Manufacturing	21.4	13.7	12.8	13.1	12.7
Electricity, gas and water supply	18.9	13.5	6.9	6.3	7.3
Construction	15.9	14.5	13.0	10.9	13.4
Wholesale trade	12.6	13.2	10.3	10.8	8.3
Retail trade	14.9	9.9	9.7	9.7	7.2
Accommodation, cafes and restaurants	15.8	10.8	10.8	11.8	10.1
Transport and storage	23.9	9.2	12.6	10.0	11.2
Communication services	16.4	13.5	12.9	16.6	12.3
Finance and insurance	17.7	9.0	14.7	11.3	10.1
Property and business services	13.8	13.6	13.8	14.6	10.1
Government administration and defence	10.2	9.1	9.5	8.7	6.1
Education	11.2	6.2	8.7	7.5	9.1
Health and community services	9.6	7.4	8.8	7.6	7.9
Cultural and recreational services	8.3	14.4	12.7	10.1	10.8
Personal and other services	16.2	7.4	8.9	5.5	6.2
Total	22.4	11.6	11.5	11.0	9.9
Women					
Agriculture, forestry and fishing	28.2	13.0	12.3	10.5	5.5
Mining	*19.3	*11.1	*14.1	*25.8	*10.2
Manufacturing	19.1	12.8	14.7	15.2	9.8
Electricity, gas and water supply	*18.1	*3.9	*13.2	*14.2	*5.5
Construction	12.1	10.1	7.5	6.8	8.5
Wholesale trade	19.3	16.8	18.8	9.8	11.6
Retail trade	11.0	9.5	7.4	7.5	8.4
Accommodation, cafes and restaurants	15.7	8.9	9.4	10.2	9.5
Transport and storage	15.8	7.7	10.0	8.7	14.4
Communication services	19.1	15.3	12.4	11.7	13.5
Finance and insurance	18.0	13.8	12.3	10.8	7.7
Property and business services	14.7	12.7	12.4	9.2	11.6
Government administration and defence	8.6	9.3	10.0	10.4	8.7
Education	9.5	7.6	8.2	8.9	7.9
Health and community services	9.1	6.0	6.2	6.0	7.2
Cultural and recreational services	15.9	12.3	15.4	10.0	10.3
Personal and other services	10.7	5.7	8.9	10.8	10.1
Total	12.8	9.5	9.6	8.9	8.9
<i>Notes: Population weighted results. * Estimate not reliable.</i>					

By 2003, only 32% of male employees and 31.6% of female employees who reported high levels of job insecurity in 2001 were still working for the same employer, compared to 51.4% of men and 49.9% of women who reported high levels of job security in 2001. Compared to those who had medium or high levels of job insecurity, it was more common for men and women who had reported low levels of job security to be out of the labour force in 2005. But, did the people who were not with the same employer leave voluntarily or did they actually lose their job? Table 9 shows the reason for leaving the job they had at the time of their 2001 interview for men and women who were no longer with the same employer in 2005.

It appears that a substantial proportion of men and women who had reported low levels of job secu-

urity were correct. Compared to men and women who reported medium or high levels of job security in 2001, men and women who rated their job security as low were more commonly in temporary or seasonal jobs at the time. The proportion of men and women who left their 2001 job involuntarily (i.e. got retrenched, laid off, etc) was higher for those who reported low levels of job security in 2001—38.3% of men and 27.8% of women who reported low levels of job security and who were no longer working for the same employer left their jobs involuntarily, compared to 20.2% of men and 12.1% of women who reported high levels of job security in 2001. Compared to men who had low job security in 2001, it was more common for men who reported medium or high levels of job security to have left the job they had in 2001 because

Table 8: Employment status in 2005, by job security in 2001 (%)

Job security in 2001	Employment status in 2005					Total
	Still working for same employer as in 2001	Employee, but different employer since last interview	Employer/self-employed/unpaid family worker	Unemployed	Not in the labour force	
Men						
Low (0–4)	32.0	48.6	6.8	*2.1	10.5	100.0
Medium (5–7)	45.2	40.3	5.7	*2.1	6.6	100.0
High (8–10)	51.4	34.5	5.7	1.6	6.8	100.0
Total	47.7	37.6	5.8	1.8	7.2	100.0
Women						
Low (0–4)	31.6	42.7	*3.4	*2.8	19.5	100.0
Medium (5–7)	42.6	40.2	3.8	*3.7	9.8	100.0
High (8–10)	49.9	33.0	4.0	*0.7	12.3	100.0
Total	46.5	35.5	3.9	1.6	12.5	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 9: Reason for leaving 2001 job, by job security in 2001, people no longer with the same employer (%)

Reason for leaving job	Job security in 2001			Total
	Low (0–4)	Medium (5–7)	High (8–10)	
Men				
Job was temporary or seasonal	15.7	*4.9	3.0	5.4
Got laid off, No work available, Retrenched, Made redundant, Employer went out of business	38.3	27.0	20.2	24.7
Not satisfied with job (e.g. unhappy with hours, pay, working conditions, boss, other workers)	15.5	27.1	24.1	23.6
To obtain a better job, Just wanted a change, To start a new business	13.0	25.6	27.7	24.9
Retired, Did not want to work any longer	*1.6	*2.7	5.8	4.4
Own sickness, disability or injury	*6.8	*4.5	4.4	4.7
To stay at home to look after children, house or someone else	*0.7	*0.5	*0.9	*0.7
Returned to study, Started study, Needed more time to study	*0.0	*1.6	4.2	2.9
Other reason ^a	*8.4	6.3	9.7	8.6
Total	100.0	100.0	100.0	100.0
Women				
Job was temporary or seasonal	16.9	*6.8	3.2	5.8
Got laid off, No work available, Retrenched, Made redundant, Employer went out of business	27.8	13.1	12.1	14.3
Not satisfied with job (e.g. unhappy with hours, pay, working conditions, boss, other workers)	25.0	30.1	26.7	27.3
To obtain a better job, Just wanted a change, To start a new business	*6.7	17.0	19.6	17.3
Retired, Did not want to work any longer	*0.9	*1.1	5.1	3.6
Own sickness, disability or injury	*5.4	*6.5	4.9	5.3
Pregnancy, To have children	*5.2	8.4	8.7	8.2
To stay at home to look after children, house or someone else	*0.8	*1.3	2.5	2.0
Returned to study, Started study, Needed more time to study	*3.6	*5.3	3.3	3.8
Other reason ^a	*7.7	10.2	13.9	12.2
Total	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable. ^a Other reasons include: travel or holiday, spouse or partner transferred, too much travel time, too far from public transport, change of lifestyle.

they were not satisfied with that job, to obtain a better job, or to start a new business.

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Paid and unpaid leave from work

In Australia, most employees are entitled to some amount of paid leave from work each year. Paid annual holidays have been a standard feature of employment in Australia since 1941, when the standard period was just one week. By 1973, the standard amount of paid annual leave had increased to four weeks. However, the proportion of employees in receipt of this benefit has been in steady decline since the 1980s, mainly because of the increase in the number of employees employed on a casual or contractual basis (Dennis, 2003).¹

While most full-time employees are entitled to four weeks of paid leave per year, many people do not use all of their leave entitlements. Dennis (2003) found that only 39% of full-time employees took all of their annual leave in 2002. The main reasons for not taking all available leave entitlements were being too busy at work, not being able to get time off that suited the individual or family, and saving up leave to use at a later time.

In 2005, HILDA Survey respondents who had been in paid work since July 2004 were asked about the amount of paid and unpaid leave they had taken in the 12 months before their 2005 interview. Table 1 shows the proportion of full-time employees who had taken some paid annual leave in that 12 months.²

Overall, 81.8% of men and 85.9% of women who were full-time employees had taken at least one day of paid annual leave in the last 12 months, and of those people who did take annual leave, the average number of days taken was 19 for men

and 21 for women. This suggests that most employees who take some annual leave take around four weeks per year. Almost 90% of men who were permanent employees said they had taken some paid annual leave, compared to only 68.8% of men who were employed (full-time) on fixed term contracts. For women, there was not much difference between the proportions of permanent and fixed term employees who took paid annual leave (90.2% compared to 87.8%). Most full-time employees who did take paid leave took around 20 days per year, the average number of days of paid leave taken by employees on fixed term contracts was slightly lower than that of permanent employees, with men employed on fixed term contracts taking an average of 17 days per year and women on fixed term contracts taking an average of 20 days per year, compared to around 19 days per year for men and 21 days for women who were permanent employees.

Are workers in the public sector more likely to take leave? Table 2 shows the proportion of public and private sector (full-time) employees who had taken leave in the last 12 months and the average number of days of leave taken.

Compared to workers in the private sector, it was much more common for public sector employees to have taken annual leave, with 91.2% of men and women who worked in the public sector taking at least one day of annual leave in the last 12 months, compared to 83.3% of women and 78.8% of men who worked in the private sector. The average number of days of leave taken in the last year was also higher for workers in the public

Table 1: Full-time employees who took annual leave in the last 12 months, by type of employment, 2005

Type of employment	Men		Women	
	% who took paid annual leave	Average number of days	% who took paid annual leave	Average number of days
Permanent employee	87.1	18.8	90.2	21.0
Employee on a fixed term contract	68.8	17.2	87.8	20.2
Casual employee	9.7	*16.1	12.2	*27.2
Total	81.8	18.7	85.9	21.0

Notes: Population weighted results. * Estimate not reliable.

Table 2: Full-time employees who took annual leave in the last 12 months, by public/private sector, 2005

Type of employment	Men		Women	
	% who took paid annual leave	Average number of days	% who took paid annual leave	Average number of days
Public sector	91.2	23.1	91.2	26.0
Private sector	78.8	17.1	83.3	18.2
Total	81.8	18.7	85.9	21.0

Note: Population weighted results.

sector—23.1 days for men and 26 days for women, compared to 17.1 days for men and 18.2 days for women who worked in the private sector.

Are highly paid workers less likely to take annual leave? Table 3 shows the proportion of men and women who were full-time employees in 2005 who took some paid leave, broken down by their income from wages or salaries in the last financial year.

The proportion of male, full-time employees who took some paid annual leave in the 12 months prior to their 2005 interview increased with income, with 93.1% of male full-time employees earning \$100,000 per year or more taking some paid annual leave, compared to 75.9% of men whose annual salary was between \$25,000 and \$50,000 per year. For those men who took paid annual leave, the number of days of leave taken was around 20 for men earning \$50,000 or more per year, compared to 16.5 days per year for men who earned between \$25,000 and \$50,000. The amount of paid annual leave taken by women who were full-time employees and earning less than \$50,000 per year was also slightly lower than that of women on higher wages. More than 90% of female employees who earned \$50,000 or more had taken some paid annual leave in the past 12 months, compared to 85.5% of women who

worked full-time and earned between \$25,000 and \$50,000 per year.

Are people in particular industries or occupations less likely to use their paid leave? Tables 4 and 5 shows the proportion of full-time employees who took paid leave in the 12 months before their 2005 interview, according to occupation and industry.

Men and women who were managers or administrators were most likely to have taken some paid annual leave in the last 12 months, and more than 85% of full-time employees who were professionals, associate professionals or intermediate clerical workers had taken some annual leave. On the other hand, only 70.7% of intermediate production and transport workers and 63.2% of labourers said they had taken some paid annual leave in the last 12 months. The average number of days of paid leave taken was lower for people who worked in these jobs, around 16 days of leave in the last year, compared to more than 19 days for managers, professionals and associate professionals. One reason for this difference is that, compared to managers and professionals, who are likely to be permanent employees or employed on a fixed term contract, a high proportion of transport workers and labourers are employed on a casual basis and less likely to be entitled to paid annual leave.

Table 3: Full-time employees who took annual leave in the last 12 months, by income in the last financial year, 2005

<i>Wage or salary income in last financial year</i>	<i>Men</i>		<i>Women</i>	
	<i>% who took paid annual leave</i>	<i>Average number of days</i>	<i>% who took paid annual leave</i>	<i>Average number of days</i>
Less than \$25,000	54.8	15.6	54.2	15.7
\$25,000 to < \$50,000	75.9	16.5	85.5	18.5
\$50,000 to < \$75,000	87.2	20.8	94.4	25.7
\$75,000 to < \$100,000	90.4	18.9	95.7	24.0
\$100,000 or more	93.1	20.4	90.3	20.1
Total	81.8	18.7	85.9	21.0

Note: Population weighted results.

Table 4: Full-time employees who took annual leave in the last 12 months, by occupation, 2005

<i>Occupation</i>	<i>Men</i>		<i>Women</i>	
	<i>% who took paid annual leave</i>	<i>Average number of days</i>	<i>% who took paid annual leave</i>	<i>Average number of days</i>
Managers and administrators	95.2	19.3	90.6	19.3
Professionals	87.8	21.0	93.1	21.0
Associate professionals	85.7	19.7	88.8	19.7
Tradespersons and related workers	79.7	18.1	86.4	18.1
Advanced clerical and service workers	*100.0	*18.3	94.0	18.3
Intermediate clerical workers	85.3	17.6	82.0	17.6
Intermediate production and transport workers	70.7	16.3	63.3	16.3
Elementary clerical sales and service workers	74.4	17.5	70.5	17.5
Labourers and related workers	63.2	16.1	71.4	16.1
Total	81.8	18.7	85.9	21.0

Notes: Population weighted results. * Estimate not reliable.

Paid annual leave was least common among employees in the agriculture, forestry and fishing industries, with only 59% of men and 32% of women employed in this industry taking leave in the last 12 months. It was also quite uncommon for men and women who worked in the hospitality industry (accommodation, cafes and restaurants). Again, these industries commonly have a high proportion of casual workers who are not usually entitled to paid leave. On average, employees who took paid leave took between 15 and 20 days of leave per year. The one exception is the education industry, where the average number of days of paid leave taken in the last 12 months was 34.6 for men and 39.2 for women.

Other types of leave

Employees generally receive 5 to 10 days of paid sick leave per year. Table 6 shows that 64.2% of men and 79.7% of women who were full-time employees had taken at least one day of paid sick leave in the past 12 months. The average number

of days of sick leave taken per year was 3.5 for men and 4.5 for women.

Over 80% of women who worked full-time either as a permanent employee or on a fixed term contract had taken at least one day of paid sick leave in the last 12 months, compared to 68.1% of men who were permanent full-time employees and 57.8% of men employed full-time on a fixed term contract. For those who had taken paid sick leave, the average number of days of sick leave taken was around 6 per year.

HILDA Survey respondents were also asked about other types of paid leave, such as maternity or paternity leave, parental leave, long service leave, bereavement leave, family leave and carers leave. Table 7 shows the proportion of full-time employees who took one or more of these type of paid leave in the 12 months prior to their 2005 interview.

Because some female employees are entitled to paid maternity leave, the proportion of female

Table 5: Full-time employees who took annual leave in the last 12 months, by industry, 2005

Industry	Men		Women	
	% who took paid annual leave	Average number of days	% who took paid annual leave	Average number of days
Agriculture, forestry and fishing	59.3	16.0	32.4	*18.5
Mining	78.9	16.4	*100.0	*16.2
Manufacturing	82.5	16.4	87.0	16.9
Electricity, gas and water supply	85.0	19.3	84.8	*21.1
Construction	68.8	17.1	80.9	*16.5
Wholesale trade	89.2	16.8	84.4	13.7
Retail trade	76.9	15.7	76.5	13.8
Accommodation, cafes and restaurants	67.1	18.6	66.8	13.1
Transport and storage	79.1	18.6	79.7	14.4
Communication services	83.7	17.7	86.8	*16.2
Finance and insurance	98.3	16.6	88.6	16.4
Property and business services	82.2	16.0	87.4	16.7
Government administration and defence	91.7	20.3	90.5	19.4
Education	87.2	34.6	90.7	39.2
Health and community services	80.4	17.8	88.7	19.3
Cultural and recreational services	78.2	19.6	81.8	17.0
Personal and other services	90.3	*26.9	87.4	19.2
Total	81.8	18.7	85.9	21.0

Notes: Population weighted results. * Estimate not reliable.

Table 6: Full-time employees who took paid sick leave in the last 12 months, 2005

Type of employment	Men		Women	
	% who took paid sick leave	Average number of days	% who took paid sick leave	Average number of days
Permanent employee	68.1	5.3	83.6	5.8
Employee on a fixed term contract	57.8	8.2	84.1	4.3
Casual employee	6.5	*2.8	7.3	*4.8
Total	64.2	5.5	79.7	5.6

Notes: Population weighted results. * Estimate not reliable.

Table 7: Full-time employees who took other types of paid leave in the last 12 months, 2005

<i>Type of employment</i>	<i>Men</i>		<i>Women</i>	
	<i>% who took other paid leave</i>	<i>Average number of days</i>	<i>% who took other paid leave</i>	<i>Average number of days</i>
Permanent employee	22.7	8.1	29.9	14.5
Employee on a fixed term contract	18.7	5.7	29.9	6.4
Casual employee	2.0	*3.7	4.4	*32.7
Total	21.4	7.9	28.6	13.9

Notes: Population weighted results. * Estimate not reliable.

Table 8: Full-time employees who took unpaid leave in the last 12 months, 2005

<i>Type of employment</i>	<i>Men</i>		<i>Women</i>	
	<i>% who took unpaid leave</i>	<i>Average number of days</i>	<i>% who took unpaid leave</i>	<i>Average number of days</i>
Permanent employee	8.7	10.7	11.0	13.8
Employee on a fixed term contract	19.3	17.3	16.3	12.2
Casual employee	55.8	13.7	53.6	12.9
Total	11.9	12.3	13.6	13.4

Note: Population weighted results.

full-time employees who took paid leave other than annual leave or sick leave was higher than that of men. Just under 30% of women had taken some other type of paid leave in the last 12 months, compared to 22.7% of men who were permanent employees and 18.7% of men who were employed full-time on a fixed term contract.

Respondents were also asked if they took any unpaid leave—that is time off when they were scheduled to be at work, and for which they were not paid. Table 8 shows the proportion of full-time employees who had taken some unpaid leave in the last 12 months.

Compared to permanent employees (who are likely to be entitled to more and various types of paid leave), it was more common among full-time employees on fixed term contracts to have taken unpaid leave and unpaid leave was very common among casual employees who worked full-time. More than half of men and women who were employed full-time on a casual basis had taken unpaid leave in the last 12 months, compared to 19.3% of men and 16.3% of women employed full-time on fixed term contracts and 8.7% of men and 11% of women who were permanent full-time employees.

Concluding points

Over 80% of full-time employees had taken some paid annual leave in the last 12 months. Compared

to high income employees, low income earners are less likely to take leave. As casual employees are normally not entitled to paid annual leave, the proportion of people who took paid leave was lower in industries with a high proportion of casual workers, such as the hospitality industry.

Endnotes

- 1 Most casual employees are not entitled to any sort of paid leave or paid public holidays, but instead receive a higher rate of pay (a 'casual loading'). However, some awards and agreements give long-term casual workers (usually those who have worked regularly for the same employer for over 12 months) some leave entitlements.
- 2 Note that people who are self-employed or employees of their own business are not included in this analysis. The HILDA Survey data indicate that, compared to employees, it was more common for people who were self-employed to have not taken any paid leave at all in the last 12 months. However, it is assumed that those who are self-employed are able to choose their working and 'leave' time and whether that leave is taken as paid or unpaid leave.

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Do people actually retire when they plan to?

Survey researchers quite often ask people when they plan to retire—the age at which they will leave the paid labour force. Most people are able to give an answer to this question, but do their answers predict their actual behaviour? Previous studies have found that unplanned early exits from the labour force have potentially large effects on financial well-being in the retirement years, and that unanticipated events such as health shocks and job loss can lead to lower than expected living standards in retirement (Cobb-Clark and Stillman, 2005).

In the first HILDA Survey in 2001, men and women aged 45 and over who were not yet retired were asked when they plan to retire completely from the workforce.¹ A substantial proportion (21.7% of men and 30.9% of women), said they did not know when they planned to retire, or had made no plans about retiring at this stage, and 9.1% of men and 8.1% of women said they did not intend to ever stop working. Figures 1 and 2 show the planned retirement ages for men and women who were over 45 in 2001 and who had not yet retired from the workforce, and gave an actual planned retirement age.

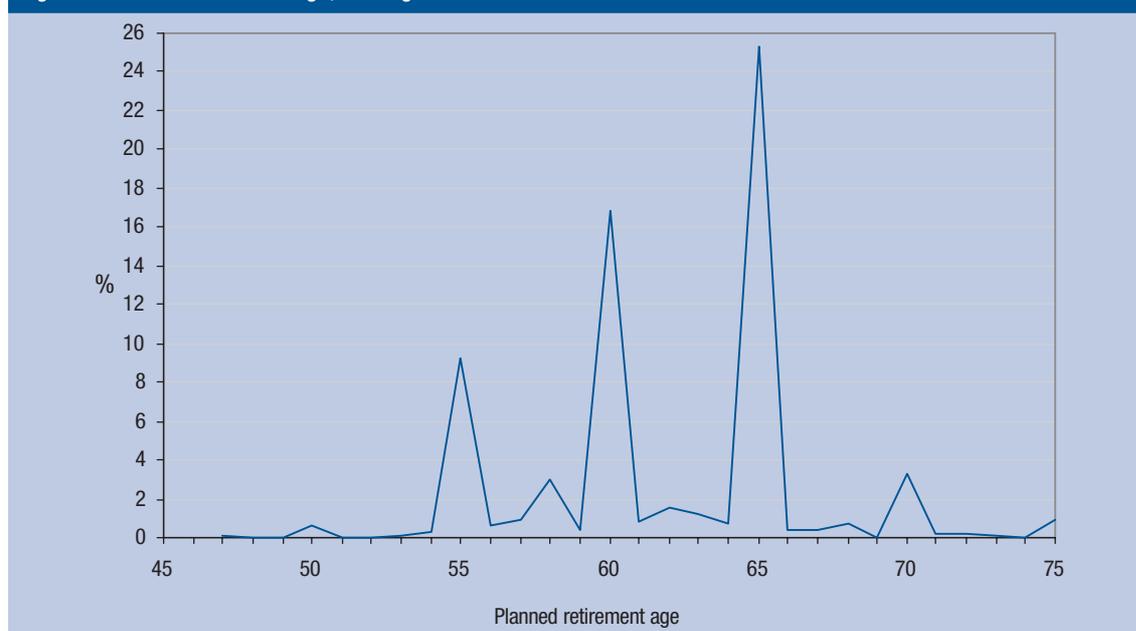
As Figure 1 shows, many men gave a rounded figure (to the nearest five years) as a planned retirement age, 9.3% planned to retire at age 55 (the superannuation preservation age), 16.9% at age 60, and 25.3% at age 65—the age at which men become eligible to receive the age pension.²

There were also spikes at five-year intervals for the planned retirement age of women (Figure 2), 2.2% planned to retire at the age of 50, 13.8% at age 55, 15.6% at the age of 60 and 12.2% at the age of 65.³ For women, age pension eligibility age depends on their date of birth, and ranges from 60.5 years for women born before 1 December 1936 up to 65 for women born on 1 January 1949 or later.

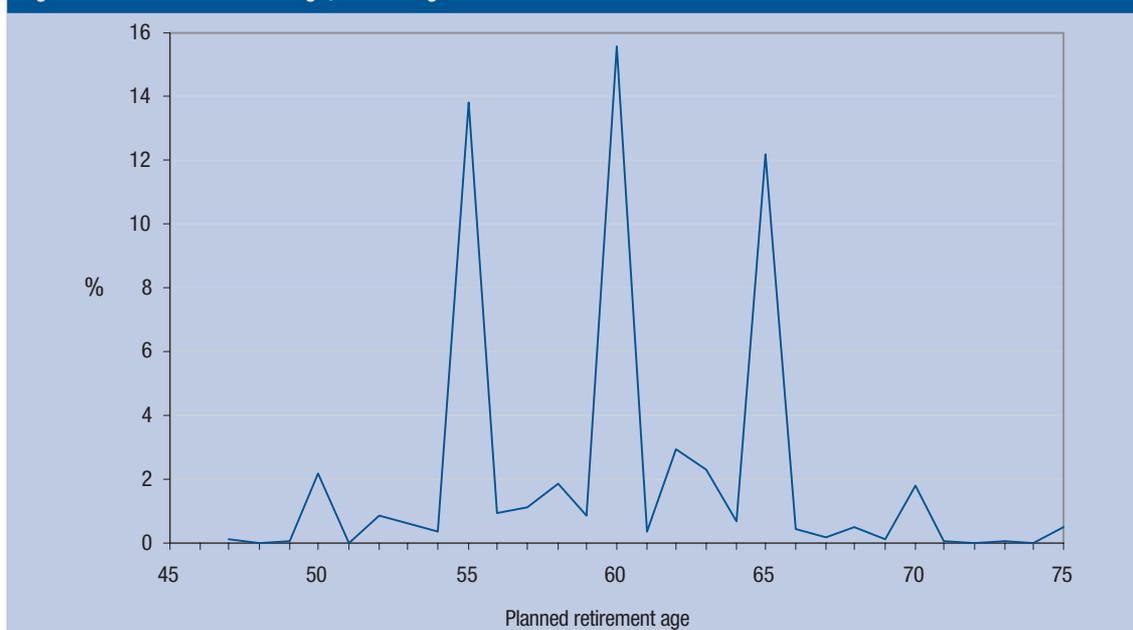
How many of these people actually retired when they planned to? Table 1 shows the retirement status in 2003 and 2005 of men and women according to whether they had reached the planned retirement age they specified in 2001.⁴

Almost 60% of the people who answered the question about planned retirement age in 2001 and were interviewed in 2003 were still below their planned retirement age in 2003, and 50.3% were below their planned retirement age in 2005. Concentrating on those people who had reached the retirement age they had specified in 2001, it seems that many act on their plans, but a substantial proportion continue in the labour force for one or two years more than they had previously planned. By 2003, 43.4% of men and 29.6% of women who had reached their planned retirement age had retired, and by 2005, 86.8% of men and 88.4% of women who were at or over their planned retirement age were retired. Only 5.5% of men and 9.9% of women who were below their planned retirement age in 2003 were retired in

Figure 1: Planned retirement age, men aged 45 and over in 2001



Note: Population weighted results.

Figure 2: Planned retirement age, women aged 45 and over in 2001

Note: Population weighted results.

Table 1: Proportion of men and women who had retired, by retirement plans in 2001 (%)

Status according to retirement plans in 2001	Retired in 2003		Retired in 2005	
	Men	Women	Men	Women
Below planned retirement age	5.5	9.9	56.0	43.5
At or over planned retirement age	43.4	29.6	86.8	88.4
Don't intend to retire	*9.9	*13.7	65.0	61.4
Don't know/no plans	10.9	11.5	65.7	60.5

Notes: Population weighted results. * Estimate not reliable.

that year, but 56% of men and 43.5% of women who were below the age they had planned to retire in 2001 were retired by 2005. Of the people who said they did not know when they planned to retire, 10.9% of men and 11.5% of women were retired by 2003, and 65.7% of men and 60.5% of women had retired by 2005. Similarly, 65% of men and 61.4% of women who, in 2001, said they did not intend to retire were retired in 2005.

In the 2003 HILDA Survey, men and women over the age of 45 who said they had retired completely, were asked their main reason for retiring. Table 2 shows the reasons for retiring, for men and women who had retired since their interview in 2001.

For both men and women, the most common reason for retiring was because of ill health. For men who said in 2001 that they did not know when they were going to retire, or that they had no intention of retiring, poor health was the most common reason for retiring. However, 36.4% of men who had retired before their planned retirement age said that the main reason for their retirement was job related such as being dismissed or made redundant. With the exception of women

who had said that they did not intend to retire, and for whom the most common reasons were job-related reasons, health was the most common reason women gave for leaving the labour force. Furthermore, Table 2 shows that it was much more common for women than men to report retiring for family and lifestyle reasons, and the proportion of men who said they retired for financial reasons was substantially higher for men than for women.

Concluding points

When asked at what age they plan to retire from the labour force, the majority of people give a rounded figure. For men, the most common answer to this question is 65—the age at which men become eligible for the age pension—and the second most common answer is 60. The majority of women answer either 55 or 60 when asked about a planned retirement age.

In 2003, only 43.4% of men and 29.6% of women who had reached the planned retirement age they specified in 2001 had actually retired, but by 2005, almost 90% of men and women who had reached their planned retirement age were actually retired.

Table 2: Main reason for retiring (2003)—people who retired since 2001 (%)

Status according to retirement plans in 2001	Financial reasons	Job-related reasons	Health reasons	Family and lifestyle	Other	Total
Men						
Below planned retirement age	*20.0	36.4	31.7	*6.8	*5.1	100.0
At or over planned retirement age	31.5	25.2	27.0	10.1	*6.2	100.0
Don't intend to retire	*11.9	*22.4	39.3	*0.0	*26.4	100.0
Don't know/no plans	24.5	24.8	39.8	*6.6	*4.4	100.0
Total	23.6	29.0	33.2	7.0	7.2	100.0
Women						
Below planned retirement age	*5.9	30.2	31.1	27.0	*5.8	100.0
At or over planned retirement age	20.9	12.3	37.5	27.0	*2.4	100.0
Don't intend to retire	*16.9	41.3	*7.0	28.7	*6.1	100.0
Don't know/no plans	*10.3	25.8	34.2	29.7	*0.0	100.0
Total	10.9	26.6	31.0	28.0	3.5	100.0

Notes: Population weighted results. * Estimate not reliable.

This suggests that some people may have postponed retirement for a year or two. However, another possible explanation for the mismatch between actual and intended retirement age in 2003 is the rounding of the answers given in 2001.

Poor health was the most common reason given for retiring from the labour force. Just over 30% of men and women who were retired in 2003 but were younger than their planned retirement age said that poor health was the reason they retired. Of those men who said they did not know when they were going to retire or they had no intention to retire in 2001, and who were retired in 2003, almost 40% said poor health was the reason they retired.

Endnotes

- 1 People who were not working at the time of interview but who said they were not retired were also asked their planned retirement age.
- 2 From 1 July 1999, all superannuation contributions (including member contributions) and superannuation fund investment earnings, from that date forward, will be preserved until the member's preservation age. While people born before 1 July 1960 will continue to have a preservation age of 55, the preservation age is being increased for people born after this date—up to 60 for

people born after 30 June 1964 (Commonwealth of Australia, 2002).

- 3 These spikes in planned retirement age at five-year intervals may be a result of individuals reporting what they think is their most likely retirement age, rather than the actual age they intend to retire. Bernheim (1987) found that 'when asked to report an expected date of retirement, an individual will describe the outcome that he or she considers most likely'.
- 4 A 'self reported' definition of retirement is used. People aged 45 and over were asked whether they considered themselves to be completely retired from the workforce.

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LIFE SATISFACTION, HEALTH AND WELL-BEING

4

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Personality traits measured in HILDA: The 'Big Five'

In 2005, for the first time, a systematic attempt was made in the HILDA Survey to measure the main personality traits found in the 'normal' population. This introduction to the Well-being section of the Report provides a brief overview of the new measures, discusses their value for research and policy, and provides evidence showing associations between personality traits and outcomes relating to earnings, wealth, life satisfaction, job satisfaction and health. The new measures are available in the HILDA 2001–2005 file issued to users.

Well-being

Well-being can be defined in many ways, but most observers treat it as at least partly a subjective, psychological concept. Two psychological variables central to the concept of well-being are 'life satisfaction' and 'stress'.

There is a semi-consensus among psychologists that five main traits suffice to characterise the population (Goldberg, 1990; Costa and McCrae, 1991).¹ The 'Big Five' personality traits are *extroversion*, *neuroticism*, *openness to experience*, *agreeableness* and *conscientiousness*. The HILDA Survey included a well validated short version of the Big Five developed by Saucier (1994).

Personality traits may be defined as stable dispositions which regularly affect a person's thoughts, feelings and behaviours. For a period in the 1960s and 1970s, many psychologists ('situationists') doubted whether traits had much predictive value in explaining behaviours, which appeared to depend on the exact situation in which they occurred. However, research based on showing relationships between traits and aggregated patterns of behaviour, using many observations, reestablished the concept of personality. It is now generally agreed that both trait and situational variables are needed to explain behaviour. A symposium of psychologists held in Honolulu in 1981 took the view that the five traits listed above merited further inquiry and later research has substantially confirmed that (Goldberg, 1990).

A brief description is now given of the five traits. We also illustrate how they are measured in Saucier's (1994) short version of the 'Big Five'. The Saucier items used in HILDA are all adjectives. Respondents are asked to use a 7-point scale to indicate how accurately each adjective describes themselves. Point 1 on the scale is labelled 'does not describe me at all' and point 7 is 'describes me very well'.

It is convenient to characterise the traits at the poles or extremes (extroverted versus introverted etc), but it should be remembered that population

ratings form a normal bell-shaped curve with most people in the middle of the curve. First, *extroversion*. Extroverts are energetic and outgoing and seek gratification in social activities. Introverts tend to be content with their own company and thoughts. Adjectives in the Saucier (1994) extroversion scale include 'talkative', 'lively' and 'quiet' (reversed item).² *Neuroticism* means a tendency to experience negative and turbulent emotions relating to stress, anxiety and depression. Some marker adjectives in the Saucier (1994) scale are 'moody', 'temperamental' and 'jealous'. The trait *openness to experience* relates to being imaginative, curious and adventurous. Adjectives include 'deep', 'imaginative' and 'creative'. *Agreeableness* is closely related to being cooperative and compassionate rather than suspicious and anxious. Marker adjectives are 'sympathetic', 'cooperative' and 'warm'. *Conscientiousness* is related to being persistent in performing tasks and also to having strong achievement motivation. Adjectives include 'systematic', 'efficient' and 'sloppy' (reversed).

In practice, after conducting factor analyses to see which items clustered together satisfactorily on the traits they were supposed to measure, we constructed HILDA measures of the five traits, using just 28 of the 40 items in Saucier (1994).³

Research on the 'Big Five' has shown that they all have a substantial genetic component; twin studies suggest that heredity accounts for up to 50% of the variability in individual ratings (Jang, Livesly and Vernon, 1996). Environmental factors account for the other 50% and it appears that personality can change quite a lot in young adulthood. After about the age of 30, it appears not to change much (McCrae and Costa, 1990; Roberts, Walton and Viechtbauer, 2006).

Prior to inclusion of the Big Five in HILDA two rather specific traits, namely *self-efficacy* and *financial risk aversion*, had been included in the Survey. A short *self-efficacy scale*, widely used in surveys around the world, was constructed by Pearlin and Schooler (1978) to measure the extent to which people feel they can control their own lives. Individuals who score high on this trait believe they can substantially control their lives and that their own decisions make a difference. Those who score low on this trait believe that their lives are controlled by powerful others, external forces or just fate. The trait is also known as internal locus of control (Rotter, 1966). The Pearlin and Schooler (1978) measure comprises seven items asked on a 1–7 'strongly disagree' to 'strongly agree' scale. Typical items were 'I have little control over my life' and 'I can do just about anything I want'.

Financial risk aversion, a measure taken from the US Government's Survey of Consumer Finances (1998), refers to an unwillingness to take financial risks versus a willingness to take risks in the hope of high returns. It is measured in HILDA by a single question posing four alternatives ranging from 'I take *substantial* risks expecting to earn substantial returns' to 'I am not willing to take *any* financial risks'.⁴

Self-efficacy and financial risk aversion are both traits commonly measured in surveys and found to be related quite strongly to a range of outcomes (see next section of this article). However, they are probably best regarded as more specific traits than the Big Five, and perhaps help to explain a narrower range of behaviours. Unlike the Big Five, there is no evidence (as far as we are aware) that they are substantially hereditary and stable in adulthood. Financial risk aversion is not strongly correlated with any of the Big Five traits, but self-efficacy has a moderate negative correlation (-0.28) with neuroticism.⁵

Uses of the Big Five traits in research

The Big Five personality traits have two main uses in analysing HILDA data; they can be treated as potential 'causes' of social and economic outcomes. Secondly, they can be used as 'controls' in research which aims, let us say, to assess linkages between a policy intervention and a desired outcome (e.g. a drop in unemployment). Logically, such research requires that other variables which may affect the outcome should be taken into account (or 'controlled') in order to get an unbiased assessment of the impact of policy.

In this article, we will illustrate only the first of these research uses. Because the 'Big Five' are substantially hereditary and quite stable in adulthood, it is generally reasonable to regard them as potential causes of (or as antecedent to) the outcomes we will be analysing in this article—outcomes relating to earnings, wealth, satisfactions and health. For example, it seems likely that personality affects earnings rather than the other way round, although reverse causation cannot be completely ruled out. However, in giving results relating to locus of control and risk aversion, a causal assumption that the personality traits mainly affect outcomes is probably less secure, and we will just write about *associations* between these traits and the outcomes under consideration.

Relating personality traits to earnings, wealth, satisfactions and health

Clearly, there are many possible links between personality and outcomes of interest to policy makers and social scientists. Here we can only scratch the surface and give a few results just to illustrate associations between traits and important social and economic outcomes. The HILDA sub-sample aged 30 and over is used because it is after that age that the Big Five traits are quite stable.

For convenience of presentation, respondents have been split into three equal groups—high scorers, middle scorers and low scorers—on each personality trait.⁶

Earnings

First, we consider the relationship between personality traits and earnings per hour. Previous research has shown that conscientiousness is positively related to earnings in all occupations, and that extroversion—being outgoing and sociable—appears to increase the earnings of salespeople (Barrick and Mount, 1991). In the HILDA data both these results were confirmed and, additionally, it was found that self-efficacy and not being risk averse were related to earnings.⁷ Table 1 gives results separately for prime working age men and women between 30 and 54.

From Table 1, it can be seen that men and women who rated high on the trait of conscientiousness earned somewhat more than men and women who rated low, and that similar results hold for self-efficacy. The strongest link, however, is between *not* being financially risk averse and pulling in high earnings, or, to put it the other way round, it appears that those who take risks earn more. However, as noted above, it may be that causation runs at least partly the other way round; that is, people who already have money then become more willing to take risks.

Household wealth

Household wealth or net worth (assets minus debts) was measured in the HILDA Survey in 2002. Preliminary analysis showed that the only measured personality trait significantly and, in this case, negatively correlated with net worth was financial risk aversion. In 2002, households with reference persons ('heads') over the age of 30 who scored low on risk aversion (i.e. they were willing

Table 1: Earnings per hour of men and women, by personality groupings, 2005 (means)

Trait group	Conscientiousness		Self-efficacy		Risk aversion	
	Men	Women	Men	Women	Men	Women
Low	25.4	22.7	24.1	21.2	32.0	28.5
Medium	25.7	23.5	27.1	24.0	28.7	27.7
High	28.4	25.0	27.5	26.5	23.0	20.7

Note: Population weighted results.

to take risks) had an average (mean) net worth of \$700,000; those who were in the middle group for risk aversion had an average net worth of \$622,000; while those in the highly risk averse group averaged only \$340,000.⁸ Again, a caveat must be entered about the directions of causation involved—being wealthy may make one less risk averse, as well as the other way round.

Life satisfaction and job satisfaction

Life satisfaction and job satisfaction are both measured in HILDA on scales that run from 0 to 10, where 0 means 'completely dissatisfied' and 10 means 'completely satisfied'. The personality traits significantly related to life satisfaction were self-efficacy, neuroticism, extroversion and agreeableness.⁹ Table 2 reports the mean satisfaction scores in 2005 of low, medium and high scorers on these traits.

The two traits most strongly related to life satisfaction appear to be self-efficacy and neuroticism; a result reported in previous research (Headey and Wearing, 1992; Diener et al., 1999). Self-efficacy is positively associated with satisfaction, neuroticism negatively. As noted above, these two traits are themselves moderately correlated. Relatively extroverted individuals tend to be more satisfied with life than introverts, although the relationship is only moderate. The same can be said of the relationship between agreeableness (cooperativeness) and life satisfaction. Again, these results replicate earlier work (Diener et al., 1999; Argyle, 2001). There was no significant relationship between the traits of conscientiousness or

openness to experience and life satisfaction. Nor were results significantly different for men and women.

The same traits were significantly associated with job satisfaction, but with the addition of conscientiousness. Table 3 gives results for 2005.

As with life satisfaction, the two traits most strongly related to job satisfaction were self-efficacy—a sense that one can control one's own life and decisions—and neuroticism. Extroversion, agreeableness (cooperativeness) and conscientiousness were all more moderately linked to job satisfaction. These findings all replicate previous research, although the link with extroversion is not always found and may just apply to people whose jobs require a lot of teamwork or interaction with clients (Barrick and Mount, 1991).

General health

General health is measured in the HILDA Survey, using the SF-36 scale (Ware, Snow and Kosinski, 2000). The SF-36 is widely used internationally and has been validated as an instrument which lay people can use to describe their own health. Scores on the scale are standardised to run from 0 (poor health) to 100 (good health).

The personality traits of self-efficacy and neuroticism are also quite strongly statistically associated with measures of self-reported health. Table 4 shows these and other links with personality traits.

It has been questioned whether the strong link between neuroticism and self-reported health is

Table 2: Ratings on life satisfaction by personality groupings, 2005 (means)

<i>Trait group</i>	<i>Self-efficacy</i>	<i>Neuroticism</i>	<i>Extroversion</i>	<i>Agreeableness</i>
Low	7.4	8.4	7.6	7.6
Medium	7.9	7.8	7.9	7.9
High	8.5	7.4	8.2	8.3

Note: Population weighted results.

Table 3: Ratings on job satisfaction by personality groupings, 2005 (means)

<i>Trait group</i>	<i>Self-efficacy</i>	<i>Neuroticism</i>	<i>Extroversion</i>	<i>Agreeableness</i>	<i>Conscientiousness</i>
Low	7.3	8.0	7.5	7.4	7.4
Medium	7.7	7.7	7.7	7.7	7.7
High	8.1	7.4	7.9	8.0	8.0

Note: Population weighted results.

Table 4: Ratings on the SF-36 general health scale by personality groupings, 2005 (means)

<i>Trait group</i>	<i>Self-efficacy</i>	<i>Neuroticism</i>	<i>Extroversion</i>	<i>Conscientiousness</i>
Low	57.7	72.1	62.2	56.8
Medium	68.2	66.5	66.7	70.6
High	76.4	60.8	72.2	57.7

Note: Population weighted results.

genuine, or whether it is just the case that individuals who rate high on neuroticism have a greater tendency than others to complain about their health. It seems likely that 'plaintiveness' does affect results but that more emotionally unstable people do also have worse health (Friedman, 2000).¹⁰ The relationship between conscientiousness and health, as shown in Table 4, appears to be curvilinear, such that individuals who are in the middle group for conscientiousness report being healthier than those who are in either the low and high groups. This result may well not replicate, since previous research has generally found a straightforward linear relationship (Bogg and Roberts, 2004).

Discussion

The purpose of this article has been to introduce the Big Five personality trait measures, which were included in the HILDA Survey for the first time in 2005. Plainly the evidence here just gives a few illustrations of the uses of the new data. It is hoped that researchers in government and academia will use the trait measures both to account for social and economic outcomes and also as 'controls' in work focusing on linkages between policy and outcomes.

Endnotes

- 1 No attempt is made to measure psychoses (e.g. schizophrenia and bipolar disorder) found in small percentages of the population. However, Big Five traits do in fact correlate substantially with psychotic diagnoses (Saulsman and Page, 2004).
- 2 'Quiet' is described as a reversed item because someone describing themselves in this way is taken to be indicating that they fall towards the introverted rather than the extroverted end of the scale.
- 3 Originally, the Saucier (1994) scale comprised 40 adjectives. These were reduced to 36 after a HILDA pilot study in Melbourne and Sydney. Then, following factor analyses and reliability analyses, 8 more items were excluded. In the end, six items were used for each of extroversion, neuroticism, openness and conscientiousness. The agreeableness scale contains just four items. The Cronbach alphas of reliability were 0.74 for extraversion and openness, 0.78 for agreeableness and conscientiousness, and 0.81 for neuroticism.
- 4 There is a fifth option for people who do not have the possibility of taking financial risks: 'I never have any spare cash'.
- 5 Its least weak correlation is 0.12 with openness to experience.
- 6 The groups have equal numbers for all traits except financial risk aversion. This scale was split into those who took (i) 'substantial risks' or 'above average risks' (ii) 'average risks' and (iii) no risks. The first group included only about 10% of respondents, while the other two groups included about 45% each.
- 7 Regression analysis showed that conscientiousness, self-efficacy and risk aversion were all significantly related to earnings (at the 0.01 level or better), controlling for gender, age and age squared. Neuroticism, which had a significant bivariate negative correlation with earnings, was not significant in the regression. Nor were extroversion, agreeableness and openness.
- 8 Because wealth (net worth) is measured at the household level, it made sense to relate it to the personality traits of the household reference person rather than the traits of all individuals.
- 9 Again, the approach adopted in determining which traits significantly affected life satisfaction (and also job satisfaction) was to regress the outcome variable on personality traits, controlling for gender, age and age squared.
- 10 In view of the moderate correlation between neuroticism and self-efficacy, it is possible that the apparent relationship between efficacy and health is also contaminated by a tendency by low scorers on the trait to complain.

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Life satisfaction and satisfaction with many specific aspects of life: 2001–2005

This article focuses on overall life satisfaction and a wide range of specific aspects of life including the one which, for many, has the greatest impact on life satisfaction—namely satisfaction with one's main relationship.

Overall life satisfaction

Each year HILDA 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 1 reports on the overall life satisfaction of Australians—men and women in different age groups in 2001–2005.¹

It is clear that, for the population as a whole, life satisfaction has been unchanged over the last five years, with average levels remaining at about eight on the 0–10 scale. Men and women in the 35 to 44 age group had the lowest average life satisfaction (about 7.7 out of 10), while older people reported the highest levels, with an average of around 8.5 each year. It is clear, as previous research has shown, that retirement years are very satisfying for many, at least while health holds up (Headey and Wearing, 1992).

In general, in Australia, but not in most countries, women report slightly higher levels of life satisfaction than men. The differences in Table 1 are generally not statistically significant, but the result has been confirmed in many different data sets (Headey and Wearing, 1992; Cummins, 1999).

Aspects of life satisfaction

As well as being asked about overall life satisfaction, respondents were 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 2 gives results just for 2001 and 2005, there being little change in satisfaction levels in this period.

The aspects of life people felt most satisfied with were the 'local' ones: their own homes, their neighbourhood and how safe they felt. However, slightly contradicting this last result, satisfaction was relatively low with 'feeling part of your local community'. The aspects which occasioned least satisfaction were 'your financial situation' and 'the amount of free time you have' (although average scores were still over five on the 0–10 scale).

Average scores for most aspects of life scarcely changed in 2001–2005. The largest change in fact was in levels of satisfaction with 'your financial situation', which increased from an average of 6.1 in 2001 to 6.4 in 2005.

Does low satisfaction persist?

If people are dissatisfied with things like their home, their community, their financial situation, or life in general, does the dissatisfaction persist for several years, or are problems usually solved within a year or two? Table 3 addresses this issue. 'Low satisfaction' is defined here as a score under five on the 0–10 satisfaction scale.

The proportion reporting levels of life satisfaction of less than 5 out of 10 in any one year was only around 3%, and the proportion who reported low levels of life satisfaction in five consecutive years was just 0.2%. 8.9% of those interviewed in all years did not report a life satisfaction level under 5 in any interview.

So, in general, the HILDA data indicate that low levels of life satisfaction very rarely persist for several years. This also appears to be true of some specific aspects of life. Table 3 shows that problems causing dissatisfaction with 'the home you live in', 'your

neighbourhood', and 'how safe you feel' rarely persist, with only 0.2% of respondents reporting dissatisfaction with these things in all five years.

On the other hand, problems relating to dissatisfaction with 'your financial situation', 'feeling part of the local community' and 'the amount of free time you have' seem to be somewhat more intractable—41.3% of respondents reported dissatisfaction with their financial situation in at least one of five years, and 3.7% were dissatisfied in all five years; 35.3% were dissatisfied with the extent

to which they felt part of the local community in at least one of these years and 1.7% were dissatisfied every year. Lack of free time was also an ongoing problem for some people—46.8% reported dissatisfaction in at least one year and 3.2% did so every year.

Satisfaction with one's main relationship

Respondents were asked to rate their satisfaction with their relationship with their partner on the same 0 to 10 scale (Table 4). Most people reported

Age group	2001	2002	2003	2004	2005
Men					
15–19	8.2	8.1	8.3	8.3	8.2
20–24	7.9	7.7	7.9	7.7	7.7
25–34	7.6	7.7	7.8	7.7	7.6
35–44	7.5	7.5	7.6	7.6	7.5
45–54	7.8	7.7	7.7	7.7	7.7
55–64	8.0	7.9	8.0	7.9	8.0
65+	8.5	8.4	8.4	8.4	8.3
Total	7.9	7.8	8.0	7.9	7.8
Women					
15–19	8.1	8.2	8.2	8.1	8.0
20–24	7.9	7.7	7.8	7.8	7.9
25–34	7.8	7.7	7.9	7.9	7.7
35–44	7.8	7.7	7.7	7.9	7.7
45–54	8.0	7.8	7.9	7.8	7.8
55–64	8.1	8.1	8.0	8.1	8.1
65+	8.5	8.3	8.6	8.4	8.4
Total	8.0	7.9	8.1	8.0	7.9
All					
15–19	8.2	8.1	8.3	8.2	8.1
20–24	7.8	7.8	7.9	7.8	7.8
25–34	7.7	7.7	7.8	7.8	7.7
35–44	7.7	7.6	7.7	7.7	7.6
45–54	7.9	7.7	7.8	7.7	7.7
55–64	8.1	8.0	8.0	8.0	8.0
65+	8.5	8.3	8.5	8.4	8.3
Total	8.0	7.9	8.0	7.9	7.9

Note: Population weighted results.

Satisfaction with ...	2001			2005		
	Men	Women	Total	Men	Women	Total
The home in which you live	8.0	8.1	8.1	7.9	7.9	7.9
Employment opportunities	6.7	6.6	6.7	7.1	6.9	7.0
Your financial situation	6.1	6.2	6.1	6.4	6.4	6.4
How safe you feel	8.0	7.8	7.9	8.1	8.0	8.0
Feeling part of local community	6.6	6.7	6.6	6.7	6.8	6.7
Your health	7.4	7.4	7.4	7.3	7.2	7.3
Your neighbourhood	8.0	8.1	8.0	7.9	7.9	7.9
The amount of free time you have	6.7	6.7	6.7	6.8	6.7	6.7

Note: Population weighted results.

high levels of satisfaction with their relationship, with at least 75% each year rating it eight or higher on the scale. Generally speaking, although not in the youngest age groups in 2005, men are more satisfied with their partners than the other way round. In the 35–44, 45–54 and especially 55–64 age groups, the differences are quite marked.

Relationship satisfaction does *not* follow a linear pattern through life. Leaving out people aged under 25, who in many cases would not have a settled partnership, relationship satisfaction is relatively high among men and women aged under 35, lowest among those aged between 35 and 54, and highest among men and women aged 65 and over. In other words, it seems to be lowest in the main child-rearing years, and highest after children have left home. It would clearly also be the case that many unsatisfactory marriages have split up by the time people are older, leaving mainly satisfactory relationships of the kind recorded by older age groups in Table 4.

For reasons unclear, there was a small decline in average satisfaction with relationships in 2001–2005. In 2001, the average rating given by respondents was 8.5. The level fell gradually each year and had fallen to 8.2 by 2005. The decline was greatest in the older age groups from 45 upwards.

Impact of children on satisfaction with main relationship

Table 5 explores the impact of children on relationships in a little more detail. The evidence shows that partners with no children under 15 in their household report the highest levels of relationship satisfaction. Women with children between 5 and 14 years old reported the lowest levels of satisfaction, although average scores are still around 7.5–8.0 out of 10. To repeat and extend an earlier finding, relationship satisfaction declined in 2001–2005 among parents with children of all ages, and among partners with no children.

Table 3: Years of low satisfaction with overall life satisfaction and specific aspects of life (%)

	Years of low life satisfaction 2001–2005						Total
	0 years	1 year	2 years	3 years	4 years	5 years	
Men							
Overall life satisfaction	90.5	5.7	2.2	1.1	0.4	0.2	100.0
The home you live in	83.5	10.8	3.4	1.5	0.6	0.2	100.0
Employment opportunities	69.5	14.3	7.4	4.2	2.8	1.6	100.0
Your financial situation	59.1	16.0	9.5	6.8	4.5	4.0	100.0
How safe you feel	87.8	8.2	2.3	1.0	0.4	0.3	100.0
Feeling part of local community	63.1	17.6	9.3	5.2	2.9	1.9	100.0
Your health	79.4	9.4	4.2	2.9	2.3	1.8	100.0
Your neighbourhood	86.7	8.8	2.7	0.9	0.6	0.2	100.0
The amount of free time you have	54.8	19.2	10.7	7.8	4.7	2.9	100.0
Women							
Overall life satisfaction	91.7	5.3	1.9	0.7	0.3	0.1	100.0
The home you live in	82.0	11.4	4.2	1.7	0.6	0.1	100.0
Employment opportunities	67.0	16.0	7.5	5.2	2.4	2.0	100.0
Your financial situation	58.3	16.6	9.6	7.0	5.2	3.3	100.0
How safe you feel	83.6	11.0	3.3	1.3	0.6	0.2	100.0
Feeling part of local community	66.2	16.7	8.1	4.6	2.9	2.5	100.0
Your health	77.9	10.6	4.9	2.5	2.2	1.9	100.0
Your neighbourhood	85.5	9.1	3.2	1.3	0.8	0.1	100.0
The amount of free time you have	51.8	18.9	11.9	8.3	5.3	3.6	100.0
All							
Overall life satisfaction	91.1	5.5	2.0	0.9	0.3	0.2	100.0
The home you live in	82.7	11.1	3.8	1.6	0.6	0.2	100.0
Employment opportunities	68.3	15.1	7.5	4.7	2.6	1.8	100.0
Your financial situation	58.7	16.3	9.6	6.9	4.9	3.7	100.0
How safe you feel	85.6	9.7	2.8	1.2	0.5	0.2	100.0
Feeling part of local community	64.7	17.1	8.7	4.9	2.9	1.7	100.0
Your health	78.6	10.0	4.6	2.7	2.2	1.9	100.0
Your neighbourhood	86.1	9.0	2.9	1.1	0.7	0.2	100.0
The amount of free time you have	53.2	19.0	11.3	8.1	5.1	3.2	100.0
<i>Note: Population weighted results.</i>							

Table 4: Satisfaction with relationship with partner by gender and age (means)

Age group	2001			2005		
	Men	Women	Total	Men	Women	Total
15–19	8.5	8.0	8.2	7.9	8.0	8.0
20–24	8.4	8.4	8.4	8.1	8.3	8.2
25–34	8.5	8.4	8.4	8.2	8.1	8.1
35–44	8.3	8.1	8.2	7.9	7.7	7.8
45–54	8.5	8.3	8.4	8.1	7.9	8.0
55–64	9.0	8.6	8.8	8.8	8.3	8.5
65+	9.2	9.1	9.2	8.9	8.6	8.8
Total	8.6	8.4	8.5	8.3	8.1	8.2

Note: Population weighted results.

Table 5: Relationship satisfaction by age of youngest child (means)

Age of youngest child in the household	2001			2005		
	Men	Women	Total	Men	Women	Total
Less than 5 years	8.1	8.3	8.5	8.2	7.9	8.1
5–9 years	8.0	8.2	8.4	7.9	7.6	7.7
10–14 years	8.0	8.2	8.4	8.1	7.7	7.8
No children under 15	8.6	8.7	8.7	8.4	8.3	8.3
Total	8.4	8.5	8.6	7.8	7.9	7.9

Note: Population weighted results.

Relationship satisfaction related to length of time together

Finally, Table 6 shows the link between how long people have been together and their level of satisfaction with their relationship. The duration of relationships is calculated from the time couples started living together, so for married people, it is the time they lived together before marriage, plus the duration of the marriage.

It is clear that relationships which have very recently started are not felt to be as satisfying as well established relationships. The two periods of greatest satisfaction appear to be when a partnership has been going for between one and four years, and then again if it lasts for twenty years or more. However, with the current data it is *not* possible to determine the extent to which the link between the duration of relationships and satisfaction is due to people becoming closer as time passes, *or* due to unsatisfactory relationships ending and, in general, being replaced by more satisfactory ones. Both factors may be at work. What can be said is that relationship satisfaction is lowest for people who have lived together for less than a year. It is reported as highest for men who have lived with their spouses/partners for twenty years or more.

Table 6: Relationship satisfaction by time living with partner/spouse (means)

Duration of current relationship	Men	Women	Total
Less than 1 year	7.5	7.4	7.5
1–4 years	8.6	8.6	8.6
5–9 years	8.4	8.2	8.3
10–19 years	8.1	8.0	8.0
20+ years	8.7	8.2	8.5
Total	8.3	8.1	8.2

Note: Population weighted results.

Endnote

- 1 The age groups are generally in cohorts of ten years, but the group aged 15–24 was split into 15–19 and 20–24 because the former sub-group was generally more satisfied than the latter.

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Satisfactions and dissatisfactions of immigrants with aspects of their lives in Australia

The aim of this article is to describe the satisfactions and dissatisfactions of first generation immigrants to Australia. The article looks at different aspects of immigrants' lives in this country: their financial situation, jobs, marriages/main partnerships and life-as-a-whole.

It is a platitude to say that most immigrants come to Australia to 'get ahead' and improve their own lives and those of their children. But presumably it takes some time to adapt to life in this country. It would be surprising if most immigrants did not go through periods when they found many aspects of life difficult. It is known that financially most immigrant families eventually do well; by the second generation most immigrant groups—classified according to country of origin—have higher incomes and also higher homeownership rates than Australian born people. So most immigrants certainly 'get ahead' in a material sense. But what about their satisfactions and dissatisfactions? How long does it take before they have the same levels of satisfaction as the Australian born population? Do they ever catch up? What about the second generation?

The initial HILDA sample in 2001 included 3,556 individuals who were born overseas. Of these, 1,525 were from what are commonly described as the main English-speaking countries (10.9% of the total sample), while 2,031 (14.5% of the sample) were born in non English-speaking countries (NESB). It should be recorded that, in this as in most other respects, the HILDA sample appears to be an accurate cross-section of the population (Watson and Wooden, 2004).

Since 2001, almost 500 more immigrants have joined the panel, more than half of whom come from NESB backgrounds. As noted in the Introduction to this Report, new panel members are either individuals in existing panel households who turn fifteen, and so become eligible on the basis of age, or they are individuals who join by

starting to live with an existing panel member, either by moving into his/her household or setting up a new household.

Immigrant numbers in the HILDA sample are large enough to yield statistically reliable results when we compare English-speaking and NESB immigrants with each other and with the Australian born population. But numbers are generally not adequate to give results for immigrants from specific countries, at least when the key relationship is between time since arrival in Australia and satisfaction levels. This holds true despite the fact that there over a hundred HILDA panel members from each of seven countries (in addition to Australia): the UK, New Zealand, Germany, the Netherlands, Italy, China and Vietnam. The problem is that most immigrants from each of these countries, except the UK and New Zealand, were either early arrivals, or late arrivals. For example, most German and Dutch immigrants were early arrivals, while nearly all Vietnamese were relatively recent arrivals.

Life satisfaction

Table 1 compares the average (mean) life satisfaction ratings of Australian born men and women, men and women from the main English-speaking countries, and men and women from NESB backgrounds. As explained in previous articles, satisfaction is measured on a 0–10 scale on which 0 means 'completely dissatisfied' and 10 means 'completely satisfied'. For the two immigrant groups an indication is given of whether their satisfaction levels are significantly different from Australian levels. Two asterisks (**) means a difference was found that was statistically significant at the 0.01 level (less than one chance in a hundred that the sample result would not also be found in the total population). If no indication is given, it means that any difference between the group in question and the immigrant group was not statistically significant even at the 0.05 level

Table 1: Life satisfaction: Comparing the Australian born with immigrants born in English-speaking and non English-speaking countries, 2005 (means)

	<i>Australian born</i>	<i>Born in English-speaking country</i>	<i>Born in non English-speaking country</i>
Men	7.9	7.9	7.6**
Women	8.0	8.0	7.7**
Total	7.9	8.0	7.7**

Notes: Population weighted results. ** The difference between the group in question and the Australian born population was significant at the 0.01 level.

(more than 5% chance that the sample result would not be found in the total population).

The evidence here shows that, while immigrants from English-speaking backgrounds have much the same levels of life satisfaction as Australian born people—if anything slightly higher, although differences are not significant, NESB immigrants rate significantly lower.

So let us focus on NESB immigrants. A reasonable hypothesis is that the longer they remain in Australia, the closer their life satisfaction reaches Australian born levels. Preliminary inspection of the evidence indicated that, although this generalisation is very crudely true, the relationship is really more complicated and is, in fact, non-linear. In the first few years after arrival, immigrants report life satisfaction levels which are not significantly lower than those of Australian born people. However, satisfaction then deteriorates and remains at a lower level for some years before eventually equalling or at least coming close to the levels of the native born.

Table 2 summarises the evidence. Note that the decision to divide immigrants into those who had been here for less than five years, those here five to nineteen years, and those here twenty years or more, was made after reviewing detailed year by year evidence which indicated when the turning points occurred.

The fascinating result shown in Table 2 is that at first—in their first four years or so in this country—immigrants apparently feel just about as satisfied with life as Australian born people. Then for a long period, from year 5 to about year 19, they are significantly less satisfied. Finally, after twenty years or more, they are on average just about as satisfied as the Australian born.

In order to further assess these findings, several multivariate regression analyses were undertaken. The aim was to assess whether length of time in Australia was the likely cause of changes in life satisfaction, or whether the changes could perhaps have been due to other variables which are associated with life satisfaction, and which might also conceivably have been associated with length of residence in Australia. First, a regression equation was run which showed that the non-linear relationship shown in Table 2 held true, when we also took account of (or ‘controlled for’) the possible effects of gender, age and its quadratic, and marital status (see Table A1). These variables, it is reasonable to suppose, may all influence life satisfaction independently of the effects of length of residence in Australia.

A second equation was then run, which included additional variables which might be partly consequences of being an immigrant. These variables were net worth (assets minus debts), household income, homeownership status (homeowner or

not), disability status (whether suffering from a long-term disability or not) and self-assessed competence in the English language. Arguably, these variables should not be included in analyses intended to assess the effects of length of residence in Australia on life satisfaction, because if they are mainly consequences of being an immigrant, their inclusion would wrongly lead us to underestimate the effects of immigrant status. Regardless of these issues, however, it transpired that length of time in Australia remained a key factor in accounting for differences in life satisfaction (Table A1). However, it is also important to consider the possibility that people who arrived in Australia twenty years ago left very different circumstances in their home countries, or arrived to very different circumstances in Australia, compared with those who arrived in the last four years and this difference may contribute substantially to differences in satisfaction levels.¹

More detailed and sophisticated analysis confirmed that, for the first four years or so, NESB immigrants appear to be quite satisfied with life. Then, for about fifteen years their life satisfaction is lower than experienced by Australian born people, and after that they ‘catch up’ and remain at about the same level as the Australian born. The analysis also showed that, over and above all other factors, competence in English substantially affected life satisfaction.² Those who felt that they spoke English ‘not well’ or ‘not at all’ were substantially less satisfied than those who felt competent.

It is fascinating to speculate about the reasons for the non-linear relationship between time spent in Australia and life satisfaction. It is likely that immigrants arrive feeling optimistic about their new life and with a tendency to contrast favourable aspects of Australia with negative features of life in their home country. Then, as the years pass, memories of the home country may fade a bit, and problems of adapting to life in this country may prove quite intractable. It seems likely that many NESB immigrants find it hard or impossible to get their English up to the standard of the native born and this restricts their job opportunities. Some may find it hard to meet a partner in Australia, and others

Table 2: Life satisfaction of immigrants in 2005, by length of time in Australia, compared with Australian born people (means)

	<i>Men</i>	<i>Women</i>	<i>All</i>
Australian born	7.9	8.0	7.9
<i>Immigrants in Australia for ...</i>			
0–4 years	7.9	8.0	8.0
5–19 years	7.4**	7.4**	7.4**
20 years or more	7.9	7.9	7.9

Notes: Population weighted results. ** The difference between the group in question and the Australian born population was significant at the 0.01 level.

may feel—rightly or wrongly—that they suffer some discrimination in the job market or in other areas of life. Eventually, but only after twenty years or so, complete adaptation occurs and satisfaction with life plateaus at about the level experienced by native born Australians.

A piece of evidence which tends to confirm the importance of English competence is that second generation immigrants, who are represented in good numbers in the HILDA Survey, and who report no English deficits, have levels of life satisfaction that are indistinguishable from the native born.³ It also needs to be noted, however, that they have levels of income and wealth which are comparable to, or even a bit higher than Australian born people, so there are a number of factors at work, making it hard to be sure which factors crucially affect satisfaction.

Longitudinal evidence—immigrant life is more ‘up and down’

So far the evidence of life satisfaction differences between NESB immigrants and Australian born people has been cross-sectional—all relating to the year 2005. There are also quite important differences in patterns of life satisfaction over time. For immigrants life is more ‘up and down’. Their levels of life satisfaction vary more from year to year than is the case for Australians. This variability was measured simply by subtracting the difference between each individual’s lowest level of life satisfaction in 2001–2005 from his/her highest level. The difference is a straightforward measure of variability; the extent to which life may be said to ‘up and down’, rather than on a more or less even keel. It transpired that for NESB men and women, life satisfaction was more variable than for Australian born men and women; differences were statistically significant at the 0.01 level.

Satisfaction with finances, jobs and marriages/partnerships

We now consider the satisfaction levels of NESB immigrants with other domains of life: finances, jobs and marriage/partnerships. Only in the domain of marriage/partnerships is the link between length of time in Australia and satisfaction exactly the same as for life satisfaction. That is, satisfaction with one’s partner is at a high level in the first few years after arrival in Australia, then there is a decline in the intermediate years (approximately years 5–19), followed by an increase after roughly twenty years. In fact, in those first few years, immigrant men and women—especially the women—report significantly higher levels of marriage/partnership satisfaction than Australian born people. The decline in satisfaction in the middle years is to a lower average level than reported by the Australian born, and the level reported after twenty or more years is exactly the same as that of the rest of the community.

In hindsight, one can perhaps gain some understanding of this pattern by thinking of a young couple arriving in Australia and initially being very supportive and loyal to each other as they try to make a better life together. Then, perhaps, problems keep occurring and the marriage/partnership shows signs of wear and tear. Later on, as life in Australia improves in most respects for the couple, marriage satisfaction also significantly improves.

The patterns of change for ‘satisfaction with your financial situation’ and for job satisfaction follow a different course. In both these domains, satisfaction is a little below average Australian levels for the first twenty years or so after arrival. There is no decline between early and intermediate years. Then after about twenty years, satisfaction stabilises at the average community level.

Table A1: Labour force status and hourly rates in 2004 of men in their thirties and forties, by status and hourly rate in 2001: Ordered probit analysis

<i>Explanatory variables</i>	<i>Dependent variable: Life satisfaction (0–10)</i>	<i>Dependent variable: Life satisfaction (0–10)</i>
Immigrant years since arrival (0–4) ^a	0.11	0.27
Immigrant years since arrival (5–19) ^a	–0.24**	–0.26**
Immigrant years since arrival (20+) ^a	–0.05	–0.04
English not good (0–1)	–0.90**	–0.76**
Female	0.12**	0.12**
Age	–0.07**	–0.07**
Age squared (/10)	0.01**	–0.01**
Partnered (0–1)	0.49**	0.38**
Equivalised income (/1,000)	–	0.02**
Household net worth (/10,000)	–	0.00**
Homeowner (0–1)	–	0.24**
Health disability (0–1)	–	–0.54**
Adjusted R squared (%)	5.2	9.2
N	12,579	11,266

Notes: ^a Reference group: Australian born individuals who score zero for the variable ‘immigrant years since arrival’. ** Significant at the 0.01 level.

Discussion

Plainly this article only scratches the surface of immigrant experience. Nevertheless, it has shown fascinating patterns of change linking length of time in Australia to changing life satisfaction and domain satisfactions. Much more research could and should be done on immigrant satisfactions and stresses; subjective as well as relatively objective aspects of life experience. It is expected that in the fairly near future, the HILDA panel will be boosted by a new sample of recent arrivals. When these data become available, it will be feasible to analyse the experiences of immigrant groups in more detail, and to assess whether patterns of change are much the same for all NESB groups, or perhaps differ substantially for people from differing ethnic and language backgrounds.

Appendix

The first equation in Table A1 shows the effects on life satisfaction of 'immigrant years since arrival' and not speaking English well, controlling only for those variables which might reasonably be expected to affect satisfaction independently of immigrant status. The second equation adds variables which might be partly consequences of being an immigrant, and which arguably should therefore not be controlled (Table A1). These are household income, household wealth, homeownership and health disability.

The key results are that length of time since arrival in Australia and inability to speak English well are shown to be key determinants of life satisfaction, even if one chooses to control for variables which might well be consequences of being an immigrant. The non-linear relationship between life satisfaction and time since arrival is of particular interest.

Endnotes

- 1 It is also important to note the possibility of selection bias for the group of immigrants who arrived in Australia in the last four years, as they would have only become a part of the HILDA Survey by joining a household that was already part of the survey.
- 2 Income, wealth (net worth), home ownership status and disability status were also all significantly related to life satisfaction.
- 3 In 2005, there were 864 panel members who reported being the sons or daughters of immigrant fathers *and* mothers.

Reference

Watson, N. and Wooden, M., 2004, 'Assessing the quality of the HILDA Survey Wave 2 data', HILDA Technical Paper 5/04, Melbourne Institute of Applied Economic and Social Research, Melbourne.

Who lacks adequate social capital and how persistent is the problem? Evidence for 2001–2005

An increasingly common view in both government and the social sciences is that *social capital* is a vital resource which needs to be assessed along with human capital (education, cognitive skills, work experience) and financial capital (assets, debts) in considering the adequacy of the capabilities and skills which individuals have or lack for living and working effectively in a modern society and economy. Harvard University political scientist, Robert D. Putnam, has done much to alert governments and social scientists to the importance of social capital (Putnam, 2000). In Australia, the Centre for Mental Health Research at the Australian National University has raised awareness of the benefits of adequate social capital and social networks (Henderson, Byrne and Duncan-Jones, 1981).

Most measures of social capital are essentially measures of social networks, although measures of neighbourhood quality and safety are sometimes also included. One's social networks range from intimate attachments to spouse and family, through friendship and social support networks, to acquaintances (including neighbours) whom one may be able to rely on for relatively minor assis-

tance like borrowing household items and keeping an eye on the house while one is away on holiday (Henderson, Byrne and Duncan-Jones, 1981).

In this article, the focus is on analysing deficits in social capital, on assessing what proportion of the community, and of specific groups, appear to lack adequate social capital.

The HILDA Survey assesses social capital with two main sets of measures intended to capture different aspects of the concept. The first set of measures—'lives alone (and no partner)', 'not satisfied with partner', and 'not satisfied with other relatives'—are intended to measure the availability or lack of availability of close, intimate and live-in relationships. The second set of measures—the social networks index—assess availability of friendship and social support.¹

Availability of close/intimate and live-in relationships

The 'lives alone' (and no partner) measure is intended to identify individuals who appear to be at risk of lacking an intimate relationship because

Table 1: Availability of close, intimate and live-in relationships, 2005 (%)

	<i>Lives alone</i>	<i>Low level of satisfaction with partner</i>	<i>Low level of satisfaction with other relatives</i>
Men	10.2	9.0	7.8
Women	10.1	12.5	8.1
All	10.1	10.8	8.0
Elderly	25.7	6.0	6.8
Lone mothers	–	–	19.1
Single	25.7	18.7	22.7
Separated or divorced	45.8	38.8	21.3
Disabled	19.7	12.1	13.5
NESB	10.5	13.2	7.1

Note: Population weighted results.

they live on their own and do not have a (non co-residential) partner. The ‘not satisfied with partner’ measure is based on a question asking ‘How satisfied are you with your relationship with your partner?’ This question was put to all married and partnered respondents and was answered on a 0 to 10 scale where 0 meant ‘completely dissatisfied’ and 10 meant ‘completely satisfied’. Respondents who answered 5 or less on the scale were classified as ‘not satisfied’. The index measuring ‘not satisfied with other relatives’ is based on responses to seven other questions, all on the same 0 to 10 scale, about satisfaction with relationships with children, parents etc. Like the previous measure, this one is split so that those whose average rating on the seven questions was 5 or less are recorded as ‘not satisfied’.

Table 1 gives results for the total population, then separately for men and women. Results are also given for a number of groups who, it was thought, might perhaps be at higher than average risk of lacking close relationships. These groups were the elderly (aged 65 and over), lone mothers, single (and never married) individuals, separated and divorced people, people with a disability,² and those born in non English-speaking (NESB) countries.

In 2005, 10.1% of the population were both living alone and had no current partner. Another 10.8% were dissatisfied with their partner. These two groups of people appear most at risk of lacking adequate close relationships. It is important to acknowledge, however, that the HILDA measures are just indicators and that it is certainly possible that some of the apparently ‘at risk’ individuals, if directly asked, might have reported that they had one or more close relationships and that these were enough to meet their emotional needs.

The evidence about lack of satisfaction with ‘other relatives’ (parents, children etc) may be regarded as being of particular importance for those groups in the community who live alone, or are unpartnered, or both. Five groups stand out in this regard: the elderly, lone mothers, singles,³ separated or divorced individuals and disabled people. The results in Table 1 indicate that, among these

groups, lone mothers, singles and separated/divorced people are especially prone not getting on well with their relatives.⁴ People with a disability people also have a higher than average level of dissatisfaction with their relatives.

It is also worth recording that there are only very weak negative correlations between the HILDA measures of social capital and measures of income and occupational status.⁵

Social support networks

The HILDA social networks index comprises ten items asking ‘how much support you get from other people?’ Typical items are, ‘I often need help from other people but can’t get it’, ‘there is someone who can cheer me up when I am down’ and ‘I often feel very lonely’. These items are answered on a 1 to 7 scale where 1 means ‘strongly disagree’ and 7 means ‘strongly agree’. For presentation in Table 2, this index has been split at the mid-point, so that those whose answers indicate that they have an inadequate or poor social network are distinguished from those whose circumstances are more favourable.

More men than women—12.6% compared to 10.3%—report inadequate social networks; a result which replicates much previous research indicating that women are more effective networkers (Flood, 2005; Rubin, 1983). However, although the

Table 2: Social support in 2005 (%)

	<i>Poor social network</i>
Men	12.6
Women	10.3
All	11.4
Elderly	12.4
Lone mothers	19.0
Single	12.0
Separated or divorced	20.1
Disabled	17.1
NESB	11.1

Note: Population weighted results.

Table 3: Social capital deficits—people experiencing deficits for five years running, 2001–2005 (%)

<i>Five-year deficits</i>	<i>Lives alone</i>	<i>Not satisfied with partner</i>	<i>Not satisfied with other relatives</i>	<i>Poor social network</i>
Men	6.7	1.1	0.8	1.5
Women	8.7	1.6	1.2	1.4
All	7.7	1.3	1.0	1.5
Elderly	21.8	1.0	*0.0	1.6
Lone mothers	n.a.	n.a.	5.6	3.6
Single	11.7	3.2	*0.0	2.0
Separated or divorced	27.8	10.0	5.3	4.0
Disabled	13.3	1.6	2.1	2.6
NESB	5.9	2.0	*0.0	1.6

Notes: Population weighted results. * Estimate not reliable.

difference is statistically significant, it is not substantively large.⁶ More serious is the finding that lone mothers, separated or divorced people and people with a disability report poor networks; recall that the same groups lacked close relationships.⁷ However, two other potentially ‘at risk’ groups—the elderly and NESB respondents—report social networks of about the same quality as the rest of the population.

The persistence of low levels of social capital: Do the same people report low levels of capital in 2001–2005?

The results in Tables 1 and 2 relate just to 2005. But how many of the respondents who reported deficits in social capital in that year reported the same problems in 2001–2004 as well? Clearly, medium-term deficits (i.e. five-year deficits) are more serious—they imply a greater loss of well-being—than deficits perceived at just one point in time. Table 3 covers all available measures of social capital and shows how many respondents reported particular deficits in all five years.

It can be seen that the one persistent deficit was ‘living alone’. Fairly high proportions of the elderly, singles, separated/divorced people and people with a disability lived on their own for all five years. The other deficits prove to be quite transient—perhaps surprisingly so—for most of the population. For example, about 9% said they were not satisfied with their partner in 2001 but only 1.3% also reported dissatisfaction in 2002–2005. Only a small proportion of these individuals changed partners between 2001 and 2005; the large majority solved or no longer perceived a problem. The inference that most people solve their problems also applies in regard to the evidence about dissatisfaction with ‘other relatives’ and poor social networks.

There are, however, exceptions to this generalisation. Specifically, 4.0% of divorced/separated individuals, 3.6% of lone mothers and 2.6% of people with a disability reported poor social networks in all five years. Overall, the evidence suggests that

these are the three groups in Australia who are probably most lacking in social capital.⁸

Endnotes

- 1 In some years, questions relating to the local neighbourhood are also included in the HILDA Survey. These too can be regarded as social network questions.
- 2 Defined as people with a long-term health condition which has lasted or is likely to last for 6 months or more.
- 3 It was hypothesised that young singles might be disproportionately dissatisfied with ‘other relatives’. In fact, however, the rate of dissatisfaction with other relatives was lower among singles under the age of 25 than among older people.
- 4 The number of lone fathers in the sample is too small for results to be statistically reliable. However, if one were to accept the evidence, it appears that lone fathers are about as dissatisfied with ‘other relatives’ as lone mothers.
- 5 Correlations are in the range 0 to –0.10.
- 6 Statistically significant at the 0.001 level.
- 7 A similar percentage of lone fathers reported poor networks. However, lone fathers were less likely than average to report unhelpful neighbours and living in a run-down neighbourhood. Recall, however, that the sample is too small for results to be reliable.
- 8 As in other articles, we have not reported on indigenous Australians as a separate group, because of concerns about the adequacy of the HILDA sample.

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Men's and women's physical and mental health: How persistent are health problems? Evidence for 2001–2005

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 well-being) from a patient point of view (Ware, Snow and Kosinski, 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.¹

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 NSW (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 and mean scores are very close indeed (Ware, Snow and Kosinski, 2000).² However, the HILDA Survey mental health scale scores have a higher standard deviation than the American scores.

In previous HILDA Statistical Reports we have found that men's general health declined in a straightforward linear way with age, and for women over 25, general health scores also declined with age, although young women between 15 and 24 had lower scores than women aged between 25 and 44. We also found that, on average, mental health scores were higher for men

and women aged over 65 than for younger people, and men in all age groups had higher mental health scores than women, with women aged between 15 and 24 having the lowest scores of all.

Looking at the health levels of people in low and high income households, we found that men and women in households with the lowest incomes had lower levels of general health and mental health, but the overall correlation between mental health and household income was quite weak, and people who were employed, either full-time or part-time, had higher scores for both general health and mental health than those who were unemployed.

General health, 2001–2005

General health and mental health scores ranging from 0 to 100 (0 means poor health and well-being, and 100 means good health and well-being) are calculated on the basis of client responses. Table 1 provides an overview of HILDA Survey results on general health and Table 2 deals with mental health.

Men's general health declined in a straightforward linear way with age.³ Scores decreased from 76 (on the 0–100 scale) for men aged between 15 and 24 down to 59 for men over the age of 65. For women over 25, general health scores also declined with age, but young women aged between 15 and 24 had lower scores than those aged 25 to 44. Women in the former group were alone in having lower scores than men of the same age.⁴

Mental health, 2001–2005

Table 2 shows that, on average, mental health scores were higher for men and women aged over

Table 1: General health scores by gender and age, 0–100 scale (means)

Age group	2001		2002		2003		2004		2005	
	Men	Women								
15–24	75.9	71.0	75.7	71.7	76.1	70.3	75.6	70.2	75.7	70.1
25–34	73.7	74.7	73.3	73.9	73.1	74.2	72.2	72.6	72.1	71.9
35–44	71.4	72.0	70.4	72.8	70.8	72.2	70.5	70.8	69.1	71.1
45–54	68.3	69.1	67.5	67.3	66.5	67.4	66.6	67.4	67.1	67.6
55–64	63.1	65.1	60.9	66.1	62.6	64.4	63.4	64.6	62.4	64.3
65+	58.7	61.3	59.3	61.3	59.9	61.3	59.8	61.9	59.9	60.1
Total	69.3	69.4	68.6	69.3	68.8	68.7	68.5	68.2	68.1	67.8

Note: Population weighted results.

65 than for younger people, and that men in all age groups had higher mental health scores than women, with women aged between 15 and 24 having the lowest scores of all.

In 2005, the average levels of mental health for women aged between 15 and 34 were around 71 out of 100, compared to 75.1 for women aged 65 and over. For men, the differences in average mental health between age groups was quite small, ranging from 73.2 out of 100 for men aged between 35 and 44, to 77.1 out of 100 for men aged 65 or older. Unlike general health, the correlation between mental health and age is positive (for both men and women).⁵ In other words, mental health improves slightly with age, in part because people with good mental health live longer than people with poor mental health.⁶

Marital status and health

Are people who live with a partner or spouse healthier than single people? A recent study of cancer patients (Gore et al., 2005) found that,

regardless of age, ethnicity, disease stage, or treatment type, compared to single men, married men recuperated faster, claimed to experience less pain and stress during their treatment, and had mental health scores 8 points higher than single men.⁷ However, men with cancer seemed to benefit more from spousal support than women with cancer. Tables 3 and 4 show the average levels of general health and mental health for men and women in 2005 according to their marital status.

Overall, men who were married or living with a partner had higher average levels of general health than men who were separated, divorced or widowed. For women, the average level of general health was highest for those in de facto relationships, with an average general health score of 70.7 out of 100, compared to 68.8 for married women and also for women who were not living with a partner and had never been married. Women who were separated had an average general health score of 65.5, compared to 62.4 for women who were divorced and 60.2 for women who were widowed.

Table 2: Mental health scores by gender and age, 0–100 scale (means)

Age group	2001		2002		2003		2004		2005	
	Men	Women								
15–24	73.8	69.3	75.3	71.0	74.8	69.6	74.7	70.4	74.5	70.7
25–34	74.0	71.9	74.2	71.6	75.4	73.2	74.6	71.4	73.9	70.9
35–44	73.4	71.3	74.2	72.1	74.2	72.4	74.7	71.8	73.2	72.3
45–54	75.7	73.4	75.2	72.1	74.7	72.9	75.0	72.5	75.6	72.7
55–64	75.1	73.3	75.2	74.5	75.5	74.6	75.6	74.4	76.8	73.9
65+	76.7	75.5	77.4	75.0	78.0	75.2	77.7	75.3	77.1	75.1
Total	74.7	72.3	75.2	72.6	75.3	72.9	75.3	72.5	75.1	72.5

Note: Population weighted results.

Table 3: General health scores by marital status, gender and age, 2005, 0–100 scale (means)

Age group	Married	De facto	Separated	Divorced	Widowed	Never married and not de facto	Total
Men							
15–24	73.0	68.1	*100.0	–	–	76.3	75.7
25–34	72.9	75.4	*63.4	*70.5	–	70.0	72.1
35–44	70.7	66.6	65.3	68.9	*67.0	65.3	69.1
45–54	68.6	62.0	57.8	63.0	*82.7	66.5	67.1
55–64	62.6	65.5	67.4	63.3	*62.7	52.4	62.4
65+	59.8	*63.1	64.0	61.3	60.3	55.3	59.9
Total	66.7	68.7	64.7	64.6	61.1	71.9	68.1
Women							
15–24	76.2	71.2	*61.7	–	–	69.5	70.1
25–34	73.5	72.1	67.4	69.2	–	69.4	71.9
35–44	71.7	72.8	68.6	70.6	*46.9	66.4	71.1
45–54	68.7	65.7	62.4	63.4	71.4	67.5	67.6
55–64	66.1	63.5	64.8	54.6	63.2	64.1	64.3
65+	60.9	*88.3	61.4	59.9	58.9	57.7	60.1
Total	68.8	70.7	65.5	62.4	60.2	68.8	67.8

Notes: Population weighted results. * Estimate not reliable.

Focusing on specific age groups, it is not clear that people who are married or living with a partner have better general health. In the 15 to 24 age group, men who were single and never married had the highest levels of general health. Men aged between 25 and 34 who were living with a partner had higher than average levels of general health, while married men aged between 35 and 44 had higher levels of general health than men who were single or in a de facto relationship. Single men aged between 55 and 64 who had never been married had the lowest levels of general health—52.4 out of 100—compared to 67.4 for men in that age group who were separated; 63.3 for men who were divorced; 65.5 out of 100 for men in a de facto relationship and 62.6 out of 100 for married men.

For women aged between 15 and 44, having a partner was associated with higher average levels of general health. In the 45 to 54 age group, women who were widowed had the highest levels of general health—71.4 out of 100—compared to 68.7 out of 100 for married women; 67.6 out of 100 for women who were single and never married; 65.7 for women in a de facto relationship; 63.4 out of 100 for women who were divorced; and 62.4 out of 100 for women who were separated. Women who were divorced and aged between 55 and 64 had the lowest average general health levels in their age group, while for women aged 65 or over, those who had never been married had the poorest general health.

There is no clear pattern of higher levels of general health for men and women with partners, but does having a partner improve your mental health? It may be the case that people with part-

ners tend to spend more time with family and friends than single people do, which may be a factor that contributes to improved mental health. Table 4 shows the average mental health scores for men and women, according to their age group and marital status.

Overall, men and women who were married or widowed had higher than average levels of mental health than others. For men in all age groups except the youngest (15–24), the average mental health scores for married men were higher than average. For women, the exception was those aged between 35 and 54—married women in all other age groups had higher than average mental health scores.

While mental health scores for men who were separated and aged between 35 and 54 were substantially lower than average, separated men aged 55 or older had average mental health scores higher than married men in the same age group. However, this was not the case for women. In all age groups, average mental health was lower for women who were separated or divorced than for women who had a partner. For women aged 45 and older, average mental health levels of those who were not living with a spouse or partner and had never married were almost the same as those of married women.

Health and life events

Certain life events, such as separating from a partner or losing your job, can have a negative impact on health, particularly mental health. Each year, HILDA Survey respondents are asked whether events such as getting married, separating from a

Table 4: Mental health scores by marital status, gender and age, 2005, 0–100 scale (means)

Age group	Married	De facto	Separated	Divorced	Widowed	Never married and not de facto	Total
Men							
15–24	73.8	73.2	*84.0	–	–	74.6	74.5
25–34	76.9	75.1	*67.9	*80.2	–	69.9	73.9
35–44	74.6	73.5	64.7	73.8	*60.0	68.9	73.2
45–54	76.7	74.4	64.7	70.7	*76.7	75.3	75.6
55–64	77.2	74.3	79.0	75.1	*74.3	75.9	76.8
65+	77.2	*82.2	80.8	77.0	75.9	74.6	77.1
Total	76.4	74.5	71.3	74.1	75.6	72.9	75.1
Women							
15–24	75.7	71.1	*53.6	–	–	70.4	70.7
25–34	74.2	70.3	56.8	66.7	–	67.2	70.9
35–44	73.3	72.9	62.2	70.8	*58.3	69.7	72.3
45–54	73.9	70.2	65.3	69.2	74.8	73.3	72.7
55–64	75.1	73.6	61.3	71.3	73.5	75.2	73.9
65+	74.8	*79.0	66.8	73.6	76.0	74.8	75.1
Total	74.2	71.3	62.2	70.6	75.4	70.0	72.5

Notes: Population weighted results. * Estimate not reliable.

partner, losing your job, and being promoted at work happened to them in the last 12 months. Table 5 shows the average levels of general health and mental health for men and women who experienced particular events in their life in the 12 months prior to their interview in 2005.

For both men and women, events such as separating from their spouse and even reconciling with their spouse had a significant negative impact on mental health. Presumably, even when couples reconcile, the stress of the separation and also the uncertainty of whether they are going to continue the relationship takes a toll on their mental health. Of course, people who had a serious personal injury or illness had lower levels of general health, but Table 5 shows that these people also had lower average levels of mental health. It is also apparent that people with a family member who had a serious injury or illness had lower levels of mental health. As expected, men and women who had experienced the death of a spouse or child in the last 12 months had substantially lower levels of mental health, as did women who had experienced the death of a close relative or friend.

On average, having been a victim of physical violence had no significant impact on general health, but men and women who had been the victim of physical violence in the previous 12 months had lower than average mental health scores. For women, having been a victim of property crime in the last 12 months also had a significant negative impact on mental health.

Men and women who had been fired from their job also had lower than average levels of mental health. While changing jobs and being promoted had no significant impact on either the physical or mental health of men, women who changed jobs had higher levels of both physical and mental health, and women who were promoted at work had higher than average levels of physical health. Major improvements in finances had no significant impact on the health of either women or men, but average levels of both physical and mental health were substantially lower for men and women who had experienced a major worsening in their financial circumstances.⁸

Persistence of health problems

Do the same people tend to have health problems year after year, or are health issues usually transient? Table 6 shows the number of years (between 2001 and 2005) that people had general health scores lower than 50 out of 100.

Almost 70% of men and women had general health scores of 50 or above in all five years and 11% had low levels of general health in one of the five years. For around 5.9% of men, low levels of general health persisted for two out of the five years, 5% had a general health score of lower than 50 in three of the five years, and the remaining 11.1% had low levels of general health in four or more of the five years from 2001 to 2005.

As might be expected, the persistence of general health problems depends strongly on age. Only 10.9% of men aged between 15 and 24 had general

Table 5: General health and mental health scores by life events and gender, 2005, 0–100 scale (means)

	<i>General health</i>		<i>Mental health</i>	
	<i>Men</i>	<i>Women</i>	<i>Men</i>	<i>Women</i>
Got married	68.5	68.2	72.2 [^]	74.4
Separated from spouse	69.6	66.4	67.4 [^]	61.8 [^]
Got back together with spouse	64.2	64.7	64.8 [^]	57.6 [^]
Pregnancy/pregnancy of partner ^a	73.8	75.1 [^]	75.6	75.7 [^]
Birth/adoption of new child ^a	71.0	75.4	76.7	76.6
Serious personal injury/illness	52.6 [^]	48.5 [^]	68.1 [^]	64.3 [^]
Serious injury/illness to family member	65.9 [^]	64.7 [^]	72.7 [^]	69.5 [^]
Death of spouse or child	65.6	67.5	68.2 [^]	66.1 [^]
Death of close relative/family member	67.3	64.8 [^]	74.3	70.1 [^]
Death of close friend	63.1 [^]	63.5 [^]	73.9	70.6 [^]
Victim of physical violence	64.5	54.4 [^]	67.4 [^]	56.9 [^]
Victim of property crime	66.3	65.8	73.7	68.9 [^]
Detained in jail	*66.8	*72.7	*66.5	*63.6
Close family member detained in jail	62.6	63.6	72.4	67.2 [^]
Fired or made redundant	65.5	63.0 [^]	67.9 [^]	68.8 [^]
Changed jobs	70.5	71.1 [^]	73.9 [^]	71.2 [^]
Promoted at work	73.1	72.7 [^]	75.3	73.0 [^]
Major improvement in finances	71.1	70.8	77.0	71.4
Major worsening in finances	55.5 [^]	57.2 [^]	60.6 [^]	60.5 [^]
Average level	68.1	67.8	75.1	72.5

Notes: Population weighted results. * Estimate not reliable. [^] Significantly different (at the 5% level) from the average physical/mental health level of people who did not experience this event. ^a Restricted to men and women under the age of 50.

Table 6: Persistence of low general health scores by gender and age, 2001–2005 (%)

Age group	Number of years with mental health lower than 50 out of 100						Total
	0	1	2	3	4	5	
Men							
15–24	77.4	11.7	*4.6	*2.4	*2.9	*1.0	100.0
25–34	75.6	11.2	5.9	*3.7	*2.2	*1.5	100.0
35–44	71.2	9.4	4.7	5.1	4.5	5.2	100.0
45–54	66.8	11.7	6.1	6.5	3.1	5.8	100.0
55–64	61.2	9.6	6.6	4.9	5.2	12.6	100.0
65+	54.3	11.4	7.5	5.9	7.6	13.3	100.0
Total	67.2	10.8	5.9	5.0	4.3	6.8	100.0
Women							
15–24	67.7	13.6	9.1	*2.1	*5.0	*2.5	100.0
25–34	71.3	11.7	7.3	*4.0	*1.8	*3.9	100.0
35–44	72.2	11.5	6.0	3.6	3.2	3.6	100.0
45–54	70.6	10.0	6.0	2.8	4.0	6.5	100.0
55–64	63.9	10.2	6.8	5.2	5.1	8.8	100.0
65+	58.2	12.1	6.1	6.7	4.6	12.3	100.0
Total	67.5	11.3	6.7	4.2	3.9	6.5	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 7: Persistence of low mental health scores by gender and age, 2001–2005 (%)

Age group	Number of years with mental health lower than 50 out of 100						Total
	0	1	2	3	4	5	
Men							
15–24	72.7	18.2	*6.6	*1.8	*0.8	*0.0	100.0
25–34	76.5	12.8	6.3	*1.6	*1.5	*1.3	100.0
35–44	75.5	11.4	5.8	*2.7	*2.4	*2.1	100.0
45–54	78.2	12.9	3.9	*2.3	*1.7	*1.0	100.0
55–64	79.0	11.5	4.4	*2.5	*1.5	*1.2	100.0
65+	84.1	7.3	3.5	*2.6	*1.1	*1.5	100.0
Total	78.0	11.9	4.9	2.3	1.6	1.3	100.0
Women							
15–24	68.2	17.0	8.2	*3.1	*2.6	*0.8	100.0
25–34	69.0	16.2	8.7	*3.0	*0.9	*2.2	100.0
35–44	71.8	13.0	7.1	4.2	*2.2	*1.7	100.0
45–54	72.4	13.5	7.2	4.1	*1.5	*1.2	100.0
55–64	78.2	10.9	5.2	*3.0	*1.5	*1.2	100.0
65+	81.6	9.5	4.3	*1.9	*2.0	*0.8	100.0
Total	74.0	13.0	6.7	3.3	1.7	1.3	100.0

Notes: Population weighted results. * Estimate not reliable.

health scores in the 0–50 range for more than one year, but 12.6% of men aged between 55 and 64 and 13.3% of men aged 65 and over had low levels of general health in all five years.

The proportion of women aged between 15 and 24 who had low levels of general health in two or more of the five years was 18.7%. Similarly, 17% of women aged between 25 and 34 and 16.3% of women aged between 35 and 44. Among women under the age of 45, the proportion who had low health scores in all five less than 5%, but among women between 55 and 64 it was 8.8%, and for women aged 65 and over the corresponding figure was 12.3%.

In previous years we have found that poor mental health was much less persistent than poor general health, reflecting the fact that although some mental health problems are chronic, others are cyclical or temporary in duration. Table 7 shows the number of years between 2001 and 2005 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 11.9% of men and 13% of women had mental health scores of less than 50 in one of the five years, only 1.3% of men and women had low levels of mental health in all five years.

Unlike general health, the persistence of mental health problems was not related in a linear way to age. Among both men and women, the group with the most persistent mental health problems was 35 to 44 year olds. In this age group, 7.2% of men and 8.1% of women had mental health scores of less than 50 in three or more of the five years. For younger people, persistent mental health problems were more common for women than for men, with 2.6% of men and 6.5% of women aged between 15 and 24 having low levels of mental health in three or more of the five years.

Concluding points

For men, average general health scores declined with age. This was also the case for women over the age of 25, but in all five years younger women (aged 15 to 24) had lower average general health scores than women aged between 25 and 44. On the other hand, average levels of mental health improve slightly with age.

Compared to people who were separated or divorced, men and women who were living with a spouse or partner generally had higher average general health and mental health scores, but this is not the case in all age groups. Negative life events such as the death of a spouse or child, separating from a partner, having been the victim of physical violence and being fired or made redundant had significant impact on the mental health of both men and women.

For most people, problems with general health did not persist for many years. Just under 70% of men and women had general health scores of 50 or above in all five years, and around 11% of men and 10% of women had low general health scores in four or five of the five years from 2001 to 2005. Problems with mental health were less persistent than general health problems. Only 5.4% of men and 6.3% of women had mental health scores of less than 50 out of 100 for three or more of the five years.

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 Pearson correlation between age and general health for men: -0.27 (2001), -0.27 (2002), -0.27 (2003), -0.26 (2004), -0.25 (2005). Pearson correlation between age and general health for women: -0.19 (2001), -0.20 (2002), -0.19 (2003), -0.16 (2004), -0.18 (2005).
- 4 In 2005, women aged between 25 and 34 also had lower average general health scores than men in that age group, but the difference was extremely small (0.2 out of 100).
- 5 Pearson correlation between age and mental health for men: 0.05 (2001), 0.04 (2002), 0.04 (2003), 0.05 (2004), 0.07 (2007). Pearson correlation between age and mental health for women: 0.10 (2001), 0.08 (2002), 0.09 (2003), 0.09 (2004), 0.09 (2005).
- 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 The sample consisted of 291 low income, uninsured men who participated in a state-funded program that provided free prostate cancer treatment in California.
- 8 It may be the case that the deterioration in health was the cause of the worsening in financial services (e.g. a reduction in income if an individual has to stop working as a result of a deterioration in health).

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What have people been doing for the last five years?

At each annual interview, HILDA Survey respondents fill in a calendar for every month of the last financial year. This provides information about what percentage of their time has been spent in paid work, what percentage they were unemployed and actively seeking work, and what percentage they were 'not in the labour force'. These three time uses are mutually exclusive, so the figures must add to 100%. In addition, respondents also tell us the amount of time they have spent in education (either full-time or part-time), but this can be on top of paid work, and so cannot be included in totals adding to 100%.

So what have people been doing for the last five years? In this article, we confine attention to a group of main interest—men and women aged 25 to 54, who are prime working age and, in many cases, face real choices between working, not working and getting more education.

Time uses of working age men and women

Table 1 reports time use figures for each year in 2001–2005. The annual figures show some small but interesting changes during this period of steady economic growth, when employment levels were high and unemployment low. Women's time in paid work continued to increase, rising steadily from 68.7% in 2001 to 72.4% in 2005. The other noteworthy change is in educational participation, which rose from 7.5% for men and 8.4% for women in 2001 to 10.3% for men and 10.5% for women by 2005.

Table 2 shows combined time uses for the five years 2001–2005. In aggregate, prime age men spent 88.8% of their time working in 2001–2005, 3.9% unemployed (and seeking work) and 6.7% 'not in the labour force'. Women spent 70.2% of time in

paid work, 3.5% unemployed and 24.7% 'not in the labour force'. As an additional activity, men spent 8.6% of time in education and women 9.4%.

It would be a mistake, however, to imagine that the same people do the same things every year. Among men, 96.0% were in work at some stage during the five years; 22.3% spent some time unemployed and looking for work, and 19.2% spent some time 'not in the labour force'. These last two estimates are both, perhaps, higher than expected.

Women's time uses are of course somewhat different, partly because of the demands of child-rearing. But, even so, 87.4% had spent some time in paid work in 2001–2005. 22.5% had been unemployed, and 48.5% had spent time 'not in the labour force'.

Adult education is a major activity

A further interesting and perhaps surprising finding is that 31.9% of prime age men and 35.7% of prime age women spent some time in education in this period. 'Adult education', broadly defined, has become a major activity of a substantial section of the labour force.

Table 2: Time uses for all five years combined, 2001–2005 (%)

	<i>Men</i>	<i>Women</i>
Paid work	88.8	70.2
Unemployed	3.9	3.5
Not in the labour force	6.7	24.7
Total	100.0	100.0
Education	8.6	9.4

Note: Population weighted results.

Table 1: Time spent employed, unemployed or not in the labour force—prime age men and women (25–54), 2001–2005 (%)

	2001		2002		2003		2004		2005	
	<i>Men</i>	<i>Women</i>								
Paid work	86.9	68.7	86.7	69.8	87.4	70.2	88.3	71.2	89.6	72.4
Unemployed	4.7	3.1	5.2	4.3	3.9	3.7	3.1	3.4	3.0	3.5
Not in the labour force	8.3	28.2	8.0	25.9	8.6	26.0	8.6	25.4	7.4	24.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Education	7.5	8.4	8.4	9.5	8.5	9.9	9.8	9.6	10.3	10.5

Note: Population weighted results.

GLOSSARY

Absolute poverty

Confusingly, absolute poverty has two meanings in social science research. In this Report, absolute poverty means lacking the basics: food, clothing and shelter. However, sometimes fixed or 'anchored' poverty lines, like the American 'adequate diet poverty line, are referred to as absolute poverty lines. They are absolute rather than 'relative' (see below for 'relative poverty') in the sense that they are not adjusted upwards as mainstream living standards rise.

Casual jobs

Casual employment means jobs with the absence of entitlement to both paid annual leave and paid sick leave.

Equivalence scale

An equivalence scale is used to calculate equivalised income. In this Report, we have used the OECD equivalence scale, which allows 1.0 for the first adult in the household, 0.5 for other adults, and 0.3 for children under 15. So a household of two adults and two children would have an equivalence score of 2.1 (1.0 + 0.5 + 0.3 + 0.3). Equivalised income is calculated by dividing household disposable income (income after taxes and transfers) by the equivalence score for the household.

Equivalised income

The purpose of constructing measures of equivalised income is to get a measure of material standard of living which adjusts for differences in household size. The most obvious adjustment would be household income per head, but this would make no allowance for economies of scale in larger households. Equivalised income is defined as household disposable income (i.e. income after taxes and transfers; pensions and benefits) divided by an equivalence scale based on household size. Normally, all individuals in a household are given the same equivalised income; the assumption being that income is shared, so that everyone's standard of living is the same.

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 acutely 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/community organisation.

Household disposable income

Household disposable income is the combined income of all household members after receipt of public transfers (government pensions and benefits) and deduction of taxes. It could also be termed 'household post-government income' (see later entry).

Household expenditures and consumption

Households spend money on both non-durable and durable goods and services. Non-durables—goods consumed fairly soon after purchase—include such items as groceries, fuel and holiday expenditures. Durables, by contrast, may be 'consumed' over long periods of time. Durables include housing, cars and white goods. In measuring non-durable expenditure during a particular time period, the market price is all we need to know. In the case of durables, it is necessary to *estimate* a use value or rental value if no market rental value is immediately available. For example, in the case of homeowner housing, an imputed rent may be estimated, which is conceived of as the rent the property would attract if it were rented out.

Household gross income

Household gross income is the combined cash income of all household members from all sources: labour income, asset income, private transfers and public transfers (government pensions and benefits).

Household pre-government income

Household pre-government income means all income derived from market sources (labour income, asset income, private superannuation etc), plus inter-household gifts and bequests. The only income sources omitted here are government benefits and taxes.

Household labour income

Household labour income is the sum of the wage, salary and self-employment earnings of all household members.

Household reference person

In many analyses, it is useful to classify households according to the characteristics (e.g. the age) of one main person; the household reference person. For the purposes of this Report, the male partner is treated as the reference person in couple households, although the female partner

would do equally well. In lone parent households the reference person is the parent. In lone person households the reference person is that person. No reference person has been designated in multi-family and group households.

Income mobility

Income mobility is the extent to which incomes change *relative to each other*. How many people—and with what characteristics—are moving up the income distribution, and what kinds of people are moving down the distribution?

Jobless households

In this Report, a jobless household is defined as one in which no one was in work for more than 26 weeks (50% of the time) in the last financial year.

Labour mobility

Measures of labour mobility deal with how many people change jobs each year, and how many move into and out of the labour force; that is, how many people go from being unemployed (or not in the labour force) to employed, and vice versa?

Personality traits

Psychologists think of personality traits as relatively stable dispositions which influence a person's behaviour in a wide range of situations. It is thought that personality is quite stable in adulthood, especially from age 30 onwards. There is a semi-consensus in psychology that the 'Big Five' personality traits capture most of what is known about adult personality. The 'Big Five' traits are NEO-AC: neuroticism, extroversion, openness to experience, agreeableness and conscientiousness.

Relative income poverty

A person or a household 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. Two different relative income poverty lines are used in this Report. One defines individuals as poor if their equivalised household income is less than 50% of median equivalised income. The second

relative poverty line uses a cut-off of 60% of median household income.

Resident and non-resident parents

Parents with children who live in their household at least 50% of the time are 'resident parents'. Parents who have children who live in a non-private dwelling—such as boarding schools, university halls of residence, or institutions—are also considered to be resident parents. Non-resident parents are parents who have children who live in another household more than 50% of the time.

Social capital

Most measures of social capital are essentially measures of social networks, although measures of neighbourhood quality and safety are sometimes also included. One's social networks range from intimate attachments to spouse and family, through friendship and social support networks, to acquaintances (including neighbours) whom one may be able to rely on for relatively minor assistance.

Wealth/net worth

Household wealth is measured by the net worth (total assets minus total debts) of all members of the household. Assets include housing and other property, pensions and superannuation, businesses and farms, equity investments (shares and managed funds), cars and other vehicles, and cash in bank accounts. The most common types of debt are mortgages on properties, loans for businesses or farms, HECS (student) debt and credit card debt.

Welfare reliance

In this Report, households are defined as welfare reliant if more than 50% of their gross income (income from all sources) comes from government income support payments and family payments.

Well-being

Well-being can be defined in many ways, but most observers treat it as at least partly a subjective, psychological concept. Two psychological variables central to the concept of well-being are 'life satisfaction' and 'stress'.

