

Families, Incomes and Jobs, Volume 2:

A Statistical Report on Waves 1 to 4 of the HILDA Survey



Bruce Headey

Diana Warren

Melbourne Institute of Applied Economic and Social Research

The University of Melbourne

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of Families, Community Services and Indigenous Affairs*

Written by Bruce Headey and Diana Warren at
Melbourne Institute of Applied Economic and Social Research,
The University of Melbourne.

Melbourne Institute of Applied Economic and Social Research
Level 7, 161 Barry Street
Alan Gilbert Building
The University of Melbourne
VIC 3010 Australia
Phone: (03) 8344 2100
Fax: (03) 8344 2111
Internet: www.melbourneinstitute.com/hilda

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Introduction to the Annual Statistical Report on HILDA for 2006

This is the second Annual Statistical Report of the Household Income and Labour Dynamics in Australian (HILDA) Survey. Like the previous volume (Headey, Warren and Harding, 2006), 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 into 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 was initiated and funded by the Australian Government Department of Families, Community Services and Indigenous Affairs (FAC-SIA) 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

Table 1: HILDA sample sizes, 2001–2004

	<i>Number of households</i>	<i>Number of individuals aged 15 and over within sample households</i>
2001	7,682	13,969
2002	7,245	13,041
2003	7,096	12,728
2004	6,987	12,408 ^a
2005	7,125	12,759 ^b

Notes: ^a Among these respondents, 10,564 were in the initial wave 1 sample. The remaining 1,844 new respondents were mainly (i) young people who turned 15 after 2001, (ii) individuals who declined an interview in 2001 but who later responded and (iii) 'split-offs'; i.e. individuals who left their 2001 household and formed their own new households. In this last situation the entire new household becomes eligible to join the panel. ^b 10,392 of the original 2001 respondents still remained in 2005 and 2,367 new respondents had joined the panel since it started.

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 June 30 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, and 10,565 in wave 4 (Table 1).

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.

The significance of new entrants into the panel is revealed sharply by the last row of Table 1, which shows that the sample size actually *increases* in 2005. So, in fact the sample size of individuals rose from 12,408 in 2004 to 12,759 in 2005, primarily due to split-offs. It is quite likely that, as HILDA proceeds, the sample size will now continue to increase each year.

Attrition—that is, people dropping out of the sample due to refusal, death, or our inability to locate them—is a major issue in all panel surveys. In 2002 we secured interviews with 13,041 respondents (93% of the initial sample size), in 2003 12,728 respondents were interviewed, and in 2004 the figure was 12,408. 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.² 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.³ This is a conservative approach, given that most academic papers treat as statistically significant estimates which have standard errors up to 50%. The calculation and treatment of standard errors were covered in detail in Appendix 1 to the first Annual Report on HILDA (2006).

Overview of contents

The four parts of this volume each begin with a report giving an overview of a central topic, focusing on change within the HILDA Survey panel. So Part 1 on Households and Family Life begins with a report on the types of families (married couple families, de facto couple families, sole parent families etc) in which children grew up in 1946–2001, using the HILDA family history data to update evidence from the Australian Institute of Family Studies (de Vaus, 2004). This is one of five

articles contributed by a guest author—Professor David de Vaus of La Trobe University. The rest are written by the editors.

Professor de Vaus' article is followed by a report on changes in marital status in 2001–2004, which also discusses levels of marriage satisfaction in marriages which split up and those which did not. Subsequent reports deal with the increasing ages at which children are leaving the parental home, cohabitation between de facto partners, child care, contact between non-resident parents and their children, and so on.

Part 2 on Incomes starts with an overview of income mobility; the extent to which households moved up or down the national income distribution in 2001–2004. It then covers topics such as the duration of income poverty, the impact of Government payments on poverty and inequality, the duration of reliance on welfare payments, and perceived financial stress.

Part 3 on Employment and Unemployment/Joblessness begins with an overview of labour mobility in 2001–2004 and then deals, inter alia, with such topics as workforce transitions following unemployment, whether relatively 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. So Part 4 begins with an overview article on life satisfaction and satisfaction with many other aspects of life. Later articles deal with religious belief and its association with life satisfaction, with physical and mental health, with smoking, with social networks and, finally, with a comparison of how men and women use their time.

Concluding points

The 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.

Bruce Headey
Deputy Director, HILDA Survey

Endnotes

- 1 Readers who would like more information about the HILDA Survey data should view <<http://www.melbourneinstitute.com/hilda>>.
- 2 Standard errors can be thought of as reasonable estimates of the outer limit of the errors likely to be found in statistics reported from the sample in question. The larger the sample size, the smaller the standard error, all else equal. Technically, the standard error for a sample of a given size is the standard deviation of errors that would be obtained if a sample of that size were taken an infinite number of times. Size is the main consideration, but other characteristics of the sample, relating to specific sampling methods, also affect the sampling error.
- 3 Following conventions used by the Australian Bureau of Statistics (ABS), and as an approximation to these relative standard errors (RSEs), cell entries in the tables in this volume which are based on fewer than 20 respondents are marked as not statistically reliable. An exception is results relating to income, where fewer than 50 respondents is a more appropriate cut-off. This is mainly because income variables have higher standard deviations relative to their means than (most) other variables. The applicability of these standard ABS approximations was confirmed in a report published in last year's Statistical Report on the HILDA Survey (Headey, Warren and Harding, 2006).

References

- de Vaus, D.A., 2004, *Diversity and Change in Australian Families*, Australian Institute of Family Studies, Melbourne.
- Headey, B.W., Warren, D. and Harding, G., 2006, *Families, Incomes and Jobs: A Statistical Report of the HILDA Survey*, Melbourne Institute of Applied Economic and Social Research, Melbourne.
- 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.

HOUSEHOLDS AND FAMILY LIFE

1

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In what types of families do children now live? Changes from 1946 to 2001

David de Vaus and Matthew Gray

Editors' note: This article was specially commissioned to cover the family experiences of children born between 1946 and 2001. It is based on the family history data collected in the first wave of HILDA interviews in 2001. It is planned to update the evidence every five years or so.

The families into which children are born today are different from those into which children were born several generations ago. More children are now born into sole mother families, to partnered but unmarried parents and to parents who have had children in previous relationships. Today's children are more likely than those in earlier generations to experience parental separation and to live in more than one type of family over the course of their childhood.

However, even though we are aware that changes have taken place, we do not have good estimates of the extent of change and how many children experience particular forms of family living arrangements. Given this, it would be easy either to exaggerate or to underestimate the extent to which historical change has taken place and to misunderstand the extent to which individual children encounter changes in their own family living arrangements during the period of their childhood.

Most official statistics do not provide a very satisfactory picture of the living arrangements experienced by children, or of the changes taking place. They only provide a snapshot of the number of children in particular types of families at a particular point of time, but do not tell us how many children experience particular family forms or experience changes in family living arrangements in the course of their childhood. We do not even have an accurate idea of how many children are born into particular family types. Birth registration data only indicate whether a mother was married, not whether she was partnered. Accordingly registrations data do not distinguish between births to

partnered mothers in de facto relationships and those to lone mothers. Neither do we know how many children experience their parents separating. Divorce statistics tell us how many children experience parental divorce but, since more and more children are born in de facto relationships, the divorce statistics do not capture those children whose unmarried parents separate.

HILDA data allow us to fill in these gaps. They also allow us to reconstruct patterns of change since the end of the Second World War. The data allow us to capture the extent to which the family living arrangements and disruptions experienced by children have changed over recent generations.

Family types at birth

Table 1 shows changes since 1946 in the family types into which children have been born. There has been a steady decline in the percentage of children born into households consisting of the child's two married biological parents. This percentage has declined from 97% in 1950 to 72% in 2001. However, the decline does not mean that all the other children were born to sole parents. Over this same period, the growth of de facto relationships and the acceptability of having children without being married has meant that more children are being born to cohabiting but unmarried parents (de Vaus, 2004). In the immediate post-war period, virtually no child was born to unmarried cohabiting parents, yet by 2001 16% of children were born in these circumstances.

There has also been a growth in the proportion of children born to unpartnered mothers, so that by 2001 almost 12% of the children identified in HILDA were born to a lone mother.

The question remains whether being born to cohabiting rather than married parents has any consequences for the longer term family stability experienced by children. We know that cohabiting relationships are less stable than married relationships but it remains to be seen whether cohabiting

Table 1: Family type into which children were born, 1946–2001 (%)

Family type	Year of birth											
	1946	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2001
Married	94.4	97.0	98.0	95.0	94.1	94.6	89.7	89.3	85.6	84.7	74.6	72.2
Cohabiting	0.0	1.0	0.0	0.0	0.0	1.8	3.0	4.0	6.1	8.6	16.1	16.2
Single	5.6	2.0	2.0	5.0	5.9	3.6	7.3	6.7	8.3	6.6	9.4	11.6
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

Note: Population weighted results.

relationships into which children are born are less stable than comparable married relationships.

One of the notable trends in recent years has been the growth in the number of lone parent families. In 2001 the ABS reported that 21.8% of families with dependent children were lone parent families. Lone parent families are formed in one of two ways—by a child being born to a lone mother or by a child's parents separating and forming a lone parent household. Table 2 reports the growth in the percentage of children who spent at least some time in a lone mother family by the age of 15. This percentage has grown steadily from 8.9% of children from the 1946–1955 birth cohort to 24.9% of children from the 1981–1985 birth cohort. Perhaps the most interesting element of this growth is its source in different periods. For children born between 1946 and 1975 the main reason for the increasingly common experience of living in a lone mother family was increased rates of parental separation. However, for children born since 1975 there has been very little growth in lone parenting due to parental separation. The growth in the experience of lone mother parenting for post-1975 children has, in fact, mainly been driven by the increasing rate at which children are being born to lone mothers (Table 2).

The family arrangements into which children are born of course not necessarily the same arrangements they experience throughout their childhood. Increasingly the family living arrangements of both adults and children are subject to change. Married and cohabiting parents may separate, cohabiting parents may marry, separated parents may repartner and sole parents may partner.

Of more importance than the type of family into which children are born is the matter of the relative stability of these different family arrangements for children. There is good evidence that transitions from one family arrangement to another have greater impact on the well-being of children than the family type per se (Pryor and Rodgers, 2001).

While most children continue to be born to parents who are living together (either as married or de facto married) many of these children experience parental separation. Table 3 shows the percentage of such children whose parents separate by the time the child is 5, 10 or 15 years old. Looking at the most recent relevant birth cohorts, 9.8% of children experienced their parents separating by the time they were 5 years old; 16.3% by the time they were 10 years old and 23.4% by the time they were 15 years old.

These rates are much higher for recent birth cohorts than cohorts born in the more immediate post-War period. For example, of children born in 1946–1955, 6.8% experienced parental separation by the time they turned 15. For the most recent cohort this had increased by almost 350% to 23.5%.

However, almost all the change took place before 1976. Children born in the cohorts from 1976 onwards are not more likely than the previous cohort to have experienced parental separation (regardless of whether the parents were married or de facto).¹ The increased rate of parental separation largely affected children born between the mid-1950s and the mid-1970s.

Table 2: Children ever in lone mother family by birth cohort (cumulative %)

<i>Birth cohort</i>	<i>By age 15</i>	<i>At birth</i>	<i>Due to parental separation</i>
1946–1955	8.9	2.6	6.3
1956–1962	11.0	3.2	7.8
1963–1975	18.0	3.0	15.0
1976–1980	22.2	3.8	18.4
1981–1985	24.9	6.5	18.4

Note: Population weighted results.

Table 3: Children born to a couple whose birth parents had separated by 5, 10 and 15 years after child's birth, by birth cohort, 1946–1995 (%)

<i>By age</i>	<i>Year of child's birth</i>						
	<i>All turn 15 by time of 1976 Family Law Act</i>		<i>Turned 15 after introduction of Family Law Act</i>	<i>All born after Family Law Act</i>			
	<i>1946–1955</i>	<i>1956–1962</i>	<i>1963–1975</i>	<i>1976–1980</i>	<i>1981–1985</i>	<i>1986–1988</i>	<i>1989–1995</i>
5 years old	2.2	2.5	4.2	8.7	7.8	8.0	9.8
10 years old	4.5	4.9	12.1	16.1	17.1	16.3	
15 years old	6.8	9.5	18.4	22.8	23.4		

Note: Population weighted results.

Time spent in particular family types

Another way of thinking about the living arrangements of children is to consider the amount of time that any cohort of children spends living in particular family forms. Rather than looking just at the type of families in which individuals live at one moment in time, this approach focuses on the percentage of total or pooled time of a cohort of children that is spent in a particular family type.

Total pooled time is calculated by summing the total number of years lived by all the individuals in a cohort and then calculating the number of years that children in that cohort lived in particular family types (Andersson, 2002). For example, if a cohort of 15 year olds consists of 1,000 children, we know that the cohort represents 15,000 years of life. The number of years that individual children in the cohort lived in, say, a lone mother family can be computed and expressed as a percentage of the total 15,000 years. The same computation can be made for each family type. This approach provides a broad picture of how much of the cohort's pooled childhood years are spent in a particular family type. By comparing the proportion of a birth cohort's pooled years spent in a particular family type across birth cohorts we can obtain a general measure of change in children's family living arrangements.

Table 4 gives estimates of the proportion of time each cohort spent in particular family types in the first 15 years of life. These figures indicate the *average* percentage of the time across the total cohort and do not indicate the amount of time spent by individuals in each family type.

The first row in Table 4 shows the proportion of each cohort's childhood years in which children lived with both their parents. In the most recent

birth cohort 82.2% of the cohort's time was with both biological parents. While 17.8% of the time of this cohort involved living in other family forms, the vast bulk of the time was spent by children living in an 'intact' family. Nevertheless, the proportion of time spent in an intact family has declined with each post-War cohort. In the 1946–1955 birth cohort, 94.1% of the total time consisted of the period in which children lived with both their biological parents.

Since 1946, the proportion of childhood time lived in a step-family has steadily increased. In the 1946–1955 birth cohort just 2.2% of the childhood years were spent living in a step-family. By the most recent birth cohort this proportion had more than trebled to 7.2%.

The proportion of the childhood years spent in a lone mother family has also increased since 1946. In the 1946–1955 birth cohort 3.6% of the childhood years were lived with a lone mother. By the time of the 1981–1985 birth cohort this proportion had trebled to 10.7% (Table 4).

Number of living arrangements

The evidence is that children are less likely now to live in the same family type throughout their childhood than they were in earlier post-War birth cohorts. It was pointed out earlier that the disruptions caused by family transitions in childhood contribute to poorer outcomes, especially for children who experience multiple transitions.

Table 5 quantifies the extent to which transitions are experienced by children in their first 15 years of life. In the most recent birth cohort (1981–1985) only 73.9% of children were in the same family arrangement at age 15 as they were when they were born. Almost 16% experienced one change

Table 4: Time in family types by age 15, by original family type (%)

Family type	Birth cohort				
	1946–1955	1956–1962	1963–1975	1976–1980	1981–1985
Both parents	94.1	92.8	88.7	85.1	82.2
Step family	2.2	3.5	5.0	7.1	7.2
Lone mother from birth	1.3	1.1	1.4	1.8	3.4
Lone mother after separation	2.3	2.6	4.9	6.1	7.3
Total lone mother	3.6	3.7	6.3	7.9	10.7

Note: Population weighted results.

Table 5: Number of living arrangements experienced by children by age 15, by birth cohort (%)

Number of living arrangements	Birth cohort				
	1946–1955	1956–1962	1963–1975	1976–1980	1981–1985
1	91.6	87.8	79.8	75.2	73.9
2	6.0	8.7	12.7	14.7	15.6
3 or more	2.4	3.5	6.5	10.1	10.5
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

in family living arrangement, while 10.5% experienced two or more changes.

It is evident from Table 5 that the number of living arrangements experienced by children has increased steadily with each birth cohort. However, the rate of increase shows clear signs of slowing down. Among the post-1975 birth cohorts the increase in children experiencing more than one family living arrangement is less than 2%.

Concluding comments

There have clearly been significant changes in the family living arrangements experienced by children in the post-War era. Fewer children are now born to married biological parents, while more are being born to cohabiting but unmarried parents and also to lone mothers.

Children born in the last thirty years are more likely, during their first 15 years of life, to experience parental separation than those born before 1975. Parents are more likely now to separate and to repartner—changes which mean that children have to go through at least two family changes.

However these changes must be kept in perspective. By far the most common living arrangement for children throughout their childhood remains living with their two biological and (usually) married parents. While far more children now experience parental separation than in the post-War period, this increase has stabilised for children born since 1975. So despite the widely held impression that children

are increasingly being caught up in parental separations, the evidence for this is simply not there in the longitudinal data provided by HILDA.

Endnote

- 1 The latest cohort for which HILDA data are available were born in 1989–1995 and have experienced a higher rate of parental separation than the previous three cohorts shown in Table 3. However, it would be premature to make the judgment that separation is trending upwards again.

References

- Andersson, G., 2002, 'Children's experience of family disruption and family formation: Evidence from 16 FFS countries', *Demographic Research*, vol. 7, pp. 343–64, <<http://www.demographic-research.org/Volumes/Vol7/7/>>.
- de Vaus, D.A., 2004, *Diversity and Change in Australian Families*, Australian Institute of Family Studies, Melbourne.
- de Vaus, D.A. and Gray, M., 2004a, 'Family transitions in childhood', Ch. 11 in de Vaus, D.A., *Diversity and Change in Australian Families*, Australian Institute of Family Studies, Melbourne.
- de Vaus, D.A. and Gray, M., 2004b, 'The changing living arrangements of children, 1946–2001', *Journal of Family Studies*, vol. 10, no. 1, pp. 9–19.
- Pryor, J. and Rodgers, B., 2001, *Children in Changing Families: Life after Parental Separation*, Blackwell, Oxford.

Changes in marital status and marriage satisfaction: 2001–2004

In the last HILDA Survey Statistical Report (Headey et al., 2006) we found that 95.6% of people who were married in 2001 were still married in 2003, 98.6% of people who were widowed in 2001 retained that status in 2003, 10.9% of people who were single in 2001 had moved into a de facto relationship by 2003, most of the separated individuals who changed status between 2001 and 2003 proceeded with a divorce, and most of the 17.7% of de factos who got married since 2001 married the person they were already living with.

We also found that only about 2% of marriages end each year. However, jumping to the conclusion that many marriages are unhappy for years before they eventually founder might be termed a 'fallacy of social pathology'. It is likely that many are happy for years before one or both partners becomes dissatisfied and initiates separation.¹ The level of satisfaction reported by people whose relationship broke up in the following year was lower than average—around 6.8 out of 10 for men and 6.2 for women. However, a high percentage

of people, particularly men, who had separated or divorced by 2003, reported *high levels of relationship satisfaction in the previous year*—52.8% of men and 40.5% of women, who were about to split up, reported relationship satisfaction scores in the 8–10 range.

Table 1 summarises the changes in marital status among respondents interviewed in both 2001 and 2004.

The most stable group were the widowed, with 97.1% retaining that status in 2004. Of those who were married in 2001, 93.8% were still married in 2004 (93.3% 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 most of the 22.2% of de factos who got married since 2001 married the person they were living with.² Of those who were in a de facto relationship in both years, 93.7% were still living with the

same partner. Around 20% of people who were never married and single in 2001 had a partner by 2004, 12.9% had moved into a de facto relationship and 6.2% were married.

Relationship satisfaction—pre and post separation

In last year's HILDA 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 2004 this was still the case—the average level of relationship satisfaction for married men was 8.6 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 satisfaction of married men and women with those in de facto relationships in 2004.

More than 80% of married men reported high levels of relationship satisfaction, compared to only 72% of men in de facto relationships. Compared to married men, it was more common for men in a de facto relationship to rate their relationship satisfaction as medium (4–7 out of 10), rather than high. The distribution of responses about relationship satisfaction was quite similar for married women and women in de facto relationships—around 4% rated their relationship satisfaction as low (0–3 out of 10), over 20% rated their relationship satisfaction at

medium (4–7 out of 10) and over 70% had high levels of relationship satisfaction.

Last year we also found that, on average, the level of satisfaction reported by people whose relationship broke up in the following year was lower than average. However, a high percentage of people, particularly men, who had separated or divorced by 2003, reported high levels of relationship satisfaction in 2002.⁴ Table 3 shows that this was again the case for people whose marriage broke up between their 2003 and 2004 interviews.

In interpreting these results, it should be conceded that they may be subject to some degree of what in survey research is termed 'social desirability bias'. That is, some people who are really dissatisfied with their marriages may be reluctant to say so openly in front of interviewers. However, even allowing for some degree of bias, it is remarkable that 80.2% of men whose marriages subsequently broke up had reported a satisfaction level between 8 and 10 on the 0–10 scale in 2003. Only 5.7% of men whose marriage had ended by 2004 reported low levels of relationship satisfaction in 2003.

The differences in relationship satisfaction between women who remained married and women whose marriage had ended by 2004 were much more obvious—11.7% of women who were married in 2003 and had separated by 2004 reported low levels of relationship satisfaction in 2003. Even so nearly two-thirds (64.3%) of women who were separated from their spouse by 2004

Table 1: Changes in marital status, 2001–2004 (%)

Marital status in 2001	Marital status in 2004						Total
	Legally married	De facto	Separated	Divorced	Widowed	Never married and not de facto ^a	
Legally married	93.8	0.6	2.6	0.9	2.1	–	100.0
De facto	22.2	60.9	2.1	4.4	*0.5	10.0	100.0
Separated	5.4	9.9	55.7	25.9	*3.1	–	100.0
Divorced	6.2	7.6	*0.7	80.6	4.9	–	100.0
Widowed	*0.4	*0.1	*0.0	*1.7	97.7	–	100.0
Never married and not de facto	6.8	12.9	*0.4	*0.0	*0.0	79.9	100.0
Total	53.7	9.7	3.2	5.8	6.3	21.4	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 in 2004 (%)

	Satisfaction with relationship with partner			Total
	Low (0–3)	Medium (4–7)	High (8–10)	
Men—married	3.3	15.1	81.6	100.0
Men—de facto	4.0	24.0	72.0	100.0
Women—married	4.2	21.6	74.2	100.0
Women—de facto	3.5	24.5	71.9	100.0

Notes: Population weighted results.

Table 3: Marital status in 2004 related to marital satisfaction in 2003—people who were married at the time of their 2003 interview (%)

Relationship status in 2004	Satisfaction with relationship with spouse in 2003			
	Low (0–3)	Medium (4–7)	High (8–10)	Total
Men—still married	*2.7	14.8	82.6	100.0
Men—separated or divorced	5.7	14.1	80.2	100.0
Women—still married	3.3	20.7	76.0	100.0
Women—separated or divorced	11.7	24.0	64.3	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 4: Marital status in 2004 related to marital satisfaction in 2003—people who were in a de facto relationship at the time of their 2003 interview (%)

Relationship status in 2004	Satisfaction with relationship with partner in 2003			
	Low (0–3)	Medium (4–7)	High (8–10)	Total
Men—still with partner	*3.5	22.8	73.7	100.0
Men—separated	*3.8	22.6	73.5	100.0
Women—still with partner	*3.2	15.1	81.7	100.0
Women—separated	*3.4	32.4	64.2	100.0

Notes: Population weighted results. * Estimate not reliable.

reported high levels of relationship satisfaction in 2003, compared to 76.0% of women who were still married.

Is this also the case for people in de facto relationships? Table 4 compares the relationship satisfaction in 2003 for men and women whose de facto relationship had broken up by 2004, with those who remained in their de facto relationship or married by 2004.

The levels of relationship satisfaction for men who were in a de facto relationship in 2003 were almost identical for those who had split up and those who stayed together. However, compared to women whose de facto relationship had ended, women who were still with their partner (either married or still de facto) reported higher levels of satisfaction with their relationship in the previous year.

Endnotes

- 1 2.1% of people who were married in 2001 were no longer married (separated, divorced or widowed) in 2002, and 2.0% of people who were married in 2002 were no longer married in 2003.

- 2 90.8% of people who were in a de facto relationship in 2001 and married in 2004 had married the person they were living with in 2001.

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

- 4 The explanation for the gender difference is almost certainly that more marital split-ups are initiated by women than men. The HILDA Survey data (2001) show that 49.3% of divorces were initiated by women, 19.4% were initiated by men, and the remaining 30.3% were a joint decision. However, for divorces where no children were involved, the applicants were fairly even; 38% were women, 33% were men and 29% were joint applications (ABS, 2001).

References

Australian Bureau of Statistics, 2001, *Marriages and Divorces, Australia*, ABS Catalogue No. 3310.0, Canberra.

Headey, B.W., Warren, D. and Harding, G., 2006, *Families, Incomes and Jobs: A Statistical Report of the HILDA Survey*, Melbourne Institute of Applied Economic and Social Research, Melbourne.

Child care: Issues and persistence of problems

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 (a growing number of sole parent families) have created a growing need for child care that is both accessible and affordable.

In last year's Statistical Report we found that in 2003, 28.9% of households had at least one resident child under the age of 15 and 44.3% of those households had used, or considered using, some type of child care in the past 12 months (Headey et al., 2006). Of those households where work related child care was used for school aged children, around 60% used informal child care only. The most common type of informal child care for school aged children was a relative who did not live in the household. 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. The child care arrangements for non school age children were quite different to that of school aged children. Just over half the households who used child care for non school age children while the parents were working used formal child care, the most common type 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 non school age children more formal child care was used.

Child care in 2004

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 2004 interviews.

In 2004, 28.6% of households had at least one resident child under the age of 15 and 42.6% of those households had used, or considered using, some

type of child care in the past 12 months. While 50.5% 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 55.6% of households with children aged 2 to 3 years and 54.2% households with children aged 4 to 5 years using or considering using child care, compared to 46.6% of households with children aged between 6 and 9 years, 35.3% of households with children between 10 and 12, and only 20.6% of households with children aged 13 or 14 years.

In each year of the HILDA Survey, parents with children under the age of 15 are asked about the types of child care used for their children. A very common type of informal child care identified in all three years from 2001 to 2003 was 'A relative living elsewhere'. Presumably a high proportion of these relatives were the grandparents of the children. In 2004 a new category of child care was added to these questions to find out how much child care grandparents do.¹ 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 non school age children.

Work related child care

In 2004, 31.7% of households with school age children had used work related child care for their (school age) children. 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.²

Of those households where work related child care was used for school aged children, 65.2% used informal child care only, 23.7% only used formal child care and 11.2% used a combination of formal and informal child care.³ Overall, just over 76% of households who used child care for their school aged children while the parents were working used

Table 1: Households with resident children—by age of children, 2004 (%)

	<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>
Households with at least one child aged under 2 years	6.6	50.5
Households with at least one child aged 2–3 years	5.7	55.6
Households with at least one child aged 4–5 years	6.6	54.2
Households with at least one child aged 6–9 years	11.1	46.6
Households with at least one child aged 10–12 years	9.6	35.3
Households with at least one child aged 13–14 years	6.8	20.6
Total households with children aged under 15 years	28.6	42.6

Note: Population weighted results.

informal child care, while only 34.9% used some type of formal child care.

School aged children spent an average of 7.4 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 hours care, which was used by 27% of households where child care was used for their

school aged children. Other types of formal child care, such as family daycare 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 25.5% of households; in 20.4% of households, school aged children are cared for by a non-resident grandparent, 14.1% are looked after by another non-resident relative and 13.6% go to a friend or neighbour's home.^{4,5}

Table 2: Work related child care for school aged children, 2004 (households where child care is used for school aged children while parents are at work)

	<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	19.2	3.6
Child looks after self	25.5	4.2
Child comes to my (or my partner's) workplace	*4.1	*2.8
Child's grandparent who lives with us	*5.8	*11.3
Child's grandparent who lives elsewhere	20.4	5.5
Other relative who lives with us	*2.0	5.2
Other relative who lives elsewhere	14.1	6.2
A friend or neighbour coming to our home	5.1	7.5
A friend or neighbour in their home	13.6	3.0
Total—informal child care	76.3	6.8
Formal child care		
Formal outside of school hours care	27.0	5.7
A paid sitter or nanny	3.5	7.1
Family day care	*5.4	*9.6
Total—formal child care	31.8	6.4
Total—formal and/or informal child care	100.0	7.4

Notes: Population weighted results. * Estimate not reliable.

Table 3: Work related child care for non school aged children, 2004 (households where child care is used for non school aged children while parents are at work)

	<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	*2.3	*10.0
Child's grandparent who lives with us	*2.7	*23.6
Child's grandparent who lives elsewhere	34.1	12.8
Other relative who lives with us	*0.5	*1.8
Other relative who lives elsewhere	12.0	10.9
A friend or neighbour coming to our home	*3.9	*7.7
A friend or neighbour in their home	7.0	6.8
The child's other (non-resident) parent ^a	*0.3	—
Total—informal child care	54.5	13.0
Formal child care		
A paid sitter or nanny	7.5	11.3
Family day care	23.4	22.3
Long day care centre at workplace	7.4	17.8
Private or community long day care centre	30.1	20.5
Total—formal child care	64.7	21.0
Total—formal and/or informal child care	100.0	22.4

Notes: Population weighted results. * Estimate not reliable. The option 'kindergarten or pre-school' was included in the question but is excluded from this table as it is not considered by government departments to be a form of child care. ^a The number of hours the child's non-resident parent looks after their child per week was not asked.

Table 4: Non-work related child care for school aged children, 2004 (households where child care is used for school aged children while parents are not at work)

	<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	30.0	4.4
Child's grandparent who lives with us	*2.4	*5.2
Child's grandparent who lives elsewhere	21.5	3.6
Other relative who lives with us	*3.6	*2.7
Other relative who lives elsewhere	27.6	3.8
A friend or neighbour coming to our home	*6.2	*5.6
A friend or neighbour in their home	17.9	2.4
Total—informal child care	85.7	4.8
Formal child care		
A paid sitter or nanny	10.1	5.1
Family day care	*0.8	*5.7
Private or community long day care centre	*0.0	n.a.
Formal outside of school hours care	*5.4	*8.2
Total—formal child care	15.9	6.1
Total—formal and/or informal child care	100.0	5.1
<i>Notes: Population weighted results. * Estimate not reliable.</i>		

Compared to school aged children, child care arrangements for children who were not yet old enough to attend school were quite different. Of the 18.9% of households with non school age children, 37.4% used work related child care. Table 3 shows the types of work related child care used for non school age children.

Of those households where work related child care was used for children who were not old enough to go to school, 45.5% only used formal child care, 35.3% only used informal child care and 19.3% used a combination of formal and informal care.

Non school age children who were in child care while their parents were working spent an average of 22.4 hours per week in child care. The obvious explanation for the difference in hours of child care used for non school age children and school age children is that non school age 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 child care arrangement is being cared for by a non-resident grandparent, with 34.1% of non school age children being cared for by a grandparent while their parents are at work. The most common form of formal child care for non school age children was a private or community long day care centre, with 30.1% attending this type of child care while their parents were at work.

Non-employment related child care

In 2004, non-employment related child care (child care used while parents are not at work) was less common than work related child care, particularly for school aged children. Only 14.7% of house-

holds with school aged children used non-employment related child care. Table 4 shows the types of non-work related child care used for 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, 84.1% used informal care only, 14.3% only used formal child care, and 1.6% used a combination of formal and informal care. The average amount of non-work related child care for school aged children was around 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. Around 10% of households that used non-work related child care for their school aged children used a paid sitter or nanny, but very few sent their school aged children to other types of formal child care while they were not at work.

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. In 2004, non-employment related care was used in 32.7% of households with non school age children. Table 5 shows the types of non-work related child care used for non school aged children, as well as the average number of hours per week non school aged children spent in non-work related child care.

For non school aged children, the amount of formal and informal child care used while the parents were not working was quite even; 40.9% used formal care only, 51.0% only used informal child care

Table 5: Non-work related child care for non school aged children (households where child care is used for non school aged children while parents are not at work)

	<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	*3.8	*4.1
Child's grandparent who lives with us	*3.1	*9.8
Child's grandparent who lives elsewhere	29.9	4.5
Other relative who lives with us	*1.1	*2.0
Other relative who lives elsewhere	19.5	4.3
A friend or neighbour coming to our home	7.5	5.1
A friend or neighbour in their home	8.4	3.9
Total—informal child care	59.1	5.6
Formal child care		
A paid sitter or nanny	9.2	4.3
Family day care	13.8	12.5
Private or community long day care centre	26.4	16.6
Total—formal child care	49.0	14.7
Total—formal and/or informal child care	100.0	10.7
<i>Notes: Population weighted results. * Estimate not reliable.</i>		

and 8.0% used a combination of formal and informal care. The number of hours non 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 or being cared for by a paid sitter or nanny was 4 to 5 hours per week, but children who spent time in formal child care spent around 15 hours per week in non-work related child care.

The most common type of informal child care used for non school children while parents were undertaking non-work activities was a non-resident grandparent, with almost 30% of households who use non-work related child care for their non school aged children using this option. The second most common type of non-work related child care for non 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 sole parent households who had difficulties with these aspects of child care (gave a rating of 8 or more out of 10) in each of the four years from 2001 to 2004.

The most common problem encountered was finding care for a sick child, with around 28% of couple households and around 40% of sole parent households reporting this difficulty each year. 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 could be sorted out over time. 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 23% of single parent households also had difficulties with the costs of child care.⁶ Finding a place at the child care centre of your choice was also a problem for around 20% of both couple households and sole parent households.

Persistence of child care difficulties

Last year, we found that difficulties with child care usually did not persist for more than one year. The only problem that persisted for three years for a large number of households was finding care for a sick child.⁷ The cost of child care was a problem for 22.7% of households in one out of the three years, 11.9% had this difficulty in two of three years, and 5.2% in all three years. Similarly, 21.2% of households had difficulties finding the right person to take care of their child in one out of the three years, but only 3.0% experienced this problem in all three years.⁸ Table 7 shows the number of years child care problems persisted for households who had used, or considered using, child care in all four years from 2001 to 2004.⁹

Problems with child care availability, such as finding good quality child care, finding a place at the child care centre of your choice and getting care for the hours you need, generally only lasted for one or two years. Around 20% of households reported these problems in one of the four years, and less than 10% had problems with child care availability in two out of four years. However, it is possible that some

households overcame problems of child care availability by reducing the mother's working hours.¹⁰

Finding care for a sick child was still the most persistent problem, 7.4% of households said this was a problem in all four years, and 16.3% reported this problem in three out of four years. Some possible explanations for the persistence of this problem is that care for sick children must be found at very short notice, and many formal child care

providers refuse to care for sick children. So, while finding care for sick children is an infrequent problem, it is the one that proves to be the most difficult.

Problems with the cost of child care were also quite persistent, 16.3% of households said this was a problem in three out of the four years and 8.3% had problems with child care costs in three out of four years.

Table 6: Difficulties with child care, 2001–2004 (%)

	<i>Proportion of households who had difficulties (8+ out of 10)</i>			
	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
<i>Couple households</i>				
Finding good quality child care	14.1	13.7	16.0	16.1
Finding the right person to take care of your child	16.3	16.4	15.2	17.5
Getting care for the hours you need	16.1	14.9	17.4	16.7
Finding care for a sick child	28.6	28.7	28.2	28.4
Finding care during school holidays	11.6	13.8	12.4	12.9
The cost of child care	22.5	20.8	22.0	24.3
Juggling multiple child care arrangements	12.1	13.4	13.0	11.7
Finding care for a difficult or special needs child	5.6	*9.7	*11.0	*11.6
Finding a place at the child care centre of your choice	17.3	18.6	21.6	21.0
Finding a child care centre in the right location	14.1	15.3	18.6	18.8
Finding care your child/children are happy with	9.1	9.8	10.0	12.0
<i>Sole parent households</i>				
Finding good quality child care	18.8	14.4	14.8	*9.3
Finding the right person to take care of your child	19.3	20.1	20.3	20.0
Getting care for the hours you need	24.0	22.1	24.5	12.3
Finding care for a sick child	41.7	46.5	39.9	40.0
Finding care during school holidays	20.5	17.8	20.2	12.3
The cost of child care	23.3	14.8	20.9	15.8
Juggling multiple child care arrangements	19.5	16.2	18.1	*15.7
Finding care for a difficult or special needs child	20.3	*24.3	*34.3	*24.3
Finding a place at the child care centre of your choice	19.8	15.1	20.7	*15.3
Finding a child care centre in the right location	16.1	13.6	17.7	*11.7
Finding care your child/children are happy with	16.5	13.0	17.0	*11.3

Notes: Population weighted results. * Estimate not reliable.

Table 7: Problems finding child care, 2001–2004 (%)

	<i>Number of years when difficulty was 8+ (0–10 scale)</i>					
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>Total</i>
Finding care for a sick child	39.7	22.4	14.2	16.3	7.4	100.0
The cost of child care	49.9	23.6	14.3	8.3	*3.9	100.0
Finding the right person to take care of your child	61.7	23.4	9.8	*3.8	*1.3	100.0
Finding a place at the child care centre of your choice	64.0	20.6	10.0	*4.8	*0.5	100.0
Finding good quality child care	67.5	18.8	8.1	*4.5	*1.1	100.0
Finding a child care centre in the right location	69.0	18.1	8.0	*3.4	*1.5	100.0
Finding care your child/children are happy with	69.9	20.0	9.3	*0.7	*0.2	100.0
Juggling multiple child care arrangements	70.0	18.6	8.7	*2.6	*0.2	100.0
Finding care during school holidays	70.3	17.8	7.6	*3.5	*0.8	100.0
Getting care for the hours you need	76.4	18.5	*3.9	*1.1	*0.0	100.0
Finding care for a difficult or special needs child	93.2	*3.7	*1.5	*1.0	*0.6	100.0

Notes: Population weighted results. * Estimate not reliable.

Concluding points

In 2004, the 'other relative' category of informal child care was divided into two categories—grandparents and other relatives, and, as expected, we found that grandparents provided a substantial amount of work related and non-work related child care for their non school age and school age grandchildren.

In 2003, we found that, with the exception of problems finding care for a sick child, most difficulties with child care did not persist for more than one year. This is still the case in 2004, with 7.4% of households saying finding care for a sick child had been a problem in all four years.

Endnotes

- 1 Using the 'Growing Up in Australia' longitudinal study of Australian children, Gray and Sanson (2005) found that, in 2004, 18% of infants (defined as under three) were regularly cared for by grandparents, typically one or two days a week, averaging 12 hours a week.
- 2 Work related child care is only while the parent (and their partner) is at work and does not include time taken to do study or other training. Child care used while the parents are doing study or other training activities is considered non-work related child care.
- 3 The person who answers the child care questions is asked whether there are any children in the household aged 14 or less who attend school. If yes, the respondent is then asked specific questions about child care for their school aged children. The respondent is then asked if there are any children who are not yet at school and if there are children who are not yet at school, a separate set of questions is asked about children who are not yet at school.
- 4 The proportion of school age children who looked after themselves did not vary much by household income. The proportion of households where a school aged child looked after themselves while the parents were working was 25.0% in the lowest quartile of equivalised household income, compared to 21.3% in the highest quartile.
- 5 The categories described as 'other relative' do not include non-resident parents. Non-resident parents are included as a separate category, but no respondents in 2004 said a non-resident parent cares for their school age child while they are at work, so the category was excluded from the table.

- 6 Possible reasons for this are that the cost of child care tends to decrease as children become older and can look after themselves. In addition, parents may find themselves only paying costs for one child instead of two or older siblings can be trusted to look after younger siblings.
- 7 13% of households who had used or considered using child care in each of the three years from 2001 to 2003 reported problems finding care for a sick child in all three years.
- 8 McNamara et al. (2005) used the HILDA Survey data to compare child care difficulties in 2002 and 2003 and found that problems were more persistent for households in capital cities, households with children under the age of 2 and households with children under the age of 15; while those who did not have to pay for child care had less persistent problems, and, as expected, sole parents and low income families had more problems with the cost of child care.
- 9 It should be noted that most of the results for two and three-year persistence are not reliable. However, in this instance we report them in order to give an indication that most child care problems do *not* persist for this length of time.
- 10 McNamara et al. (2005) found that compared to mothers who did not have difficulties with child care in 2002, it was more common for mothers who had reported problems with child care in 2002 to have reduced their working hours by 2003 or moved their children to informal child care. The HILDA Survey data show that of those mothers who were not working at the time of interview, but said they would like to work, the main reason for not looking for work is that they prefer to look after their children.

References

- Gray, M. and Sanson, A., 2005, 'Growing up in Australia: The Longitudinal Study of Australian Children', *Family Matters*, no. 72, pp. 4–9.
- Headey, B.W., Warren, D. and Harding, G., 2006, *Families, Incomes and Jobs: A Statistical Report of the HILDA Survey*, Melbourne Institute of Applied Economic and Social Research, Melbourne.
- McNamara, J., Cassells, R. and Lloyd, R., 2005, 'Persistence of problems with child care: Evidence from the HILDA Survey', Paper presented at the HILDA Survey Research Conference, Melbourne, 29–30 September, <http://www.melbourneinstitute.com/hilda/conf/conf2005/confpapers/Session4B_Families/McNamara,Justine.pdf>.

Contact between non-resident parents and their children

Although there has been very little change in the divorce rate over the past few years, 50% of couples who divorced in 2003 had at least one child under the age of 18 (ABS, 2003a).¹ How much contact do these children have with the parent who no longer lives with them, and how many non-resident parents are unhappy with the amount of contact they have with their children?

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.

In 2004, 2.7% of adults interviewed in the HILDA Survey had at least one non-resident child under the age of 18, and 5.5% had at least one child under 18 living in their household, whose other parent lived elsewhere.^{2,3} The Family Characteristics Survey (ABS, 2003b) estimated that there were 1.1 million children under the age of 18 in 2003 who had a natural parent living elsewhere. In most cases, children live with their mother when parents separate. Table 1 shows that men made up almost 90% of non-resident parents and more than 60% of these fathers had not yet repartnered.⁴

Table 1: Parents with non-resident children, 2004 (%)

<i>Status of non-resident parent</i>	
Father not repartnered	54.0
Repartnered father	34.0
Mother not repartnered	7.0
Repartnered mother	5.1
Total	100.0

Note: Population weighted results.

It is commonly believed that the amount of contact children have with a non-resident parent is slight. Table 2 shows the amount of contact non-resident parents had with their children in 2004.

The amount of contact varies considerably, with 37.1% of non-resident parents seeing their children at least once a week (6.2% daily), and 14.7% never seeing their child at all.⁵ Contact with non-resident children also varies with the gender and relationship status of the non-resident parent. More than half of non-repartnered parents see their non-resident children at least once a week, while parents who have repartnered typically see their non-resident children only about every three months.⁶ The latter group more commonly says that they never see their non-resident children—26.7% of repartnered fathers never see their non-resident children.⁷

How much time do children spend with their non-resident parents? Table 3 shows the percentage of non-resident parents whose children never stay overnight with them, the average number of overnight stays per year of children who do stay overnight with their non-resident parent, and the average number of day visits non-resident parents have with their children.⁸

Of those parents who have some contact with their non-resident children, 24.1% said that they never have their child stay overnight in their home. Fathers who have repartnered spend considerably less time with their non-resident children than fathers who did not have a partner. The average number of overnight stays for children whose father was repartnered was 50.1 per year, compared to 70.2 for children whose fathers were single, and children whose fathers had repartnered had an average of 41 day visits with their father per year, compared to 77.4 day visits for children whose fathers were not repartnered.

Parents with non-resident children were asked their opinion of the amount of contact they have

Table 2: How often parents see their non-resident children, 2004 (%)

<i>Frequency of contact with (youngest) child who lives elsewhere</i>	<i>Non-repartnered</i>		<i>Repartnered</i>	
	<i>Mother^a</i>	<i>father</i>	<i>father</i>	<i>Total</i>
At least once a week	*34.6	51.5	15.2	37.1
At least once a month	*27.9	28.3	32.2	29.6
Once every 3 months	*14.9	*5.7	*10.3	8.4
Less than every 3 months	*8.1	*7.4	*15.6	10.3
Never	*14.5	*7.1	26.7	14.7
Total	100.0	100.0	100.0	100.0
Median (typical case)	fortnightly	weekly	every 3 months	fortnightly

Notes: Population weighted results. * Estimate not reliable. ^a Non-repartnered and repartnered mothers are combined into one category because cell sizes for the two groups were all too small to be reliable.

Table 3: Number of days/nights child stays with non-resident parent, 2004

<i>Status of non-resident parent</i>	<i>Proportion of children who never stay overnight with their non-resident parent^a (%)</i>	<i>Average number of overnight stays per year (children who stay overnight with their non-resident parent)^b</i>	<i>Average number of day visits per year (children who have day visits with their non-resident parent)</i>
Mother ^c	30.8	68.5	90.0
Non-repartnered father	21.7	70.2	77.4
Repartnered father	26.2	50.1	41.0
Total	24.1	64.3	69.5

Notes: Population weighted results. ^a Percentage of non-resident children who never stay overnight with their non-resident parent excludes those who never see their parent at all. ^b The average number of day/night visits are limited to those who have day/night visits, not entire population of non-resident parents. ^c Non-repartnered and repartnered mothers are combined into one category because cell sizes were too small to be reliable when the two separate groups were used.

with their youngest non-resident child, and almost three-quarters said that the amount of contact was not enough, as shown in Table 4.

It was extremely uncommon for parents to say that the amount of contact with their non-resident children was too much. In fact, more than 40% of parents said the amount of contact with their non-resident children was nowhere near enough. Compared to fathers who had not yet repartnered, it was more common for repartnered fathers to say the amount of contact with their non-resident children was nowhere near enough.

Of course, a parent's opinion of the amount of contact with their non-resident children will depend on the amount of contact there actually is. Table 5 shows parents' opinion of the amount of contact they have with their non-resident children, broken down by the amount of contact they have.

As expected, parents who see their child on a regular basis less commonly say that the amount of contact they have is nowhere near enough, but 69.6% of parents who see their non-resident children every three months and 75.6% of parents who see their non-resident children less than every three months think it is nowhere near enough. Furthermore, a high proportion of non-resident parents who see their children at least once a month, or even weekly, said that the amount of contact with their resident child was nowhere near enough. Kelly (2004) found that 'every other weekend' visits with non-resident parents may not be the best arrangement for the welfare of many children and their parents, as for many, the 12 day wait

between visits is too long and may diminish the second parent's importance to the children.

In some cases the amount of time a child spends with his/her non-resident parent is beyond the control of the non-resident parent. It might be that the time the parent is able to spend with their child is limited as a result of a court ruling, or the non-resident parent may not be able to successfully negotiate with the resident parent to get more time with the child. For these reasons, a parent feeling that the amount of contact they have with a non-resident child is nowhere near enough could be a problem that persists for years.

In the previous HILDA Statistical Report we found that 34.5% of non-resident parents who had some contact with their children said the amount of contact was nowhere near enough in all three interviews from 2001 to 2003. Persistence of dissatisfaction with the amount of contact with non-resident children was more of a problem for parents who have repartnered, with 43.7% of repartnered fathers saying that the amount of contact they had was nowhere near enough in all three years. Table 6 shows the number of years in 2001–2004 in which non-resident parents felt that the amount of contact with their child was 'nowhere near enough'.

Over the four-year period from 2001 to 2004, 23.1% of parents with non-resident children said that the amount of contact with their non-resident child was nowhere near enough in all four years and 75.9% expressed dissatisfaction with the amount of contact with their non-resident children in at least one of the four years.

Table 4: Opinion of amount of contact with non-resident children, 2004 (%)

<i>Opinion of amount of contact with (youngest) non-resident child</i>	<i>Mother^a</i>	<i>Non-repartnered father</i>	<i>Repartnered father</i>	<i>Total</i>
Nowhere near enough	40.3	39.1	47.9	41.8
Not quite enough	*15.6	29.8	31.8	28.7
About right	*44.1	31.1	*19.7	29.3
Way too much	*0.0	*0.0	*0.6	0.2
Total	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable. ^a Non-repartnered and repartnered mothers are combined into one category because cell sizes were all too small to be reliable.

Table 5: Opinion of amount of contact with non-resident children, 2004 (%)

Opinion of amount of contact with (youngest) non-resident child	Frequency of contact with (youngest) non-resident child				Total
	At least once a week	At least once a month	Once every 3 months	Less than every 3 months	
Nowhere near enough	28.4	38.7	69.6	75.6	41.8
Not quite enough	33.1	34.6	*7.6	*13.4	28.7
About right	38.4	26.2	*22.7	*11.0	29.3
Way too much	*0.0	*0.5	*0.0	*0.0	*0.2
Total	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 6: Opinion of amount of contact with non-resident children in 2001–2004 (%)

Number of years in which amount of contact with non-resident child was 'nowhere near enough' (0–4 years)	Non-repartnered		Repartnered	
	Mother ^a	father	father	Total
0	27.3	29.2	*17.0	24.1
1	7.4	*14.1	*20.4	16.1
2	26.3	*21.3	*18.5	20.6
3	19.6	*16.6	*14.8	16.1
4	19.5	*18.9	*29.2	23.1
Total	100.0	100.0	100.0	100.0
Median (typical case)	2 years	2 years	2 years	2 years

Notes: Population weighted results. * Estimate not reliable. ^a Non-repartnered and repartnered mothers are combined into one category because cell sizes were all too small to be reliable.

Concluding points

When parents separate, the amount of time that children spend with their non-resident parent varies considerably, and parents who have repartnered spend less time, on average, with their non-resident children than parents who have not repartnered. Many parents with non-resident children believe that the amount of contact they have with their children is not enough, and for some, this problem persists for several years.

Endnotes

- 1 The number of divorces per 1,000 population was 2.7 per 1,000 in 2002 and 2003, and 2.8 per 1,000 in 1983 (ABS, 2003a).
- 2 Non-resident children are defined as children under the age of 18 who live in another household more than 50% of the time.
- 3 A small proportion (0.3%) of respondents had children living with them who had parents living elsewhere, as well as children who lived in another household.
- 4 Non-resident parents are defined as parents with children under the age of 18 who live in another household more than 50% of the time.
- 5 Smyth (2005a) examined different patterns of parent-child contact after separation and found that a sizeable proportion of contact schedules involved arrangements that were far more complex than the traditional every-other weekend approaches—some resident mothers have long periods of time with children with little room for respite and refecation and, conversely, some non-resident fathers are limited to small amounts of weekend or holiday time with their children.
- 6 Smyth (2005b) also found that little or no father-child contact is not uncommon, and that the main factors that

contributed to this situation were high levels of co-parental conflict, emotional and physical distance, new partners and relative economic disadvantage.

- 7 The percentage is similar for repartnered mothers, however, numbers are too low for results to be reliable. One possible explanation for the difference in contact with non-resident children between repartnered fathers and non-repartnered fathers is that the repartnered fathers have additional time constraints.
- 8 Non-resident parents with more than one child may spend different amounts of time with different children. The HILDA Survey asked about time with the youngest non-resident child.

References

- Australian Bureau of Statistics, 2003a, *Divorces, Australia, 2003*, ABS Catalogue No. 3307.0.55.001, Canberra.
- Australian Bureau of Statistics, 2003b, *Family Characteristics, Australia*, ABS Catalogue No. 4442.0, Canberra.
- Kelly, J., 2004, 'Child custody parenting plan options (for children of school age)', *Divorce Resolutions*, Colorado Center for Divorce Mediation, <<http://www.coloradodivorcemediation.com/family/Child-Custody-Parenting-Plans-Options.pdf>>.
- Smyth, B., 2005a, 'Time to rethink time—The experience of time with children after divorce', *Family Matters*, no. 69, pp. 32–43.
- Smyth, B., 2005b, 'Parent-child contact schedules after separation', *Family Matters*, no. 71, pp. 4–10.

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 the last HILDA Statistical Report we found that:

- *The majority of parents fell into the category of medium parenting stress.*
- *Sole parents reported higher levels of parenting stress than parents who were married or in a de facto relationship.*
- *Parents who worked full-time reported higher levels of work–family stress than parents who worked part-time.*
- *Women had higher work–family stress than men.*
- *Sole parents had higher work–family stress than parents with partners.*

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 responsi-*

bilities as a parent'. The response scale runs from 1 (strongly disagree) to 7 (strongly agree). Parents 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'*. Tables 1 and 2 show the differences in parenting stress and work–family stress for sole parents and partnered parents in 2004.

Levels of parenting stress in 2004 were slightly lower than in the previous three years. In 2004, 22% of parents reported low parenting stress, 70.2% had medium levels of parenting stress, and the remaining 7.8% had high parenting stress. The proportion of mothers with high parenting stress had fallen slightly since 2001—from 16.2% of lone mothers and 13.9% of mothers with partners in 2001 to 12.8% of lone mothers and 9.3% of partnered mothers in 2004.

Have the levels of stress associated with achieving a healthy work–family balance changed in the past four years? Table 2 compares the levels of work–family stress for parents who work full-time with those who work part-time.

Table 1: Parenting stress by gender and marital status, 2004 (%)

	Low (0–2)	Medium (3–5)	High (6–7)	Total
Lone mothers	17.8	69.5	12.8	100.0
Partnered mothers	18.8	71.9	9.3	100.0
Lone fathers	25.7	65.4	*9.0	100.0
Partnered fathers	26.1	69.3	4.5	100.0
Total	22.0	70.2	7.8	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 2: Work–family stress by gender, marital status and working hours, 2004 (%)

	Low (0–2)	Medium (3–5)	High (6–7)	Total
Employed full-time				
Lone mothers	*15.2	72.8	*11.9	100.0
Partnered mothers	18.7	74.3	7.1	100.0
Lone fathers	23.0	71.8	*5.1	100.0
Partnered fathers	20.8	74.2	4.9	100.0
Total	20.2	74.0	5.7	100.0
Employed part-time				
Lone mothers	27.4	66.8	*5.9	100.0
Partnered mothers	31.9	62.8	5.3	100.0
Lone fathers	*44.3	*42.2	*13.4	100.0
Partnered fathers	*23.7	72.3	*3.9	100.0
Total	30.8	63.8	5.5	100.0

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, 2004 (%)

<i>Age of youngest child</i>	<i>Lone mothers</i>	<i>Partnered mothers</i>	<i>Lone fathers</i>	<i>Partnered fathers</i>	<i>All</i>
0 to 5	11.9	10.6	10.9	4.7	8.3
6 to 12	*13.5	7.3	*5.8	4.5	7.0
13 to 17	*11.9	8.4	*11.4	*3.2	7.0
Total	12.6	9.2	*8.5	4.4	7.6

Notes: Population weighted results. * Estimate not reliable.

Table 4: Relationship satisfaction and parenting stress (%)

<i>Parenting stress</i>	<i>Relationship satisfaction</i>			<i>Total</i>
	<i>Low (0–3)</i>	<i>Medium (4–7)</i>	<i>High (8–10)</i>	
Men				
Low (0–2)	*5.6	13.2	81.3	100.0
Medium (3–5)	5.2	23.7	71.1	100.0
High (6–7)	*9.2	36.6	54.2	100.0
Total	5.5	21.6	72.9	100.0
Women				
Low (0–2)	*2.2	14.4	83.5	100.0
Medium (3–5)	6.7	28.2	65.1	100.0
High (6–7)	18.6	32.4	49.0	100.0
Total	7.0	26.0	67.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Relationship satisfaction and work–family stress (means)

<i>Work–family stress</i>	<i>Relationship satisfaction</i>			<i>Total</i>
	<i>Low (0–3)</i>	<i>Medium (4–7)</i>	<i>High (8–10)</i>	
Men				
Low (0–2)	*4.5	15.6	79.9	100.0
Medium (3–5)	4.9	23.3	71.7	100.0
High (6–7)	*10.7	25.9	63.4	100.0
Total	5.1	21.8	73.0	100.0
Women				
Low (0–2)	4.5	20.8	74.7	100.0
Medium (3–5)	6.1	27.5	66.3	100.0
High (6–7)	*16.0	37.1	46.9	100.0
Total	6.3	26.4	67.3	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 6: Persistence of parenting stress, 2001 to 2004 (%)

<i>Parenting stress in 2001</i>	<i>Parenting stress in 2004</i>			<i>Total</i>
	<i>Low (0–3)</i>	<i>Medium (4–7)</i>	<i>High (8–10)</i>	
Men				
Low (0–2)	51.9	44.4	*3.7	100.0
Medium (3–5)	20.2	77.1	*2.7	100.0
High (6–7)	*14.7	60.7	*24.5	100.0
Total	26.0	69.9	4.1	100.0
Women				
Low (0–2)	49.6	49.4	*1.0	100.0
Medium (3–5)	16.0	78.0	6.0	100.0
High (6–7)	*2.6	65.8	31.5	100.0
Total	18.2	72.5	9.3	100.0

Notes: Population weighted results. * Estimate not reliable.

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 5.7% in 2004. For parents who were working part-time, the proportion with high levels of work–family stress had also fallen slightly—from 6.0% in 2001 to 5.5% in 2004.

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 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.¹ However, partnered fathers with young children seemed to escape this stress, with only 4.7% reporting high levels of parenting stress, compared to 10.6% of partnered mothers, 10.9% of single fathers and 11.9% of lone mothers.

Parenting stress and relationship satisfaction

In 2003, we found that there was a negative relationship between parenting stress and relationship satisfaction for both men and women, and that work–family stress was also negatively related to relationship satisfaction, but not as strongly as parenting stress. This is still the case in 2004.² Table 4 compares the relationship satisfaction of partnered men and women according to their level of parenting stress.

It is clear from Table 4 that men and women with higher levels of parenting stress report lower levels of relationship satisfaction. More than 80% of men and women who had low levels of parenting stress gave a rating of 8 out of 10 or higher for their satisfaction with their relationship with their partner. Only 54.2% of men and 49% of women

who had high levels of parenting stress also had high levels of satisfaction with their relationship. Table 5 shows that compared to men and women with low levels of work–family stress, it is less common for people with high levels of work–family stress to report high levels of relationship satisfaction.

Only 46.9% of women with high levels of work–family stress reported high levels of relationship satisfaction, compared to 74.7% of women with low work–family stress. The difference was not as large for men—79.9% of men with low work–family stress rated their satisfaction with their relationship at 8 out of 10 or higher, and 63.4% of men who had high work–family stress had high levels of relationship satisfaction.

Persistence of family related stress, 2001–2004

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 half the people who reported high levels of parenting stress in 2001 had reduced their stress to a medium level in 2003, but only 3.9% of men and 3.1% of women managed to reduce high levels to low, and 28.6% of men and 44.6% of women who had high parenting stress in 2001 still had high levels in 2003. Table 6 compares levels of parenting stress in 2001 and 2004 for men and women who had parenting responsibilities in all four years.

Although more than 60% of the men and women who had high parenting stress in 2001 had been able to reduce their parenting stress to a medium level by 2004, very few managed to reduce high levels to low. Compared to those with high parenting stress in 2001, it was more common for men and women who had medium levels of parenting stress in 2001 to have reduced their parenting stress to low by 2004. On the other hand, 49.4% of women and 44.4% of men who had low levels of parenting stress in 2001 had medium levels

Table 7: Persistence of work–family stress, 2001 to 2004 (%)

<i>Work–family stress in 2001</i>	<i>Work–family stress in 2004</i>			<i>Total</i>
	<i>Low (0–3)</i>	<i>Medium (4–7)</i>	<i>High (8–10)</i>	
Men				
Low (0–2)	49.3	48.9	*1.8	100.0
Medium (3–5)	15.7	79.7	4.6	100.0
High (6–7)	5.6	75.1	*19.2	100.0
Total	22.5	72.4	5.1	100.0
Women				
Low (0–2)	51.4	47.6	1.1	100.0
Medium (3–5)	17.1	75.6	7.3	100.0
High (6–7)	*6.5	66.2	*27.3	100.0
Total	25.9	66.9	7.2	100.0

Notes: Population weighted results. * Estimate not reliable.

of parenting stress by 2004. Table 7 shows that changes in work–family stress between 2001 and 2004 were similar to the changes in parenting stress.

While few men and women who reported high levels of work–family stress in 2001 had been able to reduce their stress to low, 75.1% of men and 66.2% of women had lowered their level of work–family stress to medium. As with parenting stress, a high proportion of men and women who had low levels of stress in 2001 reported medium levels of work–family stress in 2004.

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 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.
- 2 The correlation between relationship satisfaction and parenting stress was -0.26 for women and -0.17 for men, and the correlation between work–family stress and relationship satisfaction was -0.15 for both men and women.

Plans, hopes and aspirations of young people

In 2004, HILDA Survey respondents aged between 15 and 29 were asked to rate (on a scale of 0 to 10, with 0 being not important at all and 10 being very important) how important various things, such as keeping fit, having lots of friends, and having children, were in their lives now and how important they expected those things to be when they were 35 years old. Table 1 shows how the importance of various aspects of life change with age for young men and women.

Table 1 shows that the most important aspects of life for people between 15 and 30 are keeping fit, having lots of friends, having a successful career, getting more education or training, and enjoying sports or other hobbies.

Importance of keeping fit

Keeping fit appears to be very important to young people. With the exception of women in their late teens, who rated getting more education as slightly more important, young people rated keeping fit as the most important thing in their lives. Given that in 2001, 30% of people aged over 15 years were classified as being overweight and 14% classified as obese according to their body mass index (ABS, 2003), it seems that young people are concerned about being overweight and are trying to do something about it. In fact, the HILDA Survey data (Table 2) show that 44.8% of young men did at least 30 minutes of moderate or intensive physical activity more than three times a week, and 82.6% exercised at least once a week. More than half the men aged 15 to 19 exercised more than three times a week. Young women exercised less often than young men, with only 26.7% of women between the ages of 15 and 29 exercising three times a week or more, and 75.5% exercising at least once a week. Despite the fact that many young people do exercise regularly, a substantial proportion, 17.4% of men and 24.5% of women, aged between 15 and 29 do not.

Importance of education and training

Getting more education and training was also considered to be important by a large proportion of 15 to 29 year olds. The importance of education and training was, on average, much the same regardless of household income, with the average importance of education ranging from 6.7 out of 10 for men in the lowest quartile of equivalised household income to 7.0 for men in the third quartile, while the average importance of getting more training ranged from 7.3 out of 10 for men in the lowest quartile of equivalised household income to 7.6 out of 10 for men in the highest quartile. This was also the case for women. The average importance of getting more education was the same (7.1 out of 10) for women in the lowest and highest quartiles of equivalised household income, and the average importance of getting more training was 7.3 out of 10 for women in the lowest income quartile and the highest income quartile.

There were, however, differences in the average importance of education and training for young men and women who were employed, compared to those who were unemployed or not in the labour force. For young men who were in paid work, the average importance of getting more education was 6.6 out of 10, compared to 7.3 out of 10 for young men who were unemployed and 7.5 out of 10 for young men who were not in the labour force. Getting more training was also more important to men who were unemployed, with an average importance of 7.7 out of 10, compared to 7.4 out of 10 for men who were employed and 7.0 for young men who were not in the labour force. The importance of getting more education and training was also higher for young women who were unemployed, with averages of 7.9 and 8.0 out of 10 respectively, compared to 6.8 out of 10 and 7.1 out of 10 respectively for women who were in paid work. Presumably this is because young men and women who are already in paid

Table 1: Things that young people value in life, by age group and gender (means)

	Age group in 2004			Expected importance at age 35 (all 15–29 year olds)
	15–19	20–24	25–29	
Men				
Having lots of friends	7.8	7.3	6.7	7.0
Making a lot of money	7.1	7.4	7.2	8.1
Getting or being married	3.0	4.5	6.4	7.6
Living with someone in a long-term relationship	3.3	5.3	7.0	8.2
Having children	1.8	3.3	5.5	7.4
Saving and investing	6.3	7.2	7.6	8.7
Getting more education	7.6	6.5	6.3	5.1
Getting more training to improve job skills	7.6	7.4	7.1	6.3
Sports and hobbies	8.0	7.6	7.3	7.2
Travelling overseas	5.1	6.0	5.4	6.5
Keeping fit	8.3	8.0	7.8	8.3
Having a successful career	7.4	7.8	7.8	8.7
Women				
Having lots of friends	7.7	6.9	6.6	6.8
Making a lot of money	6.6	6.7	6.7	7.7
Getting or being married	3.3	5.3	6.3	7.6
Living with someone in a long-term relationship	3.3	5.5	7.1	7.9
Having children	2.3	4.1	6.1	7.3
Saving and investing	6.1	7.1	7.6	8.7
Getting more education	8.0	7.1	6.1	5.5
Getting more training to improve job skills	7.4	7.2	6.7	6.6
Sports and hobbies	6.8	6.5	6.3	6.5
Travelling overseas	5.7	6.4	5.5	6.7
Keeping fit	7.8	7.8	7.6	8.1
Having a successful career	6.8	7.4	6.8	8.1

Note: Population weighted results.

Table 2: Frequency of moderate or intensive physical activity, 2004 (%)

	Age group			Total (15–29)
	15–19	20–24	25–29	
Men				
Less than once a week	14.9	17.1	21.1	17.4
1 to 3 times a week	30.6	41.2	42.8	37.7
More than 3 times a week	54.5	41.7	36.0	44.8
Total	100.0	100.0	100.0	100.0
Women				
Less than once a week	25.2	26.1	22.5	24.5
1 to 3 times a week	47.7	48.0	50.3	48.8
More than 3 times a week	27.1	25.9	27.2	26.7
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

work have completed some education or training so it is not as important to them as it is for people who are looking for work.

What will be important at the age of 35?

Table 1 also shows that long-term relationships, getting married and having children are relatively unimportant in teenage years but are expected to be much more important by age 35. This is prob-

ably due to the fact that most will not 'settle down' until at least their late twenties. The HILDA Survey data show that only 4.6% of men and 10.8% of women aged between 20 and 24 had been (or still were) married, compared to 28.3% of men and 44.3% of women aged between 25 and 29. While 17.8% of men and women in their early twenties had cohabited, this figure rose to 39.4% of men and 50.9% of women in the 25 to 29 age group.

Only 8.9% of men and women in the 20 to 24 age group had children, compared to 46.2% of women and 22.1% of men aged between 25 and 29.

However, relationships are still not expected to be as important as savings and investment or having a successful career. The importance of saving and investing was similar for men and women. Teenagers did not think it was very important, with average levels of importance just above 6 out of 10. For men and women in the 20 to 24 age group, the importance of saving and investment was higher (7.2 out of 10), and slightly higher again (7.6 out of 10) for men and women in their late twenties. The expected importance of saving and investment at the age of 35 is much higher—8.7 out of 10 for men and women. Table 3 shows that while saving and investment may not be of very high priority at the present time, a high proportion of young people are at least trying to save money.

Over 30% of young men and women saved regularly by putting money aside, 37.9% of young men and 36.8% of young women just saved whatever was left over, and a further 9.8% of young men

and 7.8% of young women said they spent their regular income and saved any other income. Just under 20% of young men and women do not save, spending about as much as their income, and a further 4.9% of young women and 4.3% of young men spend more than they earn.

However, when planning their spending and saving, relatively few young people were thinking very far into the future; 30.6% of young men and 26.6% of young women said the time period that was most important when planning their spending and saving was the next week, and 29.7% of young men and 27.3% of young women said the next few months were most important.

As expected, compared to young people who were not in the labour force and those who lived in lower income households, it was more common for young people who were employed and in households with higher incomes to save by putting money aside on a regular basis. Looking at savings habits by income quartile, 20.7% of young men and women in the lowest quartile of equivalised household income said they saved regularly

Table 3: Savings habits of young people—by age group and gender (%)

	Age group			
	15–19	20–24	25–29	Total (15–29)
Men				
Don't save: usually spend more than income	*4.0	*4.6	*4.4	4.3
Don't save: usually spend about as much as income	12.7	18.9	21.8	17.5
Save whatever is left over—no regular plan	38.6	40.5	34.1	37.9
Spend regular income, save other income	13.8	5.8	9.3	9.8
Save regularly by putting money aside	30.9	30.1	30.4	30.5
Total	100.0	100.0	100.0	100.0
Women				
Don't save: usually spend more than income	4.3	*3.3	7.4	4.9
Don't save: usually spend about as much as income	15.0	16.6	22.6	18.0
Save whatever is left over—no regular plan	39.3	38.6	32.5	36.8
Spend regular income, save other income	8.2	8.9	6.1	7.8
Save regularly by putting money aside	33.2	32.6	31.5	32.5
Total	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 4: Satisfaction with aspects of life (means)

	Men			Women		
	15–19	20–24	25–29	15–19	20–24	25–29
Your friends and friendships	8.3	8.0	7.8	8.2	8.0	7.9
Your love life	6.2	6.8	7.4	6.4	7.1	7.5
Your spare time activities	7.5	6.7	6.7	7.0	6.6	6.6
Your physical appearance	7.3	7.0	6.8	6.7	6.4	6.3
The education you have received	7.6	7.1	7.2	7.7	7.4	7.1
Your future job prospects	7.9	7.7	7.8	7.7	7.5	7.4
The amount of money you are able to save	6.0	5.5	5.7	5.7	5.4	5.4
Your current living arrangements	8.2	7.5	7.4	8.0	7.5	7.6
Overall life satisfaction	8.2	7.7	7.8	8.0	7.8	7.8

Note: Population weighted results.

by putting money aside, compared to 31.3% of young people in the second quartile, 34.3% of young people in the third quartile and 38.8% of young people who lived in households in the highest quartile of equivalised household income. Only 14.4% of young men and women who lived in households in the highest quartile of equivalised household income said they did not save (spent as much or more than they earned), compared to 34.1% of young women in the lowest quartile of equivalised household income.

Again, as expected, it was more common for young men and women who were employed to say that they saved regularly by putting money aside, 34.5% of young men and women who were in paid work at the time of their 2004 interview said they saved regularly by putting money aside, compared to 25.9% of those who were not in the labour force and 18.9% of people aged between 15 and 29 who were unemployed. It was much more common for young people who were unemployed to say they do not save at all, either spending as much or more than their income—35.2% of young men and women who were unemployed said they did not save, compared to 29.7% of young people who were not in the labour force and 16.2% of those who were in paid work.

Young people's satisfaction with various aspects of life

Young people were also asked to rate (on a scale of 0 to 10) their satisfaction with particular aspects of their lives, such as their education, appearance and future job prospects. Table 4 compares the average levels of satisfaction with these aspects of life for men and women in their late teens, early twenties and late twenties.

Overall, men and women in their late teens expressed the highest levels of satisfaction with the aspects of life listed in Table 4. The one exception is the level of satisfaction with their love life, which increased with age. People aged between 15 and 19 were particularly happy with their friends and friendships, their living arrangements and their future job prospects.

Compared to other aspects of life, young men and women were least satisfied with the amount of money they were able to save—average levels of satisfaction ranged from 5.4 out of 10 for women in their twenties to 6.0 out of 10 for men in their late teens. Given that saving and investment was rated very highly in terms of expected importance at the age of 35, it is possible that they expect their future incomes to be significantly higher than they are at the present time, allowing them to save and invest more than they are currently able to.

Conclusions

The things that young people value most in life change with age. For teenagers, keeping fit, having lots of friends, getting more education, and sports and hobbies were all very important. For men and women in their early twenties, keeping fit was still one of the most important things, but making money and having a successful career grew in priority; and while fitness and career were still important to men and women in their late twenties, getting married or living with someone in a long-term relationship had also become an important aspect of life.

Just over 30% of men and women aged between 15 and 29 said they saved regularly by putting money aside. However, when asked about their savings plans, most did not plan very far into the future at all. Many said the next week or the next few months were most important when it came to saving money.

When asked about their satisfaction with aspects of their lives, most were quite happy with their friendships, their love life and their current living arrangements, but many were dissatisfied with the amount of money they were able to save.

Reference

Australian Bureau of Statistics, 2003, *Health Risk Factors, Australia, 2001*, ABS Catalogue No. 4812.0, Canberra, <<http://www.abs.gov.au/Ausstats/abs@.nsf/0/b8b08eafca9de7b3ca256dfc0083adf?OpenDocument>>.

Transitions to adulthood: Leaving home and partnering

Gary Marks

In Australia and almost all other industrialised countries, today's young people are making the transition to adulthood at later ages than earlier generations. The popular image of young people in the 1950s and 1960s is that they moved out of the parental home as soon as they could; women were married by their early twenties and some had two or three children by age 25. Marriage was often accompanied by immediate home ownership. In contrast, the image of young people today is that they enjoy the low cost convenience of the parental home, experience a series of relationships in their twenties and do not contemplate 'settling down' until at least their late twenties.

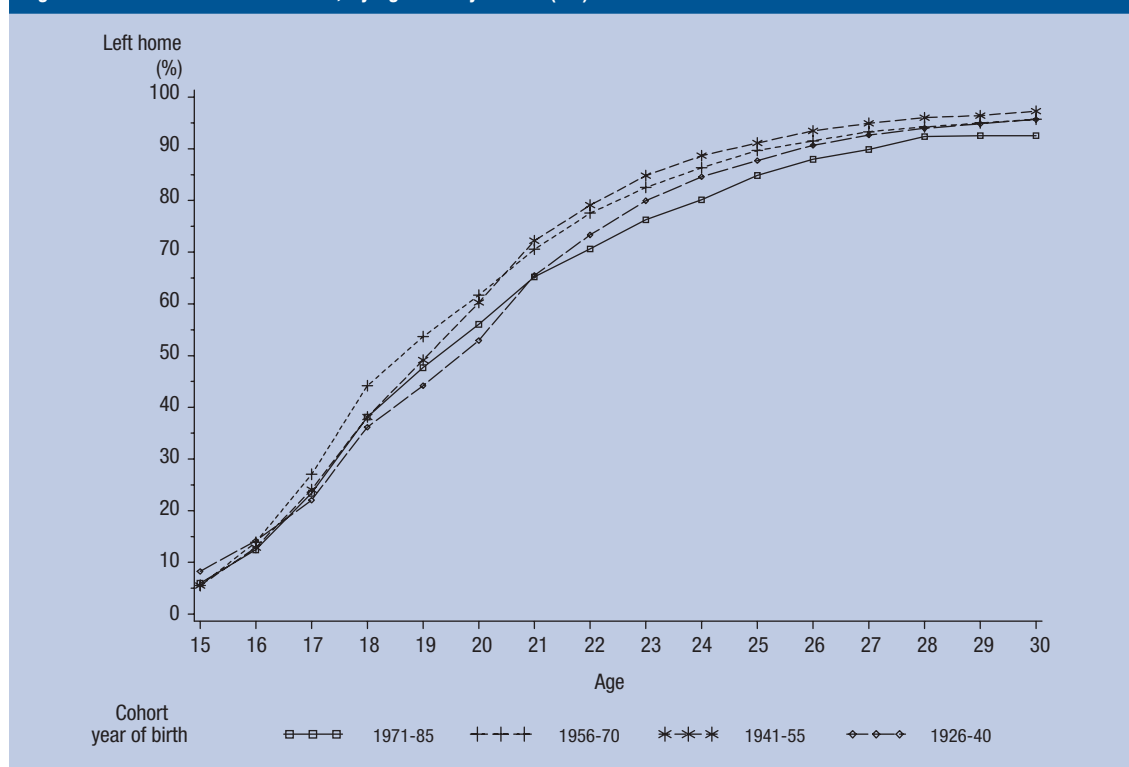
Like many stereotypes these images are only partly true. On average, young people today leave home, marry, buy a house and have children at later ages than previous generations. Furthermore, there are larger proportions not married and without children. However, most young people eventually make these transitions. By age 30 almost all young people have left home. Recent evidence from the Australian Bureau of Statistics shows that only 5% of 30 to 34 year olds are living with their parents (ABS, 2000). Of those born between 1965 and 1969, three-quarters are in registered mar-

riages (ABS, 2002). Among couples aged between 25 and 29, 46% have children (ABS, 2003). According to the 2001 Census, about a quarter of 20 to 24 years olds are homeowners, and the figure rises to over 40% among 25 to 29 year olds (ABS, 2004).

Using HILDA evidence on the age at which respondents first left home and partnered or married, we compare the age at which young people today make these transitions with data for older cohorts.

Transitions to adulthood are often associated with demographic, sociological, educational and labour market factors. It is well established that young women tend to make these transitions at younger ages than young men. The popular image is that young people living in regional and rural areas tend to marry and have children earlier than their metropolitan peers. The incidence of leaving home and partnering is also likely to differ by socioeconomic background and vary across ethnic groups. Transitions may also be affected by a variety of other factors, such as parental family size, whether parents were separated or divorced, and type of school attended.

Figure 1: First moved out of home, by age and by cohort (All)



Leaving home

To address the question ‘Are young people today much more likely to be living at home than earlier generations?’ the relationship between age and first leaving home is shown for four cohorts (Figure 1). The cohorts are defined as those born between 1971 and 1985, born between 1956 and 1970, born between 1941 and 1955 and born between 1926 and 1940.

The evidence does confirm that the most recent cohort is leaving home later than did earlier cohorts. However, among those born between 1971 and 1985 the proportion who have left home in the youngest cohort is only slightly less than the comparable proportions for older cohorts. (Those young people who had reached the age for respective data point were not included in the calculation.) This finding is consistent with ABS statistics which show that the percentage of young persons living at home in the late 1990s is not dramatically higher than the percentage in the mid-1980s.

Figure 1 gives evidence about the percentages of young people aged 15 to 30 who were not living at home (not living with a parent), together with breakdowns by demographic and social characteristics.

Table 1 shows that young people living in regional and remote areas are more likely not to be living with their parents than their metropolitan peers.¹ Approximately 60% of those living in outer regional and remote areas were not living at home compared to 53% of those living in metropolitan areas. Differences between outer-regional and metropolitan groups appear greater among young women.

Parental occupational status is weakly related to whether a young person has moved out of home. Young people whose parents’ occupations were in the highest status quartile were less likely to be not living at home. This is partly because they are more likely to be in full-time education. However, there was little difference in the proportions not living with their parents among the three other quartiles of parental occupational status.

Contrary to the image of children of immigrant families being unable or unwilling to move out of home, a non-English speaking background was in fact associated with having moved out. This difference is larger among women than men.

Over 70% of Indigenous young women aged 15 to 30 were not living at home, compared to 59% of non-Indigenous women. Among men the relationship is in the opposite direction; a lower proportion of Indigenous men had left home.

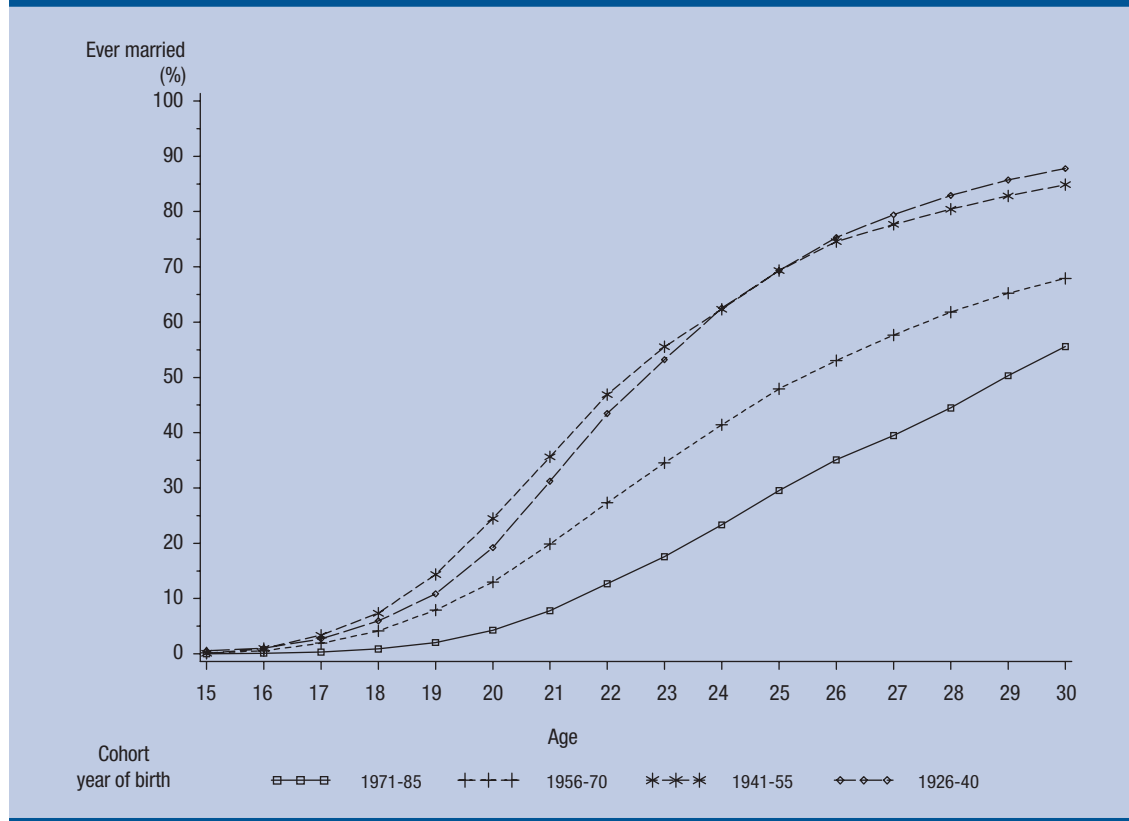
Having parents who divorced or separated appears to increase the incidence of leaving home. About 80% of those aged 15 to 30 whose

Table 1: Young people not living at home, by social characteristics and gender (%)

<i>Characteristics</i>	<i>Males</i>	<i>Females</i>	<i>All</i>
Aged 15 to 30	49	59	54
Region			
Metropolitan	49	59	54
Inner regional	47	57	52
Outer regional	51	66	58
Remote	60	59	60
Parental occupational status			
Top quartile (Score >63)	48	55	52
2nd quartile (41–63)	58	64	61
3rd quartile (31–41)	50	64	57
4th quartile (<31)	50	64	57
Language background			
English speaking	48	58	53
Non-English speaking	55	68	62
Indigenous status			
Non-Indigenous	49	59	54
Indigenous	35	72	54
Parents divorced or separated			
No	47	58	52
Yes	70	78	74
School type			
Government	51	61	56
Catholic	44	51	47
Independent	47	62	55
Full-time study			
Not presently in full-time study	62	75	69
School	3	3	3
Certificate	12	21	17
Diploma	78	45	63
Bachelor	31	42	37
Postgraduate	67	89	81
Marital status			
Legally married	100	99	99
De facto	99	98	98
Separated	91	97	95
Divorced	100	100	100
Widowed	–	100	100
Never married and not de facto	31	35	33
Labour force status			
Full-time work	68	74	70
Part-time work	32	50	43
Unemployed	46	59	51
Home duties	100	97	97
Non-working student	14	22	18
Other	25	27	26

Note: Population weighted results.

Figure 2: Married, by age and by cohort (All)



parents had divorced or separated were not living at home, compared to about 50% of those whose parents had not divorced or separated.

Young people who had attended a Catholic school were more likely to be living at home than those who had attended a government or independent school. This pattern was found for both sexes.

Among those who were not in full-time study, nearly 70% were not living at home. This contrasts with only 3% of those in school, 16% of those studying for a TAFE certificate and 34% of those in a Bachelor degree course. The proportions in full-time Diploma or Postgraduate courses who were not living at home were much higher (at 49% and 63%), but this most likely reflects the fact that they were older. Among young people who were studying, a higher proportion of young women than men were not living at home.

Of the 496 young people who were married, almost all (99%) were not living at home. A similarly high proportion (90%) of those in de facto relationships had moved out. So, as would be expected, marriage and partnering are strongly associated with not living at home. Of the very small number of young people who had separated, divorced or were widowed almost all were not living at home.

About 70% of those in full-time work were not living at home. Of those in part-time work—and this includes some students—about 40% had moved out.

Marriage and partnering

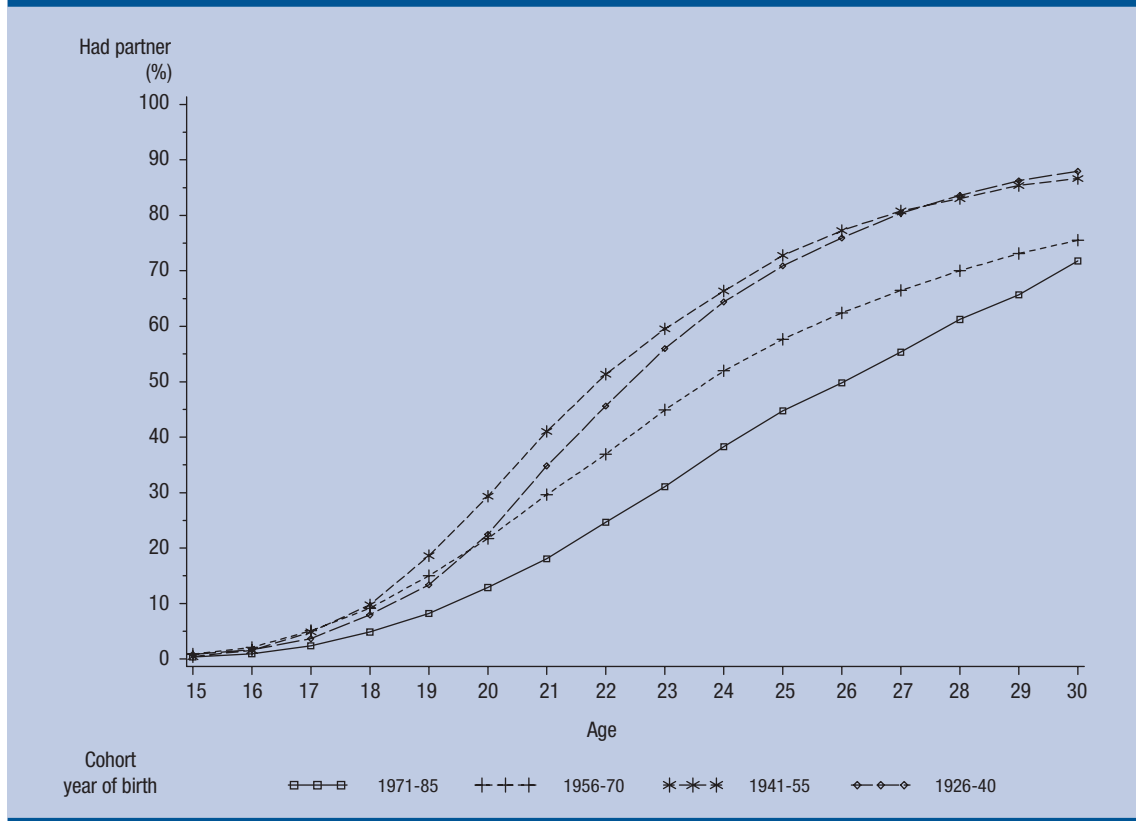
Formal marriage and even de facto partnerships are less common in younger cohorts than in older. The differences in marriage rates are very striking, the difference in rates of de facto partnering less so.

At each age between 17 and 30, the proportion of those who had 'ever married' in the youngest cohort was lower than that for the older cohorts (Figure 2). By age 25 nearly 70% of the two oldest cohorts had been married, compared to only 40% in the youngest cohort. By age 30 about 50% of the youngest cohort had married, compared to over 60% for the cohort born between 1956 and 1970, and between 70% and 80% for the two oldest cohorts.

Partnering is also somewhat less common in the younger cohorts. The two oldest cohorts show very similar patterns of partnering. By age 30 about 85% had been married or in a de facto relationship. The comparable percentage for the two youngest cohorts is about 10 percentage points less, with the youngest cohort showing the lowest incidence of partnering. The steepness of the curve towards age 30 suggests that the youngest cohort may be 'catching up' to the next youngest cohort.

Figures 2 and 3 give percentages of people aged 15 to 30 who were in de facto relationships or married. The incidence of de facto relationships is

Figure 3: Partnered, by age and by cohort (All)



lower in metropolitan areas and higher in regional and remote areas (Table 2). Of those living in outer regional and remote areas over 20% were living in a de facto relationship compared to 14% living in metropolitan areas. Differences in de facto relationships between metropolitan and both inner and outer regional areas are much greater among women than men. The percentage of young women in outer regional areas in de facto relationships is particularly high at 28%, which compares with 16% of young women living in metropolitan areas. In contrast, there are no consistent differences in the percentages married by region.

Among young women, parental occupational status relates to being in a de facto relationship. Of young women whose occupational background was in the lowest quartiles, around 22% were in de facto relationships, compared to 15% of young women from the highest socioeconomic group. However, this link with socioeconomic background was not evident for men.

The incidence of de facto relationships was very low among those whose first language was not English. Only 6% of this group were living in a de facto relationship compared to 17% of those whose first language was English. The group whose first language was not English exhibited much higher percentages married, around 23%, compared to 15% in first language English group. Among young women,

the proportion married was even higher at 31%. The lower incidence of de facto relationships, but a higher incidence of marriage, among the group whose first language was not English, probably reflects more traditional attitudes to marriage among immigrant families (see Dempsey and de Vaus, 2004).

Indigenous women were more likely to be in a de facto relationship and less likely to be married. Nearly a third of Indigenous young women were in de facto relationships compared to 18% of non-Indigenous women. In contrast, only 8% of Indigenous women were married compared to 19% of non-Indigenous women. In contrast to Indigenous women, Indigenous men are less likely to be in de facto relationships than non-Indigenous men—10% compared to 13%—but are similar to Indigenous women in regard to the relatively low incidence of marriage.

Young people who attended a government school are more likely to be in de facto relationships, but show slightly lower proportions married compared to those who attended an independent school. Surprisingly, those who attended a Catholic school exhibit the lowest percentage married and show a lower proportion in a de facto relationship than those who went to a government school.

Few young people live with their partner in a parental home. Only 4% of those in a parental

home were in de facto relationships and only 1% was married. This compares with 26% of those not living at home in de facto relationships and 28% married.

Labour force status is strongly associated with de facto relationships and marriage. Of those in full-time work, 21% were in de facto relationships and another 21% were married. The proportions of men and women who were de facto or married were much lower among part-time workers and

the unemployed. Of the young women whose main activity was home duties, 72% were married or in de facto relationships.

Discussion

Changes in marriage and de facto partnering rates have been quite dramatic since the 1960s. However, the trend towards making these transitions later in life may now have stopped. Most young people do, of course, eventually take the

Table 2: Characteristics of young people living with a spouse or partner (%)

<i>Characteristics</i>	<i>De facto</i>			<i>Married</i>		
	<i>Males</i>	<i>Females</i>	<i>All</i>	<i>Males</i>	<i>Females</i>	<i>All</i>
Aged 15 to 30	13	18	15	13	19	16
<i>Region</i>						
Metropolitan	12	16	14	12	19	16
Inner regional	14	19	16	13	17	15
Outer regional	14	28	21	14	19	17
Remote	25	24	24	14	13	14
<i>Parental occupational status</i>						
Top quartile (Score >63)	14	15	14	13	17	15
2nd quartile (41–63)	12	18	15	14	24	19
3rd quartile (31–41)	15	21	18	12	21	17
4th quartile (<31)	13	22	18	16	19	18
<i>Language background</i>						
English speaking	14	20	17	13	17	15
Non-English speaking	4	8	6	13	31	23
<i>Indigenous status</i>						
Non-Indigenous	13	18	15	13	19	16
Indigenous	10	32	21	5	8	6
<i>Parents divorced or separated</i>						
No	12	18	15	12	19	15
Yes	25	22	24	17	21	19
<i>School type</i>						
Government	14	20	17	13	19	16
Catholic	12	16	14	11	15	13
Independent	9	13	11	15	22	18
<i>Full-time study</i>						
Not presently in full-time study	17	24	20	18	26	22
School	0	0	0	0	0	0
Certificate	3	1	2	0	4	2
Diploma	14	5	10	6	4	5
Bachelor	7	8	7	2	3	2
Postgraduate	0	44	28	0	5	3
<i>Left home</i>						
No	3	5	4	1	1	1
Yes	24	27	26	25	31	28
<i>Labour force status</i>						
Full-time work	19	25	21	21	22	21
Part-time work	8	18	14	4	12	9
Unemployed	12	21	15	6	9	7
Home duties	54	21	21	26	51	50
Non-working student	2	3	2	1	3	2
Other	15	7	11	0	16	8

Note: Population weighted results.

plunge although it is likely that a higher proportion of those in younger cohorts than in older cohorts will remain unmarried at each stage of the life cycle.

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.

References

Australian Bureau of Statistics, 2000, 'Family—Family formation: Young adults living in the parental home', In *Australian Social Trends 2000*, ABS, Canberra.

Australian Bureau of Statistics, 2002, 'Family—Living arrangements: Changes across Australian generations', In *Australian Social Trends 2002*, ABS, Canberra.

Australian Bureau of Statistics, 2003, 'Family and community—Living arrangements: Changing families', In *Australian Social Trends 2003*, ABS, Canberra.

Australian Bureau of Statistics, 2004, 'Housing—Home ownership', In *Australian Social Trends 2004*, ABS, Canberra.

Dempsey, K. and de Vaus, D., 2004, 'Who cohabits in 2001? The significance of age, gender, religion and ethnicity', *Journal of Sociology*, vol. 40, no. 2, pp. 157–78.

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Introduction: Measuring incomes and income change in HILDA

The aim of this introduction is to offer readers an overview of issues relating to the measurement and analysis of income data in HILDA. The intention is to provide background information which may be useful for understanding the findings presented in Part 2 of this Report.

Measuring incomes in surveys is quite difficult both because some respondents are reluctant to disclose information and because not everyone can accurately recall all sources of income at the time of interview. The recall problem for HILDA respondents may become somewhat more serious when, after completing questions about current income, interviewers then go on to ask about income in the previous financial year, which has typically ended three to four months before interviews are conducted.

The main consequence of difficulties in collecting survey data is usually that incomes are *understated*, often by quite large margins. As HILDA technical reports indicate, this appears not to be the case for the HILDA Survey (Watson and Wooden, 2004). Why? Unlike many surveys HILDA asks in detail about all main sources of cash income, rather than just asking for an estimate of gross income before taxes. Also, HILDA interviews all household members aged 15 and over and asks each person about his/her income. Household income is then calculated by the HILDA staff as the sum of individual incomes. In most surveys one respondent in the household estimates the income of the entire household; a procedure plainly more open to error.

Components of cash income

The main components of cash income measured in HILDA are: labour income (wages, salaries and income from self-employment), asset income (business income and income from investments), private superannuation income, private transfers (e.g. child support payments) and Australian Government payments (income support payments¹, Family Tax Benefits and maternity benefits).² Respondents are not asked about the taxes they pay, since most would presumably not be able to give an accurate estimate. Instead Australian Government direct taxes (personal income tax and Medicare Levy) are calculated for each respondent by HILDA staff. In data releases supplied to HILDA users, all these separate components of income and taxation are made available. Some additional composite measures are also calculated and issued to users:

$$(1) \text{ Market income} = \text{labour income} + \text{asset income} + \text{private superannuation}$$

$$(2) \text{ Private income} = \text{market income} + \text{private transfers}$$

$$(3) \text{ Gross income} = \text{private income} + \text{Australian Government payments} + \text{foreign pensions}$$

$$(4) \text{ Disposable income} = \text{gross income} - \text{direct taxes}$$

In line with the convention adopted by the Australian Bureau of Statistics (ABS), irregular sources of income or 'windfall income' (e.g. an inheritance, gambling win or lump sum pay-out) are measured but are not included in the composite measures just described. This is because it is considered valuable to know about year-on-year 'regular' incomes. From this standpoint composite measures which included irregular or windfall components of income would be misleading.

There are a number of components of income which HILDA does not measure at all. These mainly relate to in-kind income, as distinct from cash income. So we do not ask or calculate, for example, the value of fringe benefits including vehicles supplied by employers. Nor do we calculate the imputed rental income which homeowners can be viewed as receiving due to the equity they own in their own dwellings, although HILDA data users could make their own calculations if they wished.³ Nor are Government benefits in kind measured in HILDA. So no estimate is made of, for example, the value of education, public health care and subsidised housing. Again, users could make calculations themselves, although it would be a difficult task requiring rubbery assumptions.

Measurement validity

HILDA technical reports include detailed assessments of the validity of HILDA's income measures (Watson and Wooden, 2004). Assessments of the cross-sectional validity of the data involve 'benchmarking' by making comparisons with Government sources. The main official sources are the ABS and the Australian Taxation Office (ATO) for private incomes, Centrelink for Australian Government payments and the ATO for direct taxes. All four HILDA composite measures described above benchmark satisfactorily (ABS, 2006). However, as in most surveys, Government income support payments (although not Family Tax Benefits) appear somewhat under-estimated, when matched against actual Centrelink pay-outs. Some smaller components of market income, especially business income and investment income, appear to be measured with considerable error, when matched against ATO data. Again, this appears to be a problem for all surveys (ABS, 2006).

It should be noted that the foregoing comments relate only to the cross-sectional validity of the cash income data. There are no benchmarks against which the validity of longitudinal estimates can be assessed, because HILDA itself provides the first available measures.

Imputation and weights

As is the case in all surveys, some HILDA respondents do not provide information about their entire incomes, and others just omit some components of income.⁴ This problem is addressed by *imputation*. HILDA staff impute missing income data (entire incomes and specific components) using methods described in a recent report (Goode and Watson, 2007). It should be noted that the main imputation method is intended to ensure longitudinal validity by making use of data from other survey years to provide estimates for those individuals who have missing data in any particular year (Little and Su, 1989).

The issue of sample bias and the consequent need to construct both *cross-sectional and longitudinal weights* is discussed in the main introduction to this volume. Here, specifically in relation to incomes, it may be noted that the initial HILDA sample in 2001 contained a small over-representation of individuals in higher paid occupations. The weights now issued with the HILDA data file and used in the analyses in this Report embody a 'correction' for occupational bias.

Long and short-term variability of incomes: A life cycle perspective

In the long run it is hoped that HILDA will provide estimates of long-term incomes, even *lifetime incomes*, not just current and annual (FY) incomes. In thinking about longer term measures, it is helpful to remember that the incomes of most individuals vary a lot during their lifetimes. This happens partly because the earnings of employed individuals typically rise from the time they start work until their early fifties and then trend downwards towards retirement. This life cycle pattern implies that the distribution of individual (and household) incomes is considerably more equal over entire lifetimes than the distribution of current or annual incomes.

In addition to changes over the life cycle, individuals also experience short-term fluctuations in income from year to year. These fluctuations can be due to many factors besides pay rises or pay cuts. They can be due to changes in hours worked, job losses, taking a second job, taking a long holiday or break from work, health problems and so on. At a household level, changes in income are also due to individual members entering or leaving the paid workforce (e.g. women who stop work temporarily to have a child, or return to work when their youngest child reaches school age). Income changes due to these factors

are 'real' if temporary, and they affect estimates of income mobility given in Part 2 of this Report.

It should also be understood that, alongside this 'real' change or 'real' mobility, there is some apparent change due to misreporting of incomes by respondents, or to misrecording by interviewers. This change is of course not 'real'; it is measurement error. When aggregated summary measures of mobility are calculated (as in the next article) much of this measurement error cancels out. That is, individuals or households who are incorrectly recorded as having made income gains from one time period to the next are cancelled out by those who are incorrectly recorded as having suffered income losses. However, at the extremes of the distribution this cancelling out is incomplete and some bias remains. What happens is that individuals whose income is incorrectly understated in one particular year are differentially pushed into the bottom end of the distribution, whereas individuals whose income is incorrectly overstated are differentially found at the top end. When these same individuals are re-interviewed in the following year, it is probable that their incomes will (on average) be correctly recorded.⁵

So three types of change are all going on at once: life cycle change, short-term fluctuations and apparent change due to measurement error. A combination of the second and third of these changes leads to what statistics books call 'regression-to-the-mean'. That is, the individuals at the top and bottom ends of the distribution at time one *tend* to have regressed to the mean by time two. Statistics books are sometimes misleading in implying that all and not just part of this regression-to-the-mean is measurement error.⁶ However, the part that is measurement error leads to overstatement of income mobility at the top and bottom ends of the distribution. Because the problem is well known, methods of data analysis (some used in this Report) have been developed to reduce bias. However, it is usually impossible to assess whether bias has been eliminated entirely, or even perhaps over-corrected.

The key contributions which researchers and policy-makers can make in analysing a panel survey like HILDA all relate to the measurement and explanation of individual and household change and stability. In making or reading these analyses, it is important to be aware of both the strengths and limitations of measures and methods of analysis.

Endnotes

- 1 Foreign pensions are also included in measures of gross income and disposable income.
- 2 Child care benefits are not included. In line with ABS practice, they are treated as mainly benefits in kind (not cash).
- 3 A measure of imputed rent is supplied in the HILDA component of the Cross-National Equivalent File.

- 4 Additionally, some individuals who live in households where others respond decline to give an interview. Of course they too have missing income data.
- 5 This is only an assumption. An alternative assumption would be that the same individuals persistently under-report, while other individuals persistently over-report.
- 6 It is only 'error' from the point of view of someone looking at long-term trends, who chooses to regard temporary fluctuations as 'errors' because they are deviations from a long-term trend.

References

Australian Bureau of Statistics, 2006, *Experimental Estimates of Personal Income for Small Areas: Taxation and Income Support Data 1995–96 to 2000–01*, ABS Catalogue No. 6524.0, Canberra.

Cross-National Equivalent File (CNEF) 1980–2005: BHPS-GSOEP-HILDA-PSID-SLID, Cornell University, Ithaca NY.

Goode, A. and Watson, N. (eds), 2007, *HILDA User Manual – Release 5*, Melbourne Institute of Applied Economic and Social Research, Melbourne.

Little, R.J.A. and Su, H.L., 1989, 'Item non-response in panel surveys', In Kasprzyk, D., Duncan, G.J., Kalton, G., Singh, M.P. eds, *Panel Surveys*, John Wiley, New York.

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.

Income mobility: Overview for 2001–2004

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 HILDA, 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 aggregate 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, and this could be due to a possible over-sampling of higher occupation groups.²

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

So 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 four, 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 shall divide household incomes into deciles; that is equal 10% groupings such that decile 1 is the lowest income group and decile 10 the highest income group. Four years is too short a period to gain a good understanding of income mobility; nevertheless some interesting and perhaps unexpected patterns of change are observable.

As noted in the introduction to the Incomes section of this Report, individuals or households who start at the extremes of a distribution are likely to have 'regressed' towards the mean by a later date. Some of this 'regression' is due to measurement error

which, other things equal, leads to overestimates of mobility at the extremes. The effect of placing households into deciles dampens this bias to an extent, but probably does not entirely eliminate it.³

Equivalised income—a measure of material standard of living

To give an overview of income mobility, the measure of income used is *equivalised income*. This measure is preferred because it improves on total disposable household income as a 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. Clearly, disposable income (i.e. income after taxes and transfers) is a better measure of material living standards than market or pre-government income. Also, a household with, say, four members would clearly be worse off with the same income than a single 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 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). If it had a combined income 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.

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 (see below) 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.

Overview of income mobility 2001–2004

Table 1 is a transition matrix showing what had happened by 2004 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.

A calculation based on the results along the diagonal shows that in 2004 just over a quarter of individuals remained in the same decile as in 2001. Most of those who had changed had moved up or down by just one decile. It should be noted that many changes of one decile in the middle of the distribution are based on quite small dollar changes, since large numbers of households are packed together on similar incomes in this part of the distribution.

Despite an overall picture of moderate stability, a minority registered large changes in equivalised

Table 1: What happened by 2004 to individuals starting in different equivalised income deciles in 2001? (%)

Decile in 2004	Decile in 2001									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
1st	42.5	20.3	10.9	6.2	5.1	3.9	4.1	3.4	2.1	1.6
2nd	25.9	33.6	15.2	8.9	5.5	3.6	2.5	2.0	1.2	1.6
3rd	10.8	21.8	25.8	15.9	9.5	5.5	3.7	3.3	2.3	1.4
4th	7.1	11.1	19.8	20.6	13.5	11.5	7.3	4.5	3.2	1.2
5th	3.1	5.1	10.4	17.7	26.8	13.1	8.6	6.5	5.5	3.2
6th	3.7	2.8	7.5	13.2	16.0	22.8	16.4	8.2	5.3	4.1
7th	2.3	1.8	3.9	6.4	8.9	21.8	21.0	17.2	10.8	6.0
8th	1.7	2.1	2.2	5.6	7.9	7.4	18.0	26.1	18.5	10.6
9th	1.3	0.2	1.5	3.4	8.4	7.1	13.1	21.0	28.6	19.2
10th	1.5	1.3	2.8	2.1	2.4	3.2	5.5	7.8	22.5	51.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Household gross income

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 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'.

Adjusting for inflation

Where income data are adjusted for inflation to provide estimates of 'real' income change, the Consumer Price Index issued by the Australian Bureau of Statistics (Catalogue No. 6401.0) is used. The CPI issued in May 2006 was applied.

income.⁷ Of those who started in the bottom two deciles in 2001, 9.3% were in the top half of the distribution by 2004. Conversely, among those who started in the top two deciles 11.7% were in the bottom half of the distribution by 2004.

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.

Decile 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 deciles. 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 parent households, prime age lone persons, elderly (65 and over) couples, and elderly lone person.^{8,9}

Combining three categories in Table 2 ('no change', 'up 1–2 deciles' and 'down 1–2 deciles'), it appears that the most income-stable groups were lone person (single or widowed) elderly persons, followed by lone parents and elderly couple households. Most of these households were living wholly or partly on the old age pension. Few registered very large relative losses in relative income in 2001–2004, although many fell by a decile or two, and even fewer registered relative gains.

The next most stable group, with on average very low incomes, was lone parent (over 90% lone mother) households. 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 39.1% recorded no change in their relative income position, but also with quite large sub-sets recording substantial upward and 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.

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 sole 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.

Table 2: Income mobility of six types of household, 2001–2004 (%)

<i>Change between 2001 and 2004</i>	<i>Household type</i>						
	<i>Prime age couple households, no children</i>	<i>Prime age couple households with children</i>	<i>Prime age lone parent households</i>	<i>Prime age lone person households</i>	<i>Elderly couple households</i>	<i>Elderly lone person households</i>	<i>All households</i>
Up 5–9 deciles	4.5	2.1	*0.7	3.3	1.0	*0.7	3.0
Up 3–4 deciles	6.6	7.3	7.9	5.9	3.8	2.3	6.2
Up 1–2 deciles	26.5	28.1	30.8	22.9	25.1	18.9	25.0
No change	30.7	28.1	33.5	39.1	36.5	51.9	33.8
Down 1–2 deciles	21.0	25.1	24.0	17.1	25.7	20.2	21.7
Down 3–4 deciles	7.4	6.9	*1.0	6.4	3.7	3.8	6.5
Down 5–9 deciles	3.3	2.4	*2.1	5.4	4.3	2.2	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

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 (including retirement)*
- *having more children*
- *becoming sick.*

Endnotes

- 1 In 2003–2004 the ABS conducted a new Household Expenditure survey which also collected data on household incomes and wealth.
- 2 The HILDA Survey questions on occupation are not completely identical to ABS questions, so using the ABS data as a benchmark, it is not possible to be certain that HILDA over-samples higher occupational groups, although this seems probable. In the 2004 data release occupational status was used, along with other variables, in the cross-sectional and longitudinal weights.
- 3 Analysing percentage changes in income would lead to greater bias at the extremes. On the other hand if larger quantiles (e.g. quintiles or thirds) had been used instead of deciles, the bias would be further reduced.
- 4 In principle, a measure of consumption might be preferable, but detailed consumption measures are not yet available in HILDA.

- 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 equivalent incomes and with negative private incomes are excluded from analysis. Some people genuinely have such incomes, but generally the data are unreliable.
- 7 The Pearson correlation between equivalised incomes in 2001 with 2004 was 0.59.
- 8 In couple households the male partner is deemed the reference person. In single person households the reference person is that person, and in sole parent households it is the sole 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 2001–2004. 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 group 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.

References

- Bane, M.J. and Ellwood, D.T., 1986, 'Slipping into and out of poverty: The dynamics of spells', *Journal of Human Resources*, vol. 21, pp. 1–23.
- Duncan, G.J., 1984, *Years of Poverty, Years of Plenty: The Changing Economic Fortunes of American Workers and Families*, Institute for Social Research, Ann Arbor, Michigan.
- 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.

Relative income poverty in 2001–2004: Short and medium term

For the purposes of this article, poverty is defined in terms of *low income*. However, the income poverty approach, although 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 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 and EUROSTAT, 2000), or as material deprivation/low consumption (Townsend, 1979). 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

Defining relative income 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.² Plainly, 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.

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 noted, however, that no Australian Government has ever adopted an official poverty line.

Distinguishing between short-term and medium-term relative income 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. Medium and long-term poverty are likely to have more serious negative effects on adults’ careers and children’s life prospects than short-term poverty.

Almost all previously published results in Australia describe only short-term income poverty. Annual

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.

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 equivalised income.

Table 1: Household incomes and relative poverty lines, 2001–2004

	<i>Household disposable income median</i>	<i>Equivalised income median</i>	<i>Poverty line: 50% of median equivalised income</i>	<i>Poverty line: 60% of median equivalised income</i>
2001	49,747	24,925	12,463	14,955
2002	50,898	25,503	12,752	15,302
2003	52,328	26,519	13,260	15,911
2004	55,880	28,369	14,185	17,021

Notes: Population weighted results. All figures are in current prices/wages without adjustment for inflation.

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 four years of data, HILDA is able to give some preliminary results about the persistence of poverty.

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 the previous article.

Equivalised incomes and relative poverty lines in 2001–2004

As preliminary information, Table 1 shows median household disposable incomes for 2001–2004, and also median equivalised incomes. The final two columns show poverty lines for 2001–2004 set at (i) 50% of median equivalised income and (ii) 60% of median equivalised income. All figures are given in current dollars (not inflation adjusted).³

Median household net incomes and equivalent incomes rose by about 13% in nominal terms in this period and about 5% in real terms (i.e. after adjusting for inflation). So, by definition, the poverty lines rose by the same amount; that is what is implied by using *relative* income poverty lines.

Short-term relative income poverty and poverty persistence

Table 2 gives annual rates of relative poverty in 2001–2004 and also measures of the *persistence* of poverty. The persistence measures show how many people had incomes below poverty lines in none of these years (i.e. they were zero years poor in 2001–2004), how many were poor in just one out of the four years, how many were poor in any two of the four years, how many were poor in any three years, and how many were poor in all four years.⁴

One key result revealed by the longitudinal data in Part B of Table 2 is that the poverty population is by no means stable. The moderately stable, although generally declining, annual rates (shown in Part A) may have suggested that many people remain persistently poor. But the four-year persistent poverty rates of 3.9% (for the 50% of median poverty line) and 8.7% (for the 60% poverty line) call this into question.

Table 2: Annual relative poverty rates contrasted with measures of the persistence of poverty, 2001–2004 (%)

	<i>50% poverty line (% poor)</i>	<i>60% poverty line (% poor)</i>
Part A: Annual poverty rates		
2001	13.6	20.6
2002	12.8	20.3
2003	12.3	19.6
2004	12.5	19.5
Part B: Persistence of poverty —Number of years poor in 2001–2004		
Never poor	75.3 ^a	66.1 ^a
1 year poor	11.0	12.2
2 years poor	6.1	7.0
3 years poor	3.7	6.1
All 4 years poor	3.9	8.7
Total	100.0	100.0

Notes: Population weighted results. ^a So 24.7% were poor one or more times, using the 50% line; and 33.9% were poor one or more times, if the 60% line is used.

Defining relative poverty as having an income below 50% of median, the HILDA Survey finds that 13.6% of individuals were poor in 2001, 12.8% in 2002, 12.3% in 2003 and 12.5% in 2004. If the 60% of median cut-off is used, estimated poverty rates were 20.6% for 2001, 20.3% for 2002, 19.6% for 2003 and 19.5% for 2004. 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.⁵

Clearly, the most interesting results in Table 2 relate to poverty persistence. Using the 50% of median line, just under a quarter of the population—24.7%—were poor in at least one year in 2001–2004. But ‘only’ 3.9% were poor in all four years, with another 3.7% being poor in three of these years. If the 60% poverty line is used, it transpires that 33.9% were poor in at least one year, and 8.7% were poor in all four years.

It needs to be recorded, however, that there are two reasons for believing that the estimates given here may somewhat overstate the transience of poverty. As the introduction to the Incomes section outlines, apparent changes in income at the extremes of the distribution are partly due to measurement error.⁶ Secondly, there is a problem of 'left censoring'. That is, we have no way of knowing when those people who were already poor in 2001 first became poor. Some were probably poor for several years before 2001. The effects of censoring can be estimated and the bias largely corrected when long periods of data are available. However, with just four years of data the problem cannot be addressed.

Individuals and households at greater and lesser risk of relative income poverty

Having looked at national averages, let us now consider which groups are at high risk of relative income poverty and which are at low risk. Table 3 shows poverty rates in 2001–2004 for individuals in 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, elderly couples (65 and over), elderly one person male households and elderly one person female households. From now on 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 3 that poverty rates vary widely among different types of household. Individuals in 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. However, while over a quarter of these households were income poor in 2001, the rate had fallen to 17.0% by 2004. This may have been due to substantial policy

efforts in recent years to increase workforce participation among sole parents.

A less well known result, perhaps, is that working age people living in one person households also have high poverty rates. In 2001–2004, 14% to 18% of working age men living alone were income poor, as were a slightly higher percentage of women. For most household types shown in Table 3 poverty was lower in 2004 than in 2001.

Table 4 now 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 four years are included in the analysis.

The evidence of poverty persistence shows even more clearly how the risk of poverty differs among individuals living in different types of household. Those in couple households are at low risk of four-year poverty. In 2001–2004 only 0.6% of couples with no children were income poor for all four years, and only 0.8% of those with children were in this position. By contrast, over a third of elderly people living alone were persistently poor in this period, with the situation of lone elderly women apparently being most serious.⁷ Working age men living alone had a four-year poverty rate of 9.1%, while working age women living alone had a three-year rate of 8.1%. Nearly half (46.6%) of lone mothers and their children were poor in at least one year in 2001–2004, 13.5% were poor for two years, 8.9% for three of these four years, and 3.3% for all four years. 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, 2002).

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.

Table 3: Relative income poverty rates in 2001–2004 of individuals in different types of household: 50% of median equivalent income poverty line (%)

	<i>Working age couple households, no children^a</i>	<i>Working age couple households, children</i>	<i>Working age lone male</i>	<i>Working age lone female</i>	<i>Lone mother households</i>	<i>Elderly couple households</i>	<i>Elderly lone male</i>	<i>Elderly lone female</i>
2001	5.8	6.3	18.3	18.6	26.3	28.4	53.1	58.1
2002	7.3	4.9	16.2	18.0	20.7	25.6	50.6	55.1
2003	5.3	6.3	14.1	19.3	19.5	23.3	51.1	55.7
2004	4.2	6.5	16.3	19.3	17.0	25.1	50.8	54.4

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 4: Income poverty persistence in 2001–2004 of individuals in different types of household: 50% of median equivalent income poverty line (%)

Years poor in 2001–2004	Working age couple households, no children	Working age couple households, children	Working age lone male	Working age lone female	Lone mother households	Elderly couple households	Elderly lone male	Elderly lone female
Never	87.6	88.6	70.5	77.7	53.4	52.3	29.7	27.0
1	7.4	7.2	12.0	5.4	21.0	18.2	12.2	12.9
2	3.4	2.7	4.0	4.1	13.5	10.6	10.5	11.1
3	0.9	0.6	4.4	4.7	8.9	8.8	14.1	9.9
4	0.6	0.8	9.1	8.1	3.3	10.1	33.4	39.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

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 HILDA, 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 less chance 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 2002 and then became poor in 2003. What happened to them in 2004? 54.6% were no longer poor, while 45.4% remained poor. 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 5); that is, equal groupings of 10%. In interpreting Table 5, it should be remembered that in 2001–2003 the entire first decile was poor, plus a few percent at the bottom of the second decile.

Table 5 shows that many in this group escaped poverty by moderate or even fairly large margins. 17.8% now had incomes in the top half of the national distribution, and nearly half (47.4%) were now in deciles 3, 4 or 5—quite well above the poverty line, but still below median income. However, about a third (35.0%) 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 but were in both 2002 and 2003. The ‘exit rate’ in 2004 among those who had already been poor for two years was considerably lower than the exit rate of the one-year poor discussed above; it was

Table 5: Decile position in the equivalised income distribution of individuals who were not poor in 2002, then became poor in 2003, and then became not poor again in 2004 (%)

<i>Decile position in 2004 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	35.0
3rd decile	26.8
4th decile	13.5
5th decile	7.1
Top half: deciles 6–10	17.8
Total	100.0

Note: Population weighted results.

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

<i>Decile position in 2004 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	53.2
3rd decile	14.7
4th decile	13.0
5th decile	4.4
Top half: deciles 6–10	14.8
Total	100.0

Note: Population weighted results.

Table 7: Decile position in the equivalised income distribution of individuals who were poor in 2001, 2002 and 2003, then became not poor in 2004 (%)

<i>Decile position in 2004 among those who exited poverty that year</i>	
2nd decile (but just above poverty line)	51.5
3rd decile	29.3
4th decile	6.6
5th decile	2.9
Top half: deciles 6–10	9.7
Total	100.0

Note: Population weighted results.

Table 8: Decile position in the equivalised income distribution in 2003 and 2004 of individuals who were not poor in 2001, then poor in 2002 and not poor in 2003 (%)

	<i>Decile position in 2003</i>	<i>Decile position in 2004</i>
2nd decile (but just above poverty line)	30.3	16.7
3rd decile	22.8	14.4
4th decile	14.8	10.9
5th decile	9.1	13.2
Top half: deciles 6–10	23.0	26.4
Total	100.0	100.0
<i>Note: Population weighted results.</i>		

40.6% as compared with 64.8%. Table 6 gives the 2003 incomes of the group who exited poverty in that year.

It can be seen that a majority were only just above the poverty line in 2004; 53.2% were just above the poverty threshold in the second decile of equivalised income. 32.1% were in deciles 3, 4 and 5 combined, and 14.8% had moved to the top half of the income distribution.

Next, we consider the group who had been poor for three consecutive years in 2001–2003 but who were not poor in 2004. 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 (Table 7).

In this group 51.5% were in the second decile and just above the poverty line in 2004. Another 38.8% were in deciles 3–5 and the remaining 9.7% were now in the top half of the equivalised income distribution.

Finally, we consider a fourth group who were not poor in 2001, then poor in 2002, and again not poor in 2003. If HILDA results are similar to results for other Western countries, we expect to find that these individuals are at worse than average risk of falling back into poverty in 2004. In fact 18.4% of them were poor once again in 2004, confirming that they are much more at risk than the rest of the population. Table 8 gives the decile position of these people in both the intermediate year of 2003 when they were not poor, and also in 2004 when some were poor and some not.

Compared with the groups previously portrayed in Tables 6–8, this is an intermediate group. Some escape poverty by a considerable margin in 2003 and 2004, but others appear quite likely to be moving in and out of poverty, at least for the next few years.

Child poverty: 2001–2004

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 plight 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.

This article reports evidence based on the same measures of current and persistent poverty as the previous article. Table 9 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 9 clearly show that in 2001–2004 *the persistence of child poverty was lower than national and adult poverty persistence*. Using the OECD's 50% poverty line, four-year poverty persistence among children under 15 was 1.9%, compared to a national average of 3.9%. Using the EU's 60% line, child poverty persistence was 6.3%, compared to a national average of 8.7%.

Arguably, from a public policy standpoint, annual (cross-sectional) poverty rates are less important than persistence rates. Even so, it is worth recording that annual poverty rates for children also appear to be below national average rates. In 2004, for example, the child poverty rate was 10.4%, using the 50% poverty line, and 18.8% using the 60% line. The corresponding national average figures were 12.5% and 19.5% (see previous article).

Lone mothers and their children

Children living in lone mother households in fact constitute a high percentage of all Australian children living in poverty. In 2004 about 17% of all children under 15 were in lone mother households.⁸ However, about 50% of children in poverty

Table 9: Children under 15: Annual relative income poverty rates in 2001–2004 and measures of the persistence of poverty—50% and 60% of median income poverty line

	50% poverty line (% poor)	60% poverty line (% poor)
Annual poverty rates		
2001	12.2	20.3
2002	11.1	19.9
2003	10.5	19.7
2004	10.4	18.8
Persistence of poverty —Number of years poor in 2001–2004		
Never poor	77.4	65.1
1 year poor	11.2	13.8
2 years poor	6.8	7.4
3 years poor	2.7	7.4
All 4 years poor	1.9	6.3
Total	100.0	100.0
<i>Note:</i> Population weighted results.		

were in these households, based on the OECD's 50% of median income poverty line. The figure rises to about 60% if the EU's higher poverty line is used. 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.

Discussion

Clearly, from a public policy standpoint, medium and long-term poverty matter more than short-term. 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.

Detailed simulations by the National Centre for Economic Modelling (Abello and Harding, 2004) 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. This article has extended the analysis by showing that the persistence of child poverty has also been much reduced.

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 Some observers, notably Ringen (1987) believe that all definitions of poverty are really 'relative'. Taking the best known 'absolute' definition, the official U.S. Government one, which defines households as poor if their income is less than three times the amount required to purchase an adequate diet, Ringen argues that this should be regarded at least partly as a 'relative' definition, because households who have to spend too much on food will be forced to forego a mainstream lifestyle in other respects and so will suffer social shame.
- 3 In all poverty calculations in this article people with non-positive equivalent 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.
- 4 It should be understood that describing a household as poor in a particular year does not imply that it was poor for the entire 12 months. It may have moved briefly above and below the poverty line, but was on average poor during the period.
- 5 A straightforward calculation shows that couple pensioners (living in a two person household) are above the 50% poverty line but below the 60% line. Single pensioners (living in a one person household) are below both lines.
- 6 Some researchers prefer only to describe an individual as moving out of poverty if he/she moves to 10% above the poverty line. But this may over-correct for bias and it has the odd effect of designating some individuals as 'poor' who have higher incomes in year t than individuals described as 'not poor'.
- 7 However, the results for elderly couples are hard to understand. On the face of it, all those collecting the couple age pension should have been above the 50% of median poverty line. Some may have lost part of the pension due to either the income test or the asset test.
- 8 The numbers of children in single father households in the HILDA sample in 2001–2004 was too small to yield statistically reliable results.

References

- Abello, A. and Harding, A., 2004, 'The dynamics of child poverty in Australia', Discussion Paper, no. 60, NATSEM, Canberra.
- Bane, M.J. and Ellwood, D.T., 1986, 'Slipping into and out of poverty: The dynamics of spells', *Journal of Human Resources*, vol. 21, pp. 1–23.
- Citro, C.F. and Michael, R.T., 1995, *Measuring Poverty: A New Approach*, National Academic Press, Washington D.C.
- European Commission and EUROSTAT, 2000, *European Social Statistics, Income, Poverty and Social Exclusion*, Luxembourg.

Goodin, R.E., Headey, B.W., Muffels, R. and Dirven, H.J., 1999, *The Real Worlds of Welfare Capitalism*, Cambridge University Press, Cambridge.

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

OECD, 2007, *Society at a Glance: OECD Social Indicators*, OECD, Paris.

Ringen, S., 1987, *The Possibility of Politics*, Clarendon Press, Oxford.

Sen, A., 1999, *Development and Freedom*, Anchor Books, New York.

Siminski, P., Saunders, P. and Bradbury, B., 2003, 'Data surveys: Reviewing the inter-temporal consistency of ABS household income data through comparisons with external aggregates', *Australian Economic Review*, vol. 36, pp. 333–49.

Townsend, P., 1979, *Poverty in the United Kingdom*, Penguin, Harmondsworth.

A reassessment of the relationship between poverty and life satisfaction, personal relationships, stress and health

The aim of this article is to reassess the links between poverty and life satisfaction, personal relationships, stress and health. The reassessment indicates that poverty probably has a wider range of effects, and perhaps more complicated effects, than most recent research has admitted. The main reason for differences between results here and previous research is that, using the HILDA panel data, it is feasible to develop a measure of persistent income poverty combined with low wealth which, it is believed, more accurately identifies individuals and families who suffer material deprivation; that is, *they involuntarily have a low level of consumption*.

In addressing issues about the potential effects of poverty on satisfactions, health and stress, it is essential to be aware of the possibility of two-way causation; that is, low satisfaction levels, poor health and stress could cause poverty, as well as being consequences of poverty. In the latter part of this article and the Appendix, these issues are investigated. Panel data are particularly valuable in this context, because opportunities are available to analyse change and to ask 'which came first – changes in poverty status or changes in satisfactions, health and stress?' Answers are not always conclusive, but panel data at least give us a chance to sort out issues of causal direction.

Previous research has found that income in general, and income poverty in particular, have statistically significant but only small effects on life satisfaction and some other aspects of well-being (Easterlin, 1974, 1995; Veenhoven, 1994; Argyle, 2001; Diener et al., 1999). The explanation usually given for this apparently surprising finding is that, in Western countries with welfare state programmes, income mainly impacts life satisfaction

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.

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'.

through its effects on social status (Easterlin, 1974, 1995). That is, people with higher incomes than others in the same society do feel slightly more satisfied with life, but only because they enjoy higher status. The Easterlin Paradox is that, even if everyone's income increased by the same amount—even if it was a large amount—no one would be more satisfied because status positions would be unchanged.

Social workers, welfare agencies and others who work directly with low income people have frequently expressed skepticism and dismay about research findings and interpretations which might be taken to imply that the detrimental effects of poverty mainly relate to feelings of low status (Townsend, 1979; Brotherhood of St Laurence, 2005). But the evidence seemed to run counter to their 'commonsense' viewpoint.

However, from a research standpoint it ought to be conceded that most published work on poverty in Australia and elsewhere rests on measures of poverty which are flawed. The measures deal with

relative income poverty, typically defined as an equivalised income below 50% or 60% of the national household median. Further, the measures normally used are cross-sectional; they only deal with income at one moment in time.

But these operational measures do not adequately capture what economists and others say they mean by poverty. At a conceptual level, poverty is usually defined as (involuntary) low consumption. Low consumption *is* a low material standard of living. As the British-based researcher Stein Ringen (1987) has argued, low income is only an indirect or proxy measure for low consumption. At best, income is a measure of potential standard of living or potential command over resources. Ringen (1987) has shown that in some countries there is only a weak overlap between those who, at one moment in time, have low incomes and those who have low consumption.

The practical problem which has led to reliance on income-based measures is that it is generally believed that valid measurement of consumption or household expenditures requires completion of a shopping diary of the kind used in official Household Expenditure Surveys (e.g. Australian Bureau of Statistics, 2006). Respondents usually fill in these diaries every day for at least a week, recording all purchases. Clearly, this is too time consuming and impractical for an ordinary social survey, let alone a panel survey like HILDA.

It nevertheless seems feasible to construct an improved measure of poverty, using several years of HILDA data. The underlying idea is that if an individual or a family has a low income for several years running and also a low level of financial (liquid) assets, then this is almost bound to lead to a low level of consumption. The reason for combining low assets with low income in a measure of poverty is that, if a family has a high or even moderate level of liquid assets, it may be able to ride out a period of low income without a big fall in consumption. Clearly, this is easier if the assets are liquid, rather than in the form of housing (or other non-financial assets), or in form of superannuation holdings, which normally cannot be accessed until the age of 55. It may be noted that some recent research has suggested that wealth has as much if not more impact on life satisfaction than income (Headey, Muffels and Wooden, 2005).

The aim, then, will be to assess the impact of poverty defined in terms of both income and low financial assets on life satisfaction and other outcomes related to personal and financial well-being.

Sample and measures

For present purposes, analysis is confined to prime working age people; that is, people aged 25 to 54 in 2001–2004. This is the group in their main working and family-raising years who would probably feel most deprived if they had a low material standard of living. Older people, mostly

living in retirement age households, and younger people in ‘student’ age households, may perhaps have lower expectations and almost certainly have more heterogeneous expectations.

In line with the view that poverty may be measured as a combination of persistent low income and low liquid assets, we regard an individual as persistently poor in 2001–2004 if he/she had an equivalised income which, every year, was below 60% of national median equivalised income, and was also poor in terms of liquid assets (see below). It should be noted that the 60% income poverty line is the ‘new’ European Union poverty line (European Commission and EUROSTAT, 2000). It has been used here mainly for practical reasons. To have used the 50% line in combination with a measure of low liquid assets would have yielded very small estimates of those deemed to be persistently poor, and so would have generated statistically unreliable results.

How best to measure ‘low liquid assets’ for present purposes? Caner and Wolff (2004) have recently developed novel, and potentially very valuable, measures of what they term ‘asset poverty’. Their basic idea is that a household is ‘asset poor’ if it lacks enough wealth to survive for three months in an emergency (caused by, say, ill-health or an unexpectedly large bill) with an income above a designated income poverty line. They propose several alternative measures: the one used here relates to the availability of sufficient liquid assets to remain above the poverty line for three months in emergency.

So the ‘persistently poor’ are defined here as those individuals who were income poor for four years running (2001–2004), using the 60% poverty line, *and* who were also liquid asset poor in 2002.¹ They constituted 3.3% (N = 223) of the prime age group in 2001–2004.

For comparison with the ‘poor’, we also define two other groups. ‘The well-off’ will be defined as those who in 2001–2004 had an equivalised income in the top quintile (top 20%) for all four years, who were not poor in terms of liquid assets, and were in the top quintile of overall household net worth (all assets minus all debts). They constituted 4.5% (N = 304) of the prime age population. Last, we designate a ‘middle’ group whose equivalised incomes never put them below the 60% income poverty line in 2001–2004, but who were also not poor in terms of liquid assets and not in the top quintile of household net worth. They comprised 34.8% (N = 2,354) of the prime age group.

Now the measures of life satisfaction and well-being. Life satisfaction was measured on a single item 0–10 scale, where 0 meant ‘completely dissatisfied’ and 10 meant ‘completely satisfied’. This measure is widely used in national and international social and economic surveys, including household panels like HILDA, and is regarded as

adequately reliable and valid for many purposes (Diener et al., 1999). However, it is clearly less valid than well constructed multi-item scales.

We also consider the impact of poverty on several other measures relating to well-being and stress. Satisfaction with ‘your financial situation’ and ‘your relationship with your partner’ were measured on the same 0–10 scale, and were included in batteries of questions assessing satisfaction with a wide range of different aspects of life.

‘Parenting stress’ was measured by four items asked on a 1–7 ‘strongly disagree’ to ‘strongly agree’ scale. A typical item was ‘*I feel trapped by my responsibilities as a parent*’.

General health and mental health were assessed by the SF-36 Health Survey, a well regarded survey instrument, which has been validated in many countries including Australia. It is designed to provide self-assessed health measures; that is, designed for completion by the general public (or patients) rather than health professionals (Ware, Snow and Kosinski, 2000). General health and mental health are recorded on standardised 0–100 scales, where a high score means ‘good’ health.

For presentation in tables all the well-being measures have been transformed to run from 0 to 100. So results can be interpreted as quasi-percentiles.² This arithmetic transformation does not in any way distort comparisons between groups, and avoids the confusion sometimes caused by giving results based on a variety of scales, which have differing (and arbitrary) lengths.

Life satisfaction, personal relationships and other outcomes related to health and well-being

The outcomes we are trying to account for in Table 1 are life satisfaction and other well-being outcomes in 2004. Later, we seek to account for changes in life satisfaction in 2001–2004.

Plainly, the gaps between the ‘persistently poor’, ‘middle’ and ‘well-off’ are substantial (not merely

statistically significant) on most of these measures of well-being. The most eye-catching finding is the difference in percentages who are partnered. Only 43.2% of prime age poor people—and only 40.3% of the women—were partnered, compared with 74.1% in the middle group and 82.2% in the well-off group. It appears that to be poor is to be unable to get or keep a partner. However in some cases—especially lone mothers—individuals would have become poor as a consequence of their partnership splitting up, rather than being unable to get a partner because of poverty. (Issues of two-way causation are the subject of the next section.)

The other differences between the three groups which are clearly substantial relate to satisfaction with ‘your financial situation’, to general health and mental health. The first finding may appear self-evident, but notice that the financial satisfaction of poor men is considerably lower than that of poor women, probably reflecting the fact that prime age men feel particularly humiliated by not earning a good living. The health findings gaps between the well-off and the poor may appear striking to a lay-person, although no surprise to public health researchers or medical practitioners. Again, some reverse causation is certain to be at work. In other words, not only is it the case that poverty damages physical and mental health, but also poor health can be one cause of poverty.

Differences between the poor and the well-off in satisfaction with one’s partner and in levels of parenting stress may not appear particularly large, although they are statistically significant.³ At all levels of income and wealth, women report higher levels of parenting stress than men, but the gender gap is greatest among the poor.

Much recent research in economics has focused exclusively on the relationship between income and life satisfaction as the outcome of interest. In one sense this may lead to misleading or too sweeping conclusions. Even with the revised measure of poverty used here, we find just moderate overall differences between the persistently poor,

Table 1: Impact of poverty in 2001–2004 on levels of life satisfaction, financial satisfaction, personal relationships, parenting stress and health: Prime age population (25–54)

	<i>Income poor and wealth (liquid asset) poor 2001–2004</i>			<i>Middle income and wealth poor 2001–2004</i>			<i>Top income and wealth quintile 2001–2004</i>		
	<i>Men</i>	<i>Women</i>	<i>All</i>	<i>Men</i>	<i>Women</i>	<i>All</i>	<i>Men</i>	<i>Women</i>	<i>All</i>
Life satisfaction (0–100)	67.8	75.2	72.6	77.1	78.8	77.9	81.8	81.4	81.6
Financial satisfaction (0–100)	39.5	45.5	43.4	65.5	65.8	65.7	78.6	78.2	78.4
Partnered (%)	48.6	40.3	43.2	70.8	77.5	74.1	78.7	85.3	82.2
Partner satisfaction (0–100)	73.4	78.4	76.7	81.0	76.3	78.6	84.4	79.7	81.8
Parenting stress (0–100)	38.5	48.2	45.6	38.3	45.1	41.8	34.9	42.8	38.6
General health (0–100)	50.1	57.4	55.0	71.4	72.7	72.0	76.7	78.2	77.5
Mental health (0–100)	65.9	63.8	64.5	75.7	73.9	74.8	83.4	77.7	80.3

Note: Population weighted results.

middle and well-off. The gap between the poor and the well-off for the total population is 9.0 points on the 0–100 scale. However, the gap between poor men and well-off men is 14.0 points, presumably again reflecting the distress felt by poor men who are unable to earn a good living. In the non-poor groups there is virtually no difference between the life satisfaction levels of men and women.

It is hard to know whether to regard the inter-group differences in life satisfaction reported in Table 1 as substantively significant. It should be remembered that satisfaction measures tend to bunch at the top end of the scale, with most people in most countries reporting that they are more satisfied than dissatisfied with their lives (Headey and Wearing, 1992). In some respects, it may be better just to regard the measures, not as absolute measures of satisfaction, but just as placing people in approximately correct positions *relative* to each other. If one takes this view, then it may be pointed out that a gap of 9 (quasi-) percentiles between 72.6 and 81.6 covered about 30% of respondents in 2004, and the difference of 14 points between low income and well-off men covered about 45% of the sample. So, on this view, it appears that, if poor people—and especially poor men—had been well-off, they would have moved quite a long way up the satisfaction rankings.

However, the main conclusions to be drawn from the evidence in Table 1 relate not to life satisfaction but to the other more substantial differences in well-being between the three groups. These differences are surely not just due to status. We return to this issue in the Discussion section.

Changes in life satisfaction between 2001 and 2004

Strictly speaking none of the results given so far allow one to infer that poverty causes low levels of well-being. It is possible, although some observers might say ‘not credible’, that the well-being outcomes we have been considering cause poverty and not the other way round. In other words, it is a logical possibility that *before* becoming poor the individuals concerned already had lower life satisfaction, worse partnering prospects, worse health and so forth; that is, worse than most others in Australia.

Issues of two-way causation are difficult to disentangle, but the availability of panel data gives us a chance. In reading what follows, one should be aware that results derived from efforts to sort out causal direction are rarely decisive and often appear substantively weak and barely reach statistical significance.

As an illustration, and as a challenge in view of the fact that the life satisfaction results are not the strongest in Table 1, we attempt to assess whether *changes in life satisfaction* in 2001–2004 appear to have been subsequent to and so presumptively

partly caused by changes in poverty status. Changes in life satisfaction are straightforwardly measured by subtracting each person’s life satisfaction score in 2001 from his/her score in 2004. We then compare the changes recorded by four groups of respondents (still confining analysis to prime age people)⁴:

- *those who were never poor in 2001–2004;*
- *those who were poor only in 2004, having not been poor in 2001–2003;*
- *those who were poor in 2003–2004, having not been poor in 2001–2002; combined with those who were poor in 2002–2004, having not been poor in 2001; and*
- *those were poor for all four years in 2001–2004.*⁵

What might we expect to find in comparing these four groups? In general perhaps, we might find that the longer a person was in poverty directly prior to 2004, the more his/her life satisfaction would decline during the period. There is, however, a difficulty with the group who were poor every year. It is not known when they first became poor, and, while we have already seen that their satisfaction levels were low in 2004, there is perhaps no strong reason to expect a further decline during the four-year period. After all, they were in a poor financial situation from start to finish.

The statistical method used here is regression analysis (see Appendix). In analysing change in satisfaction between 2001 and 2004, we take account of (‘control for’), initial level of satisfaction in 2001. Also controlled are a number of other variables known to be related to life satisfaction: gender, age, marital/partnership status, number of children, being unemployed, and having a long-term disability.

In discussing results, we compare the average change in life satisfaction of the last three groups (listed above) who experienced some poverty during this period, with the first group who were ‘never poor’.⁶

The evidence indicates that all three poverty groups experienced a statistically significant decline in life satisfaction. However, the expectation that the biggest declines would be associated with longer rather than shorter periods in poverty proved false. In the event, those who became poor in 2004, having not previously been poor, recorded an average decline of 6.5 points on the 0–100 scale, those who were poor for two or three years prior to 2004 recorded a decline of 3.3 points, and those who were poor for all four years fell 2.6 points.⁷

Why might the group who only became poor in 2004, having not been poor in the previous three years, have recorded the biggest fall in life satisfaction? The result is in line with what is termed the dynamic equilibrium or set point theory of life

satisfaction (Headey and Wearing, 1989; Lykken and Tellegen, 1996). This theory holds that major life events and experiences have their biggest impact on life satisfaction immediately after they occur; that is, when the shock is greatest. After that, people slowly adapt to their new situation and may become less dissatisfied, recovering all or part of the way towards their previous level of satisfaction.

Discussion

The revised measure used here indicates that poverty probably has a wide range of effects on well-being outcomes, and perhaps more complicated effects than some recent research has shown. It has to be conceded, though, that the measure is still a proxy and not a direct measure of poverty defined as involuntary low consumption. The measure cannot tell us some things we want to know—for example, the immediate impact on well-being of a sudden fall in consumption.

Recent research linking wealth and income to well-being has focused heavily on 'life satisfaction' as the outcome of interest (Veenhoven, 2003; Frijters, Haisken-DeNew and Shields, 2004; Headey, Muffels and Wooden, 2005). The evidence in this article suggests that other outcomes are affected more seriously. The evidence also indicates that it is incorrect to claim that income levels and poverty only affect well-being via their impact on a person's social status. Not having a partner, having higher levels of parenting stress, and worse levels of physical and mental health are plainly not just matters of status. They are seriously detrimental in themselves and may also be regarded as links in the chain leading from poverty to low life satisfaction.

Appendix

Table A1: The impact of poverty on changes in life satisfaction in 2001–2004: Prime age respondents (25–54)

	Change in life satisfaction 2001–2004 ^b
Poor only in 2004 ^a	-6.47***
Poor for 2 or 3 years prior to 2004 ^a	-3.29*
Poor for all 4 years ^a	-2.57*
Life satisfaction 2001	-0.56***
Female (1–0)	1.64***
Age 2001	-0.04
Age squared 2001 (divided by 10)	0.00
Partnered 2001 (1–0)	0.54
Number of children 2001	-0.24
Unemployed 2001 (1–0)	1.95*
Physical disability 2001 (1–0)	-1.28**
Constant	43.54***
R squared	0.321
N	5,240

Notes: ^a Reference group = not poor any year in 2001–2004.
^b Life satisfaction 2004 – Life satisfaction 2001. *** indicates significant at the 0.001 level, ** significant at 0.05, * significant at 0.01.

Endnotes

- 1 In relying on the 2002 measure, we are in effect assuming that relative household wealth and liquid asset positions were stable in 2001–2004. This could be seriously erroneous. Wealth may be no more stable than income. HILDA will again measure wealth in wave 6, so the stability of wealth levels will then be open to assessment.
- 2 Of course, they are not true percentages. One cannot say, for example, that someone who scores 80 on the 0–100 scale is twice as satisfied or healthy as someone who scores 40.
- 3 Significant at the 0.05 level.
- 4 Respondents not in any of these four groups are omitted from the analysis. The rationale is that if, to give an example, a person alternated between being poor and not poor in 2001–2004, no clear prediction of the change in his/her satisfaction level could be made.
- 5 These two sub-groups were combined to provide a large enough number for statistical analysis.
- 6 In the language of regression analysis, the 'never poor' group are the baseline or reference group.
- 7 The first result is significant at the 0.001 level, and the last two are significant at the 0.05 level.

References

- Argyle, M., 2001, *The Psychology of Happiness*, 2nd ed., Methuen, London.
- Australian Bureau of Statistics, 2006, *Household Expenditure Survey 2003–2004*, ABS, Canberra.
- Brotherhood of St Laurence, 2005, *The Brotherhood's Social Barometer: Monitoring Children's Chances*, BSL, Melbourne.
- Caner, A. and Wolff, E.N., 2004, 'Asset poverty in the United States, 1984–99: Evidence from the Panel Study of Income Dynamics', *Review of Income and Wealth*, vol. 50, pp. 493–518.
- Diener, E., Suh, E.M., Lucas, R.E. and Smith, H.L., 1999, 'Subjective well-being: Three decades of progress', *Psychological Bulletin*, vol. 125, pp. 276–302.
- Easterlin, R.A., 1974, 'Does economic growth improve the human lot? Some empirical evidence', In David, P.A. and Reder, M.W. eds, *Nations and Households in Economic Growth: Essays in Honour of Moses Abramowitz*, Academic Press, New York.
- Easterlin, R.A., 1995, 'Will raising the incomes of all increase the happiness of all?', *Journal of Economic Behavior and Organization*, vol. 27, pp. 35–47.
- European Commission and EUROSTAT, 2000, *European Social Statistics, Income, Poverty and Social Exclusion*, Luxembourg.
- Frijters, P., Haisken-DeNew, J.P. and Shields, M.A., 2004, 'Money does matter! Evidence from increasing real incomes and life satisfaction in East Germany following reunification', *American Economic Review*, vol. 94, pp. 730–41.

- Headey, B.W., Muffels, R. and Wooden, M., 2005, 'Money and happiness: The combined effects of wealth, income and consumption', *Schmoeller's Jahrbuch*, vol. 125, pp. 131–44.
- Headey, B.W. and Wearing, A.J., 1989, 'Personality, life events and subjective well-being: Toward a dynamic equilibrium model', *Journal of Personality and Social Psychology*, vol. 57, pp. 731–9.
- Headey, B.W. and Wearing, A.J., 1992, *Understanding Happiness: A Theory of Subjective Well-Being*, Longman Cheshire, Melbourne.
- Lykken, D. and Tellegen, A., 1996, 'Happiness is a stochastic phenomenon', *Psychological Science*, vol. 7, pp. 186–9.
- Panel Study of Income Dynamics, 1997, *Child Development Supplement*.
- Ringen, S., 1987, *The Possibility of Politics*, Clarendon Press, Oxford.
- Townsend, P., 1979, *Poverty in the United Kingdom*, Penguin, Harmondsworth.
- Veenhoven, R., 2003, *World Database of Happiness*, Erasmus University, Rotterdam.
- Ware, J.E., Snow, K.K. and Kosinski, M., 2000, *The SF-36 Health Survey: Manual and Interpretation Guide*, QualityMetric Inc, Lincoln, R.I.

Welfare reliance: Changes in 2001–2004

There has been considerable concern in Australia that increasing numbers of people are heavily dependent on income support payments. The McClure Report on welfare reform documented a sharp increase 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 mothers 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 2001–2004, 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 that the case that, even though welfare reliance has increased, the people receiving payments keep changing and that few remain recipients for long. HILDA longitudinal data enable us to address this issue directly. Previous research has mainly used administrative data which give 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 (that is, income from all sources) comes from government payments, including income support payments, family tax benefit and maternity payment.¹ This definition of welfare reliance is widely used (for example, 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 been the norm and is certainly not stigmatised.

It is important to record that a variety of checks have been made, and it is clear that the main findings of this article relating to the types of household which are more or less likely to be welfare reliant would not change if alternative reasonable definitions of welfare reliance were used.²

Welfare reliance in 2001–2004: 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 2001–2004 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).

It is clear that in the population as a whole around 19%–21% were welfare reliant in each of these four 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 19.5% in 2001 and reaching 21.3% in 2004. 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 around 6.0%–6.5%.

In line with current policy objectives, lone mother households have recorded a steady and substantial reduction in welfare reliance from 53.5% in 2001 to 41.1% in 2004. The fall has been even larger among lone mothers specifically targeted by policy—those whose children are 6 and over and hence in school. In this group the rate of welfare reliance fell from 45.6% in 2001 to 31.2% in 2004.

In retirement age households the rate of welfare reliance is unchanged at around 60%, but 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 2001–2004.

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 four in 2001–2004 were these groups welfare reliant?³ Were they never welfare reliant, reliant for one of the four years, for any two or any three years, or for all four years?

At first sight the evidence of medium-term or four-year welfare reliance looks alarming. 12.5% of Australian residents were welfare reliant for all four years in 2001–2004 and another 5.2% were reliant for three of these years. But 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—90.7% were not welfare reliant in any of these years and only 2.5% were reliant for all four years, with another 1.6% reliant for three years out of four.

So who is 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; 12.8% were four-year welfare reliant in 2001–2004. Looking at retirement age households, 51.9% were welfare reliant for all

Table 1: Welfare reliance—annual results for 2001–2004 (%)

	Individuals		Households			
	All persons	All children under 15	Couple households, reference person 25–54	All lone mother households	Lone mother households with youngest child aged 6+	Retirement age households (65+)
2001	18.9	19.5	6.3	53.5	45.6	61.0
2002	21.0	22.0	6.4	52.9	41.0	61.1
2003	20.0	19.7	6.5	50.8	40.1	59.4
2004	20.7	21.3	6.5	41.1	31.2	60.8

Note: Population weighted results.

Table 2: Persistence of welfare reliance in 2001–2004 (%)

Number of years welfare reliant (0–4)	Individuals		Households		
	All persons	All children under 15	Couple households, reference person 25–54	Lone mother households	Retirement age households (65+)
0 years	71.5	70.5	90.7	28.8	27.6
1	6.1	7.5	3.3	11.0	5.0
2	4.7	5.5	1.9	6.1	4.3
3	5.2	5.2	1.6	12.1	11.1
All four years	12.5	11.4	2.5	41.7	51.9
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

four years, and a further 11.2% were reliant for three years. Over 40% of lone mother households were welfare reliant for four years and another 12.1% for three years.

Concluding points

There is clear evidence that welfare reliance has declined among lone mother households. As the HILDA Survey continues, it will be possible to assess whether additional policy measures introduced in the 2004 and 2005 Australian Government budgets have continued to reduce reliance on income support payments, particularly medium to long-term reliance.

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 For example, the relative probability of welfare reliance for different types of households remains much the

same if welfare reliance is defined as (i) receiving more than one-third of household gross income from the State or (ii) receiving more than two-thirds.

- 3 Only individuals or households which remained in the same group or category for all four 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.

References

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.

Reference Group on Welfare Reform (Chairman: Patrick McClure), 2000, *Participation Support for a More Equitable Society*, Department of Family and Community Services, Canberra.

Income mobility at the top of the distribution

In Australia, unusually among Western countries, the incomes of the well-off are almost 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 is covered in a separate section of this Report. The focus here is on high income households and their ability or inability to retain high incomes in 2001–2004.

So the income rich 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 2004, using the 10% cut-off line, the typical (median) income rich person lived in a dual earner couple household, where the couple were both in their later forties and had tertiary education. They had a median household income before taxes and transfers of \$180,000. 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 top decile

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, how many three times, and how many managed to stay there four 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. So 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 and bequests. The only income sources omitted here are Government benefits and taxes. So 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.

At some risk of exaggeration, it might be said that it is easy to get income rich but hard to stay rich. If it was easy to stay (comparatively) rich, then close to 10% would have been at the top of the distribution in all four years. But in fact 19.2% were in the top decile of equivalised incomes at least once in 2001–2004. Only 3.6% managed to

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.

stay there every year. As might have been expected, individual labour incomes were somewhat more stable, with 14.8% making it into the top decile at least once and 5.7% 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 income rich and income poor

In contrast to results for some other Western countries, it appears that Australia's income rich are not a much less volatile group than 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 shows that, in terms of pre-government income, the income rich are somewhat more volatile than the poor.¹ The greater volatility of poverty incomes, measured on an equivalised basis, is thus clearly due to Government intervention; that is, 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 United States, 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)

Table 1: Income mobility of the richest 10%, by income 2001–2004 (%)

<i>Number of years rich in 2001–2004</i>	<i>Richest 10%: Equivalised disposable income</i>	<i>Richest 10%: Individual labour income</i>	<i>Richest 10%: Household labour income</i>	<i>Richest 10%: Household pre-government income</i>	<i>Richest 10%: Household disposable income</i>
0	80.8	85.2	81.7	81.2	80.4
1	8.5	3.9	7.4	8.5	9.4
2	4.1	2.6	3.8	3.4	4.1
3	3.0	2.6	3.2	3.0	2.2
4	3.6	5.7	3.9	3.9	4.0
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 2001–2004 (%)

<i>Number of times rich/poor in 2001–2004</i>	<i>Richest 10%: Equivalised disposable income</i>	<i>Poorest 10%: Equivalised disposable income</i>	<i>Richest 10%: Household pre-government income</i>	<i>Poorest 10%: Household pre-government income</i>
0	80.8	78.3	81.2	83.8
1	8.5	11.1	8.5	5.2
2	4.1	5.2	3.4	3.1
3	3.0	3.1	3.0	3.0
4	3.6	2.3	3.9	4.9
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

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 2004 of individuals who had been in the top decile in 2001.

It can be seen that 51.1% of those who were in the top decile in 2001 remained there in 2004, and another 19.2% were in the 9th decile. On the other hand, 9.0% 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; retired) are included. If we confine the analysis to people in their main earning period (25–54), then a slightly 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 we found that 3.9% remained in the top decile of household pre-government incomes for all four years, and 3.6% remained in the top decile of equivalised incomes. The figures for prime age people indicate only slightly less volatility: 4.0% remained in the top decile of pre-government incomes and 4.7% 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 multivariate statistical an-

Table 3: Decile position in 2004 of members of the top equivalised income decile in 2001 (%)

<i>Decile position in 2004</i>	
Top decile	51.1
9th decile	19.2
6th–8th deciles	20.7
1st–5th deciles (bottom half)	9.0
Total	100.0
<i>Note: Population weighted results.</i>	

alysis. 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. Asset incomes are much more volatile than labour incomes, 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.

References

- Burkhauser, R.V. and Poupore, J.G., 1997, 'A cross-national comparison of permanent income inequality in the US and Germany', *Review of Economics and Statistics*, vol. 79, pp. 10–17.
- Business Review Weekly*, 2004, 'Rich 200', May, pp. 20–6.

Table 4: Income mobility of the richest 10% by income 2001–2004: All prime age people and prime age household reference persons

<i>Number of times rich in 2001–2004</i>	<i>All aged 25–54, richest 10%</i>		<i>Household reference persons aged 25–54, richest 10%</i>	
	<i>Top 10%: Household pre-government income</i>	<i>Top 10%: Equivalised disposable income</i>	<i>Top 10%: Household pre-government income</i>	<i>Top 10%: Equivalised disposable income</i>
0	79.1	75.9	82.8	77.3
1	9.4	10.1	7.9	9.3
2	4.1	5.4	2.8	4.8
3	3.4	3.9	3.0	3.8
4	4.0	4.7	3.5	4.8
Total	100.0	100.0	100.0	100.0
<i>Note: Population weighted results.</i>				

Financial stress: 2001–2004

The most common approach to defining and measuring poverty is the low income approach (see previous articles). It has been suggested that an alternative approach, or one that could be combined with measures of low income in order to improve measurement of economic well-being, is to assess poverty and disadvantage by measuring 'financial stress'. For example, in recent Household Expenditure Surveys, starting in 1998–99, the Australian Bureau of Statistics has included questions about financial stress (ABS, 2001, 2006). In 1998–99 respondents were asked whether, *due to shortage of money*, they could not pay utility bills on time, had pawned or sold something, went without meals, were unable to heat their home, asked for financial help from friends or family, or asked for help from a welfare/community organisation. One purpose behind asking these questions is to see if, by combining them with income measures, it is possible to get an improved understanding of who is financially disadvantaged and why. Australian research is still at an exploratory stage. However, it is interesting to note that the Irish Government has officially adopted what it terms a 'consistent poverty' measure, which combines questions about financial deprivation with measures of low income.¹

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.

Symptoms of financial stress

In 2001–2004 HILDA asked the same six questions about financial stress as the ABS, plus a question about inability to pay the mortgage or rent on time. In what follows we first directly report results, and then consider issues relating to the

persistence of financial stress and its relation to low income. Results are given for individuals, but it should be noted that there was a high incidence of partners in couple households giving contradictory reports in answering these apparently more or less 'factual' questions. In fact, over half of couples 'disagreed' with each other in their reports of each of the financial problems listed in Table 1. Possible reasons for these contradictions are discussed in Breunig et al. (2005). Couples experiencing very severe financial hardship were somewhat less likely to disagree, but it also appears that couples can have quite different perceptions and levels of information about what is happening to them financially and what steps were taken to deal with problems.

In general, levels of financial stress appear to have fallen between 2001 and 2004. In 2001 28.2% of respondents reported one or more of the financial problems listed in Table 1 and 16.3% reported two or more problems. In 2002 these figures fell to 24.8% and 14.5% respectively, and by 2004 had fallen to 21.3% and 11.6%. It should be noted that in this period household equivalent incomes rose in real terms by about 6%, which may be one main explanation for the decline in symptoms of financial stress.

Table 1 indicates that the most commonly reported financial problem was inability to pay utility bills on time. This problem was reported by over 18.8% of respondents in 2001, 16.1% in 2002, 14.9% in 2003 and 13.8% in 2004. The second most commonly reported problem (which could alternatively be viewed as an attempt to deal with the issue) was asking for financial help from friends or family. The incidence of this fell from 16.6% in 2001 to 13.0% by 2004. The next most commonly reported problem was inability to pay the mortgage or rent on time. About 5% each year (but also declining numbers) had been obliged to pawn or sell a possession, rather fewer had asked for help from a welfare or community organisation, about 4% had gone without meals, and around 2.5%–3.5% had been unable to heat their home.

Table 1: Financial problems due to shortage of money, 2001–2004 (%)

<i>Did any of the following happen to you because of shortage of money ...</i>	2001	2002	2003	2004
Could not pay electricity, gas or telephone bills on time	18.8	16.1	14.9	13.8
Asked for financial help from friends or family	16.6	13.2	14.2	13.0
Could not pay the mortgage or rent on time	8.9	7.8	7.1	6.5
Pawned or sold something	6.5	4.9	5.1	4.3
Asked for help from welfare/community organisations	5.3	3.6	4.0	3.2
Went without meals	4.7	3.6	3.8	3.5
Was unable to heat home	3.6	2.9	2.7	2.4

Note: Population weighted results.

Table 2: Financial stress of individuals in different types of households, 2004 (%)

	<i>Prime age couple households, no children</i>	<i>Prime age couple households, with children</i>	<i>Prime age lone parent households</i>	<i>Prime age lone persons</i>	<i>Elderly couple households</i>	<i>Elderly lone persons</i>
Financial stress	11.2	22.8	52.6	29.4	5.9	10.4
No symptoms of stress	88.8	77.2	47.4	70.6	94.1	89.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 3: Ability to raise \$2,000 within a week in emergency (% , lowest quintile of household incomes)

<i>How hard it would be to raise \$2,000 in a week</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
I could easily raise the money	30.6	38.8	38.5	41.2
I could raise the money, but it would involve some sacrifices (e.g. reduced spending, selling a possession)	24.5	21.8	22.3	19.5
I would have to do something drastic to raise the money (e.g. selling an important possession)	13.9	11.6	12.7	11.5
I don't think I could raise the money	31.1	27.8	26.5	27.7
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 4: Method of raising \$2,000 emergency money (%)

<i>How would you obtain \$2,000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Use savings	57.9	59.7	57.8	59.7
Borrow from a relative who lives elsewhere	19.5	20.0	24.0	20.2
Borrow from a financial institution or use credit	17.3	16.0	17.1	14.6
Sell an asset	16.7	14.7	16.3	13.6
Use some other methods to find the money	6.7	6.0	7.7	6.4
Borrow from a friend	6.3	6.3	9.1	8.4
Borrow from a relative who lives with you	4.5	5.4	6.3	6.0

Notes: Population weighted results. Multiple responses were permitted, so results do not add to 100%.

Financial stress in different types of households

Table 2 shows the percentage of individuals in six types of household who reported one or more symptoms of financial stress in 2004: prime age (25–54) couple households with no children, prime age couple households with children, prime age lone parent households, prime age lone persons, elderly (65 and over) couples, and elderly lone persons (single or widowed).²

The results in Table 2 are only partly in line with expectations. Prime age lone parent households, primarily lone mother households, have a high incidence of income poverty and they also reported the highest incidence of financial stress. But results for some other types of household were somewhat unexpected. Objectively, single elderly people mostly have incomes, which even when equivalised, are far below the national average (see the previous article on Relative Income Poverty in 2001–2004). Elderly couples, too, do not have high incomes on average. Yet only 10.4% of elderly lone persons and 5.9% of elderly couples

reported financial stress in 2004; a lower figure than for all types of prime age household. This outcome is probably in part because elderly people mostly own their homes outright and so do not have to pay any mortgage or rent. Most do not have to bear the costs of employment (commuting, dressing appropriately for work and so on). They may also be careful budgeters.

Prime age individuals living on their own also have a high rate of financial stress; 29.4% reported one or more problems. This is partly because, as was seen in previous articles on poverty, they objectively have low incomes. They have low earned incomes and relatively restricted access to Government benefits.

Inability to raise money in an emergency

Another symptom of financial stress is inability to raise a moderate sum of money to deal with an emergency of the kind created by the need to pay an unexpected bill. Each year HILDA asks respondents how difficult it would be for them to raise \$2,000 within a week in order to deal with an

emergency. Over half the population (58.0% in 2004 for example) reported that they could 'easily' raise the money, and about another 20% (21.0% in 2004) said they could do it with 'some sacrifices'. Overall, well over two-thirds of people in the top 80% of household incomes reported that they could raise the money easily or with some sacrifices. So Table 3 focuses attention just on those in the lowest quintile (20%) of incomes.

In 2001 31.1% of the lowest income quintile reported inability to raise \$2,000, falling to 27.7% in 2004. The percentages reporting that they could 'easily raise the money' increased from 30.6% in 2001 to 41.2% in 2004. Again, the evidence of some decline in financial stress is probably due to rising real incomes during this period.

Respondents who said they could somehow raise the money were then asked how they would do it. Table 4 reports the answers of those in the lowest quintile of income.

The most common method of obtaining emergency money was to draw on savings, followed by borrowing from a relative, then borrowing from a financial institution. About 15% said they would sell an asset in order to get the money.

Persistence of financial stress

How persistent is financial stress? Do the same individuals tend to report stress every year, or do most people apparently manage to solve their financial problems?

For present purposes, individuals are regarded as 'financially stressed' if, in a given year, they reported one or more of the financial problems listed in Table 1. 8.2% of respondents reported a problem every year in 2001–2004, 16.7% reported a problem in two or three of these years, and 16.0% in just one year. 59.1% never reported a problem. So financial stress appears just moderately persistent;

somewhat more persistent than income poverty (see previous article).

It is important to record that reports of financial stress are not highly related to income poverty. 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, some of those who reported financial problems had moderate to high incomes. So it is clear that some households mainly have a budgeting or money management problem, or perhaps financial priorities to which they give greater weight than paying regular bills for housing and utilities.

Endnotes

- 1 However, the Irish measure does not just include measures of financial stress but also a list of measures of 'deprivation' relating to housing and consumer non-durables (Nolan et al., 2000).
- 2 In last year's Report, a programming error resulted in under-estimation of the incidence of financial stress in some types of household (Table 2), and also an under-estimation of the persistence of stress.

References

- Australian Bureau of Statistics, 2001, *Household Expenditure Survey, 1998–99: Summary Results*, ABS, Canberra.
- Australian Bureau of Statistics, 2006, *Household Expenditure Survey, 2003–04: Summary Results*, ABS, Canberra.
- Breunig, R., Cobb-Clark, D.A., Gong, X. and Venn, D., 2005, 'Disagreement in partners' reports of financial difficulty', IZA Discussion Paper, no. 1624, IZA, Bonn.
- Nolan, B., Maitre, B., O'Neill, D. and Sweetman, O., 2000, *The Distribution of Income in Ireland*, Oak Tree Press, Dublin.

EMPLOYMENT AND UNEMPLOYMENT/JOBLESSNESS

3

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Labour mobility and movement into and out of unemployment: 2001–2004

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). 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 by 2002, 2003 and 2004 to people who started out in different labour force status groups in 2001—the first year of the HILDA Survey.¹

It is clear from Table 1 that just under 90% of those who were employed in 2001 were employed three years later. By contrast, among those classified as unemployed, only 11.7% remained unemployed in 2004. More than 60% had found a job, and 27% had shifted to being ‘not in the labour force’ (not seeking work). Of those who were not in the labour force in 2001, 78.8% were still not seeking work three years later, 17.7% had taken a job and 3.5% were unemployed and looking for work.

Labour mobility of the prime age population

Having provided a population overview, it will be more useful to confine the remaining analysis to persons of prime working age (25 to 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, 94.8% of those who had jobs in 2001 were in work in 2004, and for women, the comparable figure was 88.2%. Of the men who had been unemployed in 2001, 58.7% were in work in 2003 and 57.9% were in work in 2004. For women who were unemployed in 2001, the proportion who were working in 2004 was 60.4%. The relatively high percentage of prime age people (25.8% of men and 31.4% of women) who moved from unemployed in 2001 to ‘not in the labour force’ in 2004 may be an indicator that there are some ‘discouraged workers’. Many people (60%) who moved from unemployed in 2001 to not in the labour force in 2004 reported a long-term health condition or disability in 2004. These people may have given up looking for work because they were no longer able to work, or not able to find a suitable job because of their health condition.

Do people find jobs with the working hours they want?

Table 2 shows that approximately half the men and women who were unemployed in 2001 were employed one year later and 58.9% of those who were looking for work in 2001 had jobs in 2004. 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.

Last year we 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 2004 of men and women who were unemployed in 2001.

Of the prime age men and women who were unemployed in 2001, 57.9% of men and 60.4% of women were employed in 2004. 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.² Only 42.3% of men who were looking for full-time work in 2001

Table 1: Labour mobility: What happened by 2004 to those aged 15 and over who were employed, unemployed or not in the labour force in 2001? (%)

	<i>Employed 2001</i>			<i>Unemployed 2001</i>			<i>Not in the labour force 2001</i>		
	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Employed	91.8	90.2	88.9	45.6	55.8	61.3	10.6	14.9	17.7
Unemployed	2.2	1.6	1.8	29.9	20.0	11.7	3.5	3.3	3.5
Not in the labour force	6.0	8.2	9.4	24.5	24.2	27.0	85.8	81.8	78.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 2: Labour mobility: What happened by 2004 to prime age people (aged 25 to 54), who were employed, unemployed or not in the labour force in 2001? (%)

	<i>Employed 2001</i>			<i>Unemployed 2001</i>			<i>Not in the labour force 2001</i>		
	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Men									
Employed	95.9	95.3	94.8	50.7	58.7	57.8	17.8	24.9	26.3
Unemployed	2.0	1.6	1.4	29.3	19.1	16.4	*7.2	*4.9	*5.0
Not in the labour force	2.1	3.1	3.8	20.0	22.3	25.8	75.0	70.2	68.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women									
Employed	91.3	87.9	88.2	46.9	56.9	60.4	17.8	24.3	32.2
Unemployed	1.7	1.0	1.5	23.6	18.2	*8.1	4.8	5.8	4.2
Not in the labour force	7.0	11.1	10.2	29.5	24.9	31.4	77.3	69.9	63.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
All persons									
Employed	93.8	92.0	91.9	49.1	57.9	58.9	17.8	24.4	31.1
Unemployed	1.9	1.3	1.4	26.9	18.7	13.1	5.4	5.6	4.4
Not in the labour force	4.3	6.7	6.7	23.9	23.4	28.0	76.8	70.0	64.6
Total	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.

were working full-time in 2004, and more than half of the men who were looking for part-time work in 2001 had left the labour force by 2004. Of the women who were unemployed in 2001, 25.3% were working full-time in 2004, 35.1% were working part-time, 31.4% had left the labour force, and the remaining 8.2% were unemployed and looking for work.

Overall, only 36.9% of men and women who were looking for full-time work in 2001 were working full-time in 2004—21.6% were in part-time work, 16.2% were unemployed and 25.2% were no longer in the labour force.

Duration of unemployment in 2001–2004

The HILDA Survey data enable us to make a preliminary assessment of the percentage of the prime working age population who are short and medium term unemployed. Table 4 shows the duration of unemployment for prime age men and women who were unemployed at the time of their 2004 interview.

For prime aged men who were unemployed in 2004, the average duration of unemployment was 3.4 years, compared to 2.5 years for women. However, more than half (56%) of the prime aged

Table 3: Labour force status in 2004 of men and women who were unemployed in 2001 (%)

	<i>Employed full-time</i>	<i>Employed part-time</i>	<i>Unemployed, looking for full-time work</i>	<i>Unemployed, looking for part-time work</i>	<i>Not in the labour force</i>	<i>Total</i>
Men						
Looking for full-time work	42.3	*18.7	*17.8	*0.0	*21.2	100.0
Looking for part-time work	*28.8	*11.0	*0.0	*8.0	*52.2	100.0
All unemployed	40.3	17.6	*15.2	*1.2	25.8	100.0
Women						
Looking for full-time work	*24.5	*28.3	*8.1	*4.3	*34.7	100.0
Looking for part-time work	*26.2	*43.3	*2.9	*0.0	*27.6	100.0
All unemployed	25.3	35.1	*5.8	*2.4	31.4	100.0
All persons						
Looking for full-time work	36.9	21.6	14.9	*1.3	25.2	100.0
Looking for part-time work	*27.0	*32.8	*2.0	*2.6	*35.6	100.0
All unemployed	34.2	24.6	11.4	1.7	28.0	100.0

Notes: Population weighted results. * Estimate not reliable.

men who were unemployed in 2004 had been unemployed for two years or more, and 27.8% had been unemployed for at least five years. Only 29.4% of unemployed prime aged women had been unemployed for two or more years, and 36.4% had been unemployed for less than six months.³

Only 2.5% of prime age men and 3.0% of prime age women were unemployed at the time of their 2004 interview, but how many had been unemployed at some time in the last four years? Table 5 shows the percentage of the prime age population who never reported being unemployed in 2001–2004, who reported it in any one year out of 2001–2004, in two of the four years, in three out of four years, and in all four years from 2001 to 2004.

Table 5 shows that 91.0% of men and women between the ages of 25 and 54 were never unemployed at the time they were interviewed from 2001 to 2004, which means that 9% were unemployed on at least one occasion; 6.8% were

unemployed in one out of four years, 1.4% were unemployed in two of the four years, and 0.8% were unemployed in three or four years.⁴

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 people not currently seeking work, 37% (46.6% of prime age men and 33.9% of prime age women) said they would like a job, and a further 6.1% answered ‘maybe’ when asked if they would like a job. Of those who said they would like to work, 22% of men and 12% of women claim they had stopped looking for work because the task appeared hopeless, (i.e. they said they lacked the necessary training, qualifications or experience; had language, reading or writing difficulties; or employers thought they were too old).⁵

Table 4: Duration of unemployment (2004), prime age persons (%)

<i>Duration of unemployment</i>	<i>Men</i>	<i>Women</i>	<i>All</i>
Less than 6 months	*19.6	36.4	28.8
6 months to < 1 year	*8.7	*19.4	14.5
1 to < 2 years	*15.7	*14.8	15.2
2 to < 5 years	28.2	*18.0	22.6
5 years or more	27.8	*11.4	18.9
Total	100.0	100.0	100.0
<i>Average unemployment duration (years)</i>	3.4	2.5	2.9

Notes: Population weighted results. * Estimate not reliable.

Table 5: Persistence of unemployment: Number of years unemployed, prime age persons 2001–2004 (%)

<i>Number of years unemployed</i>	<i>Men</i>	<i>Women</i>	<i>All</i>
0	90.3	91.6	91.0
1	7.4	6.3	6.8
2	1.3	1.5	1.4
3	*0.7	*0.6	0.6
4	*0.3	*0.1	*0.2
Total	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Endnotes

- 1 This is the labour force status at the time of interview and does not capture mobility in between interviews. The best source for accurate measurement of labour force transitions are the ABS Labour Force Surveys: see ABS (2006).
- 2 It is also possible that for some people, preferences changed since 2001.
- 3 This could be because women ‘give up’ looking for work more quickly than men. For example, 29.5% of women who were unemployed in 2001 were ‘not in the labour force’ by 2002, compared to 20% of men.
- 4 Labour force status at the time of interview—respondents could have had periods of unemployment between interviews.
- 5 The most common reason men who wanted to work gave for not looking for work was ‘own health or disability’, while 44.7% 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.

Reference

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

Workforce transitions following unemployment

David Black and Jeff Borland

Typical studies examining unemployment in Australia, which nevertheless provide some valid and policy relevant insights, have been limited by their use of cross-sectional data. It is becoming increasingly recognised that in order to develop a deeper and more comprehensive understanding of unemployment and the issues critical for effective policy design there is a need for analyses using longitudinal data.

A simple illustration of this can be seen in Tables 1 and 2 below. If we were to use each of the first four waves of HILDA as separate cross-sections of data we could produce figures in Table 1 that are merely snapshots of labour force status over the years.

However, exploiting the longitudinal nature of the HILDA data we can produce figures like Table 2 that examine the persistence of unemployment over time by looking at how often these individual respondents report being unemployed. Such analysis may enable us to conclude that, for the majority of persons who report being unemployed in any given year, this unemployment is likely to be only temporary, with 72% of persons unemployed at some stage during the four years reporting that they were unemployed only once. Table 2 also highlights that, arguably, the individuals who should be the main focus of policy design are those reporting being unemployed on more than one occasion, such as the 0.9% that reported being unemployed for three or more of the four years.

The HILDA Survey not only provides longitudinal data but it also contains a rich set of information concerning factors rarely, if ever, considered in previous Australian work on unemployment, such as: detailed characteristics of last job, methods of job search undertaken, and other factors such as an individual's self-assessed chance of finding a job within the next year.

The particular motivation of this analysis is to provide a long run perspective on the experiences of

unemployed persons, and to better understand the main influences on their obtaining and retaining employment. Therefore, we select a group of persons unemployed in the initial wave of HILDA and then follow them across the subsequent waves. This chosen group of unemployed persons, when compared to employed persons, are on average younger, have lower levels of educational attainment, are more likely to have parents who are immigrants and in low-skill occupations, more likely to be Aboriginal or Torres Strait Islanders, and more likely to have a history of unemployment. In terms of some of the extra information contained in HILDA, it is also the case that the majority of these unemployed persons had worked in the previous year, but had a relatively short job tenure (less than a year) in that previous job, were searching for any job (compared to searching for only full-time or only part-time work), cite human capital reasons (education, training, skills, experience, inadequate English, age, poor health or disability) as their main source of difficulty obtaining a job, and on average assess their chance of finding a suitable job within the next year to be about 60%.

Transitions from unemployment

Descriptive information on the employment transitions of these unemployed persons is presented in Table 3. This information provides a general overview of the likelihood that these persons will exit unemployment and their labour force destinations, as well as their likelihood of remaining in these destinations in subsequent years.¹

Between 2001 and 2002 about 33% remain unemployed, whilst 43% obtain employment and 24% exit the labour force. Movement to employment or out of the labour force is associated with relatively high probability of remaining in that state in 2003 (81% and 59% respectively), although there is still a significant proportion who return to unemployment

Table 1: Cross-sectional representations of labour force status, 2001–2004 (%)

<i>Labour force status</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Full-time employed	41.9	41.3	41.8	42.2
Part-time employed	18.6	19.7	19.5	19.9
Unemployed	4.4	3.9	3.6	3.3
Marginally attached to labour force	7.7	7.4	7.4	6.6
Not in labour force	27.4	27.7	27.7	28.0
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 2: Persistence of unemployment over time, 2001–2004 (%)

Reported incidence of unemployment	Persons unemployed at least once	
	All	
Never	90.0	–
Once	7.2	72.0
Twice	1.9	18.8
Three times	0.7	7.4
All four years	0.2	1.8
Total	100.0	100.0

Note: Population weighted results.

in 2003 (11% and 17% respectively). Consideration of 2004 outcomes also shows that for those who move from unemployment in 2001 to employment or out of the labour force in 2002, then the probability of remaining in that state increases over time (for instance, 81% of those employed in 2002 remain employed in 2003, and then 91% of these persons remain employed in 2004).

For persons who remain unemployed in 2002, we observe there is a slightly higher probability of being unemployed in 2003 (44%) compared to transition between 2001 and 2002 (33%). However, for the transition between 2003 and 2004 the effect of continued unemployment from 2001 to 2003 on probability of remaining unemployed in 2004 seems to have lessened (33%) when compared to the probability of being unemployed in 2003 following continued unemployment from 2001 to 2002 (44%).

If we take a closer look at more disaggregated labour force states over the first three years in Figure 1, we can gain further insights. First, a larger proportion of unemployed persons move to full-time rather than part-time employment between 2001 and 2002 (24% compared to 19%), and a larger proportion move to being marginally attached (M.A.) than not in the labour force (NILF) (16% compared to 8%).² Secondly, examining tran-

sitions between 2002 and 2003, it transpires that there is a low transition rate between labour force states for those full-time employed, whereas for part-time employed in 2002 less than 50% remain in that state in 2003—with 26% moving to full-time employment, but 15% moving back to unemployment (which is almost double the extent of movement back to unemployment for those full-time employed in 2002). Finally, persons that move to ‘not in the labour force’ in 2002 predominantly remain in that state or shift to being marginally attached in 2003, whereas persons that shift to being marginally attached in 2002 have roughly a 50% chance of returning to the labour force in 2003.

Several further insights of this type can be drawn from Table 3 and Figure 1. However the key observation that should be acknowledged is that there is considerable movement between labour force states over these four years.

Determinants of obtaining employment

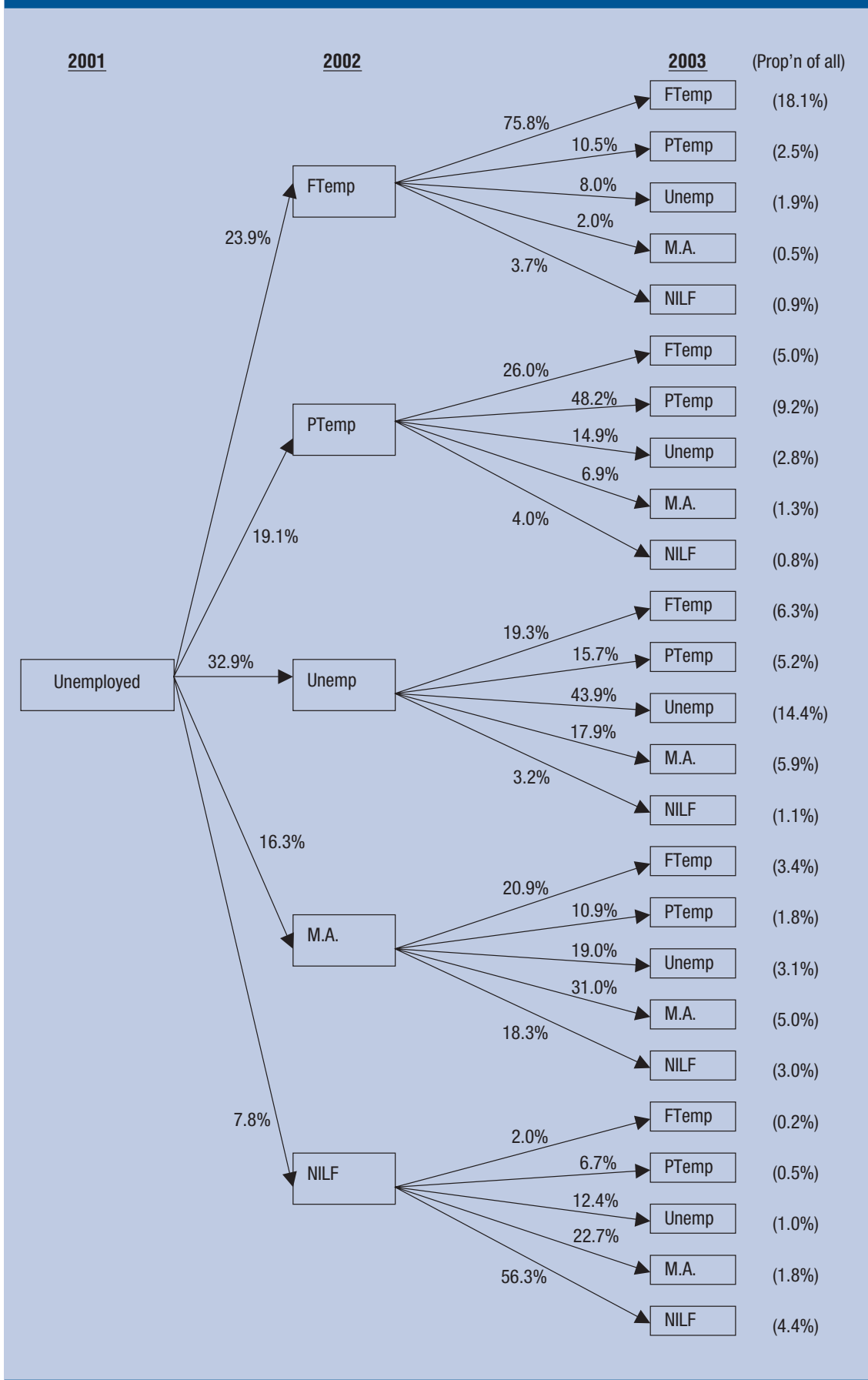
In examining the determinants of obtaining employment we conduct a multivariate analysis (or probit model) for the probability of a person unemployed in 2001 shifting to employment in 2002, where we control for factors such as gender, age, education, labour force history, job search methods, and details of last job. We find that variables significant in explaining the transition to employment are: persons who have worked in previous six months are more likely to move to employment than those who had only worked in the previous two to five years; persons who believe that labour market conditions are their main source of difficulty in obtaining a job are less likely to move to employment; persons receiving unemployment benefits (and, even more so, other types of income support payment) are less likely to move to employment; and those with relatively short job tenure in their last job are less likely to move to employment. We also find that further factors negatively related to shifting to employment

Table 3: Employment status transitions of working-age persons unemployed in 2001 (%)

2001	2002	2003	2004			
			Employed	Unemployed	NILF	
Unemployed	Employed	Employed	81.0	91.6	1.4	7.0
		Unemployed	11.1	46.9	48.1	5.1
		NILF	8.0	25.6	6.0	68.4
	Unemployed	Employed	35.0	88.6	6.2	5.2
		Unemployed	43.9	45.4	32.7	21.9
		NILF	21.1	16.6	25.2	58.2
	NILF	Employed	24.3	65.1	19.4	15.6
		Unemployed	16.9	0.0	28.0	72.1
		NILF	58.9	15.6	0.0	84.4

Note: Population weighted results.

Figure 1: Employment status transitions—persons unemployed in wave 1



are: being aged 55–64; being an immigrant from a non-English speaking background; having a low level of education; and the last job being an unskilled occupation.

For those persons that do manage to obtain employment we can compare the characteristics of their job to those of all employed persons in 2002. We observe that persons that move from unemployment to employment are more likely to obtain jobs that are part-time, and are less likely to involve working at home. Also, the jobs obtained are more likely to be casual, have a lower average hourly wage rate, and are less often in the private sector with a small employer. Finally, unemployed persons are less likely to find employment in a skilled or professional occupation, but are more likely to find employment in unskilled occupations. They assess themselves as having a higher chance of losing their job within the next 12 months than do other employed people.

After finding a job

Once people who were unemployed obtain a job the challenge then becomes remaining in work. To consider the factors associated with this challenge we conduct a multivariate estimation (a probit model) of the probability of retaining employment in 2003 for those who were unemployed in 2001 and then obtained a job in 2002. We find that remaining employed is significantly negatively related to being an immigrant from an English speaking background the percentage of time spent unemployed since leaving school or full-time education, and having been in receipt of unemployment benefits. Individuals who had worked in the previous six years and whose job had lasted for 10 years or longer are more likely to remain employed than those who had not worked or who had fewer years of tenure in their last job. Also, obtaining a full-time job in 2002 increases the likelihood of remaining employed, but being self-employed, in a private sector job, or working on a fixed term contract make remaining employed in 2002 less likely.

An alternative vantage point from which to consider this issue is to examine whether there are benefits (in terms of 2003 employment status and job characteristics) to being employed in 2002, compared to not being employed at that time. We specifically focus on whether there is any benefit in obtaining part-time or casual jobs in 2002 to establish whether these jobs, which are often considered 'low-quality', are actually beneficial for future employment. We find there to be a much higher probability of employment in 2003 for persons that were in part-time or casual employment in 2002 (about 75% compared to just over 30% for those not employed in 2002). Interestingly, there

do not appear to be significant differences in the types of jobs between the two groups for those who were employed in 2003, with average wages, work schedules and hours of work all fairly similar. However, persons not employed in 2002 appear somewhat more likely to be working in casual and unskilled occupations in manufacturing and retail trade industries in 2003, and less likely to be working for a private sector organisation.

Casual jobs

Casual employment means the absence of entitlement to both paid annual leave and paid sick leave.

Continued unemployment

A final interesting consideration is how individual perceptions and behaviours change in the wake of continued unemployment across the years. Surprisingly, we find that on average reservation wages (i.e. the wage at which respondents say they would be willing to take a job) and self-assessed chances of obtaining a suitable job within a year both increase. In trying to explain this finding with hindsight, we observe that there is a high degree of variation in respondents' answers and that some unemployed people with lower skills, lower reservation wages and lower self-assessed job prospects *may* have become discouraged and taken themselves out of the job market (becoming NILF). We also find there to be a high degree of change in job search strategies, with around 50% of persons who had previously been searching for either only full-time or only part-time work now searching for any work. (Conversely, 30% of those previously searching for any work had switched to searching for either only full-time or only part-time jobs.) Also, the proportion of persons using job search methods considered more 'active' (applying to employers, answering job advertisements, advertising for work) had increased, whilst use of 'passive' methods (checking noticeboards or touchscreens at Centrelink, looking in newspapers but not answering any advertisements) had decreased.

Endnotes

- 1 When making comparisons of transitions from 2001 to 2002 and 2002 to 2003, and so on, it is important to realise that the effects of unemployment duration (such as psychological scarring or stigma effects from extended unemployment spells) are being confounded with year effects (such as macroeconomic conditions).
- 2 A person not in the labour force is considered marginally attached if they (i) want to work and are actively looking for work, but not available to start work in reference week, or (ii) want to work and are not actively looking for work, but are available to start within four weeks of the reference week.

Jobless households 2001–2004: Characteristics and persistence

Research initiated by Professor Bob Gregory and Boyd Hunter of Australian National University and Professor Peter Dawkins of Melbourne Institute has shown that the distribution of work in Australia has become more unequal, and this 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.

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.

To date, all evidence on jobless households has been cross-sectional; evidence collected at one moment in time. Clearly, even short-term joblessness is a concern, but medium to long-term joblessness is a more serious policy issue, because of the implications for a family’s long-term income, wealth, health 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).

In this article a jobless household is defined as one in which no one was in work for more than 26 weeks (half the year) in the last financial year.¹ Clearly, other definitions are possible. If we said that *any* paid work done by a household member during the year would lead the whole household 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.

HILDA has now been running for four years and provides the first Australian data on 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 2001–2004. 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 2001–2004 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 the entire working age population defined as people aged 15–64. This is tenuous because some retired people and full-time students are included, so the figures are bound to show a high joblessness rate (e.g. Saunders, 2004). 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 65. The expectation would be that most of these people would be in households which had work.

If the focus is the entire population, then the joblessness rate looks alarmingly high and stable. Between 21.5% and 23.2% were in jobless households each year and 15.8% were jobless in all four years.² But focusing on people below retirement age, Table 1 shows that the numbers in jobless households have declined from 11.4% in 2001 to 10.4% in 2004. 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 16.4% were in a jobless household for one or more years (i.e. 100% minus 83.6%), ‘only’ 3.8% were in this situation for all four years. A further 3.1% were jobless for three years, 3.6% for two years, and 5.9% being jobless for one year out of the four.

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

	All persons	Aged under 65 and not in retired household
Cross-sectional results		
2001	21.5	11.4
2002	22.6	11.8
2003	22.5	10.8
2004	23.2	10.4
Persistence: years in jobless household		
Never	69.4	83.6
1 year	6.2	5.9
2 years	4.1	3.6
3 years	4.5	3.1
4 years	15.8	3.8
Total	100.0	100.0
<i>Note: Population weighted results.</i>		

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 *most* and *least* at risk of household joblessness: lone parent households and couple households. Analysis is restricted to households with prime age reference persons (25–54) who were not full-time students.

Clearly societal expectations about whether lone parents should work are ambivalent. In the event, however, over a third of lone parent households were jobless each year in 2001–2004. Furthermore 23.7% were jobless in all four years; that is, nearly half of those who were ever jobless in this period remained jobless throughout. Another 10.7% were

jobless for three of these four years, and 7.5% were jobless for two years. In complete contrast, the cross-sectional results show that about 3.3%–4.4% of prime age couple households were jobless each year, and the longitudinal results indicate that just 1.4% were jobless in all four years.

Our third table is about the number of children under 15 growing up in jobless households. Table 3 shows the jobless household rates for all children in Australia, and then more specifically for children in sole parent households.³

The cross-sectional evidence indicates virtually no change in the total number of children in jobless households in 2001–2004. The longitudinal data indicate a considerable degree of persistence: 7.1% were in jobless households for all four years and a further 5.5% for three years. Further analysis shows a high concentration in sole parent households.⁴ Each year about half the children in sole parent households were in a jobless setting, and 30.7% were in this situation for all four years, with another 13.2% for three years. In fact almost three-quarters of the children living in three-year jobless households in 2001–2004 appear to have been in lone mother households.

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 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 should work when the youngest child reaches this age. A third view, reflected in the McClure Report on welfare reform and also in the changes to income support payments for sole parents which took effect on 1 July 2006, is that lone mothers should be encouraged to work when their youngest child is 6 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

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

	<i>Lone parent households: parent (25–54)</i>	<i>Couple households: reference person prime age (25–54)</i>
Cross-sectional results		
2001	35.0	4.4
2002	35.2	3.8
2003	35.6	4.3
2004	34.5	3.3
Persistence: years in jobless household^a		
Never	50.1	94.9
1	7.9	2.1
2	7.5	1.2
3	10.7	0.4
4	23.7	1.4
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 four years.

Table 3: Children under 15 in jobless households —total population and sole parent households: Cross-sectional and longitudinal results (%)

	<i>Children in all households</i>	<i>Children in sole parent households</i>
Cross-sectional results		
2001	17.5	49.1
2002	18.1	51.7
2003	17.1	49.8
2004	17.4	49.8
Persistence: years in jobless household		
Never	74.4	32.2
1 year	7.8	12.2
2 years	5.2	11.8
3 years	5.5	13.2
4 years	7.1	30.7
Total	100.0	100.0

Note: Population weighted results.

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

<i>Number of years jobless</i>	<i>Lone mother households: mother 25–54 and youngest child 6–15^a</i>
0 years	58.5
1–3 years	25.3
4 years	*16.2
Total	100.0

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

here the sample number (N = 88) is low, but the results may be regarded as indicative.

Because numbers are low, the results for one to three-year jobless households were combined. Clearly, a four-year joblessness rate of 16.2% in these households where children have reached school age is high. It should also be noted that 58.5% were continuously in work.

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 single father households. In non-sole parent households—that is, in all other types of household—men and women have about the same annual and four-year joblessness rates.⁶

Concluding point

Overall, the analysis shows the value of longitudinal data for distinguishing between short and medium term rates of joblessness, and for identifying which specific population groups are most and least at risk of persistent joblessness.

Endnotes

- 1 Regardless of how many hours they worked.
- 2 The slight apparent increase in 2001–2004 is entirely due to an increased proportion of retirees in the population.
- 3 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.

- 4 Cross-sectionally, the single father household joblessness rates, while far above average, are not as high as for lone mother households. However, the four-year joblessness rates of households which remained single father and lone mother households for all four years were about the same. About 90% of sole parent households were lone mother households in this period.
- 5 Sole parents whose youngest child turns 6 after 1 July 2006 now normally receive Newstart (unemployment benefits) rather than Parenting Payment (single). Newstart, unlike Parenting Payment, imposes job search requirements.
- 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 younger than men.

References

- Dawkins, P., 1996, 'The distribution of work in Australia', *Economic Record*, vol. 72, pp. 272–86.
- Gregory, R.G. and Hunter, B., 1995, 'The macro-economy and the growth of ghettos and urban poverty in Australia', Centre for Economic Policy Research Discussion Paper, no. 325, ANU, Canberra.
- Headey, B.W. and Verick, S., 2005, *Jobless Households: Longitudinal Analysis of the Persistence and Determinants of Joblessness Using HILDA Data for 2001–03*, Report to the Department of Employment and Workplace Relations, Canberra.
- Saunders, P., 2004, *Australia's Welfare Habit and How to Kick It*, CIS, Canberra.

Do 'bad' jobs lead to 'better' jobs? Evidence for 2001–2004

For several decades the Australian Government has been applying 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 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 'bad' jobs may lead to 'better' 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 or long-term panel data; data which provide records of the labour force experiences of the same individuals for a period of years. Four 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

Table 1: Labour force status and earnings in 2004, by status and earnings in 2001: Men in their thirties and forties (%)

Status and earnings in 2004	2001 Not in full-time work		Lowest quintile earnings	2001 Full-time work			
	Unemployed	Part-time work		2nd quintile earnings	3rd quintile earnings	4th quintile earnings	Highest quintile earnings
Unemployed	21.6	4.2	*0.0	0.6	0.6	0.5	*0.0
Part-time work	22.0	33.1	6.9	*0.0	2.8	0.9	2.1
Lowest quintile	24.5	21.8	48.5	19.2	9.6	7.1	5.0
2nd quintile	21.7	17.3	27.4	45.5	19.8	4.3	1.7
3rd quintile	*0.0	11.5	10.2	23.6	32.5	27.9	8.5
4th quintile	10.2	9.3	4.3	4.1	28.5	38.8	18.3
Highest quintile	*0.0	2.7	2.7	6.9	6.2	20.6	64.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. *Estimate not reliable.

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 2004.² The key result here is that men who held low-paying jobs in 2001—that is, they were in the lowest quintile of full-time earnings—achieved much better outcomes by 2004 than men who were unemployed in 2001. Almost all of these men still had a job in 2004, although 6.9% had changed from full-time to part-time. Just over 10% were now in the middle income quintile and 7.0% were in the top two quintiles. By comparison, the men who were unemployed in 2001 were still faring badly. 21.6%

were still unemployed, 22.0% were in part-time jobs, and only 10.2% 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 2004 than those who had been unemployed at the start of the period. Only 4.2% of them, compared to 21.6%, were unemployed in 2004. Just a third still held part-time jobs, while 23.5% 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—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 (see Appendix). 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. The results in the Appendix show that men who had full-time but low-paying jobs in 2001 achieved much better outcomes by 2004 than men who had been unemployed in 2001. However, there was no significant difference in 2004 outcomes between 2001 part-timers and 2001 unemployed.

In concluding this section, it is worth pointing out that there is a good deal of earnings mobility.

Table 2: Earnings quintiles in 2004 ('destinations') by earnings quintiles in 2001: Men aged 30–49 in full-time jobs (%)

<i>Destination in 2004</i>	<i>Quintile 1 in 2001</i>	<i>Quintile 2 in 2001</i>	<i>Quintile 3 in 2001</i>	<i>Quintile 4 in 2001</i>	<i>Quintile 5 in 2001</i>
Quintile 1	55.4	22.2	9.7	7.4	5.2
Quintile 2	27.2	46.3	21.7	5.6	2.8
Quintile 3	8.8	22.4	35.4	26.3	8.6
Quintile 4	5.1	3.3	27.5	40.9	20.7
Quintile 5	3.6	5.8	5.7	19.9	62.7
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 3: Job outcomes in 2004 by preferences in 2001: Prime age women (25–54)

	<i>(1) Job situation and preference in 2001 (%)</i>	<i>(2) Got exact preference by 2004 (% of column 1)</i>	<i>(3) In paid work in 2004 (% of column 1)</i>	<i>(4) Median hourly rate of pay in 2004 (\$)</i>
Unemployed, seeking full-time or part-time job	3.0	56.5	69.4	16.3
Part-time job, wants same or fewer hours	23.4	69.1	89.3	18.6
Part-time job, wants more hours	9.5	49.4	87.0	17.0
Full-time job, wants same or more hours	21.8	77.3	90.7	20.2
Full-time job, wants fewer hours	19.0	20.5	92.0	21.1
Does not want a job	23.3	n.a.	36.3	16.7

Note: Population weighted results.

Table 2 shows the 2004 quintile 'destinations' of men starting out in different quintiles in 2001.

Among the men aged 30–49, who were in full-time jobs in both 2001 and 2004, 8.8% of those who started out in the bottom quintile of earnings were in the middle of the distribution (quintile 3) in 2004, and 8.9% were in the top two quintiles. There was a similar degree of movement in a downward direction. 8.6% of those who started in the highest quintile were in the middle quintile by 2004 and 8.0% were in the bottom two quintiles. 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 market, because it cannot be assumed that they all want full-time well-paying jobs. In 2001–2004 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 3 provides evidence about whether the job preferences of women in 2001 were met by 2004.

The analysis covers women aged 25–54 in this period, there being no advantage in restricting the analysis to a narrower range, as was the case for men. The first column of Table 3 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 2004, column 3 gives the percentage in paid work in 2004, 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 3 suggest that women who were unemployed in 2001 had worse outcomes by 2004 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 2004, 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 a good deal easier to achieve a preference for moving from part-time to full-time work (49.4% of the relevant group achieved it) than the other way round (20.5% 'success rate'). Presumably many employers are reluctant to let employees shift from full-time to part-time.

Table 4 shows the 2004 'destination' quintiles of women starting out in different quintiles in 2001.⁵ Overall, comparing results in Tables 2 and 4, it appears that the earnings mobility of women is

even higher than for men. Among women in the lowest quintile of earnings per hour in 2001, 18.6% were in the middle quintile by 2004 and 9.7% were in the top two quintiles.⁶ Among women in the top quintile in 2001, 7.4% were in the middle quintile in 2004 and 13.8% 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 low-paying full-time job are in a better position to move on to a 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 'common-sense'. 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.

Appendix

The purpose of the analysis here is to assess whether the main findings relating to men still hold when human capital variables are considered. In order to do this it is necessary to undertake a multivariate analysis in which, in accounting for outcomes in 2004, human capital variables are included as explanatory variables alongside labour force status and earnings in 2001.

The results in Table A1 demonstrate that men who had low-paying full-time jobs in 2001 achieved substantially better outcomes in 2004 than the unemployed men. However, results for men in part-time work in 2001 for men who had been unemployed.

Table 4: Earnings quintiles in 2004 ('destinations') by earnings quintiles in 2001: Women aged 25–54 (%)

<i>Destination in 2004</i>	<i>Quintile 1 in 2001</i>	<i>Quintile 2 in 2001</i>	<i>Quintile 3 in 2001</i>	<i>Quintile 4 in 2001</i>	<i>Quintile 5 in 2001</i>
Quintile 1	42.8	24.1	14.7	10.5	7.8
Quintile 2	28.9	33.7	20.1	11.1	6.0
Quintile 3	18.6	25.8	28.2	20.0	7.4
Quintile 4	6.2	11.5	32.0	30.1	20.5
Quintile 5	3.5	4.8	5.0	28.3	58.3
Total	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table A1: Labour force status and hourly wage rates in 2004 of men in their thirties and forties, by status and hourly wage rate in 2001: Ordered probit analysis^a

<i>Explanatory variables</i>	<i>Dependent variable: labour force status and earnings quintile in 2004 (7 ranked categories)</i>
Employed part-time 2001 ^b	-0.04
Quintile 1 of full-time earnings 2001 ^b	0.46***
Quintile 2 in 2001 ^b	0.96***
Quintile 3 in 2001 ^b	1.29***
Quintile 4 in 2001 ^b	1.74***
Quintile 5 in 2001 ^b	2.52***
Age 2001	0.21
Age squared (/10) 2001	-0.03
Years of education 2001	0.12***
Work experience 2001 ^c	0.01***
Chi square (10)	708.19***
Pseudo R squared	0.181
N	1,058

Notes: ^a All results were substantially the same when annual earnings data were used, rather than hourly rates. The one noticeable difference was that the 'gains' of part-timers were larger compared with the reference group of individuals unemployed in 2001. ^b Reference group: men who were unemployed in 2001. ^c Percentage of time spent in paid work since completing full-time education. *** significant at the 0.001 level.

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 2.2% of the sample who were classified in one of the seven groups in 2001, and who by 2004 were not in the labour force. They came disproportionately from the group who had been unemployed in 2001. In fact, 5.7% of the those unemployed in 2001 were not in the labour force in 2004, compared with 2.8% of the part-time group, 4.0% of quintile 1, 2.6% of quintile 2, 2.0% of quintile 3, 1.4% of quintile 4, and 0.0% 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 2004.
- 4 It is assumed that preferences remained unchanged during these three years. This assumption will not be correct in all cases. However, the alternative of accepting revised preferences (as stated in 2004) 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-time workers are included as well as full-time workers.
- 6 The quintile groups comprise women who were in paid work in both years.

References

- Burgess, J. and Campbell, I., 1998, 'The nature and dimensions of precarious employment in Australia', *Journal of Industrial Relations*, vol. 27, pp. 158–71.
- Romeyn, J., 1992, *Flexible Working Time: Part-time and Casual Employment*, Industrial Relations Research Monograph, no. 1, Department of Industrial Relations, Canberra.
- Simon, H.A., 1976, *Administrative Behavior*, Free Press, New York.
- Watson, I., Buchanan, J., Campbell, I. and Briggs, C., 2003, *Fragmented Futures: New Challenges in Working Life*, Federation Press, Sydney.

Changes in the work–life balance of Australian mothers

Is the trend of mothers with young children trying to be 'superwoman'—having a successful career and being a perfect wife and mother all at the same time—declining in favour of a less frenetic work–life balance? A recent report by NATSEM (2005), based on Australian Bureau of Statistics Surveys in 1990 and 2003, found that while female participation rates have generally increased, participation rates among women with dependent children have declined.¹ One possible reason for decline in mothers' workforce participation rates is the significant increase in family payments, which gave women with dependent children more economic flexibility to stay at home. Another explanation is that values are changing—'younger generations sometimes portrayed as wanting to live more balanced lives than the workaholic baby boomers' (NATSEM, 2005). This article tries to establish whether there is evidence of a continued decline in the working hours, and working hour preferences, of Australian mothers in 2001–2004.

Have the working hours of mothers changed over the last four years? Are women with family responsibilities able to find the flexible jobs that they want and working hours that fit in with their child care responsibilities? Many women with school age children want to be able to work while their children are at school but are not able to find jobs with flexible hours, and as a result, some of these mothers take up volunteer work because they have spare time and want something to do.

Table 1 shows the labour force participation rates of women with children under the age of 15 from 2001 to 2004.²

Overall, the labour force participation rates for mothers with children under the age of 15 have remained quite steady over the four-year period from 2001 to 2004. The participation rate for partnered mothers fluctuated between 61.8% and 64.3%, while the participation rate for lone mothers ranged from 48.4% to 51.9%. Between 2003 and 2004 there was a substantial increase in the participation rate of mothers whose youngest child was under the age of 3, from 39.5% of mothers with children under 3 in 2003 to 48.1% in 2004. This could possibly be a result of the introduction of the child care tax rebate, under which families are able to claim 30% of their out-of-pocket costs for approved child care (Parliament of Australia, 2005).³

Are mothers working fewer hours now than they did in recent years in favour of spending more time with their children? Table 2 shows the average hours worked per week for mothers with children under 15 from 2001 to 2004.

Working hours for mothers have also remained quite steady over the last four years. Average hours of work per week increased with the age of the youngest child—from approximately 24 hours per week for mothers with children under 3 years of age, to around 32 hours per week for women whose youngest child is aged between 11 and 14.

On average, lone mothers worked slightly longer hours than mother with partners—around 31 hours per week, compared to 29 hours per week for mothers with partners.

Work preferences of Australian mothers

Are mothers working the hours they want? Qu and Weston (2005) compared the work hour preferences of mothers with children under the age of 15 in 1996 (using data from the Australian life course study) and in 2003 (using the HILDA Survey data) and found that in both years mothers whose youngest child was under the age of 12 wanted to be in paid work (preferably part-time work) and mothers who were working

full-time wanted to work fewer hours. They also found substantial increase in the proportion of mothers who were working between 1 and 14 hours per week who wanted to work longer hours, and lone mothers were particularly keen to work if they did not have a job, or to increase their hours if they were only working between 1 and 14 hours per week. Table 3 shows that, on average, preferred hours are only slightly lower than actual hours.

Preferred working hours for mothers of children under the age of 3 were around 23 hours per week, compared to 25 hours per week for mothers whose youngest child was between the age of 3 and 5, around 27 hours per week for mothers

Table 1: Labour force participation rates of mothers with children under 15 (%)

	Age group of youngest child				Total
	0–2	3–5	6–10	11–14	
Partnered mothers					
2001	45.3	66.6	73.3	65.2	62.2
2002	45.3	63.5	75.0	65.0	62.3
2003	41.1	61.7	76.5	66.9	61.8
2004	51.8	57.8	75.2	68.1	64.3
Lone mothers					
2001	32.6	44.2	61.0	49.0	48.4
2002	30.3	55.1	64.2	51.9	51.6
2003	30.5	59.0	57.2	52.3	51.3
2004	35.5	57.0	68.3	50.3	51.9
All mothers					
2001	43.5	61.8	70.5	60.6	59.0
2002	43.0	61.6	72.7	61.5	59.9
2003	39.5	61.1	72.1	62.6	59.3
2004	48.1	57.6	73.4	62.3	60.8

Note: Population weighted results.

Table 2: Hours of work per week (means), mothers with children under 15 (2001 to 2004)

	Age group of youngest child				Total
	0–2	3–5	6–10	11–14	
Partnered mothers					
2001	23.8	26.3	28.5	32.2	29.1
2002	23.8	26.3	27.7	32.0	28.9
2003	23.5	25.2	28.9	32.2	29.0
2004	23.7	24.8	28.4	31.8	28.6
Lone mothers					
2001	21.2	26.0	29.2	34.6	31.5
2002	*20.0	27.7	28.6	32.3	30.1
2003	*23.5	26.4	28.7	33.7	31.0
2004	*26.7	26.3	30.6	33.9	31.5
All mothers					
2001	23.6	26.2	28.7	32.7	29.5
2002	23.5	26.5	27.9	32.1	29.1
2003	23.5	25.5	28.8	32.5	29.4
2004	24.1	25.1	28.9	32.3	29.3

Notes: Population weighted results. *Estimate not reliable.

whose youngest child was between 5 and 10 and 30 hours per week for mothers with children approaching high school age. Preferred working hours of lone mothers were slightly higher than those of mothers with partners, suggesting that for lone mothers, their preference to work more hours is because they need more income.

Mothers not currently in paid work

What about mothers who were not working and not looking for work? In each wave of the HILDA Survey, respondents who are not employed and not looking for a job are asked if they would like a job, assuming suitable child care could be

arranged. Table 4 shows the proportion of partnered and lone mothers who said they would like to work in 2004.

Only 23.5% of partnered women with children under the age of 3 said they would like a job if suitable child care arrangements could be found, compared to around 40% of partnered women whose youngest child was aged between 3 and 10. Compared to partnered mothers, the proportion of lone mothers who said they would like to work was slightly higher—32.3% of lone mothers said they would like a job, compared to only 27.4% of partnered mothers. However, there were substantial differences in the proportion of single and partnered mothers whose

	<i>Age group of youngest child</i>				<i>Total</i>
	<i>0–2</i>	<i>3–5</i>	<i>6–10</i>	<i>11–14</i>	
Partnered mothers					
2001	23.0	25.7	26.9	29.0	27.1
2002	23.2	25.3	27.2	29.4	27.3
2003	22.8	24.2	26.6	29.0	26.8
2004	22.1	24.1	26.8	28.8	26.5
Lone mothers					
2001	26.4	28.3	29.0	34.2	31.8
2002	*27.3	27.5	28.4	34.1	31.5
2003	*24.3	30.2	28.7	33.0	31.2
2004	*22.8	27.4	28.8	33.3	30.5
All mothers					
2001	23.3	26.1	27.3	30.1	27.9
2002	23.5	25.7	27.4	30.5	28.1
2003	23.0	25.3	27.0	30.0	27.6
2004	22.2	24.8	27.2	29.9	27.4

Notes: Population weighted results. * Estimate not reliable.

	<i>Age group of youngest child</i>				<i>Total</i>
	<i>0–2</i>	<i>3–5</i>	<i>6–10</i>	<i>11–14</i>	
Partnered mothers					
Yes, would like a job	23.5	36.3	40.3	21.4	27.4
Maybe	*4.3	*3.7	*10.0	*6.3	5.7
No	72.3	60.1	49.7	72.3	66.9
Total	100.0	100.0	100.0	100.0	100.0
Lone mothers					
Yes, would like a job	49.4	77.6	*37.3	*15.7	32.3
Maybe	*2.3	*5.9	*6.3	*6.8	5.7
No	48.4	16.5	56.4	77.5	62.0
Total	100.0	100.0	100.0	100.0	100.0
All mothers					
Yes, would like a job	30.8	45.7	39.4	18.9	29.1
Maybe	*3.7	*4.2	*8.9	*6.6	5.7
No	65.5	50.2	51.8	74.5	65.2
Total	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Work hour preferences in 2001 and situation in 2004 (%)

<i>Working hours and preferences in 2001</i>	<i>Situation in 2004</i>				<i>Total</i>
	<i>Not employed</i>	<i>Prefer fewer hours</i>	<i>Prefer current hours</i>	<i>Prefer more hours</i>	
<i>Lone mothers</i>					
<i>—working part-time</i>					
Prefer fewer hours	*18.3	*22.7	59.0	*0.0	100.0
Prefer current hours	*22.1	*12.1	45.7	*20.1	100.0
Prefer more hours	*17.2	*2.6	*42.6	*37.5	100.0
<i>Lone mothers</i>					
<i>—working full-time</i>					
Prefer fewer hours	*10.3	48.9	40.8	*0.0	100.0
Prefer current hours	*6.1	*29.5	55.4	*9.0	100.0
Prefer more hours	*24.3	*31.7	*44.0	*0.0	100.0
<i>Partnered mothers</i>					
<i>—working part-time</i>					
Prefer fewer hours	*11.4	30.9	48.8	*8.9	100.0
Prefer current hours	10.6	18.2	57.6	13.7	100.0
Prefer more hours	19.1	14.8	43.4	22.7	100.0
<i>Partnered mothers</i>					
<i>—working full-time</i>					
Prefer fewer hours	*7.1	54.9	34.2	*3.8	100.0
Prefer current hours	*9.7	29.1	57.4	*3.8	100.0
Prefer more hours	*0.0	*41.7	*58.3	*0.0	100.0

Notes: Population weighted results. * Estimate not reliable.

youngest child was under the age of 10, with 49.4% of lone mothers whose youngest child was under the age of 3 and 77.6% of single mums whose youngest child was aged between 3 and 10 saying they would like to work, compared to 23.5% of partnered mums whose youngest child was under the age of 3 and 36.3% of partnered mothers whose youngest child was between 3 and 10.

Of those who said they would like a job, the main reason for not looking for work, particularly for women with young children, was that they prefer to look after their children, which seems to either contradict their response that they would like to work, or indicate that they are not able to find (or afford) suitable child care.

In the previous HILDA Survey Statistical Report (Headey et al., 2006), we found that just under half the men and women who had wanted more work in 2001 were satisfied with their hours by 2003, while 34.9% of men and 38.7% of women still wanted to work more hours, but those who were working part-time in 2001 and wanted more work had better success in achieving their preferred hours than people who were working full-time and wanted to work less. Table 5 compares the work-hour preference in 2001 with their working hours in 2004 for working mothers.

Just under 60% of lone mothers who were working part-time in 2001 and said they would prefer to work fewer hours were happy with their working hours in 2004. Of the lone mothers who were working full-time in 2001 and said they would

prefer to work fewer hours, 40.8% were happy with their working hours in 2004, but 48.9% still preferred to work fewer hours.

For partnered women who were working part-time in 2001 and said they preferred to work fewer hours, 48.8% were happy with their working hours in 2004. Of those partnered women who were working part-time in 2001 and said they would prefer to work more hours, 43.4% had got what they wanted by 2004. Only 34.2% of partnered mothers who were working full-time in 2001 and said they wanted to work fewer hours were happy with their working hours in 2004, 54.9% of this group still said they wanted to work fewer hours.

So, it seems that for working mothers, the pattern is the same as for the rest of the working population—it is easier for people who are working part-time to get more work than it is for those who are working full-time to work fewer hours.

Conclusions

Over the four-year period from 2001 to 2004, the labour force participation rates and average weekly working hours of mothers with dependent children have remained quite steady. It seems that most working mothers were quite happy with the number of hours they worked per week. On average, preferred hours were only slightly lower than actual hours. For mothers who were not currently working, the proportion of lone mothers who said they would like a job was much higher than that of partnered mothers.

Endnotes

- 1 NATSEM calculations were based on ABS 1990 Income Distribution Survey and 2002–03 Survey of Income and Housing Costs data files.
- 2 The labour force participation rate is the proportion of the population who are either employed or unemployed and looking for work.
- 3 Out-of-pocket child care costs from 1 July 2004 are able to be claimed in 2005–06 taxation returns.

References

Headey, B.W., Warren, D. and Harding, G., 2006, *Families, Incomes and Jobs: A Statistical Report of*

the HILDA Survey, Melbourne Institute of Applied Economic and Social Research, Melbourne.

National Centre for Social and Economic Modelling (NATSEM), 2005, *May the Labour Force Be with You*, AMP-NATSEM Income and Wealth Report, Issue 12, November.

Parliament of Australia, 2005, *Research Note*, no. 3, 2005–06, August, <<http://www.aph.gov.au/Library/pubs/rn/2005-06/06rn03.pdf>>.

Qu, L. and Weston, R., 2005, 'A woman's place? Work hour preferences revisited' [online], *Family Matters*, no. 72, pp. 72–7.

Working from home: Why isn't there more of it?

Twenty years ago, there was a widespread expectation that telecommuting would be very common and that many of us would start working mainly at home, only commuting to the boss's place occasionally. Why has this not eventuated?

Worldwide, the number of people working some or all of their working hours from home has been growing over the last two decades. United States census data (United States Department of Labor, 2005) show an increase in the number of home-based workers, from 2.2 million in 1980 to over 20 million in 2004. In Australia, the ABS locations of work survey (2001) found that the number of workers who worked more hours at home than elsewhere increased from 266,600 in April 1989, to 692,600 in June 2000.

Mass access to the internet has dramatically increased the number of jobs that can potentially

be done at home; however, advances in information and communication technology are not the only reason for the growth in home-based work. Other factors contributing to the spread of home-based work have been economic globalisation and the associated shift in manufacturing from the main industrialised countries to developing economies (Lafferty et al., 1997), the combined rise in women's labour force participation and two-career families, and the increased popularity of small business entrepreneurship (Edwards and Field-Hendrey, 1996). Felstead and Jewson (2000) suggest that the growth of home-based work is part of a larger shift in the character of labour markets, which has resulted in the proliferation of 'non-standard' employment. Table 1 shows the proportion of employed people who worked some hours at home in the four years from 2001 to 2004.

Table 1: People who worked some hours from home, by age and gender—2001 to 2004 (%)

Age group	2001	2002	2003	2004
Men				
15–24	7.5	6.2	6.2	6.5
25–34	22.9	22.4	21.4	20.5
35–44	28.8	27.2	27.9	29.1
45–54	37.0	31.7	32.4	32.4
55–64	36.1	38.6	38.7	38.3
65+	53.9	42.3	39.5	45.6
All	26.8	24.8	24.9	25.0
Women				
15–24	6.8	4.3	5.3	5.3
25–34	23.6	21.5	21.4	22.0
35–44	27.3	26.9	27.7	29.1
45–54	32.4	29.8	28.8	28.6
55–64	35.8	34.5	36.4	29.2
65+	63.4	63.2	47.1	52.2
All	24.6	22.8	23.0	22.9

Note: Population weighted results.

Table 2: Hours worked at home per week, by age and gender—2001 to 2004 (%)

<i>Hours worked at home per week</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>
Men				
1–4	33.5	34.7	35.4	36.1
5–9	24.3	24.2	24.5	26.4
10–19	21.8	20.6	19.7	17.7
20–29	5.7	6.7	7.3	8.0
30–39	4.5	4.4	5.0	3.9
40+	10.2	9.2	8.1	7.8
Total	100.0	100.0	100.0	100.0
Mean (hours per week)	13.3	12.9	12.3	11.9
Women				
1–4	35.7	37.6	37.8	35.7
5–9	23.6	22.7	22.2	25.9
10–19	20.4	22.4	22.4	19.5
20–29	8.9	6.7	9.1	9.5
30–39	4.2	4.4	2.5	4.2
40+	7.3	6.2	5.9	5.1
Total	100.0	100.0	100.0	100.0
Mean (hours per week)	11.9	11.2	10.7	11.1

Note: Population weighted results.

Table 3: Amount of home-based work—by gender, 2004 (%)

<i>Amount of home-based work</i>	<i>Men</i>	<i>Women</i>	<i>All</i>
No work from home	75.0	77.2	76.0
Some work from home	20.1	15.2	17.9
Mostly work from home	4.9	7.6	6.1
Total	100.0	100.0	100.0

Note: Population weighted results.

It is clear from Table 1 that the proportion of people who work from home increases with age. Less than 10% of employed men and women aged between 15 and 24 worked any hours at home, compared to nearly 30% of men and women aged 35 to 44. This confirms the findings from previous studies, such as Heck et al. (1995) and Lafferty et al. (1997) who found that people who worked from home, particularly those who were self-employed, tended to be older. Some possible reasons for the high proportion of older people working from home are that home-based work may be an appealing option for older people who find commuting very tiring (Horvath, 1986); that mandatory retirement and ageist recruitment policies encourage older workers to find a job which enables them to work at home or to start a home-located business of their own); and that older workers are more likely to have the knowledge and capital to enable them to start up home-based businesses and some may choose to work at home as a way of easing into retirement (Felstead and Jewson, 2000).

For the large majority, however, working from home represents only a small fraction of the working week. Table 2 shows the number of hours worked

at home each week, for men and women who worked some hours from home in 2001 to 2004.

More than half the men and women who did some work from home spent less than 10 hours per week working from home. This suggests that for many people who do some work at home, the work done at home is ‘catch up’ work that did not get done at the workplace. Table 3 shows the proportion of employed men and women who did not work at home, those who did some work at home, and those who spent 50% or more of their working hours at home in 2004.

Only 4.9% of men and 7.6% of women who were employed in 2004 spent most of their working hours at home. Supplementary work from home (i.e. doing some work from home but less than 50% of working hours) was much more common with 20.1% of men and 15.2% of women doing some, but not most, of their work from home.

Who works from home?

There are two seemingly contradictory stereotypical views of home-based workers, a positive view depicting those who work from home as a relatively advantaged group who have chosen to work at home to gain flexibility and better control of their time; and a negative view portraying home-based workers as an exploited group, usually females with young children, forced to work for low wages, with few if any benefits, in sub-standard working conditions (Edwards and Field-Hendrey, 1996). Tables 4 to 9 compare personal characteristics and job characteristics of men and women who do not work from home, with people who do some work from home, and those who work mainly from home.

Table 4: Contract of employment—by gender and amount of home-based work, 2004 (%)

	<i>No work at home</i>	<i>Some work at home</i>	<i>Work mostly at home</i>	<i>Total</i>
Men				
Fixed term contract	81.9	17.5	*0.6	100.0
Casual	94.3	4.6	*1.1	100.0
Permanent	83.0	15.6	1.4	100.0
Self-employed	36.6	44.6	18.8	100.0
Total	75.1	20.0	4.9	100.0
Women				
Fixed term contract	73.9	24.4	*1.6	100.0
Casual	92.1	5.0	3.0	100.0
Permanent	81.6	16.5	1.8	100.0
Self-employed	28.4	26.4	45.2	100.0
Total	77.2	15.2	7.5	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Highest level of education—by gender and amount of home-based work, 2004 (%)

	<i>No work at home</i>	<i>Some work at home</i>	<i>Work mostly at home</i>	<i>Total</i>
Men				
Postgraduate degree	53.9	38.9	7.2	100.0
Bachelor degree	65.5	28.5	5.9	100.0
Diploma	65.1	26.0	8.9	100.0
Certificate	77.5	19.6	2.9	100.0
Year 12	80.1	16.2	3.8	100.0
Year 11 or below	83.2	11.5	5.3	100.0
Total	75.0	20.1	4.9	100.0
Women				
Postgraduate degree	51.3	38.1	10.6	100.0
Bachelor degree	66.5	25.6	7.9	100.0
Diploma	66.5	24.0	9.5	100.0
Certificate	83.5	9.1	7.4	100.0
Year 12	87.8	7.6	4.6	100.0
Year 11 or below	84.7	7.6	7.7	100.0
Total	77.2	15.2	7.6	100.0

Note: Population weighted results.

Contract of employment

Table 4 compares the type of employment contract of men and women, according to the amount of work they do from home.

Working from home was most common among men and women who were self-employed. Over 60% of men and 70% of women who were self-employed did at least some of their work from home, and 18.8% of self-employed men and 45.2% of self-employed women did most of their work from home.

Home-based work was least common among casual workers. More than 90% of men and women who were employed on a casual basis did not work from home at all. Compared to casual workers, men and women who were employed on either a permanent basis or a fixed term contract were much more likely to do some work from home—24.2% of women and 17.5% of men who were employed on fixed term contracts did

some (but not most) of their work from home, as did 16.5% of women and 15.6% of men who were employed on a permanent basis.

Level of education

The stereotypical view of home-based work is that workers are divided into two groups—a highly qualified male group and a poorly qualified female group. However, Callister and Dixon (2001) found little variation in the proportion of work carried out at home by education level. Table 5 compares the level of education of men and women who work from home with those who do not.

The HILDA Survey data also indicate that, home-based work was more common among people with higher levels of education—38.9% of men and 38.1% of women with postgraduate degrees did some (but not most) of their work from home, compared to only 16.2% of men and 7.6% of women whose highest qualification was year 12.

Occupation and industry

The number of home-based workers in any industry or occupation depends on the ability to actually do the job (or some part of the job) from home, in other words, the portability of the job. For this reason some industries, for example the electricity, gas and water supply industry, will have very few home-based workers. Tables 6 and 7 show the proportion of men and women who work from home, by industry and occupation.

Table 6 shows that the two most common occupations of men and women who work most of their hours from home are managers and administrators and advanced clerical and service workers. Supplementary work from home was most common among managers, administrators and professionals, with more than 30% of men and women in these occupations working some, but not most, of their hours at home. Home-based work was much less common for people in jobs that were less ‘portable’, such as intermediate clerical workers, production and transport workers, labourers and clerical, sales and service workers. Table 7 shows that home-based work was also less likely in industries in which the nature of the work meant that home-based work was not likely to be feasible for most workers.

Home-based work was most common for men and women in the agriculture industry (farmers who work on their own farms). Agriculture aside, working mostly from home was most common for

women in the construction industry (38.0%), and men and women in the property and business services industry (12.9% and 15.1% respectively). Supplementary work from home was most common for men and women in the education industry, with 51.1% of men and 43.9% of women employed in this industry doing some of their work at home. Approximately 30% of men in the property, business services, finance, insurance and construction industries also did some supplementary work from home.

Hours of work

Table 8 compares the average weekly hours of work for men and women who work from home.

Overall, men and women who did supplementary work from home worked longer hours than people who worked mostly at home and people who did not work from home at all. But, concentrating on full-time workers, Table 8 shows that men and women who worked most of their hours at home had the highest average working hours—slightly higher than men and women who did some work from home, and substantially higher than people who did no work from home.

This is not the case for part-time workers, with men who work mostly from home and men who do not work from home working an average of 19 hours per week, compared to 22 hours for men who worked some, but not most, of their hours from home. Women who worked part-time and

Table 6: Occupation—by gender and amount of home-based work, 2004 (%)

	<i>No work at home</i>	<i>Some work at home</i>	<i>Work mostly at home</i>	<i>Total</i>
Men				
Managers and administrators	44.4	37.4	18.2	100.0
Professionals	57.2	34.7	8.1	100.0
Associate professionals	70.0	26.0	*4.0	100.0
Tradespersons and related workers	80.8	17.5	*1.7	100.0
Advanced clerical and service workers	80.5	*1.8	17.7	100.0
Intermediate clerical workers	86.6	11.3	*2.1	100.0
Intermediate production and transport workers	89.9	9.5	*0.6	100.0
Elementary clerical sales and service workers	90.8	7.5	*1.7	100.0
Labourers and related workers	88.4	9.0	*2.6	100.0
Total	75.0	20.1	4.9	100.0
Women				
Managers and administrators	46.8	32.0	21.2	100.0
Professionals	57.8	34.7	7.5	100.0
Associate professionals	70.6	20.4	9.0	100.0
Tradespersons and related workers	80.8	*10.3	*8.9	100.0
Advanced clerical and service workers	61.5	13.9	24.6	100.0
Intermediate clerical workers	91.3	4.8	4.0	100.0
Intermediate production and transport workers	89.5	*4.7	*5.8	100.0
Elementary clerical sales and service workers	95.1	*2.9	*2.0	100.0
Labourers and related workers	93.6	*3.9	*2.5	100.0
Total	77.2	15.2	7.6	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 7: Industry—by gender and amount of home-based work, 2004 (%)				
	<i>No work at home</i>	<i>Some work at home</i>	<i>Work mostly at home</i>	<i>Total</i>
Men				
Agriculture, forestry and fishing	46.8	24.9	28.3	100.0
Mining	85.4	*14.6	*0.0	100.0
Manufacturing	86.7	10.3	*3.0	100.0
Electricity, gas and water supply	94.5	*5.5	*0.0	100.0
Construction	68.1	30.9	*0.9	100.0
Wholesale trade	73.7	20.6	*5.7	100.0
Retail trade	87.6	10.9	*1.5	100.0
Accommodation, cafes and restaurants	87.8	*10.5	*1.8	100.0
Transport and storage	75.3	23.7	*1.0	100.0
Communication services	84.3	*14.1	*1.6	100.0
Finance and insurance	68.9	28.3	*2.8	100.0
Property and business services	55.4	31.7	12.9	100.0
Government administration and defence	85.8	13.4	*0.8	100.0
Education	46.1	51.1	*2.8	100.0
Health and community services	86.3	11.6	*2.1	100.0
Cultural and recreational services	75.0	*12.8	*12.1	100.0
Personal and other services	77.3	16.1	*6.5	100.0
Total	75.0	20.1	4.9	100.0
Women				
Agriculture, forestry and fishing	44.3	*16.3	39.4	100.0
Mining	*90.3	*9.7	*0.0	100.0
Manufacturing	81.4	11.3	*7.2	100.0
Electricity, gas and water supply	*89.8	*10.2	*0.0	100.0
Construction	46.0	*16.1	38.0	100.0
Wholesale trade	70.6	20.6	*8.8	100.0
Retail trade	88.8	8.9	*2.3	100.0
Accommodation, cafes and restaurants	91.3	*5.2	*3.5	100.0
Transport and storage	86.1	*4.9	*9.0	100.0
Communication services	97.9	*0.8	*1.2	100.0
Finance and insurance	83.7	*10.3	*6.1	100.0
Property and business services	69.2	*15.7	15.1	100.0
Government administration and defence	86.3	12.2	*1.5	100.0
Education	52.2	43.9	*3.9	100.0
Health and community services	85.9	9.9	*4.3	100.0
Cultural and recreational services	80.6	*9.5	*9.9	100.0
Personal and other services	70.9	14.9	14.2	100.0
Total	77.2	15.2	7.6	100.0
<i>Notes:</i> Population weighted results. * Estimate not reliable.				

Table 8: Usual hours of work—by gender and amount of home-based work, 2004 (means)^a				
	<i>No work at home</i>	<i>Some work at home (< 50% of working hours)</i>	<i>Work mostly at home</i>	<i>Total</i>
Men				
Working full-time	45.3	51.0	53.4	46.9
Working part-time	18.8	21.7	18.6	19.1
Total	40.5	48.3	40.9	42.1
Women				
Working full-time	41.3	46.1	48.7	42.7
Working part-time	18.8	21.0	14.7	18.6
Total	29.4	38.7	25.5	30.6
<i>Notes:</i> Population weighted results. ^a Usual working hours include paid and unpaid overtime.				

spent most of their working hours from home worked fewer hours on average than women who worked part-time and did supplementary work from home, and women who worked part-time and did no work from home.

Weekly and hourly wage

Table 9 compares the average hourly and weekly wage for men and women, according to the amount of home-based work they did.

The most striking result from Table 9 is that the average hourly wage and the average weekly wage for men and women who worked mostly from home was substantially lower than that of people who did no work from home and those who did supplementary work from home.

Does working at home make people happy?

Employed men and women are asked to rate their satisfaction with particular aspects of their job,

such as their total pay, on a scale of 0 to 10, with 0 meaning 'not at all satisfied' and 10 being 'very satisfied'. Table 10 shows the differences in various aspects of job satisfaction for men and women who do not work from home, who work some hours from home, and who work mostly at home.

For men, working from home appears to make no significant difference to overall job satisfaction and life satisfaction. However, men who work mostly from home are more satisfied with the work they do, the hours they work and the flexibility they have to balance work and non-work activities. On the other hand, men who work mostly from home were least satisfied with their job security and their total pay. This dissatisfaction with total pay is not surprising considering that their average weekly wage is substantially lower than that of men who do not work mostly from home.

Women who worked mostly from home had higher levels of overall life satisfaction than other women.

Table 9: Weekly wage and hourly wage (means), by gender and amount of home-based work, 2004 (\$)

	<i>No work at home</i>		<i>Some work at home (< 50% of working hours)</i>		<i>Work mostly at home</i>		<i>Total</i>	
	<i>Weekly wage</i>	<i>Hourly wage</i>	<i>Weekly wage</i>	<i>Hourly wage</i>	<i>Weekly wage</i>	<i>Hourly wage</i>	<i>Weekly wage</i>	<i>Hourly wage</i>
	Men							
Working full-time	941	20.97	1,008	20.49	490	10.51	939	20.47
Working part-time	322	20.19	447	20.41	226	13.12	327	19.50
Total	828	20.83	957	20.49	396	11.44	833	20.30
Women								
Working full-time	747	18.25	945	20.87	395	8.95	773	18.36
Working part-time	345	18.54	392	18.55	228	19.99	337	18.69
Total	535	18.40	782	20.18	281	16.47	553	18.53

Note: Population weighted results.

Table 10: Job satisfaction and life satisfaction (means), by gender and amount of home-based work, 2004

	<i>No work at home</i>	<i>Some work at home (< 50% of working hours)</i>	<i>Work mostly at home</i>	<i>Total</i>
	Men			
Total pay	6.8	6.9	6.0 [^]	6.8
Job security	7.9	7.9	7.2 [^]	7.9
The work itself	7.5 [^]	7.8	8.1 [^]	7.6
The hours you work	7.1 [^]	6.6	7.2 [^]	7.0
The flexibility to balance work and non-work	7.2	7.3	8.0 [^]	7.3
Overall job satisfaction	7.5	7.6	7.6	7.5
Overall life satisfaction	7.9	7.9	8.0	7.9
Women				
Total pay	6.9	6.7	6.8	6.8
Job security	8.0	8.1	8.0	8.0
The work itself	7.5 [^]	7.8	7.8	7.5
The hours you work	7.4 [^]	6.8	7.8 [^]	7.3
The flexibility to balance work and non-work	7.6 [^]	7.2	8.6 [^]	7.6
Overall job satisfaction	7.7	7.7	8.1	7.7
Overall life satisfaction	7.9	8.0	8.2 [^]	7.9

Notes: Population weighted results. [^] indicates significantly different from the 'some work at home' category at the 5% level.

They were also more satisfied with the hours they worked and the flexibility to balance work and non-work activities. For women, working at home seemed to have no impact on their satisfaction with their total pay, their job security and their overall job satisfaction.

Persistence of home-based work

Do people who work from home continue to do so for many years? Table 11 shows the labour force status in 2002, 2003 and 2004 of men and women, according to the amount of home-based work they did in 2001.

Of the people who were employed in 2001 and did not work from home, 11% of men and 7.7% of women were doing some work from home by 2004, but very few were working most of their hours from home.

More than half of the men and women who were doing supplementary work from home in 2001 also did some work from home in the next three years, over 30% stopped doing home-based work and around 7% were working mostly from home by 2004.

Around 45% of men and women who were working mostly from home in 2001 were still doing so in 2001, but 17.3% were doing only some work from home and 19.2% were not working from home at all by 2004. Compared to other groups, a high proportion of people who were working mostly from home in 2001 (14.1% of men and 20.1% of women) were no longer in the labour

force by 2004, suggesting that for some, home-based work is part of a transition to retirement.

References

- Australian Bureau of Statistics, 2001, *Persons Employed at Home, Australia*, ABS Catalogue No. 6275.0, Canberra.
- Callister, P. and Dixon, S., 2001, 'Work schedules and working at home: Insights for America from New Zealand time use data', BLCC Working Paper, 01-13.
- Edwards, L. and Field-Hendrey, E., 1996, 'Home based workers—data from the 1990 Census of Population', *Monthly Labor Review*, November, pp. 26–34.
- Felstead, A. and Jewson, N., 2000, *In Work, at Home: Towards an Understanding of Homeworking*, Routledge, London.
- Heck, R., Owen A., and Rowe, B., 1995, *Home Based Employment and Family Life*, Auburn House, Wesport.
- Horvath, F. W., 1986, 'Work at home: New findings from the current population survey', *Monthly Labor Review*, November, pp. 31–5.
- Lafferty, G., Hall, R., Harley, B. and Whitehouse, G., 1997, 'Homeworking in Australia: An assessment of current trends', *Australian Bulletin of Labour*, vol. 23, no. 2, pp. 143–56.
- United States Department of Labor, 2005, *Work at Home in 2004*, Washington DC, <<http://www.bls.gov/news.release/homeyr.nro.htm>>.

	Men			Women			All		
	2002	2003	2004	2002	2003	2004	2002	2003	2004
No work from home in 2001									
No work from home	83.9	81.9	78.6	82.4	78.4	75.8	83.2	80.3	77.3
Some work from home	8.1	9.3	11.0	6.3	7.2	7.7	7.3	8.3	9.5
Work mostly from home	1.2	1.1	1.4	1.2	1.5	2.2	1.2	1.3	1.8
Unemployed	2.7	2.1	2.1	2.4	1.3	2.0	2.5	1.7	2.1
NILF	4.2	5.6	6.8	7.7	11.6	12.4	5.8	8.3	9.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Some work from home in 2001									
No work from home	31.8	32.2	36.0	29.8	34.9	35.1	31.0	33.2	35.6
Some work from home	57.2	54.8	51.3	57.7	52.0	46.7	57.4	53.7	49.5
Work mostly from home	6.7	7.6	7.2	5.7	4.9	7.4	6.3	6.6	7.3
Unemployed	1.4	2.0	0.4	1.1	0.9	1.4	1.3	1.6	0.8
NILF	2.9	3.4	5.1	5.7	7.4	9.4	3.9	4.9	6.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Work mostly from home in 2001									
No work from home	18.9	20.9	18.6	10.6	18.8	19.8	14.3	19.7	19.3
Some work from home	22.9	27.0	23.9	14.9	17.1	12.3	18.4	21.4	17.3
Work mostly from home	45.7	40.7	41.9	55.6	43.7	47.0	51.2	42.4	44.8
Unemployed	2.0	1.7	1.5	1.1	0.2	0.9	1.5	0.9	1.1
NILF	10.5	9.8	14.1	17.7	20.2	20.1	14.5	15.7	17.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

Adult education and job training: Everyone is doing it, but does it pay off?

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 2004, for example, 16.1% of prime working age (25–54) men and women enrolled in formal educational courses, and 43.2% of employees undertook some job training. The figures appear even more remarkable when we consider how many undertook education in the four years 2001–2004 combined. 28.4% 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 2001–2004. For most of this period, although not in 2004, prime age women had a higher rate of participation in formal education than prime age men; 30.2% of women were enrolled in courses for all or part of the time, compared with 26.4% 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. Enrolment in formal education declines with age, being 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. With some exaggeration, it might be said that we are all doing it!

Table 2 shows the qualifications being sought by the prime age men and women who were undertaking educational courses in 2004. Recall that 16.1% of the prime age population were pursuing qualifications in that year. The table 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 undergraduate degrees and then master's degrees. More women than men were undertaking the first two types of qualification, but in 2004 more men were enrolled in post-graduate degrees (Graduate Certificates, Graduate Diplomas, Master's Degrees and PhDs).

Table 1: Men and women aged 25–54 undertaking education and/or job training in 2001–2004 (%)

Age group	Education			Job training (employees only) ^a		
	Men	Women	All	Men	Women	All
25–34	36.0	38.3	37.2	59.6	64.9	62.0
35–44	26.6	30.7	28.8	64.6	62.5	63.6
45–54	15.6	20.8	18.3	59.4	60.3	59.9
Total (25–54)	26.4	30.2	28.4	61.2	62.8	62.0

Notes: Population weighted results. ^a In 2004 88.3% of prime age men were employed, as were 71.1% of prime age women.

Table 2: Educational qualifications sought by prime age men and women (25–54) in 2004: Percentage of total enrollees

	<i>Men</i>	<i>Women</i>	<i>All</i>
Certificate 1 or 2	15.3	13.0	14.1
Certificate 3 or 4	22.8	29.0	26.0
Certificate (other)	8.6	8.1	8.4
Diploma	10.3	8.7	9.5
Undergraduate degree ^a	19.7	23.2	21.6
Honours degree	1.0	0.9	1.0
Graduate certificate	9.0	10.2	9.7
Master's degree	15.4	8.8	12.0
Doctoral degree	4.0	3.9	3.9
% of population group in formal education	16.4	15.8	16.1

Notes: Population weighted results. Note that some respondents undertook more than one course. ^a Includes Associate Degrees and Advanced Diplomas.

Table 3 gives somewhat similar results for the 43.2% of employees who reported that they undertook job training in 2004. 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 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 four years of HILDA data available, it is 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 2004, were in fact due to courses undertaken in 2001, 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 2003–04 by individuals who undertook formal education in 2001, compared with those who were not enrolled.² Also shown, are weaker results comparing gains in earnings for those who participated in any educational course at any time in 2001–2003, 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 rose more than the earnings of those not enrolled. This appears to be true for both men and women. It is also fairly clear that most of the apparent gains were due to courses taken in 2001 (or earlier) and that any extra pay-off for education undertaken in later years is still in the pipeline.

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

Table 3: Aims of job training undertaken by prime age men and women (25–54) in 2004: Percentage of total employees who undertook training

<i>Aims of training</i>	<i>Men</i>	<i>Women</i>	<i>All</i>
Getting started in job	5.8	6.1	6.0
Improve skills in current job	72.3	76.6	74.4
Maintain or meet professional or occupational standards	58.7	56.2	57.5
Skills for a possible future job or promotion	27.9	25.9	26.9
General skills	48.4	54.8	51.5
Health and safety	28.3	23.7	26.1
Other aims	2.6	1.7	2.1
% of employees who undertook training	43.5	43.0	43.2

Notes: Population weighted results. Columns do not add to 100—many respondents reported that their training had more than one aim.

Table 4: Changes in annual earnings of prime age men and women in full-time work in both 2001 and 2004, by whether or not they participated in educational courses (%)^a

	<i>Men: median change in earnings</i>	<i>Women: median change in earnings</i>	<i>Total: median change in earnings</i>
Education in 2001?			
Yes	24.6	21.3	23.4
No	15.8	16.9	16.1
Education in 2001–2003?			
Yes	22.1	17.0	19.4
No	15.4	17.9	15.8

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 2003 and 2004, by whether or not they participated in skills related job training in 2003 (%)

<i>Skills related training in 2003?</i>	<i>Men: median change in earnings 2003–2004</i>	<i>Women: median change in earnings 2003–2004</i>	<i>Total: median change in earnings 2003–2004</i>
Yes	6.0	6.3	6.1
No	5.0	7.3	5.6

Notes: Population weighted results. ^a Percentage changes based on nominal dollars (no adjustment for inflation).

taken in 2001 contributed significantly to earnings increases gained by men but not by women.⁴ 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 2003–2004, so essentially we are just asking whether training undertaken in 2003 had already shown a pay-off by 2004. Also, preliminary analysis showed that only skills related training—whether for job-specific or general skills, or to maintain or enhance—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 not apparently women, there may be gains flowing from skills related job training even after only a one-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. In the event, the gains for men who undertook skills training remained statistically significant after ‘controlling for’ age, education and health.⁵ 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 2001–2004

suggests that these investments are already paying off for prime age men, but not apparently for women. However, educational and 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 2001–2004 was 0.09. The equivalent correlation for undertaking job training in 2003–2004 was 0.07.
- 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 The impact of education was significant at the 0.001 level for men. The result still held when individuals who recorded extremely large increases in earnings were omitted.
- 5 Significant at the 0.05 level.

Transitions to retirement

In recent times there has been significant interest in the phenomenon of workers whose transition to retirement involves a bridging job. For example, an individual might shift from full-time employment to a part-time job prior to moving out of the labour force. One reason for interest in bridging jobs is—in the context of concern about implications of the ageing population in Australia—that availability of bridging jobs might provide an incentive for the mature age population (people aged 45 and over) to extend or increase their labour force participation (Borland, 2005). Table 1 shows the labour force status of mature age men and women in 2003.

The proportion of men aged 45 and over who work full-time decreases with age and the proportion who work part-time increases with age until the age of 65, when many men leave the labour force. For women, the proportion in both full-time and part-time work decreases with age.

People aged 45 and over who were employed at the time of their 2003 interview were asked if their current job was part of a transition to retirement.

The proportion of men and women who described their current jobs as part of a transition to full retirement is shown in Table 2.

Around 20% of workers aged 45 and over said that their current job was part of a transition to full retirement. The proportion of workers in a transition job increases strongly with age—10% to 15% for workers aged 45–54 years compared to over 50% for workers aged 65+ years; and is generally higher for females than males. It was much more common for people who were working part-time to say that their job was a transition job—51% of men and 36.3% of women who were over 44 and working part-time said their current job was part of a transition to retirement.

Men and women who were in transition jobs were asked the reason they changed to a transition job. Table 3 shows that reasons ranged from family and lifestyle reasons, (e.g. to spend more time with family or to have more personal or leisure time), to health reasons and job related or financial reasons.

Table 1: Labour force status of the mature age population, 2003 (%)

	Age group				All (45+)
	45–54	55–59	60–64	65+	
Men					
Employed full-time	76.0	56.7	27.3	5.1	44.3
Employed part-time	7.1	10.9	14.8	6.3	8.5
Unemployed	2.8	*3.6	*2.4	*0.1	2.0
Not in the labour force	14.2	28.8	55.5	88.5	45.2
Total	100.0	100.0	100.0	100.0	100.0
Women					
Employed full-time	38.3	26.7	8.3	0.7	19.8
Employed part-time	32.1	23.7	16.2	4.0	19.1
Unemployed	2.0	*0.9	*0.3	*0.1	1.0
Not in the labour force	27.5	48.7	75.1	95.2	60.2
Total	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 2: Transition jobs, by gender, age and hours of work—employed persons 45+, 2003 (%)

	Age group				All (45+)
	45–54	55–59	60–64	65+	
Men					
Employed full-time	8.5	17.9	*20.2	*29.7	12.1
Employed part-time	24.5	42.3	72.6	78.7	51.0
Total	9.9	21.7	38.5	57.2	18.2
Women					
Employed full-time	6.5	*9.9	*22.9	*0.0	7.9
Employed part-time	26.5	44.6	65.6	62.4	36.3
Total	15.6	26.1	50.7	53.5	21.8

Notes: Population weighted results. * Estimate not reliable.

The most common reason for taking up a transition job was to have more personal or leisure time—17.3% of men and 18.0% of women said this was their main reason for being in a transition job. Around 12% of men and women who were in transition jobs said they were in a transition job because of ill health, and 11.4% said they had taken up a transition job because they were fed up with working, or the stresses and demands of their

previous job. A further 10% said they had taken up a transition job after being made redundant or being dismissed from their previous job.

The main ways in which mature age workers in transition jobs considered their jobs to constitute a transition to retirement are shown in Table 4.

For many, taking a transition job involved a job that was less demanding or involved less

Table 3: Main reason for taking a transition job—mature age persons in transition jobs, 2003 (%)

	<i>Men</i>	<i>Women</i>	<i>All</i>
To have more personal/leisure time	17.3	18.0	17.6
Own ill health	11.2	12.9	12.1
Fed up with working, work stresses, demands	8.8	14.3	11.4
Made redundant / dismissed / had no choice	12.1	7.8	10.0
To spend more time with other family members	*4.6	11.0	7.7
Could afford to / had enough income	*5.3	*4.4	4.9
To spend more time with spouse/partner	*5.5	*4.1	4.8
Spouse's/partner's income enabled me to retire	*0.8	*5.2	*2.9
Superannuation rules made it financially advantageous	*4.5	*0.5	*2.6
Offered reasonable financial terms to retire early or accept	*3.5	*0.8	*2.2
Ill health of spouse/partner	*1.7	*2.8	*2.2
Could not find another job	*2.9	*1.1	*2.0
Pressure from employer or others at work	*1.2	*2.4	*1.7
Became eligible for the old age pension	*1.7	*0.8	*1.3
Ill health of other family member	*0.2	*1.6	*0.9
Spouse/partner wanted me to retire	*1.1	*0.7	*0.9
Partner had just retired or was about to retire	*0.0	*0.8	*0.4
To have children / start family / to care for children	*0.4	*0.4	*0.4
Reached compulsory retirement age	*0.7	*0.0	*0.3
Other reason / not able to classify	16.6	10.4	13.6
Total	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 4: Ways in which your current job is different from the job you had prior to beginning this transition to retirement—persons aged 45+ and currently in a transition job, 2003 (%)

	<i>Age group</i>				
	<i>45–54</i>	<i>55–59</i>	<i>60–64</i>	<i>65+</i>	<i>All (45+)</i>
Men					
Less demanding or involves less responsibility	47.8	57.7	81.4	79.5	63.8
Involves a change from full-time to part-time work	24.3	45.6	65.3	77.9	48.7
Involves a change to casual or contract work	33.2	34.8	51.1	48.0	40.3
Involves a completely different line of work	39.1	34.5	45.7	41.7	39.9
Provides more opportunities for working at or from home	35.2	26.9	*35.8	*28.0	31.9
Involves a change to working for yourself rather than someone else	25.6	*21.7	*28.6	*16.0	23.4
Involves a change to working for someone else rather than for yourself	*9.6	*14.5	*11.7	*16.4	12.6
Women					
Less demanding or involves less responsibility	67.0	65.8	78.4	61.1	68.0
Involves a change from full-time to part-time work	54.6	67.4	81.8	63.5	63.0
Involves a change to casual or contract work	31.1	44.7	*28.9	*44.4	35.3
Involves a completely different line of work	47.8	50.0	32.1	*35.8	44.6
Provides more opportunities for working at or from home	26.0	*21.7	*45.4	*35.8	29.1
Involves a change to working for yourself rather than someone else	*12.6	*10.2	*33.6	*18.0	16.0
Involves a change to working for someone else rather than for yourself	*9.2	*14.4	*8.7	*7.7	10.3

Notes: Population weighted results. * Estimate not reliable.

responsibility than their previous job. Changes from full-time work to part-time were also common, with 48.7% of men and 63.0% of women moving to a part-time job as part of their transition to retirement. Around 40% of men and 45% of women who described their current job as a transition had changed to a completely different line of work. Working from home was common among men and women in transition jobs, with 31.9% of men and 29.1% of women saying their transition job provided more opportunities for home-based work. For 12.6% of men and 16.0% of women, the transition to retirement involved a change from being an employee to being self-employed.

Around 65% of men and women in transition jobs said that taking such a job had been associated with a decrease in income. People who said their transition job had involved a reduction in income were asked what they had done to cope with this drop in income. The responses are summarised in Table 5.

While many experienced a drop in income after taking a transition job, it seems that any action taken to cope with this reduction in income was not drastic—35.3% of people who said their income was lower since they started their transition job said they did not need that much income, 30.1% said they cut back on normal weekly

spending and 23.8% cut down on less frequent expenditures like holidays, cars and large household goods.

Table 6 shows that most people in transition jobs said that they would still be working if they had not been able to move into their transition job—but for the population aged 45+ years there are still about 30% who believe that they would not currently be working in the absence of a transition job.

The proportion who said they would still be working if they had not been able to take a transition job was lower for women than men, particularly in the 60–64 age group, where only 54.9% of women said they would be still working, compared to 75.5% of men.

Are people in transition jobs more satisfied with their job?

Given that transition jobs involve fewer working hours, a less demanding job and opportunities to work from home, is job satisfaction higher for men and women in transition jobs? Table 7 compares the average overall job satisfaction of men and women in transition jobs, with those who were not in transition jobs.¹

With the exception of men aged between 60 and 64, the average level of job satisfaction was slightly

Table 5: What have you done to cope with this reduction in income—mature age persons in transition jobs, 2003 (%)

	<i>Men</i>	<i>Women</i>	<i>All</i>
Nothing—don't need as much income	34.7	35.9	35.3
Cut back on normal weekly spending	26.5	33.4	30.1
Cut down on less frequent expenditures, such as holidays, new cars and large household goods	20.9	26.4	23.8
Used savings or investments	18.0	14.4	16.1
Used superannuation funds	19.8	*10.3	14.9
Stopped trying to save	11.6	14.9	13.3
Sold other assets	*9.3	*4.9	7.0
Went into debt	*8.2	*4.2	6.2
Used early retirement/redundancy package	*10.4	*2.7	6.4
Spouse or partner went out to work or increased working hours	*3.2	*7.6	5.4
Sold house / moved to lower cost accommodation	*3.1	*6.0	*4.6
Other	*2.3	*6.6	*4.6

Notes: Population weighted results. * Estimate not reliable.

Table 6: If you had not been able to move into this transition job, would you still be in paid work today—persons aged 45+ and currently in a transition job

	<i>Proportion who answered 'yes'</i>				
	<i>45–54</i>	<i>55–59</i>	<i>60–64</i>	<i>65+</i>	<i>All (45+)</i>
Men	85.0	79.9	75.5	55.1	76.1
Women	78.1	66.3	54.9	*52.5	68.8
Persons	81.1	73.3	66.8	54.2	72.6

Notes: Population weighted results. * Estimate not reliable.

Table 7: Job satisfaction (means)—mature age population, 2003

	<i>Age group</i>				<i>All (45+)</i>
	<i>45–54</i>	<i>55–59</i>	<i>60–64</i>	<i>65+</i>	
Men					
In a transition job	7.9	8.0	8.0	9.0	8.2
Not in a transition job	7.5 [^]	7.7	8.2	8.8	7.6 [^]
Women					
In a transition job	8.3	8.3	8.9	8.6	8.4
Not in a transition job	7.8 [^]	7.8	8.3	8.4	7.9 [^]

Notes: Population weighted results. [^] = significantly different from the 'in transition job' category at the 5% level.

higher for men and women in transition jobs. The average job satisfaction of men and women who were not in transition jobs was 7.6 out of 10 and 7.9 out of 10 respectively, compared to 8.2 out of 10 for men in transition jobs and 8.4 for women in transition jobs.

Endnote

- 1 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'.

Reference

Borland, J., 2005, 'Transitions to retirement: A review', Melbourne Institute Working Paper Series, no. 3/05, <<http://www.melbourneinstitute.com/wp/wp2005n03.pdf>>.

LIFE SATISFACTION, HEALTH AND WELL-BEING

4

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Life satisfaction and satisfaction with many specific aspects of life

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 2001–2004.¹

It is clear that, for the population as a whole, life satisfaction has been unchanged over the last four years, with average levels remaining at about 8 on the 0–10 scale. Men and women in the 35 to 44 age group had the lowest average life satisfaction (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).

A slightly puzzling finding is that 15–19 year olds were more satisfied than those aged 20–24. Some previous research, particularly in the United States, had indicated that young people's satisfaction tends to improve rather than decline once they leave school (Andrews and Withey, 1976; Backman, O'Malley and Johnston, 1978).

In general, in Australia, although 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 2004, 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,

Table 1: Average (mean) life satisfaction by age, 2001–2004

Age group	2001			2002			2003			2004		
	Men	Women	All	Men	Women	All	Men	Women	All	Men	Women	All
15–19	8.2	8.1	8.2	8.1	8.2	8.1	8.3	8.2	8.3	8.3	8.1	8.2
20–24	7.9	7.9	7.8	7.7	7.7	7.8	7.9	7.8	7.9	7.7	7.8	7.8
25–34	7.6	7.8	7.7	7.7	7.7	7.7	7.8	7.9	7.8	7.7	7.9	7.8
35–44	7.5	7.8	7.7	7.5	7.7	7.6	7.6	7.7	7.7	7.6	7.9	7.7
45–54	7.8	8.0	7.9	7.7	7.8	7.7	7.7	7.9	7.8	7.7	7.8	7.7
55–64	8.0	8.1	8.1	7.9	8.1	8.0	8.0	8.0	8.0	7.9	8.1	8.0
65+	8.5	8.5	8.5	8.4	8.3	8.3	8.4	8.6	8.5	8.4	8.4	8.4
All ages	7.9	8.0	8.0	7.8	7.9	7.9	8.0	8.1	8.0	7.9	8.0	7.9

Note: Population weighted results.

Table 2: Aspects of life satisfaction (means)

Satisfaction with ...	2001			2004		
	Men	Women	All	Men	Women	All
The home in which you live	8.0	8.1	8.1	8.0	8.1	8.0
Employment opportunities	6.7	6.6	6.7	7.0	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	8.1
Feeling part of local community	6.6	6.7	6.6	6.7	6.9	6.8
Your health	7.4	7.4	7.4	7.4	7.3	7.3
Your neighbourhood	8.0	8.1	8.0	8.0	8.0	8.0
Amount of free time you have	6.7	6.7	6.7	6.8	6.7	6.7

Note: Population weighted results.

slightly contradicting this last result, satisfaction was relatively low with 'feeling part of your local community'. The aspects which occasioned least satisfaction (although average scores were still over 5 on the 0–10 scale) were 'your financial situation' and 'the amount of free time you have'.

Average scores for most aspects of life scarcely changed in 2001–2004. The largest change in fact was in levels of satisfaction with 'your financial situation', which increased from an average of 6.1 in 2001 and 2002 to 6.4 in 2004.

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 5 on the 0–10 satisfaction scale.

The proportion reporting levels of life satisfaction of less than 5 out of 10 in one or more of the four years was only around 8%, and the proportion

who reported low levels of life satisfaction in four consecutive years was just 0.2%. It should be noted that 91.8% 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 in which you live', 'your neighbourhood', and 'how safe you feel' rarely persist, with less than 1% of respondents reporting dissatisfaction with these things in all four 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. 38.9% of respondents reported dissatisfaction with their financial situation in at least one of four years, and 5.2% were dissatisfied every year. 32.6% were dissatisfied with the extent to which they felt part of the local community in at least one of these years

Table 3: Years of low overall life satisfaction and low satisfaction with specific aspects of life (%)

	0 years	1 year	2 years	3 years	4 years	Total
All						
Overall life satisfaction	91.8	5.6	1.8	0.7	0.2	100.0
The home in which you live	84.9	10.1	3.5	1.1	0.4	100.0
Employment opportunities	69.9	15.2	7.9	4.4	2.6	100.0
Your financial situation	61.1	17.0	9.8	7.0	5.2	100.0
How safe you feel	86.6	9.4	2.8	0.9	0.4	100.0
Feeling part of local community	67.4	17.2	8.5	4.4	2.4	100.0
Your health	81.0	9.4	4.4	2.8	2.3	100.0
Your neighbourhood	87.6	8.5	2.6	1.0	0.4	100.0
Amount of free time you have	56.5	19.2	11.9	7.5	4.9	100.0
Men						
Overall life satisfaction	91.0	5.9	2.1	0.7	0.2	100.0
The home in which you live	85.4	10.1	3.1	1.1	0.4	100.0
Employment opportunities	70.9	14.5	7.5	4.7	2.2	100.0
Your financial situation	61.0	17.0	9.6	6.9	5.5	100.0
How safe you feel	88.8	7.9	2.2	0.7	0.4	100.0
Feeling part of local community	66.3	17.4	8.9	4.7	2.7	100.0
Your health	81.7	8.8	4.2	2.8	2.4	100.0
Your neighbourhood	88.1	8.5	2.3	0.7	0.4	100.0
Amount of free time you have	58.5	19.3	11.2	6.4	4.6	100.0
Women						
Overall life satisfaction	92.4	5.2	1.5	0.7	0.2	100.0
The home in which you live	84.5	10.1	3.9	1.2	0.3	100.0
Employment opportunities	68.9	15.8	8.3	4.0	2.9	100.0
Your financial situation	61.1	17.0	10.0	7.0	4.9	100.0
How safe you feel	84.7	10.6	3.3	1.1	0.3	100.0
Feeling part of local community	68.4	17.0	8.2	4.2	2.2	100.0
Your health	80.4	10.0	4.5	2.9	2.2	100.0
Your neighbourhood	87.1	8.5	2.9	1.2	0.3	100.0
Amount of free time you have	54.7	19.2	12.5	8.4	5.1	100.0
<i>Note: Population weighted results.</i>						

Table 4: Satisfaction with relationship with partner by gender and age (means)

Age group	2001			2004		
	Men	Women	All	Men	Women	All
15–19	8.5	8.0	8.2	8.1	7.8	7.9
20–24	8.4	8.4	8.4	7.8	8.0	7.9
25–34	8.5	8.4	8.4	8.3	8.1	8.2
35–44	8.3	8.1	8.2	8.0	7.8	7.9
45–54	8.5	8.3	8.4	8.1	7.7	7.9
55–64	9.0	8.6	8.8	8.6	8.1	8.4
65+	9.2	9.1	9.2	8.9	8.7	8.8
Total	8.6	8.4	8.5	8.3	8.0	8.2

Note: Population weighted results.

Table 5: Relationship satisfaction by age of youngest child (means)

Age of youngest child in the household	2001			2004		
	Men	Women	All	Men	Women	All
Less than 5 years	8.1	8.3	8.5	8.4	8.0	8.2
5–9 years	8.0	8.2	8.4	8.0	7.6	7.8
10–14 years	8.0	8.2	8.4	8.1	7.7	7.9
No children under 15	8.6	8.7	8.7	8.4	8.1	8.2
Total	8.4	8.5	8.6	8.3	8.0	8.2

Note: Population weighted results.

and 2.4% were dissatisfied every year. Lack of free time is also an ongoing problem for some people. 44.5% reported dissatisfaction in at least one year and 4.9% 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 high levels of satisfaction with their relationship, with at least 75% each year rating it 8 or higher on the scale. Generally speaking, men are more satisfied with their partners than the other way round. In the 45–54 and 55–65 age groups the differences are quite marked. Only in the age range 20–24 was their no gender gap.

Relationship satisfaction does *not* follow a linear pattern through life. Leaving out the under 25s, who in many cases would not have a settled partnership, it is relatively high among the under 35s, lowest (although still high on average) among those 35–54, and highest among the over 65s. 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 ones 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 2001–2004. In 2001 the average rating given by respondents was 8.5. The level fell each year and had

fallen to 8.2 by 2004. The decline was greatest in the 20–24 age group and among the over 45s.

Impact of children on satisfaction with main relationship

Table 5 explores the impact of children on relationships in a little more detail.

The evidence is that partners with no children under 15 in their household report the highest levels of relationship satisfaction. This holds true both for those who have never had children and for those whose children have grown up and left home. Women with children between 5 and 14 years old reported the lowest levels of satisfaction, although average scores are still around 8 out of 10. To repeat and extend an earlier finding, relationship satisfaction declined in 2001–2004 among parents with children of all ages, and among partners with no children.

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

Table 6: Relationship satisfaction by time living with partner/spouse (means)

Duration of current relationship	Men	Women	All
Less than 1 year	7.2	7.0	7.1
1–4 years	8.5	8.5	8.5
5–9 years	8.4	8.2	8.3
10–19 years	8.2	8.0	8.1
20+ years	8.7	8.2	8.5
Total	8.3	8.0	8.2

Note: Population weighted results.

has been going for between one and four years, and 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.

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.

References

- Andrews, F.M. and Withey, S.B., 1976, *Social Indicators of Well-Being*, Plenum, New York.
- Backman, J.G., O'Malley, P.M. and Johnston, J., 1978, *Adolescence to Adulthood*, ISR, Ann Arbor.
- Cummins, R.A., 1999, *Bibliography on Quality of Life and Cognate Areas of Study*, 5th ed, School of Psychology, Deakin University, Melbourne.
- Headey, B.W. and Wearing, A.J., 1992, *Understanding Happiness: A Theory of Subjective Well-Being*, Longman Cheshire, Melbourne.

The importance of religion to the lives of Australians—and does it make you happier?

Melanie Davern

In 2004, for the first time, HILDA Survey respondents were asked about religious belief and practice. They were asked to describe their religion and/or denomination (e.g. Anglican, Catholic, Islam, Buddhism). They were asked to rate the importance of religion in their life, on a scale of 0 to 10, with 0 meaning 'one of the least important things in my life' and 10 meaning 'the most important thing in my life'. Finally, they were asked how often they attended religious services.

This article reports answers to these questions and also raises the issue of whether religious people enjoy higher levels of life satisfaction than non-religious people.

Table 1 gives summary results on religious affiliation.

Almost 70% of respondents were Christians, and the most common Christian denominations in Australia were Catholic and Anglican. Of the non-Christian religions, Buddhism was the most common, followed by Islam and Hinduism. Overall, 26.2% of the population said they had no religion, and this response was more common for men than women, with 30.5% of men and 22.1% of women saying they were not religious.

How important is religion in people's lives?

HILDA Survey respondents were asked to rate the importance of religion in their life on a scale of 0 to 10, with 0 being 'one of the least important things in my life' and 10 being 'the most important thing in my life'. The most common response to this question was a rating of 0, with 32.8% of men and 21.2% of women saying religion was one of the least important things in their lives, but (obviously) this response was given mostly by those who said that they had no religion. Still, 64.0% of

Table 1: Religious affiliation, 2004 (%)

	Men	Women	All
Christianity	65.1	72.8	69.1
Buddhism	1.4	1.9	1.6
Islam	1.1	0.7	0.9
Hinduism	0.8	0.7	0.7
Judaism	0.3	*0.3	0.3
Other religions	0.9	1.4	1.2
No religion	30.5	22.1	26.2
Total	100.0	100.0	100.0

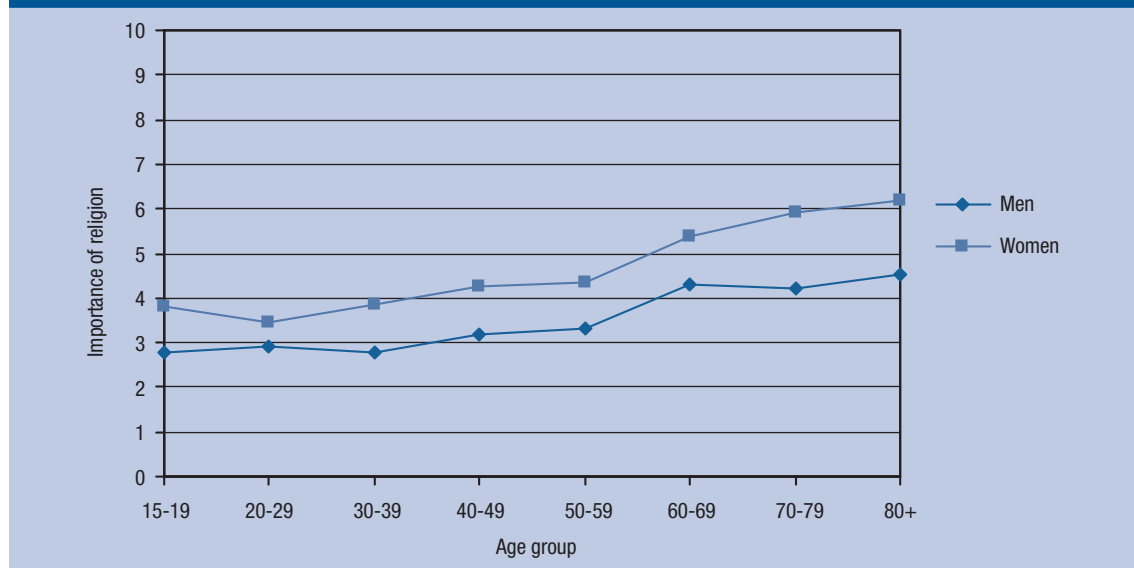
Notes: Population weighted results. * Estimate not reliable.

men and 50.8% of women rated the importance of religion in their life at less than 5 out of 10. On average, men rated the importance of religion at 3.3 out of 10, and the average rating for women was 4.4 out of 10. Figure 1 shows the average importance of religion by gender and age group.

The importance of religion in people’s lives increases with age, and across all age groups; reli-

gion is more important for women than for men. The gender difference in the importance of religion is most noticeable for people over the age of 70—the average importance of religion was 4.2 out of 10 for men in their seventies and 4.5 out of 10 for men aged 80 and over, compared to 5.9 out of 10 for women in their seventies and 6.2 out of 10 for women aged 80 or over.

Figure 1: Importance of religion by age group



Note: Population weighted results.

Table 2: Frequency of attendance at religious services, by gender and age group (%)

	Age group						
	15-19	20-29	30-39	40-49	50-59	60+	All (15+)
Men							
Never	26.8	31.9	35.0	34.0	39.6	36.3	34.9
Less than once a year	14.1	15.9	18.2	15.8	15.8	16.4	16.2
About once a year	13.5	14.3	13.2	13.5	13.3	11.4	13.0
Several times a year	18.6	17.9	15.2	14.2	8.7	9.6	13.0
About once a month	*5.1	*3.4	4.1	3.9	3.4	2.6	3.5
2 or 3 times a month	*1.8	*4.7	*3.1	3.8	4.4	3.1	3.6
About once a week	13.0	8.5	8.4	10.0	11.4	16.0	11.5
Several times a week	*4.6	*3.2	*2.6	4.3	3.5	3.7	3.6
Every day	*2.4	*0.3	*0.3	*0.5	*0.0	*0.9	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women							
Never	24.1	30.1	28.2	32.0	32.4	26.9	29.2
Less than once a year	10.4	16.4	14.1	13.7	14.2	13.8	14.0
About once a year	12.4	15.3	14.1	13.4	14.6	11.9	13.5
Several times a year	22.0	15.6	20.3	14.7	11.4	13.2	15.5
About once a month	*4.8	4.3	4.6	4.5	4.7	4.1	4.4
2 or 3 times a month	*5.3	5.0	5.3	3.4	4.4	3.2	4.3
About once a week	13.3	8.5	9.7	13.5	13.7	20.3	13.9
Several times a week	7.3	4.2	3.0	4.4	4.2	6.3	4.8
Every day	*0.3	*0.7	*0.6	*0.4	*0.3	*0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

How often do people attend religious services?

HILDA Survey respondents were asked how often they attended formal religious services, excluding weddings and funerals. Table 2 shows the distribution of responses, by gender and age group.

Attendance at formal religious services is more common among women and increases with age. Women are more likely to attend religious services than men with 19.1% reporting attendance once a week or more while only 15.7% of men attend this frequently. Approximately 64% of men report attending religious services once a year or less, while 56.7% of women attend this infrequently.

Are religious people happier?

Are people for whom religion is very important happier than people who do not place great importance on religion? Each year the HILDA Survey includes a number of questions about life satisfaction including *'All things considered, how satisfied are you with your life?'* This question is rated according to a 0–10 scale ranging from 0 meaning 'totally dissatisfied' to 10, meaning 'totally satisfied'. For the last four years of the HILDA survey life satisfaction ratings for Australians have remained constant with a relatively high average of 8.0.

Table 3 compares the average life satisfaction of people who rated religion as not important (0 to 4 out of 10), of medium importance (5 to 7 out of 10) and of great importance (8 or higher out of 10).¹

The evidence in Table 3 appears borderline. In most age groups, and for the population as a whole, people who attach a high level of importance to religion appear somewhat more satisfied with life. More detailed statistical analysis (multiple regression) does, however, tend to confirm that religious people are happier. That is, if other variables which also affect life satisfaction are taken into account, the importance of religion to

individuals remains clearly significantly associated with their overall life satisfaction.²

We now ask a similar question about attendance at religious services, which is of course highly correlated with the importance of religion in one's life. Is regular church attendance associated with higher levels of life satisfaction? (Table 4)

Compared to people who never attend religious services, average levels of life satisfaction were slightly higher for men and women who attended religious services several times a week. For men, average levels of life satisfaction ranged from 7.7 out of 10 for men who attended religious services less than once a year, to 8.2 out of 10 for men who attended religious services several times a week. The average levels of life satisfaction for women who either did not attend religious services or attended religious services infrequently was around 8 out of 10, but for women who attended religious services several times a week, average life satisfaction was slightly higher—8.4 out of 10, and average life satisfaction was substantially higher (8.9 out of 10) for women who attended religious services every day. Again, multivariate statistical analysis confirmed rather than undermined the main results shown in the table.

Does frequent attendance at religious services increase community connection? Each year, HILDA Survey respondents are asked to rate their satisfaction with their feeling of being part of their local community on a scale of 0 to 10, where 0 means 'totally dissatisfied' and 10 means 'totally satisfied'. Table 5 shows the average level of satisfaction with community connection, by age, gender and frequency of attendance at religious services.

Greater feelings of satisfaction with community connection are associated with people who not only believe in a religion, but who attend religious services frequently. At a minimum, these individuals attend religious services weekly and their frequent contact with other people at religious services appears to be an important influence in establishing community connection.

Table 3: Life satisfaction (means) by gender, age and importance of religion

Importance of religion	Age group						All (15+)
	15–19	20–29	30–39	40–49	50–59	60+	
Men							
Low (0–4)	8.2	7.7	7.6	7.6	7.9	8.3	7.8
Medium (5–7)	8.2	7.8	7.5	7.6	7.9	8.3	7.9
High (8–10)	8.2	7.9	7.8	7.9	7.8	8.4	8.0
Total	8.2	7.8	7.6	7.7	7.9	8.3	7.9
Women							
Low (0–4)	8.0	7.8	8.0	7.9	7.8	8.4	8.0
Medium (5–7)	8.1	7.9	7.8	7.8	8.0	8.2	8.0
High (8–10)	8.4	7.9	8.1	7.9	8.1	8.5	8.2
Total	8.1	7.8	7.9	7.9	7.9	8.4	8.0

Note: Population weighted results.

Table 4: Life satisfaction (means) by gender, age and frequency of attendance at religious services

Frequency of attendance at religious services	Age group						
	15–19	20–29	30–39	40–49	50–59	60+	All (15+)
Men							
Never	8.1	7.7	7.6	7.6	7.9	8.3	7.9
Less than once a year	8.1	7.5	7.4	7.5	7.7	8.3	7.7
About once a year	8.2	8.1	7.5	7.8	7.7	8.4	7.9
Several times a year	8.0	7.7	7.7	7.7	7.8	8.5	7.9
About once a month	*8.0	*7.7	*7.6	7.8	7.8	8.3	7.9
2 or 3 times a month	*8.7	*8.4	7.6	7.7	7.5	8.7	8.0
About once a week	8.7	8.0	8.1	7.7	7.9	8.2	8.1
Several times a week	8.3	8.9	8.3	8.3	8.3	7.7	8.2
Every day	*8.5	*7.6	*8.5	*7.1	–	*8.0	8.1
Total	8.2	7.8	7.6	7.7	7.9	8.3	7.9
Women							
Never	8.0	7.7	7.9	7.8	8.0	8.3	8.0
Less than once a year	7.9	7.8	8.0	8.0	7.9	8.3	8.0
About once a year	8.0	7.9	7.8	7.9	7.8	8.5	8.0
Several times a year	8.1	7.8	7.8	7.7	7.8	8.3	7.9
About once a month	*8.3	7.9	8.0	7.8	7.4	8.2	7.9
2 or 3 times a month	8.2	7.9	7.9	7.9	8.5	8.3	8.1
About once a week	8.4	8.2	8.1	7.9	7.9	8.5	8.2
Several times a week	8.5	8.5	8.5	8.1	7.9	8.7	8.4
Every day	*9.0	*7.6	*9.6	*9.5	*8.7	*9.1	8.9
Total	8.1	7.8	7.9	7.9	7.9	8.4	8.0

Notes: Population weighted results. * Estimate not reliable.

Table 5: Satisfaction with feeling part of local community (means) by gender, age and frequency of attendance at religious services

Frequency of attendance at religious services	Age group						
	15–19	20–29	30–39	40–49	50–59	60+	Total
Men							
Never	6.5	6.1	6.2	6.5	6.7	6.9	6.5
Less than once a year	7.2	5.6	6.5	6.3	6.8	7.2	6.6
About once a year	6.8	6.4	6.7	6.9	7.4	7.3	7.0
Several times a year	7.1	6.5	6.4	6.7	7.4	7.6	6.9
About once a month	*6.8	*6.4	6.9	7.0	6.9	7.5	6.9
2 or 3 times a month	*8.4	*6.8	6.9	7.0	6.9	7.5	7.1
About once a week	7.4	6.2	6.8	7.0	7.4	7.3	7.1
Several times a week	*6.8	*7.9	*5.0	7.5	7.5	7.3	7.1
Every day	*7.7	*5.6	*8.8	*7.4	–	*6.7	7.3
Total	6.8	6.2	6.3	6.6	6.9	7.1	6.7
Women							
Never	6.6	5.9	6.7	6.8	6.7	6.8	6.6
Less than once a year	6.4	6.4	6.9	7.0	7.0	7.3	6.9
About once a year	6.8	6.3	6.8	7.0	7.2	7.6	7.0
Several times a year	6.9	6.2	6.7	7.0	7.1	7.3	6.9
About once a month	*7.7	6.7	6.7	7.3	6.2	7.7	7.0
2 or 3 times a month	5.9	7.1	6.8	7.3	7.6	7.4	7.1
About once a week	7.1	6.5	7.1	7.5	7.2	7.4	7.3
Several times a week	7.7	6.8	7.8	7.4	7.5	7.7	7.5
Every day	*6.0	*7.4	*8.3	*9.3	*6.1	*8.5	8.0
Total	6.8	6.2	6.8	7.0	6.9	7.3	6.9

Notes: Population weighted results. * Estimate not reliable.

Conclusions

In 2004, almost 70% of respondents were Christians, and the most common Christian denominations in Australia were Catholic and Anglican. Of the non-Christian religions, Buddhism was the most common, followed by Islam and Hinduism. Overall, 26.2% of the population said they had no religion, and this response was more common for men than women. The importance of religion and the frequency of attendance at formal religious services were higher for women and increased with age.

The importance of religion in one's life and frequency of attendance at religious services are

significantly associated with higher levels of life satisfaction, and also of feeling integrated into the local community.

Endnotes

- 1 Respondents rated their overall life satisfaction on a scale of 0 to 10, with 0 being 'totally dissatisfied', and 10 being 'totally satisfied'.
- 2 The relationship is significant at the 0.001 level, taking account of gender, age, age squared, health and employment status. However, it cannot be concluded that being religious makes you happy, it may be the other way around; that is, that people who are generally happier are more likely to be religious.

Exercise and health: 2001–2004

Over the last 50 years, there has been a worldwide decrease in the amount of physical activity in people's everyday lives (World Health Organisation, 2000). For most of us, physical activity is no longer a natural part of our daily schedule. We rely more on motorised transport and labour-saving devices in the home than we did in the past; and the increased prevalence of office work and use of computers mean that fewer people now work in physically demanding jobs. It is also less common these days for people to participate in leisure activities that involve physical activity. According to the Australian Bureau of Statistics (1998), Australians spend more than half of their free time on passive leisure activities—watching television accounted for 36% of all free time. In 2001, 32% of the adult population were classified as 'physically inactive' and, partly as a consequence, more than 6.5 million Australian adults were overweight or obese (ABS, 2004).¹

The benefits of engaging in regular physical exercise include offering protection against some cancers, a reduction in the risk of diabetes and cardiovascular disease and also improvements in mental health.² Based on the national physical activity survey conducted with Australian adults in November 1999, Armstrong et al. (2000) found that, while a large and growing proportion of Australians see the health benefits of physical activity, participation is declining and the proportion of physically inactive people is increasing. Data from the Australian Bureau of Statistics (2004) indicate that in 2001, compared to those who exercised at moderate or high levels physically inactive adults were 1.3 times more likely to have coronary heart disease, 1.6 times more likely to be obese and 1.7 times more likely to have a high or very high level of psychological distress.³

Table 1: Exercise behaviour of men and women, 2001–2004 (%)

Frequency of exercise	2001	2002	2003	2004
Men				
Not at all	11.3	11.6	10.9	10.7
Less than once a week	14.0	13.3	14.4	14.9
1 to 2 times a week	21.5	22.8	23.7	21.6
3 times a week	14.7	13.9	13.5	15.5
More than 3 times a week	21.3	21.6	21.6	22.0
Every day	17.2	16.8	16.0	15.2
Total	100.0	100.0	100.0	100.0
Women				
Not at all	13.4	12.6	13.5	13.1
Less than once a week	16.4	17.8	17.8	16.7
1 to 2 times a week	23.9	25.0	23.9	25.2
3 times a week	15.5	16.2	15.4	16.0
More than 3 times a week	20.0	18.8	20.0	19.7
Every day	10.7	9.6	9.3	9.3
Total	100.0	100.0	100.0	100.0

Note: Population weighted results.

Table 2: Exercise behaviour by gender and age group, 2004 (%)

Frequency of exercise	Age group						Total
	15–19	20–29	30–39	40–49	50–59	60+	
Men							
Not at all	5.5	5.7	8.1	8.4	14.3	18.5	10.7
Less than once a week	9.4	13.1	17.8	18.9	13.4	13.4	14.9
1 to 2 times a week	14.5	23.7	25.0	22.5	23.7	17.3	21.6
3 times a week	16.1	18.9	17.3	14.4	12.6	14.7	15.6
More than 3 times a week	27.1	21.6	18.8	22.0	22.5	22.8	22.0
Every day	27.4	17.0	12.9	13.7	13.6	13.3	15.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Women							
Not at all	6.1	6.8	11.8	13.1	13.6	21.1	13.1
Less than once a week	19.1	17.4	19.2	18.0	16.8	12.0	16.7
1 to 2 times a week	28.1	32.5	25.7	25.2	20.2	21.9	25.2
3 times a week	19.6	17.1	16.1	15.3	15.9	14.2	16.0
More than 3 times a week	20.4	19.3	18.2	18.2	22.0	20.6	19.7
Every day	6.7	6.9	9.1	10.2	11.5	10.1	9.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Population weighted results.

In every year of the HILDA Survey, people are asked how many times a week they participate in moderate or intensive physical activity for at least 30 minutes.⁴ Table 1 shows the amount of exercise reported by men and women in the four years from 2001 to 2004.

The National Heart Foundation recommends at least 30 minutes of moderate-intensity physical activity on most, if not all, days of the week (Briffa et al., 2006). The HILDA Survey data indicate that a relatively small proportion actually exercise this frequently. Around 11% of men and 13% of women said they did not exercise at all, and a fur-

ther 14% of men and 17% of women said they participated in physical activity less than once a week. On the other hand, around 45% of women and 52% of men said they exercised three times a week or more. However, the proportion who exercised every day fell slightly over the four-year period, from 17.2% of men and 10.7% of women in 2001 to 15.2% of men and 9.3% of women in 2004.

Of course, the amount of physical activity changes with age, and one would expect that younger people exercise more frequently. Table 2 shows the amount of exercise done by men and women in 2004, by age group.

Table 3: General health (0–100 scale) by exercise behaviour, gender and age group, 2004 (means)

Frequency of exercise	Age group						Total
	15–19	20–29	30–39	40–49	50–59	60+	
Men							
Not at all	73.5	56.0	63.3	60.0	47.4	48.4	54.0
Less than once a week	68.1	66.2	63.6	64.2	60.3	53.7	62.2
1 to 2 times a week	71.4	70.4	70.6	68.3	64.5	59.1	67.2
3 times a week	78.4	74.1	73.0	71.4	66.2	62.8	70.6
More than 3 times a week	81.1	77.4	77.3	72.7	70.0	68.1	73.7
Every day	82.4	80.0	76.5	75.2	76.2	70.3	76.7
Total	78.0	72.9	71.2	69.2	64.6	60.6	68.5
Women							
Not at all	60.4	66.5	67.4	53.6	56.5	47.3	55.8
Less than once a week	63.8	64.9	67.7	65.1	63.0	54.1	63.5
1 to 2 times a week	67.4	70.9	71.9	69.6	63.4	66.3	68.7
3 times a week	72.3	74.7	72.6	75.7	68.8	63.8	71.2
More than 3 times a week	75.8	75.0	78.3	75.5	73.8	71.1	74.7
Every day	73.4	73.8	77.3	72.7	73.9	71.7	73.8
Total	69.3	71.2	72.3	69.1	66.7	62.0	68.2

Note: Population weighted results.

Table 4: Mental health (0–100 scale) by exercise behaviour, gender and age group, 2004 (means)

Frequency of exercise	Age group						Total
	15–19	20–29	30–39	40–49	50–59	60+	
Men							
Not at all	65.2	61.3	73.8	70.0	65.5	71.4	69.1
Less than once a week	70.4	70.4	71.8	71.4	74.1	73.5	72.1
1 to 2 times a week	73.2	75.5	74.9	75.1	75.9	77.4	75.5
3 times a week	78.1	74.4	73.3	75.7	74.0	78.7	75.5
More than 3 times a week	79.1	75.9	77.6	76.8	78.7	80.0	78.0
Every day	76.5	76.4	75.1	78.5	82.6	81.8	78.4
Total	75.8	74.1	74.5	74.9	75.5	77.2	75.3
Women							
Not at all	69.6	66.8	66.9	62.6	67.5	69.6	67.2
Less than once a week	67.2	66.5	69.6	68.2	72.5	71.2	69.2
1 to 2 times a week	70.6	70.9	72.1	72.6	72.0	75.8	72.5
3 times a week	73.1	71.7	69.6	76.6	74.0	75.1	73.4
More than 3 times a week	72.4	74.3	75.0	76.5	75.7	79.9	76.2
Every day	71.2	69.1	76.2	75.9	77.9	80.4	76.3
Total	70.8	70.5	71.5	72.1	73.3	75.2	72.5

Note: Population weighted results.

For both men and women, the proportion who did not exercise at all increased with age, but the most striking result from Table 2 is the difference in exercise behaviour of men and women under the age of 30—27.4% of men aged between 15 and 19 and 17.0% of men in their twenties said they exercised every day, compared to only 6.7% of women between the ages of 15 and 19 and 6.9% of women in their twenties. Another interesting result from Table 2 is that, compared to younger women, it is more common for older women to exercise every day, but the reverse is true for men.

As mentioned previously, the benefits of physical activity for physical and mental health are widely known. Tables 3 and 4 show the average general health and mental scores for men and women in 2004, according to the amount of exercise they did.⁵

Across all age groups, average general health scores were higher for men and women who exercised regularly.⁶ The differences were particularly large for men and women aged 50 and over. For example, the average general health score for men aged between 50 and 59 who did not exercise at all was 47.4 out of 100, compared to 76.2 out of 100 for men in the same age group who exercised every day.

Table 4 shows that while mental health scores also increased with the frequency of physical activity, the difference between mental health of people who exercised every day and the people who did not exercise at all was not as great as the corresponding difference in general health.⁷

Overall, it seems that regular exercise has more impact on men's mental health than women's.⁸ While the difference in mental health scores

between men who do no physical activity and men who exercise every day is 9.4 points, the difference for women is only 1.5. In terms of mental health, men in their fifties seem to get the most benefit from regular exercise, with mental health scores of 65.4 out of 100 for men who do not exercise at all, compared to scores of 82.5 out of 100 for men in this age group who exercise every day. Conversely, the average mental health scores of young women do not vary much according to the amount of exercise they do—the average mental health score for women aged between 15 and 19 who did not exercise at all was 69.7 out of 100, compared to 73.4 for women in this age group who exercised three times a week and 71.2 for women who exercised every day.

Conclusions

While the benefits of exercise are widely known, only around half the population aged 15 and over exercise three times a week or more, and around 13% of women and 11% of men said they did not exercise at all. The HILDA Survey data clearly show the benefits of regular exercise—compared to people who did little or no physical activity, general health and mental health scores were higher across all age groups for those who exercised frequently.

Endnotes

- 1 Physically inactive was defined as either not undertaking deliberate exercise, or doing so at a very low level.
- 2 Physical activity has been associated with better indices of mental health in a number of large population studies, as well as being a recognised and evidence-based treatment for clinical anxiety and depression (Commonwealth Department of Health and Family Services, 1998).

- 3 Note that causation could run both ways; that is, some adults may be physically inactive because of sickness or obesity.
- 4 This question was asked in the self-completion questionnaire and moderate physical activity was defined as an activity that would cause a slight increase in breathing and heart rate, such as brisk walking.
- 5 General health and mental health scores ranging from 0 to 100 (where 0 means poor health and well-being, and 100 means good health and well-being) are calculated on the basis of client responses to the SF-36 questionnaire, which is included in the HILDA Survey each year.
- 6 Pearson correlation between exercise and general health for men: 0.31 (2001), 0.33 (2002), 0.33 (2003), 0.31 (2004). Pearson correlation between exercise and general health for women: 0.27 (2001), 0.25 (2002), 0.26 (2003), 0.26 (2004).
- 7 Pearson correlation between exercise and mental health for men: 0.17 (2001), 0.18 (2002), 0.18 (2003), 0.17 (2004). Pearson correlation between exercise and mental health for women: 0.14 (2001), 0.18 (2002), 0.17 (2003), 0.17 (2004).
- 8 Again, causation could well run both ways; that is, people with lower levels of mental health may be less likely to exercise.

References

Armstrong, T., Bauman, A. and Davies, J., 2000, *Physical Activity Patterns of Australian Adults*, Results of the 1999 National Physical Activity Survey, Australian Institute of Health and Welfare,

Canberra, <<http://www.aihw.gov.au/publications/health/papaa/papaa.pdf>>.

Australian Bureau of Statistics, 1998, *How Australians Use Their Time*, ABS Catalogue No. 4153.0, Canberra.

Australian Bureau of Statistics, 2004, 'Health risk factors among adults', *Year Book Australia, 2004*, ABS Catalogue No. 1301.0, <<http://www.abs.gov.au/ausstats/ABS@.nsf/46d1bc47ac9d0c7bca256c470025ff87/96cd57be9ea8acbac256dea00053a78!OpenDocument>>.

Briffa, T., Maiorana, A., Allan, R., et al. on behalf of the Executive Working Group and National Forum Participants, 2006, *National Heart Foundation of Australia Physical Activity Recommendations for People with Cardiovascular Disease*, National Heart Foundation of Australia, Sydney, <http://www.heartfoundation.com.au/downloads/PAR4CVD_FullRecs_06_Jan_final.pdf>.

Commonwealth Department of Health and Family Services, 1998, *Developing an Active Australia: A Framework for Action for Physical Activity and Health*, <[http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-pubhlth-publicat-document-active-cnt.htm/\\$FILE/active.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-pubhlth-publicat-document-active-cnt.htm/$FILE/active.pdf)>.

World Health Organisation, 2000, 'Obesity: Preventing and managing the global epidemic', WHO Technical Series, no. 894, WHO, Geneva.

Men's and women's physical and mental health: How persistent are health problems? Evidence for 2001–2004

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 et al., 2000).¹ 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. The HILDA Survey results for the general health and mental health scales used in this article are roughly in line with the population norms from the most recent National Health Survey, which was conducted by the Australian Bureau of Statistics in 1995 (ABS, 1997).²

In last year's Statistical Report we used the SF-36 data from the first three years of the HILDA Survey to examine general health and mental health and found that:

- *Men's general health declined in a straightforward linear way with age. For women over 25, general health scores also declined with age, but young women between 15 and 24 had lower scores than those aged 25 to 44.*
- *Unlike general health, the correlation between mental health and age was positive (for both men and women) not negative. 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.*
- *On average, men and women in households with the lowest incomes had lower levels of general health and mental health, but the*

Table 1: General health—by gender and age, 0–100 scale (means)

Age group	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
15–24	76.0	71.0	75.5	71.6	76.2	70.1	75.6	70.1
25–34	73.7	74.7	73.3	73.9	73.0	74.3	72.2	72.7
35–44	71.4	71.9	70.4	72.8	71.0	72.2	70.6	70.8
45–54	68.4	69.2	67.4	67.3	66.3	67.2	66.5	67.2
55–64	63.1	65.1	60.8	66.1	62.7	64.2	63.5	64.7
65+	58.6	61.3	59.2	61.1	59.9	61.1	59.7	61.8
Total	69.4	69.5	68.5	69.2	68.8	68.6	68.5	68.2

Note: Population weighted results.

Table 2: Mental health—by gender and age, 0–100 scale (means)

Age group	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
15–24	73.8	69.3	75.1	71.1	75.0	69.6	74.6	70.3
25–34	74.0	71.9	74.3	71.6	75.2	73.1	74.7	71.5
35–44	73.5	71.3	74.2	72.1	74.3	72.4	74.9	71.7
45–54	75.7	73.4	75.1	72.1	74.7	72.7	75.0	72.2
55–64	75.1	73.3	75.2	74.4	75.6	74.5	75.6	74.5
65+	76.5	75.3	77.3	74.9	77.9	75.2	77.6	75.3
Total	74.7	72.3	75.1	72.6	75.3	72.8	75.3	72.5

Note: Population weighted results.

Table 3: General health—by gender and quintile of equivalised household disposable income (means)

Quintile of equivalised income	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
1	60.4	62.0	58.9	63.5	60.3	61.7	59.2	61.4
2	67.6	67.2	66.8	67.5	66.3	66.7	65.7	66.3
3	70.7	71.3	69.1	69.6	69.8	69.1	70.7	69.8
4	72.8	72.9	71.3	71.9	71.3	72.3	71.1	70.5
5	72.8	74.0	73.0	74.2	72.1	74.5	72.3	73.1
Total	69.4	69.5	68.2	69.1	68.3	68.6	68.3	68.1

Note: Population weighted results.

overall correlation between mental health and household income was quite weak.

- *People who were employed, either full-time or part-time, had higher scores for general health and mental health than those who were unemployed.*
- *Mental health problems were much less persistent than general health problems, and, unlike general health, the persistence of mental health problems was not related in a linear way to age.*

General health, 2001–2004

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 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.

Mental health, 2001–2004

Table 2 shows that, on average, mental health scores were higher for men and women aged over 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.

Unlike general health, the correlation between mental health and age is positive (for both men and women).⁴ 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.⁵

Income and health

How is income related to health? In Table 3 respondents have been grouped into quintiles (equal 20% groupings) of equivalised household disposable income.⁶

It is clear that men and women in households with the lowest incomes rate lower in terms of general health.⁷ In 2004, men in the lowest household income quintile had average health scores of 59.2, while men in households with the highest household incomes had scores of 72.3. For women, the average score for general health in 2004 was 61.4

in low income households, compared to 73.1 for women in households with the highest quintile of incomes. In general, people in higher income households have better access to medical services (and are able to afford private health insurance) and this may lead to better health. However, it may also be the case that causation partly runs the other way round; that is, having better health contributes to a capacity to earn more income.

Table 4 relates to mental health, which is also lowest for men and women in the lowest quintile of income, but compared to general health scores, the difference in mental health scores between those in the lowest income quintile and those in the highest income quintile is quite small (around 6 points out of 100).

Table 4: Mental health—by gender and quintile of equivalised household disposable income (means)

Quintile of equivalised income	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
1	71.2	70.2	71.1	70.5	71.8	69.6	71.5	69.5
2	73.7	71.5	74.7	71.4	74.7	72.2	74.0	71.7
3	74.7	71.6	75.9	73.0	75.6	73.0	75.9	73.3
4	75.9	73.7	76.2	73.8	76.4	74.8	76.8	74.0
5	76.7	74.7	77.1	75.2	77.3	76.6	77.9	75.5
Total	74.7	72.3	75.1	72.7	75.3	73.1	75.4	72.7

Note: Population weighted results.

Table 5: General health—by gender and employment status, age 25–54 (means)

Employment status	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
Employed full-time	73.1	74.0	72.8	73.8	72.9	74.3	72.0	72.7
Employed part-time	72.2	73.9	71.7	72.9	66.6	73.5	67.3	72.8
Unemployed	70.3	69.7	65.3	66.2	68.5	66.7	66.4	65.7
Not in the labour force, marginally attached	64.8	69.2	57.6	67.7	57.6	66.4	58.2	65.0
Not in the labour force, not marginally attached	46.2	66.1	43.1	66.7	44.2	65.2	47.2	64.0
Total	71.2	72.0	70.4	71.4	70.1	71.3	69.8	70.3

Note: Population weighted results.

Table 6: Mental health—by gender and employment status, age 25–54 (means)

Employment status	2001		2002		2003		2004	
	Men	Women	Men	Women	Men	Women	Men	Women
Employed full-time	76.0	73.8	76.4	73.4	76.7	74.0	76.3	73.2
Employed part-time	72.8	73.2	73.8	73.5	74.4	74.6	73.8	74.0
Unemployed	70.1	64.6	66.7	67.5	65.7	67.6	66.9	63.0
Not in the labour force, marginally attached	68.5	68.5	65.7	66.9	62.6	69.5	69.3	68.0
Not in the labour force, not marginally attached	60.4	70.4	58.3	69.6	59.6	69.7	60.7	68.4
Total	74.4	72.2	74.5	72.0	74.7	72.7	74.9	71.8

Note: Population weighted results.

In 2004, men in the lowest household income quintile had average mental health scores of 71.5, while men in households with the highest household incomes had scores of 77.9. For women, the average score for mental health in 2004 was 69.5 in low income households, compared to 75.5 for women in households with the highest quintile of incomes. This result may reflect a tendency for people with better mental health to have a better capacity to earn income. The correlation between mental health and household disposable income is quite weak, but higher for men than for women, ranging from 0.069 for women in 2001 to 0.110 for men in 2004.⁸

Employment status and health

Focusing on people of prime working age (25–54), Tables 5 and 6 show the average general health and mental health scores for men and women by employment status.

People who were employed, either full-time or part-time, had higher scores for general health and mental health than unemployed people, and those who were not in the labour force and not marginally attached had the lowest averages for general health.⁹

Average general health scores were particularly low (less than 50 out of 100) for men who were not in the labour force and not marginally attached. One reason for this is that a high proportion of men in this category had left the labour force due to illness. In 2004, 72.2% of men aged between 25 and 54 who were not in the labour force and not marginally attached said they had a long-term health condition or disability, and of that 72.2%, 87.7% said their health problem limits the amount of work they can do and 5.7% said that they could not work at all.

Men and women who were employed, either full-time or part-time, also had the highest average mental health scores. For women, being unemployed seemed to have more impact on mental health than being out of the labour force—women who were unemployed had lower mental health scores, on average, than women who were not in the labour force. For men, average mental health scores were substantially lower for those who were not in the labour force and not marginally attached than for men who were employed, unemployed or not in the labour force but marginally attached.

Persistence of health problems

Do the same people tend to have health problems year after year, or are health issues usually transient? Table 7 shows the number of years (between 2001 and 2004) that people had general health scores lower than 50 out of 100.

Around 70% of men and women had general health scores of 50 or above in all four years and 11% had low levels of general health in one of the four years. For around 6%, low levels of general health persisted for two out of the four years, around 5% had a general health score of lower than 50 in three of the four years, and the remaining 8% had low levels of general health in all four years.

As might be expected, the persistence of general health problems depends strongly on age. Very few men aged between 15 and 24 had general health scores in the 0–50 range for more than one year, but 13.7% of men aged between 55 and 64 and 14.6% of men aged 65 and over had low levels of general health in all four years.

Table 7: Persistence of general health problems by gender and age, 2001–2004 (%)

Age group in 2004	Number of years with general health lower than 50 out of 100					Total
	0	1	2	3	4	
Men						
15–24	79.5	10.7	*5.5	*3.1	*1.2	100.0
25–34	78.6	9.2	5.1	*3.8	*3.3	100.0
35–44	72.9	10.0	6.9	4.7	5.5	100.0
45–54	69.0	12.3	7.2	4.7	6.8	100.0
55–64	62.4	11.2	4.4	8.3	13.7	100.0
65+	56.9	11.9	9.0	7.4	14.6	100.0
Total	69.8	10.9	6.5	5.3	7.5	100.0
Women						
15–24	69.4	14.9	6.8	*4.2	4.8	100.0
25–34	75.6	12.1	5.2	*2.2	5.0	100.0
35–44	75.2	10.9	5.9	3.5	4.5	100.0
45–54	70.9	10.7	5.9	4.8	7.7	100.0
55–64	64.8	11.0	6.3	7.3	10.6	100.0
65+	60.1	12.2	7.2	7.4	13.1	100.0
Total	69.6	11.7	6.2	4.8	7.6	100.0

Notes: Population weighted results. * Estimate not reliable.

Among women aged between 15 and 44, the proportion who had low health scores in all four years was just under 5%, but among women between 55 and 64 it was 10.6%, and for women aged 65 and over the corresponding figure was 13.1%.

Last year we found that poor mental health was much less persistent than poor general health. Table 8 shows the number of years between 2001 and 2004 that people had mental health scores lower than 50 out of 100.

It is clear that mental health problems were much less persistent—more likely to be transient—than general health problems. This reflects the fact that although some mental health problems are chronic, others are cyclical or temporary in duration. While 11.8% of men and 12.9% of women had mental health scores of less than 50 in one of the four years, only 1.7% of men and women had low levels of mental health in all four years.

Unlike general health, the persistence of mental health problems was not related in a linear way to age. There were also interesting gender differences. Women aged between 15 and 24 and women aged between 35 and 44 were the groups most likely to experience persistent problems—around 6% of women in these age groups had low levels of mental health in at least three of the four years. It was less common for older women to experience persistently low levels of mental health; only 3.6% of women aged between 55 and 64 and 2.9% of women aged 65 and over had low levels of mental health in three or four of the four years. Among men, the 15 to 24 year olds had the least persistent problems with mental health. It was men in the 35 to 44 and 55–64 age groups who reported the most persistent problems.

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 means from the National Health Survey in 1995 for both general health and mental health were around 2 points higher than the HILDA Survey means in 2004. The American means were also 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). Pearson correlation between age and general health for women: -0.19 (2001), -0.20 (2002), -0.19 (2003), -0.16 (2004).
- 4 Pearson correlation between age and mental health for men: 0.05 (2001), 0.04 (2002), 0.04 (2003), 0.05 (2004). Pearson correlation between age and mental health for women: 0.10 (2001), 0.08 (2002), 0.09 (2003), 0.09 (2004).
- 5 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.
- 6 Equivalised income is defined as income after taxes and transfers (pensions and benefits) and after adjusting for household size and needs.
- 7 Pearson correlation between equivalised household disposable income and general health for men: 0.12 (2001), 0.13 (2002), 0.12 (2003), 0.13 (2004). Pearson correlation between equivalised household disposable income and general health for women: 0.14 (2001), 0.13 (2002), 0.14 (2003), 0.14 (2004).

Table 8: Persistence of low mental health scores by gender and age, 2001–2004 (%)

Age group in 2004	Number of years with mental health lower than 50 out of 100					Total
	0	1	2	3	4	
Men						
15–24	77.9	15.5	*4.9	*0.8	*0.9	100.0
25–34	79.5	11.9	5.4	*1.9	*1.4	100.0
35–44	78.4	11.9	4.9	*2.9	*1.9	100.0
45–54	79.6	13.0	3.7	*2.2	*1.5	100.0
55–64	79.1	11.4	5.0	*2.7	*1.8	100.0
65+	85.5	7.7	3.5	*1.1	*2.2	100.0
Total	80.1	11.8	4.5	2.0	1.7	100.0
Women						
15–24	71.4	16.0	6.3	*4.6	*1.7	100.0
25–34	72.5	16.3	7.0	*2.2	*2.0	100.0
35–44	75.1	12.5	6.5	*3.9	*2.0	100.0
45–54	74.5	12.8	7.7	*3.6	*1.5	100.0
55–64	79.9	11.9	4.6	*1.6	*2.1	100.0
65+	83.1	9.7	4.3	*1.7	*1.1	100.0
Total	76.3	12.9	6.1	2.9	1.7	100.0

Notes: Population weighted results. * Estimate not reliable.

- 8 Pearson correlation between equivalised household disposable income and mental health for men: 0.09 (2001), 0.08 (2002), 0.09 (2003), 0.11 (2004). Pearson correlation between equivalised household disposable income and mental health for women: 0.07 (2001), 0.07 (2002), 0.10 (2003), 0.09 (2004).
- 9 People who are not in the labour force, but want to work and are available to start work but are not actively looking for work, or are actively looking for work but unable to start work within four weeks are defined as 'marginally attached' (ABS, 1997).

References

Australian Bureau of Statistics, 1997, *National Health Survey SF-36 Population Norms*, ABS Catalogue No. 4399.0, Canberra.

Barreira, P., 1999, 'Reduced life expectancy and serious mental illness', *Psychiatric Services*, vol. 50, no. 8, <<http://psychservices.psychiatryonline.org/cgi/rep rint/50/8/995>>.

King, S.A. and Tellioglu, T., 2007, *Mental Illness Basics*, <<http://emotional.health.ivillage.com/emotionalhealthbasics/mentalillnessbasics.cfm>>.

Martin, L.R., Friedman, H.S., Tucker, J.S., Schwartz, J.E., Criqui, M.H., Wingard, D.L. and Tomlinson-Keasey, C., 1995, 'An archival prospective study of mental health and longevity', *Health Psychology*, vol. 14, no. 5, pp. 381-7.

Ware, J. E., Snow, K. K. and Kosinski, M., 2000, *SF-36 Health Survey: Manual and Interpretation Guide*, QualityMetric Inc., Lincoln, R. I.

Long-term health conditions and disabilities

The Australian Bureau of Statistics (2004) estimates that around 20% of the Australian population, or nearly one in five people, has some form of disability. According to findings from the Australian Bureau of Statistics 2003 Survey of Disability, Ageing and Carers almost 4 million people reported a disability in 2003. The survey also found that one in sixteen people (6.3%) had a profound or severe level of core activity limitation, that is, they needed help with self-care, mobility or communication activities.¹

In every year of the HILDA Survey, respondents were asked:

Do you have any long-term health condition, impairment or disability that restricts you in your everyday activities, and has lasted, or is likely to last, for six months or more?

Table 1 shows the proportion of men and women who said they had a long-term health condition or disability in 2004. Overall, 27.4% of men and 25.8% of women reported having a long-term condition or disability in 2004. The proportion of men with long-term health conditions was slightly higher than that of women, and the proportion of people who reported a long-term health condition or disability increased with age—from 11.9% of people aged between 15 and 24 to 53.6% of people aged 65 and over.

In 2004, people who said they had a long-term health condition or disability were asked about the type of condition they had and the difficulties they experienced because of their health problem. Table 2 shows the specific health conditions reported, and the average number of years people had the condition.

Health conditions such as migraines and back problems that restrict everyday physical activity

Table 1: Proportion with a long-term health condition or disability—by gender and age group, 2004 (%)

Age group	Men	Women	All
15-24	11.6	12.1	11.9
25-34	16.6	14.9	15.7
35-44	21.2	17.1	19.1
45-54	27.2	27.6	27.4
55-64	41.8	37.5	39.6
65+	56.6	51.1	53.6
Total	27.4	25.8	26.6

Note: Population weighted results.

were reported by 34.7% of people who had a long-term health condition. Other commonly reported conditions were chronic or recurring pain, limited use of feet or legs, and hearing problems. Hearing problems were much more common for men—22.5% of men said they had hearing problems compared to 10.8% of women.²

Difficulties due to long-term health conditions

People with long-term health conditions were asked if their condition (or conditions) caused them to have difficulty with self-care activities, mobility activities, or communicating in their own language.³ Table 3 shows the proportion who had these type of difficulties, by gender and age group.

The most commonly reported difficulties resulting from a long-term health condition were difficulties with mobility—31.1% of women and 27.3% of men who had a long-term health condition or disability said they had experienced difficulties with mobility. Just under 16% of men and women who reported having a long-term health condition

Table 2: Specific health conditions of people who reported having a long-term health condition or disability, by gender, 2004 (%)

	<i>Men</i>	<i>Women</i>	<i>All</i>
Any condition that restricts physical activity or physical work (e.g. migraines, back problems)	34.4	35.0	34.7
Chronic or recurring pain	19.1	22.6	20.8
Limited use of feet or legs	18.1	18.8	18.5
Hearing problems	22.5	10.8	16.7
Shortness of breath or difficulty breathing	12.2	13.1	12.6
A nervous or emotional condition which requires treatment	10.4	12.2	11.3
Limited use of arms or fingers	10.3	11.3	10.8
Difficulty gripping things	8.7	11.6	10.2
Sight problems not corrected by glasses	9.6	8.9	9.2
Difficulty learning or understanding things	5.1	3.4	4.3
Long-term effects as a result of a head injury, stroke or other brain damage	5.1	3.2	4.2
Any mental illness which requires help or supervision	3.6	3.3	3.5
Blackouts, fits or loss of consciousness	2.6	2.8	2.7
Any disfigurement or deformity	3.0	1.9	2.5
Speech problems	2.3	1.2	1.8
A long-term condition or ailment which is still restrictive even though it is being treated or medication is being taken for it	23.8	25.4	24.6
Any other long-term condition such as arthritis, asthma, heart disease, Alzheimer's, dementia etc	33.3	45.4	39.3

Note: Population weighted results.

Table 3: Difficulties as a result of long-term health condition, by gender and age group, 2004 (%)

	<i>Age group</i>						<i>All</i>
	<i>15–24</i>	<i>25–34</i>	<i>35–44</i>	<i>45–55</i>	<i>55–64</i>	<i>65+</i>	
<i>Men</i>							
Self-care activities	2.8	7.2	14.9	16.9	19.7	18.4	15.5
Mobility activities	9.2	21.5	25.4	28.0	29.7	33.2	27.3
Communicating	2.9	5.7	2.4	5.6	5.7	6.8	5.3
<i>Women</i>							
Self-care activities	9.9	13.1	18.4	14.6	12.9	18.9	15.6
Mobility activities	12.6	15.0	29.7	31.6	29.9	41.7	31.1
Communicating	6.7	2.6	2.2	2.1	1.4	4.8	3.3

Note: Population weighted results.

or disability said they had difficulties with self-care activities. Communication difficulties were much less common, with 5.3% of men and 3.3% of women saying they had difficulties communicating because of a long-term health condition or disability.

Of course, the difficulties experienced depend on the particular condition. Table 4 shows the proportion of people who experienced difficulties with self-care activities, mobility and communicating, according to the type of long-term health condition or disability.

It stands to reason that difficulties with self-care activities were more common amongst people who had limited use of their arms or fingers or difficulty gripping things; a high proportion of men and women who had limited use of their feet or legs reported mobility problems, and communication difficulties were most common for people with hearing difficulties.

People who had a long-term health condition or disability were asked if they used any aids to help with their condition. The examples given were:

- *mobility aids—canes, walking sticks, crutches, walking frames, wheelchair, scooter, specially modified car or car aids;*
- *self-care aids—any aids to help with self-care activities such as bathing, dressing, toileting and managing incontinence;*
- *non-electronic communication aids—such as picture boards or large print books to assist with communication; and*
- *electronic communication aids—such as hearing aids, audio tapes, a talking word processor or special computer software to assist with communication.*

Table 4: Difficulties as a result of long-term health condition or disability, by type of health condition, 2004 (%)

	Type of difficulty		
	Self-care	Mobility	Communication
Any condition that restricts physical activity or physical work (e.g. migraines, back problems)	22.7	44.3	3.8
Chronic or recurring pain	24.1	46.8	*2.7
Limited use of feet or legs	26.5	60.6	*3.8
Hearing problems	11.5	26.6	11.3
Shortness of breath or difficulty breathing	23.0	37.9	*3.0
A nervous or emotional condition which requires treatment	20.4	31.9	*5.0
Limited use of arms or fingers	30.4	44.3	*2.8
Difficulty gripping things	29.2	39.2	*4.5
Sight problems not corrected by glasses	13.4	32.8	*0.8
Long-term effects as a result of a head injury, stroke or other brain damage	28.9	48.7	*7.7
Difficulty learning or understanding things	*24.3	33.4	*12.0
Any mental illness which requires help or supervision	*28.8	28.8	*5.9
Any disfigurement or deformity	30.7	45.3	*1.1
Blackouts, fits or loss of consciousness	*33.0	48.3	*7.5
Speech problems	*18.7	*39.5	*23.2
A long-term condition or ailment which is still restrictive even though it is being treated or medication is being taken for it	22.3	38.7	4.2
Any other long-term condition such as arthritis, asthma, heart disease, Alzheimer's, dementia etc	15.6	33.2	*2.4

Notes: Population weighted results. * Estimate not reliable.

Table 5: Aids used to assist with long-term health condition, by gender and age group, 2004 (%)

	Age group						
	15–24	25–34	35–44	45–55	55–64	65+	All (15+)
Men							
Mobility aids	1.2	5.2	7.2	11.2	14.6	26.1	14.2
Self-care aids	0.5	1.7	3.0	2.4	3.2	6.1	3.5
Non-electronic communication aids	*0.0	*0.0	*0.0	*0.0	*0.0	1.8	0.5
Electronic communication aids	2.0	1.3	0.9	0.8	4.4	13.9	5.5
Any of the above	3.7	6.9	8.1	12.1	18.4	39.1	19.4
Women							
Mobility aids	1.1	3.7	5.4	8.5	12.8	36.0	16.7
Self-care aids	0.4	1.5	2.6	1.7	4.6	9.1	4.6
Non-electronic communication aids	0.5	*0.0	*0.0	0.5	0.3	1.5	0.7
Electronic communication aids	2.6	0.3	*0.0	0.9	1.7	8.6	3.5
Any of the above	4.6	4.7	7.1	10.5	15.6	42.2	20.2

Notes: Population weighted results. * Estimate not reliable.

Table 5 shows the proportion of men and women with a long-term health condition who used mobility aids, self-care aids or communication aids.

The proportion of people who used some type of aid to assist with a long-term health condition increased with age, from less than 5% of men and women aged between 15 and 24, to around 40% of people aged 65 and over. For both men and women, the most common type of aid used was a mobility aid, with 14.2% of men and 16.7% of women who reported a long-term health condition or disability saying they used some type of aid to

help with mobility. Compared to mobility aids, self-care aids and communication aids were much less commonly used—this was to be expected as self-care and communication difficulties were much less common than mobility problems.

In addition to the question about aids needed because of a long-term health condition, those with a long-term health condition were also asked if their home had been modified in any way because of their condition. Examples of such modifications include ramps, hand rails, kitchen modifications such as handles to turn on taps, visual doorbell, visual telephone, visual smoke

alarm, and having doors widened. The proportion of people with a long-term health condition or disability who said that their home had been modified in some way because of their condition was 11.2% (8.2% of men and 14.2% of women).

Labour force participation of people with disabilities

The Australian Bureau of Statistics 2003 Survey of Disability, Ageing and Carers found that, as expected, many people with disabilities were not in the labour force and participation decreased markedly with greater levels of core activity limitation; people with disabilities experienced a higher unemployment rate than the those without a disability; and people with a disability who were employed were more likely to work in a part-time job than those who were employed and did not have a disability (ABS, 2004).

Table 6 shows the (self-reported) levels of work-limiting health conditions for prime age (25–54) men and women in 2004.⁴

Around 80% of prime age men and women had no long-term health condition or disability and a further 7% said they had a long-term health condition or disability, but it did not limit the amount of work they could do. The remaining 13% had a condition that limited the amount of work they were able to do. Of that 13%, around 30% had a condition that only slightly limited the amount of work they could do, 50% had a medium level work-limiting condition, and the remaining 20% had a health condition that severely limited the amount of work they were able to do. Table 7 shows the labour force status of prime age men and women according to their level of work-limiting disability.

As one would expect, the proportion of prime age men in full-time work decreased substantially with

Table 6: Level of work-limiting disability—prime age men and women, 2004 (%)

	<i>Men</i>	<i>Women</i>	<i>All</i>
No long-term health condition or disability	78.4	80.3	79.4
Non-work-limiting condition	7.7	6.5	7.1
Mild work-limiting condition (1–3 out of 10)	4.2	3.5	3.8
Medium work-limiting condition (4–7 out of 10)	5.8	7.1	6.5
Severe work-limiting condition (8–10 out of 10)	3.9	2.6	3.2
Total	100.0	100.0	100.0

Note: Population weighted results.

Table 7: Labour force status by level of work-limiting disability—prime age men and women, 2004 (%)

	<i>Labour force status</i>				<i>Total</i>
	<i>Employed full-time</i>	<i>Employed part-time</i>	<i>Unemployed</i>	<i>Not in the labour force</i>	
Men					
No long-term health condition or disability	87.8	6.1	2.1	4.0	100.0
Non-work-limiting condition	82.9	*7.4	*1.3	*8.4	100.0
Mild work-limiting condition (1–3 out of 10)	76.3	*8.4	*1.7	*13.6	100.0
Medium work-limiting condition (4–7 out of 10)	34.9	21.8	*7.9	35.4	100.0
Severe work-limiting condition (8–10 out of 10)	22.3	*2.0	*4.9	70.8	100.0
Total	81.3	7.1	2.5	9.1	100.0
Women					
No long-term health condition or disability	39.6	33.9	2.8	23.6	100.0
Non-work-limiting condition	44.8	28.2	*3.9	23.1	100.0
Mild work-limiting condition (1–3 out of 10)	29.7	37.7	*3.7	28.9	100.0
Medium work-limiting condition (4–7 out of 10)	18.0	22.3	*4.7	54.9	100.0
Severe work-limiting condition (8–10 out of 10)	*4.1	*12.4	*1.1	82.4	100.0
Total	37.2	32.3	3.0	27.5	100.0

Notes: Population weighted results. * Estimate not reliable.

the severity of work-limiting health conditions, from 87.8% of men with no long-term health condition to 22.3% of men with a severe work-limiting condition. The proportion of men with a medium-level work-limiting condition who were working part-time was much higher than that of men with no long-term health condition—21.8% compared to 6.1%.

The proportion of prime age women who worked full-time also declined with the severity of work-limiting conditions, but the proportion of women working full-time was slightly higher for those who reported a non-work-limiting health condition than for women who said they did not have any health problems. For women, part-time work was most common for those who had a mild work-limiting health condition.

Conclusions

In 2004, 26.6% of HILDA Survey respondents reported having a long-term health condition or disability that restricts their everyday activities, and has lasted for six months or more. The most commonly reported health conditions for both men and women were back problems, migraines and chronic or recurring pain.

Difficulty with mobility activities was the most commonly reported problem resulting from a long-term health condition or disability—27.3% of men and 31.1% of women with a long-term health condition or disability reported mobility problems. Around 16% of men and women with a long-term health condition reported difficulties with self-care activities, and 5.3% of men and 3.3% of women said they had problems communicating because of their health condition.

Around 20% of men and women of prime working age reported having a long-term health condition or disability. Of that 20%, around 65% said that their condition limited the amount of work they could do to some degree, and the proportion who worked full-time declined with the severity of their health condition.

Endnotes

- 1 It should be noted that the figures from the ABS are not directly comparable to the HILDA Survey data, as HILDA asks whether people have a *long-term health condition or disability*, while the ABS survey only asked about disabilities. In the ABS survey, disability was defined as any limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities.
- 2 Using data from the 1994 National Health Interview Survey, Campbell et al. (1999) also found that hearing loss is more common among men.
- 3 Respondents were shown a list of examples of these types of difficulties. Difficulties with self-care included problems bathing or showering, dressing, eating, going to the toilet and bladder/bowel control. Mobility problems were described as difficulties moving around away from home, moving around at home, or getting in or out of a bed or chair. Communication difficulties included problems understanding or being understood by strangers, friends or family, including use of sign language or lip reading.
- 4 Respondents who reported having a long-term health condition or disability were asked to rate the severity of their condition on a scale of 0 to 10, where 0 meant the condition did not limit work at all, and 10 meant they could not work at all.

References

- Australian Bureau of Statistics, 2004, *Disability, Ageing and Carers, Australia: Summary of Findings, 2003*, ABS Catalogue No. 4430.0, Canberra.
- Campbell, V., Crews, J., Moriarty, D., Zack, M. and Blackman, D., 1999, 'Surveillance for sensory impairment, activity limitation, and health-related quality of life among older adults – United States, 1993–1997', *Morbidity and Mortality Weekly Report – Surveillance Summaries*, vol. 48(SS08), pp. 131–56, <<http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4808a6.htm>>.

Private health insurance and lifetime health cover

In July 2000, the 'Lifetime Health Cover' initiative was introduced by the Australian Government. Designed to encourage people to take out hospital insurance earlier in life and to maintain their cover, Lifetime Health Cover means that for those not covered by private health insurance by 20 July 2000 and aged over 30, health funds are able to charge different premiums based on the age of each particular member when they first take out hospital cover with a registered health fund (DHA, 2004). People who take out private health insurance after the age of 30 are charged a 2% loading for each year they are aged over 30 when they first take out hospital cover. For example, a person who first joins a health fund at the age of 35 will pay 10% more than someone who joined at the age of 30.¹ In 2004, HILDA Survey respondents were asked about private health insurance—whether they had any, what type of cover they had and whether they purchased private health insurance as a result of Lifetime Health Cover. Figure 1 shows the proportion of people who were covered by private health insurance in 2004, by age group.

In 2004, 50.3% of respondents said they had some type of private health insurance. Just under 50% of 15 to 19 year olds with health insurance were covered by family health insurance membership. For people in their twenties the proportion with private health insurance was lower, with 40% of people aged between 20 and 24 and 34.2% of 25 to 29 year

olds insured. After the age of 30, the proportion of people with health insurance cover increases with age, presumably because of Lifetime Health Cover, from 43.5% for 30 to 34 year olds to 61.7% for people aged between 55 and 59.

Has Lifetime Health Cover encouraged people with lower incomes to purchase private health insurance? Figure 2 shows the proportion of people with private health insurance cover by age and quintile of equivalised household disposable income.²

As one would expect, it was more common for people in households with higher disposable incomes to have private health insurance—74.5% of people aged 15 and over in the highest (5th) quintile of household disposable income had private health insurance. Besides their increased ability to afford private health insurance, people with higher household incomes have an extra incentive to purchase private health insurance—individuals and families on higher incomes who do not have private patient hospital cover must pay a Medicare levy surcharge of 1% of taxable income in addition to the 1.5% Medicare levy if they are not covered by private health insurance (Australian Taxation Office, 2005).

With the exception of the lowest (1st) quintile of household income, the general pattern of health insurance coverage by age is the same—the proportion with health insurance is lower for those in

Figure 1: Private health insurance, by age group, 2004

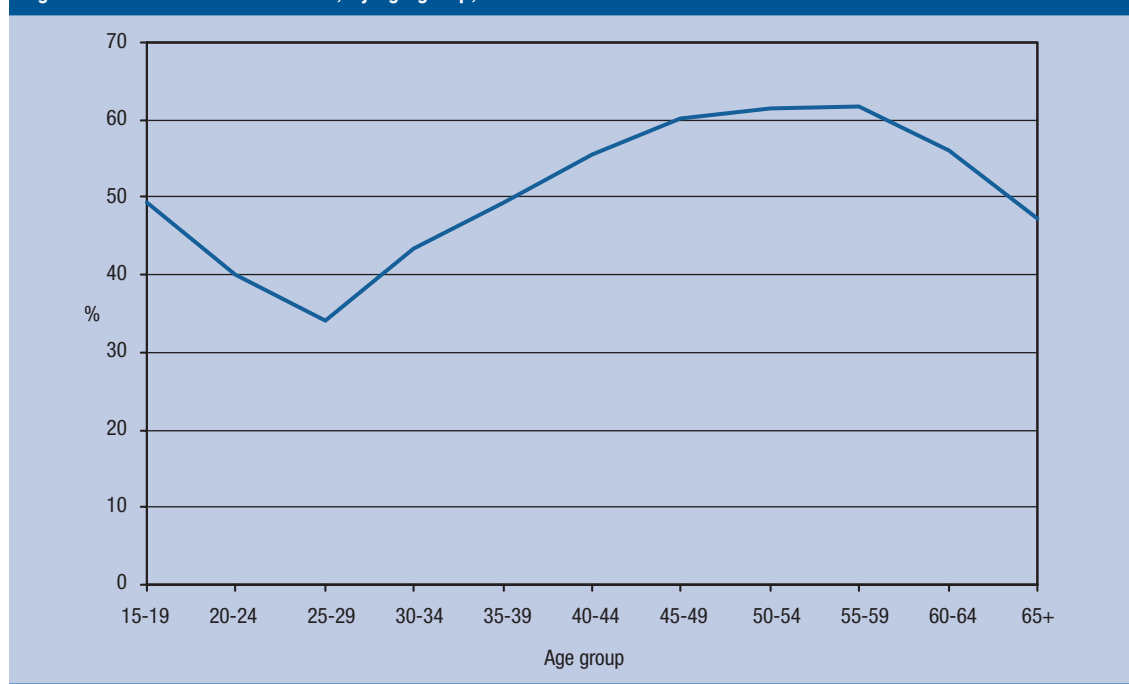
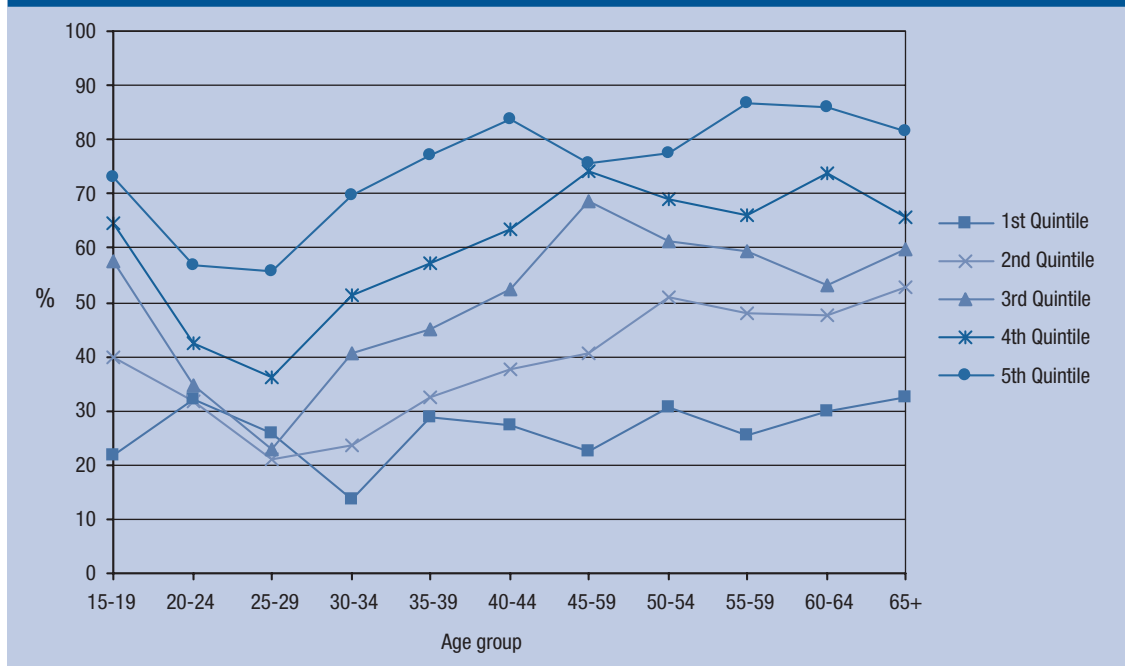


Figure 2: Private health insurance, by age group and quintile of equivalised household disposable income, 2004

their early twenties than for teenagers, who are mostly covered by family memberships, and lower again for people in their late twenties.³ Then, after the age of 30, the proportion of people with private health insurance increases with age.

In the lowest (1st) income quintile, health insurance coverage was lower for people between the ages of 30 and 34 than it was for people in their late twenties. Only 13.7% of people aged between 30 and 34 in the lowest quintile of equivalised household disposable income had private health insurance.

Type of health insurance

People who said they were currently covered by private health insurance were asked what type of insurance they had. Table 1 shows the proportion

of people who had hospital and extras cover, hospital cover only, and extras cover only, by age group, for those who had private health insurance.

For those with private health insurance, hospital and extras cover was the most common type of health insurance, with 74.4% choosing this option, 18.6% taking out hospital cover only and the remaining 7.0% with extras cover only. Compared to people in younger age groups, a high proportion of people aged 65 and over had hospital cover only, rather than hospital and extras cover.

Lifetime health cover

How many people took up private health insurance because of Lifetime Health Cover? Around

Table 1: Type of health insurance cover, 2004 (%)

Age group	Type of health insurance cover			Total
	Hospital and extras cover	Hospital cover only	Extras cover only	
15-19	80.9	13.4	5.6	100.0
20-24	80.0	10.4	9.6	100.0
25-29	77.2	12.3	10.4	100.0
30-34	76.0	13.9	10.1	100.0
35-39	73.7	18.4	7.9	100.0
40-44	73.2	18.0	8.8	100.0
45-49	74.3	17.0	8.6	100.0
50-54	77.0	19.0	3.9	100.0
55-59	75.3	18.9	5.8	100.0
60-64	75.1	21.1	*3.8	100.0
65+	64.8	30.5	4.7	100.0
Total	74.4	18.6	7.0	100.0

Notes: Population weighted results. * Estimate not reliable.

30% of people who had private health insurance cover in 2004 had commenced their health insurance after 1998, and of those who commenced private health insurance after 1998, 46.7% joined in 2000. People who commenced their private health insurance in 2000 were asked specifically if they had purchased private health insurance as a result of Lifetime Health Cover. The HILDA Survey data indicate that most people (86.5%) who commenced private health insurance in 2000 did so because of Lifetime Health Cover.

Endnotes

- 1 The maximum loading a person can be required to pay is 70%, payable by people who first take out hospital cover at age 65 or older (DHA, 2004).

- 2 Equivalised income is defined as income after taxes and transfers (pensions and benefits) and after adjusting for household size and needs.
- 3 95.2% of people aged between 15 and 19 who had private health insurance in 2004 were covered by family policies.

References

Australian Government Department of Health and Ageing (DHA), 2004, *Lifetime Health Cover—What Is It?*, <<http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-privatehealth-lhc-consumers-whatishc.htm>>.

Australian Taxation Office, 2005, *What Is the Medicare Levy Surcharge?*, <http://www.ato.gov.au/individuals/content.asp?doc=/content/mls_booklet.htm&page=1&H1>.

Changes in smoking behaviour in Australia: 2001–2004

Hielke Buddelmeyer

Governments around the world seek to reduce the adverse health effects of smoking, both to smokers and non-smokers. Policies have focused on discouraging smoking through tobacco taxes, restrictions on tobacco advertising, providing services to assist smokers to quit and taking various steps to inform the community of the health risks associated with smoking. Many governments have also placed restrictions on the locations in which people can smoke, including prohibiting smoking in government buildings, office buildings, shopping centres, restaurants and bars. While restrictions on where people can smoke have primarily been politically motivated to reduce harm caused by smoking to non-smokers, they have also been positioned, at least in Australia, as seeking to reduce smoking rates (see, for example, Queensland Health, 2000).

There has been considerable research, both internationally and in Australia, into the determinants of smoking behaviour and, more particularly, the effects of government anti-tobacco policies. One consequence of this research is that the socio-demographic and other personal characteristics associated with smoking are reasonably well understood. However, despite this research, the determinants of both starting and quitting smoking are not so well understood, and there is also considerable debate about the relative merits of different types of anti-tobacco policies.

This article is a precursor to such research and describes the rates of starting and quitting smoking using the first four waves of the HILDA Survey. A key advantage of the data source is that it allows us to describe transitions in smoking status of a representative sample of all individuals in the Australian community.

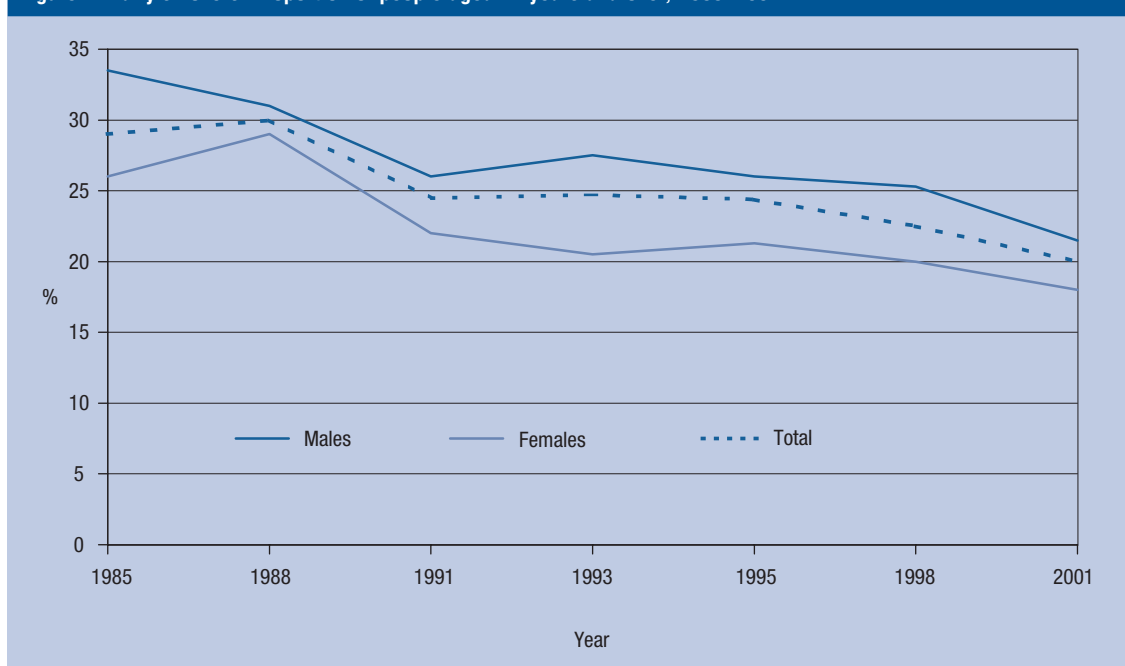
The proportion of individuals who smoke in Australia is low by international and historical standards (see Table 1 and Figure 1). Nevertheless, in 2004, 17.4% of adults were daily smokers, with females only slightly behind males in their rate of smoking. In light of the growing body of evidence on the adverse health consequences of smoking, the implication is that smoking remains one of the most important issues for public health policy in Australia. Table 2 presents smoking rates (prevalence) by smoking frequency in Australia over the period 1991 to 2004, derived from the National Campaign Against Drug Abuse Household Surveys in 1991 and 1993 and the National Drug Strategy Household (NDSH) Surveys in 1995, 1998, 2001 and 2004. Comparable estimates derived from the first three years of the HILDA Survey are presented in the same table and appear broadly consistent with the NDSH Survey estimates.

In each year of the HILDA Survey, respondents were asked about whether they were currently smokers. In 2001, respondents were asked 'Do you smoke cigarettes or other tobacco products?' and the choice of answers was 'Yes', 'No, I have given up smoking' or 'No, I have never smoked'. In all subsequent years, the question remained the same but the choice of responses was changed to 'No, I have never smoked', 'No, I no longer smoke', 'Yes, I smoke daily', 'Yes, I smoke at least weekly (but not daily)' and 'Yes, I smoke less often than weekly'. For compatibility across years, the three affirmative responses in 2002–2004 are collectively treated as equivalent to the singular 'Yes' response in 2001. Respondents who respond 'No' are treated as non-smokers, irrespective of whether they are ex-smokers.

Table 1: International comparisons of adult smoking rates (%)

	Male	Female	All	Annual per person cigarette consumption
Australia	21.1	18.0	19.5	1,907
New Zealand	25.0	25.0	25.0	1,213
France	38.6	30.3	34.5	2,058
UK	27.0	26.0	26.5	1,748
USA	25.7	21.5	23.6	2,255

Source: Table A in *The Demographics of Tobacco* (World Health Organisation, 2002).

Figure 1: Daily smokers: Proportion of people aged 14 years and over, 1985–2001

Source: Australian Institute of Health and Welfare (2005a), originally sourced from National Campaign Against Drug Abuse Social Issues Surveys 1985, 1988; National Campaign Against Drug Abuse Household Surveys 1991, 1993; and National Drug Strategy Household Surveys 1995, 1998, 2001.

Table 2: Smoking status of the Australian population aged 14 (15) years and over (%)

Smoking status	1991 ^a	1993 ^a	1995 ^a	1998 ^a	2001 ^a	2001 ^b	2002 ^b	2003 ^b	2004 ^a	2004 ^b
Daily	24.3	25.0	23.8	21.8	19.5	*22.8	18.7	18.4	17.4	17.7
Weekly	2.8	2.3	1.6	1.8	1.6	n.a.	2.4	2.2	1.6	2.3
Less than weekly	2.4	1.8	1.8	1.3	2.0	n.a.	1.9	1.8	1.6	1.7
Ex-smoker	21.4	21.7	20.2	25.9	26.2	26.2	27.1	27.0	26.4	27.3
Never smoked	49.0	49.1	52.6	49.2	50.6	51.0	50.0	50.6	52.9	51.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: * Estimate not reliable. ^a Sourced from Australian Institute of Health and Welfare (2005a, Table 3.1); ^b Authors' own estimates for the population aged 15 years and over using waves 1 through 4 of the HILDA Survey; proportion identifying as smokers (smoking status was not differentiated by smoking frequency in wave 1 of the survey).

Table 3 contains descriptive statistics on smoking behaviour in the different states and consists of three blocks comparing 2001 and 2002, 2001 and 2003, and 2001 and 2004, respectively. A quitter is defined as a smoker in one year and a non-smoker the next. A starter is defined as a non-smoker in one year and a smoker the next. The sample for Table 3 is restrict-

ed to those people with valid data on smoking status who were residing in the same state in both of the years used for comparison. All respondents who gave inconsistent answers were excluded, for example, people who said they smoked or used to smoke in one interview but then reported they had never smoked in a subsequent year.

Table 3 indicates that there is quite a high degree of change in smoking status, with 6 to 9% of all persons either quitting or starting smoking depending on a short-term (one year) or longer-term (four year) view. Indeed, the estimates imply that approximately 20% of smokers in wave 1 quit smoking by the time of wave 4, approximately matched by a similar number taking up smoking between waves 1 and 4. There is also substantial variation in smoking rates across the states and territories, with smoking rates highest in the Northern Territory and Tasmania and lowest in the Australian Capital Territory and New South Wales.

The transition matrices in Table 4 follow all responding persons in the base year (rows) and display the outcomes in the subsequent year, which provides far more detail than Table 3. The reason why a person could have 'No info' in the base year is either due to not filling out the self-completion questionnaire altogether, refusing to answer the particular smoking question, or giving multiple responses. The persons in the base year

for whom we do not have information on smoking status are included for completeness. A person is not retained between waves if the person fails to fill out a self-completion questionnaire in the subsequent wave, if he/she gives multiple answers or no answer at all on the particular question related to smoking, or if the person is a complete non-respondent (i.e. genuine sample attrition).¹

It seems that, while very few people who had previously been non-smokers took up smoking each year, it was quite difficult for people who had quit smoking to break the habit, with less than 2% of people who had never smoked in 2001 smokers in 2004, compared to 8.1% of people who were ex-smokers in 2001.

Endnote

- 1 Of the 12,960 valid observations in wave 1, 1,636 have no information in wave 2 due to non-response (i.e. genuine attrition). A further 946 have missing information in wave 2 due to non-return of the self-completion questionnaire (which contains the question on smoking), and another 96

Table 3: Smoking status by state of residence (%)

	Smoking status				Total
	Quitter	Starter	Smoker	Non-smoker	
2001–2002					
NSW	2.4	3.9	17.9	75.7	100.0
VIC	2.7	4.2	19.3	73.7	100.0
QLD	2.2	3.8	22.7	71.2	100.0
SA	*1.9	4.2	24.1	69.8	100.0
WA	2.2	3.5	19.2	75.1	100.0
TAS	*3.0	*5.1	27.6	64.3	100.0
NT	*0.0	*6.5	*36.3	57.2	100.0
ACT	*3.2	*2.6	*10.5	83.7	100.0
Total	2.4	4.0	20.1	73.5	100.0
2001–2003					
NSW	3.2	4.3	17.8	74.7	100.0
VIC	4.0	4.2	18.0	73.8	100.0
QLD	3.6	4.3	20.7	71.5	100.0
SA	3.3	4.9	22.3	69.6	100.0
WA	3.1	4.2	18.8	73.9	100.0
TAS	*3.1	*6.1	26.3	64.4	100.0
NT	*5.8	*8.5	*33.1	52.6	100.0
ACT	*2.6	*3.8	*12.5	81.1	100.0
Total	3.5	4.4	19.1	73.1	100.0
2001–2004					
NSW	3.0	4.5	18.0	74.5	100.0
VIC	4.4	5.2	17.5	72.9	100.0
QLD	4.5	4.8	19.3	71.4	100.0
SA	4.0	5.0	21.3	69.6	100.0
WA	4.6	4.5	16.3	74.6	100.0
TAS	*5.1	*6.1	26.4	62.4	100.0
NT	*3.5	*9.6	*35.7	51.2	100.0
ACT	*4.3	*3.8	*11.8	80.1	100.0
Total	4.0	4.9	18.4	72.7	100.0

Notes: Population weighted using longitudinal weights. * Estimate not reliable. Respondents providing inconsistent answers omitted from the analysis. Respondents had to be living in the same state in each of the years compared.

Table 4: Wave 1 population weighted transition rates between waves (%)

2001 status	2002 status						
	No info	Never	No longer	Daily	Weekly	Less than weekly	Total
No info	61.4	18.1	9.8	9.0	0.5	1.1	100.0
Never	21.1	72.3	5.1	0.6	0.4	0.6	100.0
No longer	18.1	6.0	67.5	4.5	2.1	1.9	100.0
Yes	26.3	1.4	8.0	57.2	4.8	2.3	100.0
2001 status	2003 status						
	No info	Never	No longer	Daily	Weekly	Less than weekly	Total
No info	63.9	18.3	7.7	8.5	0.4	1.3	100.0
Never	24.6	69.3	4.4	0.7	0.3	0.6	100.0
No longer	21.9	5.3	64.4	5.1	1.7	1.6	100.0
Yes	28.4	1.2	11.4	52.9	4.4	1.8	100.0
2001 status	2004 status						
	No info	Never	No longer	Daily	Weekly	Less than weekly	Total
No info	65.0	17.8	7.7	7.6	1.1	0.9	100.0
Never	29.2	64.7	4.3	0.9	0.4	0.5	100.0
No longer	26.7	5.1	60.1	4.7	1.5	1.9	100.0
Yes	32.9	1.0	11.5	48.3	4.4	1.9	100.0

Note: Total represents the unweighted number of observations.

individuals are not retained because of invalid responses to the question on smoking (failure to answer the question, or selection of more than one of the mutually exclusive responses). For the 11,518 valid observations in wave 2, the corresponding numbers in wave 3 are 1,204, 462 and 112.

References

Australian Institute of Health and Welfare, 2005a, *2004 National Drug Strategy Household Survey: First Results*, Drug Statistics Series, no. 13, AIHW, Canberra.

Australian Institute of Health and Welfare, 2005b, *Australia's Health 2004*, AIHW, Canberra.

Queensland Health, 2000, *Towards a Smoke-Free Future: Queensland Tobacco Action Plan 2000/01 to 2003/04*, <<http://www.health.qld.gov.au/phs/Documents/atods/8260.pdf>>.

World Health Organisation, 2002, *The Tobacco Atlas*, Myriad Editions Limited, Brighton UK.

Smoking, passive smoking and health

Cigarette smoking has serious health consequences in that it contributes to many chronic diseases including coronary heart disease, lung cancer, oral cancers and diseases, asthma, stroke and osteoporosis (Australian Institute of Health and Welfare, 2002). The World Health Organisation (2002) estimates that worldwide, smoking is estimated to cause almost 5 million premature deaths each year.

Smoking is still quite a widespread habit in Australia, although it is less prevalent than in other Western countries (see previous article). Results from the 2001 National Drug Strategy Household Survey show that just under 20% of Australians aged 14 years and over smoked daily. Data from the Australian Bureau of Statistics (ABS, 2004) indicate that in 2001, men were more likely to smoke than women and smoking was highest among 25–34 year olds and people were less likely to smoke as they got older.¹

Each year, HILDA Survey respondents are asked about how often they smoke, and smokers are asked how many cigarettes they smoke each week.

The proportion of people who were daily smokers in 2002, 2003 and 2004 is shown in Table 1.²

In all age groups, smoking was more common among men than among women.³ Around 15% of teenage boys smoked daily, compared to just under 30% of men between the ages of 20 and 39, and after the age of 40, the proportion of men who smoked daily declined with age, from around 25% of men in their forties to 20% of men in their fifties and 11% of men aged 60 and over.

There is a similar pattern for women. Smoking is most common among women aged between 20 and 29, and the proportion of women who smoke daily declines with age, from around 21% of women in their thirties to only 6% of women aged 60 and over. The proportion of teenage women who smoke increased slightly over the three-year period from 2002 to 2004—from 10.4% in 2002 to 12.7% in 2004.

While Table 1 shows the proportion of people who smoked on a daily basis, there is also a small proportion of smokers who smoke less often, as shown in Table 2.

Around 4% of men and women aged 15 and over smoked cigarettes, but not every day. Infrequent smoking was most common among younger people, and the proportion who smoked less often than daily decreased from around 6% of men and women in their thirties to less than 2% of people aged 60 and over.

The health risks from smoking increase with the number of cigarettes smoked and with the number of years smoking, especially when tobacco smoking is started at an early age (AIHW, 2002). Table 3 shows the average number of cigarettes smoked per week, by gender and age group.

For men who smoked, the average number of cigarettes smoked per week increased substantially with age, from around 50 per week for men under the age of 20, to over 100 for men in their fifties. The number of cigarettes smoked per

week by female smokers also increased with age, from around 50 per week for teenage women to around 90 per week for women in their fifties. However, the average number of cigarettes smoked by female smokers aged 60 and over was lower (around 70 per week) than that of women in their fifties. It is interesting to note that while the proportion of teenage women who smoked increased slightly over the three-year period from 2002 to 2004, the average number of cigarettes smoked by women in this age group also increased, from 39 per week in 2002 to 50 per week in 2004.

Are health scores actually lower for smokers?

One would expect the general health of people who smoke to be significantly lower than that of non-smokers. Table 4 compares the general health scores of smokers and non-smokers in 2004.⁴

Table 1: Proportion who smoke daily, by gender and age group, 2002–2004

Age group	Men			Women		
	2002	2003	2004	2002	2003	2004
15–19	13.5	15.7	14.4	10.4	11.7	12.7
20–29	27.2	27.1	27.5	26.9	24.8	22.6
30–39	29.7	28.1	26.8	21.0	21.1	22.1
40–49	26.0	25.2	25.8	19.4	18.8	18.7
50–59	19.2	20.5	18.2	13.6	13.2	13.9
60+	11.5	11.0	11.6	6.3	6.1	6.6
Total	21.8	21.6	21.1	16.5	16.1	16.1

Note: Population weighted results.

Table 2: Proportion who smoke less often than daily, by gender and age group, 2002–2004

Age group	Men			Women		
	2002	2003	2004	2002	2003	2004
15–19	6.1	6.1	5.8	7.4	8.3	4.6
20–29	8.9	8.3	7.2	5.0	5.9	7.5
30–39	6.0	5.4	6.5	6.1	4.7	6.1
40–49	4.5	4.4	4.6	4.2	2.9	3.6
50–59	3.2	*1.5	2.8	*1.6	*1.2	1.9
60+	*1.5	*1.5	*1.5	*1.1	*1.1	*0.9
Total	4.8	4.3	4.5	3.9	3.6	4.0

Notes: Population weighted results. * Estimate not reliable.

Table 3: Cigarettes smoked per week (all smokers)—means by gender and age group, 2002–2004

Age group	Men			Women		
	2002	2003	2004	2002	2003	2004
15–19	49	51	46	39	42	50
20–29	78	73	78	70	59	60
30–39	91	86	85	74	73	78
40–49	108	99	93	88	82	77
50–59	107	111	102	93	92	83
60+	103	87	100	74	77	76
Total	92	87	86	76	71	72

Note: Population weighted results.

As expected, the average level of general health for men and women who smoked was slightly lower for smokers in all age groups.⁵ Overall, general health was 5 to 6 points lower for men and women who smoked than for non-smokers. Differences in general health scores were particularly large for young women, with an average of 58.3 out of 100 for women between 15 and 19 who smoked, and an average of 71.7 for women in the same age group who did not smoke. For men and women in their twenties, general health scores were around 9 points lower for smokers compared to non-smokers.

What about mental health? While there is no known evidence that smoking can cause problems with mental health, there may be flow-on effects from the effects that smoking has on physical health that could cause a decrease in mental health scores, and, it is also possible that people with lower mental health scores are more likely to take up the habit of smoking. Table 5 compares the mental health scores of smokers and non-smokers.⁶

As with general health, mental health scores were around 5 points lower for men and women who smoked than for non-smokers. Differences in mental health scores between smokers and non-smokers were particularly large for teenage women and also for women in their fifties—for these two groups mental health scores were 8 points lower for smokers. Conversely, the difference in mental health scores for men in their forties who smoked and men in the same age group who were non-smokers was only 2 points.

How much does passive smoking affect the health of non-smokers?

Many studies have identified the health risks of passive smoking (e.g. Jarvis et al., 2000; Whincup, 2004) which include increased risk of heart disease and stroke, higher risk of developing lung cancer and increased risk of nose and sinus cancer. However, a recent article (Enstrom and Kabat, 2003), in the *British Medical Journal*, examined non-smokers who were married to partners who smoked, and concluded that passive smoking (by inhaling a spouse's cigarette smoke) was not significantly associated with an increased risk of death from coronary heart disease or lung cancer at any time or at any level of exposure.

We attempt to identify the effects of passive smoking by comparing the health of non-smokers with a spouse of partner who smokes, and non-smokers whose partner is also a non-smoker. Figure 1 compares the general health of men and women with partners who do not smoke with men and women whose partner does smoke.

Overall, the general health scores of non-smoking men and women whose partner was a non-smoker were only about 2 points higher than those of non-smokers whose partners smoked. Differences in general health scores between people whose partner smoked and those whose partner was a non-smoker were greatest for men and women over the age of 60, suggesting that prolonged exposure to passive smoke may in fact have an impact on health.⁷ While the differences in the

Table 4: General health—means by gender, age group and smoking status, 2002–2004

Age group	Men			Women		
	2002	2003	2004	2002	2003	2004
15–19	72.0	58.3	65.6	79.4	71.7	75.5
20–29	66.8	64.9	65.9	76.2	73.9	74.9
30–39	67.1	67.3	67.2	73.2	74.4	73.8
40–49	63.7	62.3	63.1	71.5	71.1	71.3
50–59	58.2	58.8	58.4	66.2	68.1	67.2
60+	57.8	61.8	59.3	61.0	62.0	61.5
Total	64.5	63.5	64.0	69.8	69.4	69.6

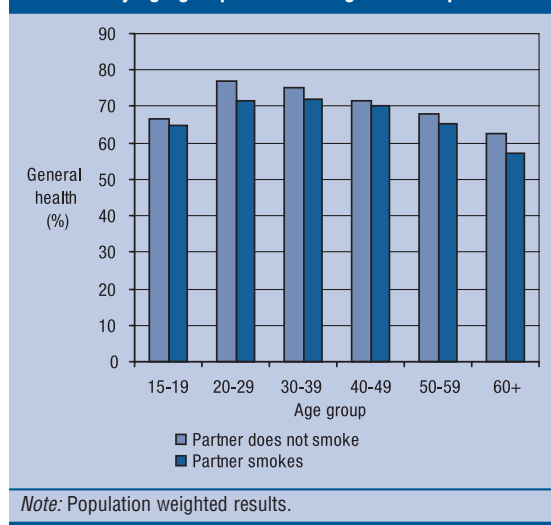
Note: Population weighted results.

Table 5: Mental health—means by gender, age group and smoking status, 2002–2004

Age group	Men			Women		
	2002	2003	2004	2002	2003	2004
15–19	71.1	64.4	68.1	77.0	72.2	74.6
20–29	69.8	68.5	69.2	76.3	71.3	73.6
30–39	71.8	67.8	69.9	75.9	73.0	74.3
40–49	73.3	67.4	70.8	75.5	73.5	74.4
50–59	72.0	66.4	69.6	76.4	74.6	75.5
60+	74.0	72.2	73.3	77.5	75.4	76.3
Total	71.9	67.8	70.1	76.5	73.6	75.0

Note: Population weighted results.

Figure 1: General health of non-smokers (2004)
—means by age group and smoking status of partner



general health scores between partners of smokers and partners of non-smokers were small, they were significant for men in their twenties, women in their fifties and sixties, and for women overall.⁸

The difference in average general health scores between people whose partner smoked and people whose partners did not smoke was not significant for most age groups. However, this result cannot be interpreted as evidence that passive smoking has no impact on health. Some people may not ever be in the same room as their partner while they are smoking, while others may have been exposed to passive smoke over a long period of time, and it is the latter group who would be most likely to suffer from health problems as a result of passive smoking.

Endnotes

- 1 Partly because smoking is associated with higher premature death rates, and smokers are less likely to live to the older age groups.
- 2 In 2001 the questions about smoking were slightly different than in subsequent waves. Respondents were asked whether they smoked or not (but not how often) and the amount of money they spent on tobacco products each week.
- 3 While the ABS also found that smoking was more common among men for all age groups, results from the 2001 National Drug Strategy Household Survey indicated that among teenagers, girls (16%) were more likely to be daily smokers than boys (14%) (AIHW, 2002).

- 4 General health scores ranging from 0 to 100 (where 0 means poor health and well-being, and 100 means good health and well-being) are calculated on the basis of client responses to the SF-36 questionnaire, which is included in the HILDA Survey each year.
- 5 While it is possible that the overall result is biased because of the higher death rate of smokers, this does not explain the differences in the general health scores of younger people.
- 6 Mental health scores ranging from 0 to 100 (where 0 means poor health and well-being, and 100 means good health and well-being) are calculated on the basis of client responses to the SF-36 questionnaire, which is included in the HILDA Survey each year.
- 7 However, this does not explain the result of people in their twenties having the next greatest difference in general health.
- 8 Differences between means for these groups were significant at the 5% level.

References

- Australian Bureau of Statistics, 2004, 'Health risk factors among adults', *Year Book Australia, 2004*, ABS Catalogue No. 1301.0, Canberra, <<http://www.abs.gov.au/ausstats/ABS@.nsf/46d1bc47ac9d0c7bca256c470025ff87/96cd57be9ea8acbac256dea00053a78!OpenDocument>>.
- Australian Institute of Health and Welfare (AIHW), 2002, *2001 National Drug Strategy Household Survey: Preliminary Results*, May 2002, <<http://www.aihw.gov.au/publications/phe/ndshs01/ndshs01.pdf>>.
- Enstrom, J. and Kabat, G., 2003, 'Environmental tobacco smoke and tobacco related mortality in a prospective study of Californians, 1960-98', *British Medical Journal*, vol. 326, no. 1057, <<http://www.bmj.com/cgi/content/full/326/7398/1057>>.
- Jarvis, M.J., Goddard, E., Higgins, V., Feyerabend, C., Bryant, A. and Cook, D., 2000, 'Children's exposure to passive smoking in England since the 1980s: Cotinine evidence from population surveys', *British Medical Journal*, vol. 321, pp. 343-5, <<http://www.bmj.com/cgi/content/full/321/7257/343>>.
- Whincup, P., 2004, 'Passive smoking and risk of coronary heart disease and stroke: Prospective study with cotinine measurement', *British Medical Journal*, vol. 329, pp. 200-5, <<http://www.bmj.com/cgi/content/full/329/7459/200>>.
- World Health Organisation, 2002, *The World Health Report 2002*, WHO, Geneva.

Who lacks adequate social support and how persistent is the problem? Evidence for 2001–2004

An increasingly common view in both Government and the social sciences is that *social networks* are a vital resource which needs to be assessed along with human capital (education, cognitive skills, work experience) and financial assets 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 networks and what he terms '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 networks (Henderson et al., 1981).

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.

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 like borrowing household items and keeping an eye on the house while one is away on holiday (Henderson et al., 1981). Measures of neighbourliness and neighbourhood quality and safety are also sometimes included.

In this article the focus is on analysing limitations in social networks, on assessing what proportion of the community, and of specific groups, appear to lack adequate networks.

HILDA assesses social networks with three 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'—is 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 and the neighbourliness index—assesses availability of friendship and social support. Finally, an index we labelled 'run-down neighbourhood' assesses the extent to which the neighbourhoods in which respondents live are perceived by them

as having high levels of noise and derelict or run-down conditions.

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 they live on their own and do not have a 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 'totally dissatisfied' and 10 meant 'totally 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 hypothesised, might 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 disabilities, and those born in non-English speaking (NESB) countries.¹

In 2004 10.7% of the population were both living alone and had no current partner. Another 11.8% 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. Elderly people, lone mothers, singles, separated or divorced individuals and people with disabilities all have much higher than average rates of dissatisfaction with 'other relatives'.² The

Table 1: Availability of close, intimate and live-in relationships, 2004 (%)

	<i>Lives alone</i>	<i>Not satisfied with partner</i>	<i>Not satisfied with other relatives</i>
Men	10.8	10.2	8.1
Women	10.6	13.3	10.5
Elderly	25.7	7.8	10.7
Lone mothers	n.a.	n.a.	26.0
Singles	25.2	n.a.	21.5
Separated or divorced	47.2	n.a.	25.7
<i>Disability</i>	20.1	13.8	14.4
<i>NESB</i>	9.5	15.3	8.4
All	10.7	11.8	9.4

Note: Population weighted results.

results in Table 1 indicate that lone mothers, singles and separated/divorced people are especially prone not to get on well with their relatives.³

It is also worth recording that there are only very weak negative correlations between the HILDA measures of social networks and measures of income and occupational status.⁴

Social support networks and neighbourhood quality

The HILDA social networks index comprises 10 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’. Also included is a separate neighbourliness index which comprises two questions: ‘how common are the following things in your local neighbourhood—neighbours helping each other out?’ and ‘neighbours doing things together?’ These items are answered on a 5 point scale running from ‘never happens’ to ‘very common’. Finally, we include a ‘run-down neighbourhood’ index based on eight questions asked on the same 1–7 scale. Sample items are: ‘people being hostile and aggressive’, ‘vandalism and deliberate damage to property’ and ‘homes and gardens in bad condition’.

For presentation in Table 2, all three indices have been split at their mid-point, so that those whose answers indicate that they have a poor social network, those who have unhelpful neighbours, and those who live in a run-down neighbourhood are distinguished from those whose circumstances are more favourable.

More men than women (13.2% compared to 10.1%) report low level social networks; a results which replicates much previous research indicating that women are more effective networkers (Flood, 2005; Rubin, 1983). However, although the difference is statistically significant, it is not substantively large.⁵ More serious is the finding that

lone mothers, separated/divorced people and disabled people report poor networks; recall that the same groups lacked close relationships.⁶ However, two other potentially ‘at risk’ groups—the elderly and NESB respondents—report social networks of the same quality as the rest of the population.

Over a third of respondents did *not* perceive their neighbours as helpful or as ‘doing things together’. Given that far fewer report weak social networks, it follows that many people are able to find adequate networks without having to rely on people in the local neighbourhood. Plainly, the development of rapid transport and telecommunications mean that people are no longer as dependent on locals as they used to be.

Table 2 indicates that the large majority of Australians do not see their neighbourhood as run-down. However, lone mothers, singles, separated/divorced people and the disabled are more likely than others to perceive neighbourhood problems.

The persistence of low level social networks—do the same people report poor networks in 2001–2004?

The results in Tables 1 and 2 relate just to 2004. But how many of the respondents who reported low level social networks in that year reported the same problems in 2001–2003 as well? Clearly, medium-term poor networks are more serious—they imply a greater loss of well-being—than a poor network perceived at just one point in time. Table 3 covers all six measures reported above and shows how many respondents reported particular problems in all four years.

It can be seen that the two most persistent conditions are ‘living alone’ and ‘unhelpful neighbours’. Fairly high proportions of the elderly, singles, separated/divorced people and the disabled lived on their own for all four years, and 17% of respondents consistently saw their neighbours as unhelpful and rarely getting together. The other problems prove to be quite transient—perhaps surprisingly so—for most of the population. For example,

Table 2: Social support and neighbourhood quality, 2004 (%)

	<i>Poor social network</i>	<i>Unhelpful neighbours</i>	<i>Run-down neighbourhood</i>
Men	13.2	31.8	4.4
Women	10.1	35.5	4.3
Elderly	11.9	37.6	3.1
Lone mothers	14.9	28.7	7.2
Singles	12.9	29.3	5.6
Separated or divorced	18.5	33.4	5.5
<i>Disability</i>	17.5	35.4	5.3
<i>NESB</i>	16.0	25.6	4.7
All	11.6	33.7	4.3

Note: Population weighted results.

Table 3: Social networks—percentages experiencing low levels for 4 years running (2001–2004)

	<i>Lives alone</i>	<i>Not satisfied with partner</i>	<i>Not satisfied with other relatives</i>	<i>Poor social network</i>	<i>Unhelpful neighbours</i>	<i>Run-down neighbourhood</i>
Men	6.8	1.4	0.7	2.0	15.5	0.7
Women	8.9	2.3	0.8	1.8	18.5	0.8
Elderly	22.1	1.8	2.0	1.6	20.2	1.1
Lone mothers	n.a.	n.a.	9.8	3.3	17.0	*2.2
Singles	12.8	n.a.	13.5	2.2	11.4	*1.1
Separated or divorced	29.3	n.a.	5.0	5.1	16.0	*1.2
<i>Disability</i>	14.9	2.5	1.8	2.9	18.9	*1.1
<i>NESB</i>	6.0	2.7	0.5	2.2	8.4	*0.5
All	7.8	1.8	0.8	1.9	17.0	0.8

Notes: Population weighted results. * Estimate not reliable.

about 9% said they were not satisfied with their partner in 2001 but only 1.8% also reported dissatisfaction in 2002, 2003 and 2004. Only a small proportion of these individuals changed partners between 2001 and 2004; 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', poor social networks and run-down neighbourhoods.

There are, however, exceptions to this generalisation. Specifically, 5.1% of divorced/separated individuals, 3.3% of lone mothers and 2.2% of NESB respondents reported poor social networks in all four years. Overall, the evidence indicates that these are the three groups in Australia most lacking in social capital.⁷

Endnotes

- 1 Defined as people with a long-term health condition which has lasted or is likely to last for six months or more.
- 2 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 25 than among older people.
- 3 The number of single fathers in the sample is too small for results to be statistically reliable. However, if one

were to accept the evidence, it appears that single fathers are about as dissatisfied with 'other relatives' as lone mothers.

- 4 Correlations are in the range 0 to -0.10.
- 5 Statistically significant at the 0.001 level.
- 6 A similar percentage of single fathers reported poor networks. However, single 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.
- 7 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.

References

- Flood, M., 2005, 'Mapping loneliness in Australia', Discussion Paper, no. 76, The Australia Institute, Canberra.
- Henderson, S., Byrne, D.G. and Duncan-Jones, P., 1981, *Neurosis and the Social Environment*, Academic Press, New York.
- Putnam, R.D., 2000, *Bowling Alone*, Simon & Schuster, New York.
- Rubin, L.B., 1983, *Intimate Strangers*, Harper & Row, New York.

Social support networks in retirement

An important aspect of life in retirement, particularly for retirees who live alone, is having an adequate social network. After all, retirees no longer have automatic contact with work colleagues, and for men particularly, there is a danger of social isolation once paid work ceases. Viewing the matter more positively, it could be said that retirement potentially offers increased opportunity for friendships, networking and enjoyable leisure activities with family and friends.

Social networks range from intimate attachments to spouse and family, through friendship and social support networks, to acquaintances whom one may be able to rely on for relatively minor assistance like borrowing household items and keeping an eye on the house while one is away on holiday (Henderson et al., 1981). The amount of social contact retirees have with friends and family who do not live with them is shown in Table 1.

Overall, the figures in Table 1 are quite positive. It seems that most retirees do have adequate social networks—around 60% of retired men and women got together with friends or family at least once a week. Retired men who were widowed had the most social contact—48.1% got together with friends or family several times a week, compared to 37.8% of retired men who had never married, 26.6% of retired men who were separated or divorced, 25.8% of men whose partner had not yet retired, and 22.7% of men whose partner was also retired.

Single women who were retired got together with friends or family more often than partnered women. Just over 40% of female retirees who were separated, divorced or widowed got together

with friends or family several times a week, compared to 31.8% of retired women whose partner was not yet retired and 30% of retired women whose partner was also retired.

At the other end of the scale, it was more common for retired men than retired women to say they got together with friends and family less than once a month.¹ Overall, 15.7% of retired men and 10.8% of retired women said they got together with friends and family less than once a month. Infrequent social contact was most common for retired men who were separated or divorced, with 19.8% getting together with friends or family less than once a month, compared to around 15% of partnered men. Infrequent social contact was also common for female retirees who were separated or divorced, with 14.7% getting together with friends and family less than once a month, compared to 12.0% of women with partners who were also retired and only 7.6% of widows.

Retirees' opinions of social support available

A more detailed series of questions about the amount of support people felt they got from others was also asked. Respondents were asked to rate, on a scale of 1 to 7 (with 1 being 'strongly disagree' and 7 being 'strongly agree'), how much they agreed with statements such as *'I have no one to lean on in times of trouble'* and *'There is someone who can always cheer me up when I'm down'*. The proportions of retired men and women who agreed with each statement (5 or higher out of 7) are shown in Table 2.

Compared to men with partners, it was much more common for single men to agree with the statement

Table 1: How often do you get together socially with friends and family not living with you—retired men and women, 2004 (%)

	How often get together socially with friends or family					Total
	Several times a week	About once a week	2 or 3 times a month	About once a month	Less than once a month	
Men						
Single—separated or divorced	26.6	25.8	*14.4	*13.4	19.8	100.0
Single—widowed	48.1	26.3	*8.6	*6.2	*10.8	100.0
Single—never married	37.8	*25.6	*8.6	*9.0	*19.1	100.0
Partner retired	22.7	31.1	19.5	11.4	15.3	100.0
Partner not retired	25.8	27.8	14.3	16.3	15.9	100.0
All	27.0	29.3	16.3	11.7	15.7	100.0
Women						
Single—separated or divorced	41.6	23.7	12.1	7.8	14.7	100.0
Single—widowed	42.7	30.4	13.2	6.1	7.6	100.0
Single—never married	*37.3	*39.0	*7.4	*5.8	*10.4	100.0
Partner retired	30.0	27.0	20.3	10.7	12.0	100.0
Partner not retired	31.8	30.6	15.0	*11.8	*10.7	100.0
All	35.5	28.5	16.1	9.0	10.8	100.0

Notes: Population weighted results. * Estimate not reliable.

I often feel very lonely. Almost 40% of men who were separated, divorced or never married and 33% of widowed men agreed with this statement, compared to 19.1% of retired men whose partner was not retired and only 15.1% of men whose partner was also retired.² For retired women, the proportion who agreed with this statement ranged from 18.5% of women whose partner was not retired, to 27.5% of retired women who were separated or divorced. Interestingly, 26.5% of retired women whose partner had not yet retired said they often felt very lonely, indicating that for women, their partner's retirement status had a substantial influence on their feelings of loneliness.

The proportion of retired men who were separated, divorced or never married who agreed with the statement *People don't come and visit me as often as I would like* was around 37%—slightly higher than that of widowed men (32.9%), men whose partners were also retired (31.9%) and men with partners who were not yet retired (29.6%). For retired women, the proportion who agreed with this statement was slightly higher for widows and women who were separated or divorced.

It was also more common for women who were separated or divorced to agree with the statement *I often need help from other people but can't get it*, with 27.6% agreeing with this statement, compared to 15.9% of retired widows and 12.8% of retired women whose partner was also retired.

The proportion of retired men who were separated or divorced who agreed with the statement *I don't have anyone to confide in* was almost double that of retired men with partners—39.4% of men who were separated or divorced agreed with the statement, compared to 20.2% of men whose partner was also retired and 20.6% of men whose partner had not yet retired.

Persistence of social support problems

Do problems such as loneliness and not having regular social contact persist for several years, or are they usually overcome? Table 3 shows the number of years between 2001 and 2004 that retirees (who were retired in all four years) experienced problems with the amount of social support available to them.

Table 2: Retirees' opinions of support available, by gender and marital status, 2004 (%)

	Proportion who agree with the statement					Total
	Single		Partnered			
	Separated or divorced	Widowed	Never married	Partner retired	Partner not retired	
Men						
People don't come and visit me as often as I would like	36.8	32.9	36.7	31.9	29.6	32.4
I often need help from other people but can't get it	18.9	*12.7	*23.5	15.0	18.5	16.4
I seem to have a lot of friends	40.2	60.3	35.6	44.3	43.8	44.9
I don't have anyone that I can confide in	39.4	*19.4	*31.2	20.2	20.6	22.9
I have no one to lean on in times of trouble	36.9	14.6	29.4	17.1	19.1	20.1
There is someone who can always cheer me up when I'm down	48.2	64.9	47.1	66.6	66.8	63.3
I often feel very lonely	38.3	37.2	33.0	15.1	19.1	21.4
I enjoy the time I spend with people who are important to me	85.1	91.8	85.8	91.6	89.3	90.1
When something's on my mind, just talking with the people I know can make me feel better	71.2	75.1	70.3	76.1	79.0	75.6
When I need someone to help me out, I can usually find someone	72.6	77.3	72.8	78.0	78.7	77.1
Women						
People don't come and visit me as often as I would like	33.6	34.5	*25.8	30.5	29.2	31.8
I often need help from other people but can't get it	27.6	15.9	*17.6	12.8	*10.2	15.0
I seem to have a lot of friends	47.4	58.3	55.5	52.8	49.9	53.4
I don't have anyone that I can confide in	21.2	19.5	*13.0	15.7	17.0	17.5
I have no one to lean on in times of trouble	23.5	21.0	*4.1	15.9	17.1	18.0
There is someone who can always cheer me up when I'm down	64.3	66.7	66.8	69.6	68.8	68.0
I often feel very lonely	27.5	25.7	*23.5	18.5	26.5	22.9
I enjoy the time I spend with people who are important to me	92.0	91.6	*100.0	92.8	92.9	92.6
When something's on my mind, just talking with the people I know can make me feel better	81.7	87.0	80.5	84.1	86.6	85.0
When I need someone to help me out, I can usually find someone	72.9	82.5	93.9	79.5	83.8	80.8
<i>Notes: Population weighted results. * Estimate not reliable.</i>						

Table 3: Persistence of social support problems, retirees, 2001–2004 (%)

	Number of years agreed with the statement					Total
	0	1	2	3	4	
Men						
People don't come and visit me as often as I would like	38.9	27.5	17.6	9.9	6.1	100.0
I often need help from other people but can't get it	65.9	22.3	8.7	*2.4	*0.7	100.0
I seem to have a lot of friends	28.0	22.1	14.3	15.9	19.7	100.0
I don't have anyone that I can confide in	51.3	26.3	13.0	7.9	*1.5	100.0
I have no one to lean on in times of trouble	53.5	25.6	13.2	5.3	*2.3	100.0
There is someone who can always cheer me up when I'm down	8.3	14.3	21.3	29.8	26.2	100.0
I often feel very lonely	54.0	26.2	13.0	*4.1	*2.7	100.0
I enjoy the time I spend with people who are important to me	*0.3	*0.7	6.6	19.5	72.9	100.0
When something's on my mind, just talking with the people I know can make me feel better	6.0	7.9	12.0	27.2	46.8	100.0
When I need someone to help me out, I can usually find someone	4.8	9.2	11.3	24.9	49.8	100.0
Women						
People don't come and visit me as often as I would like	38.4	24.9	17.3	13.1	6.3	100.0
I often need help from other people but can't get it	63.8	21.7	10.0	3.0	*1.4	100.0
I seem to have a lot of friends	19.1	17.4	16.6	18.5	28.5	100.0
I don't have anyone that I can confide in	51.4	27.7	13.9	5.9	*1.1	100.0
I have no one to lean on in times of trouble	54.5	24.6	12.9	5.5	*2.5	100.0
There is someone who can always cheer me up when I'm down	3.6	9.5	18.0	33.5	35.4	100.0
I often feel very lonely	48.7	27.0	15.8	5.2	3.3	100.0
I enjoy the time I spend with people who are important to me	*0.0	*0.8	3.2	15.2	80.9	100.0
When something's on my mind, just talking with the people I know can make me feel better	*1.8	3.3	8.2	21.5	65.3	100.0
When I need someone to help me out, I can usually find someone	3.4	5.9	8.1	20.0	62.6	100.0
<i>Notes: Population weighted results. * Estimate not reliable.</i>						

The statement that retirees agreed with most commonly over the four-year period was *'People don't come and visit me as often as I would like'*. Around 6% of retired men and women agreed with this statement in all four years, and 13.1% of women and 9.9% of men agreed with the statement in three of the four years. While many retirees said they would like more people to visit them, loneliness does not generally seem to be a persistent problem. Around 27% of retired men and women agreed with the statement *'I often feel very lonely'* in one of the four years and around 15% agreed in two of the four years, less than 10% said they were very lonely in three or four years. Still, feeling very lonely for a period of more than one year would be a serious enough problem.

Problems with getting help from other people also seem usually to get sorted out. Less than 5% of retired men and women agreed with the statement *'I often need help from other people but can't get it'* in three or four of the four years from 2001 to 2004.

Concluding points

Although a high proportion of single retirees get together with friends and family at least once a week, it was also quite common for single retirees,

particularly those who were separated or divorced, to agree with statements such as, *'People don't come and visit me as often as I would like'*, *'I have no one to lean on in times of trouble'* and *'I often feel very lonely'*. These results may indicate that regular social contact with friends and family is not enough to compensate for overall feelings of loneliness and lack of social support which some older people experience when living alone.

Endnotes

- 1 A high proportion of retirees report having a long-term health condition or disability, which may contribute to their social isolation.
- 2 Flood (2005) also found that getting together with friends and relatives does not appear to compensate for a sense of social isolation among lone men.

References

- Flood, M., 2005, 'Mapping loneliness in Australia', Discussion Paper, no. 76, The Australia Institute, Canberra.
- Henderson, S., Byrne, D.G. and Duncan-Jones, P., 1981, *Neurosis and the Social Environment*, Academic Press, New York.

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 three 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 we do ask about paid work and housework.

Research on time uses, including research by ABS (1997) and 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 the number of hours per week men and women spent working and commuting to work, doing housework and household errands, and doing outdoor tasks.¹

Table 2 shows that 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.

On average, men who worked full-time spent 49.8 hours per week working and commuting, compared to 44.5 hours per week for women who worked full-time. Men who worked full-time spent an average of 8 hours per week doing housework and household errands and 4.4 hours doing outdoor tasks, while women who worked full-time did an average of 14.5 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 the amount of time spent by men and women on ‘required’ (non-discretionary) activities

Table 1: Time use by gender, employment status and relationship status (2004), hours per week (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	50.7	44.6	8.2	16.9	5.0	2.6	63.9	64.0
Employed part-time	23.1	21.1	9.2	24.9	5.9	3.2	38.2	49.2
Unemployed	0.0	0.0	14.9	25.8	7.1	4.1	22.1	29.9
Not in the labour force	0.0	0.0	12.0	30.3	10.0	4.0	22.0	34.3
Total	35.1	18.8	9.3	24.9	6.4	3.4	50.8	47.0
Single								
Employed full-time	47.7	44.3	7.6	10.9	2.9	2.2	58.2	57.3
Employed part-time	19.3	18.5	5.8	11.1	2.5	2.1	27.6	31.7
Unemployed	0.0	0.0	9.5	14.4	3.7	2.0	13.1	16.4
Not in the labour force	0.0	0.0	11.8	20.3	4.1	3.6	15.9	23.9
Total	26.4	17.3	8.5	14.9	3.2	2.7	38.1	35.0
Total								
Employed full-time	49.8	44.5	8.0	14.5	4.4	2.4	62.2	61.4
Employed part-time	20.9	20.1	7.3	19.7	3.9	2.8	32.1	42.6
Unemployed	0.0	0.0	10.8	18.2	4.5	2.7	15.3	20.8
Not in the labour force	0.0	0.0	11.9	26.3	7.7	3.9	19.7	30.2
Total	31.9	18.2	9.0	20.9	5.2	3.1	46.1	42.2

Note: Population weighted results.

Table 2: Time use in couple households (2004), hours per week (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	50.3	44.6	9.4	16.7	4.7	2.6	64.4	63.8
Man full-time, woman part-time	50.8	21.8	7.8	25.4	5.1	3.1	63.7	50.3
Man full-time, woman not working	51.0	0.0	6.8	32.7	5.6	3.9	63.4	36.6
Woman full-time, man part-time	27.8	45.8	11.5	15.2	6.2	2.9	45.5	63.9
Woman full-time, man not working	0.0	44.2	19.5	16.7	9.0	2.9	28.4	63.9
Both work part-time	22.8	18.1	8.5	23.9	5.9	3.3	37.3	45.3
Man part-time, woman not working	20.9	0.0	7.3	27.9	5.3	4.2	33.5	32.1
Woman part-time, man not working	0.0	20.6	14.1	20.7	10.2	3.0	24.4	44.3
Both not in paid work	0.0	0.0	11.1	27.7	10.1	4.2	21.2	31.8

Note: Population weighted results.

is about the same. Men spent on average 62.2 hours per week and women spent 61.4 hours.²

Men and women who worked part-time spent around 20 hours per week working and commuting to work, but women who worked part-time did considerably more housework than their male counterparts—an average of 19.7 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 32.1 hours per week, compared to 42.6 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 30.2 hours per week on household chores, while men who were not in the labour force averaged 19.7 hours per week. Unemployed women spent 20.8 hours per week on household chores, compared to 15.3 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 61.5 hours per week on these tasks, while women spent an average of 60.6 hours per week. Table 2 shows the time use of men and women in couple households in 2004, 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—64.4 hours per week for the men and 63.8 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 19.5 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 14.1 hours per week of household chores. On the other hand, in households where the man works and the woman is not in paid work, men do the least amount of household chores—around 7 hours per week in households where the man works either full or part-time and the woman is not in paid work.

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 28.4 hours per week on household and outdoor tasks, but the women spent an average of 44.2 hours working and commuting, and also spent 16.7 hours per week on household chores and 2.9 hours per week doing outdoor tasks.

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 worked full-time, thought they did more than their fair share of domestic chores. Table 3 shows the perception of domestic division of labour by gender and labour force status in 2004.

The results in Table 3 are quite similar to what we found last year. Regardless of labour force status, around 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—54.1% of women who worked full-time and 55.9% of women who worked

Table 3: Perception of domestic division of labour by gender and labour force status, 2004 (%)						
Labour force status	Share of work around the house					Total
	<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						
Employed full-time	9.7	9.9	55.2	20.4	4.9	100.0
Employed part-time	7.8	9.8	48.8	29.4	4.2	100.0
Unemployed	*10.4	12.5	51.4	22.1	*3.7	100.0
Not in the labour force	12.7	10.2	54.4	16.1	6.6	100.0
Total	10.3	10.0	54.1	20.4	5.2	100.0
Women						
Employed full-time	31.8	22.3	36.6	6.7	2.6	100.0
Employed part-time	30.2	25.7	33.8	9.1	1.3	100.0
Unemployed	27.4	13.6	45.4	*10.2	*3.2	100.0
Not in the labour force	31.6	18.4	41.6	5.9	2.6	100.0
Total	31.1	21.3	38.2	7.1	2.2	100.0

Notes: Population weighted results. * Estimate not reliable.

Table 4: Perception of domestic division of labour in couple households, by gender and household type, 2004 (%)						
Labour force status	Share of work around the house					Total
	<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	5.7	9.0	62.1	19.1	4.2	100.0
Partnered with at least one child under 15	6.3	11.1	53.8	22.6	6.1	100.0
Partnered with at least one child aged 15 or over (no children under 15)	8.4	12.1	53.4	22.4	*3.7	100.0
Women						
Partnered with no children	22.3	24.4	46.6	4.6	2.0	100.0
Partnered with at least one child under 15	39.9	30.3	27.1	2.5	*0.1	100.0
Partnered with at least one child aged 15 or over (no children under 15)	47.5	23.2	26.8	*1.6	*1.0	100.0

Notes: Population weighted results. * Estimate not reliable.

part-time said they did more than their fair share of domestic chores.

In the last 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 4 shows the distribution of responses for men and women in couple households, broken down by household type.³

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 than those with no resident children—14.7% of men in couple households with no resident children said they did more than their fair share of the household chores, compared to 17.4% of men who lived with a partner or spouse and children under the age of 15 and 20.5% 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—46.7% 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

Table 5: Perception of division of child care by gender, labour force status and relationship status, 2004 (%)

<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	2.7	6.1	65.0	20.0	6.2	100.0
Employed part-time	*1.2	*9.9	74.1	*12.5	*2.3	100.0
Unemployed	*8.8	*5.0	*76.8	*9.4	*0.0	100.0
Not in the labour force	*14.6	*8.1	56.0	*18.1	*3.1	100.0
Total	3.5	6.4	65.1	19.3	5.6	100.0
Men—no partner						
Employed full-time	21.1	*11.3	46.3	*12.6	*8.7	100.0
Employed part-time	*53.3	*3.5	*20.2	*18.6	*4.5	100.0
Unemployed	*19.3	*0.0	*69.0	*7.7	*4.0	100.0
Not in the labour force	*38.8	*15.7	*38.8	*0.0	*6.7	100.0
Total	27.0	*10.3	43.5	*11.5	7.7	100.0
Women—partnered						
Employed full-time	30.3	26.9	39.9	*2.9	*0.0	100.0
Employed part-time	34.8	32.1	32.5	*0.6	*0.0	100.0
Unemployed	*41.9	*23.4	*34.7	*0.0	*0.0	100.0
Not in the labour force	42.7	29.6	27.4	*0.2	*0.0	100.0
Total	36.6	29.8	32.6	*1.0	*0.0	100.0
Women—no partner						
Employed full-time	70.9	*7.0	*20.4	*1.8	*0.0	100.0
Employed part-time	70.7	*8.9	17.7	*2.4	0.3	100.0
Unemployed	78.0	*5.5	*16.5	*0.0	*0.0	100.0
Not in the labour force	79.3	*9.4	*9.6	*0.7	*1.0	100.0
Total	74.9	8.4	14.8	1.4	0.5	100.0

Notes: Population weighted results. * Estimate not reliable.

children in the household has a substantial impact on their perception of the division of household chores—70.2% of partnered women with children under the age of 15 and 70.7% of partnered women with children aged 15 or 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.⁴ The results are shown in Table 5.

Most partnered fathers said they did their fair share of looking after the children. Only 10.1% said they did more than their fair share. Compared to partnered fathers it was much more common for partnered mothers to say they did more than their fair share of the child care, with 57.2% of partnered mothers who worked full-time, 66.9% of partnered mothers who worked part-time and 72.1% 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 (74.9%) said they did much more than their fair share of looking after the children, compared to only 27% of single fathers.⁵ This is not surprising as most children live with their mother when 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 more than 70% 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 household work 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.⁶

Endnotes

- 1 All figures refer to a 'seven day week', rather than a 'working week'.
- 2 Note that, compared to women, both the proportion of men who work and the proportion of men who work full-time is higher, resulting in higher total overall hours for men than for women.
- 3 Sole 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.
- 4 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.
- 5 Using data from the 1997 ABS 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.

- 6 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.

References

- Australian Bureau of Statistics, 1997, *How Australians Use Their Time*, ABS Catalogue No. 4153.0, Canberra.
- Bittman, M., 1991, *Selected Findings from Juggling Time: How Australian Families Use Time – from Original Research by Michael Bittman and the Australian Bureau of Statistics*, Department of Prime Minister and Cabinet, Office of the Status of Women, Canberra.
- Craig, L., 2004, 'Time to care: A comparison of how couple and sole parent households allocate time to work and children', SPRC Discussion Paper, no. 133, <<http://www.sprc.unsw.edu.au/dp/DP133.pdf>>.

What have people been doing for the last four years?

At each annual interview HILDA respondents fill in a calendar for every month of the last financial year. The evidence tells us 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 four years? In this article we confine attention to men and women aged 25 to 54, who are of prime working age.

Time uses of working age men and women

Table 1 reports annual time use figures for each year, and then evidence for the four years combined.

In aggregate, prime age men spent 88.6% of their time working in 2001–2004, 3.9% unemployed (and seeking work) and 7.5% 'not in the labour force'. Women spent 70.7% of time in paid work, 3.2% unemployed and 26.1% 'not in the labour force'. As an additional activity, the men spent 8.5% of time in education and the women 9.1%.

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 71.2% in 2004. The other noteworthy change is in educational participation, which rose from 7.5% for men and 8.4% for women in 2001 to 9.8% for men and 9.6% for women in 2004.

It would be a mistake, however, to imagine that the same people do the same things every year. Among men, 95.4% were in work at some stage during the four years. 20.1% spent some time unemployed and looking for work, and 23.4% 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, 86.4% had spent some time in paid work in 2001–2004. 18.9% had been unemployed, and 50.4% had spent time 'not in the labour force'.

Adult education is a major activity

A further interesting and perhaps surprising finding is that 27.8% of prime age men and 30.6% 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 1: Time spent employed, unemployed or not in the labour force—prime age men and women (25–54), 2001–2004 (%)

	2001		2002		2003		2004		2001–2004	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Paid work	86.9	68.7	86.7	69.8	87.4	70.2	88.3	71.2	88.6	70.7
Unemployed	4.7	3.1	5.2	4.3	3.9	3.7	3.1	3.4	3.9	3.2
Not in labour force	8.3	28.2	8.0	25.9	8.6	26.0	8.6	25.4	7.5	26.1
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	8.5	9.1

Note: Population weighted results.

GLOSSARY

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 income poverty’) in the sense that they are not adjusted upwards as mainstream living standards rise.

Casual jobs

Casual employment means 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 (see above) 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.

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 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 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.

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 sole 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?

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'.

