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Retirement Expectations and Labour Force Transitions: The Experience of the Baby Boomer Generation

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Executive Summary

1. Retirement has traditionally been viewed as a process that involves an abrupt change from working continuously in a full-time job to leaving the labour force completely and remaining permanently retired. Today the pathways to retirement are believed to be much more diverse, with many more people expected make a gradual transition into retirement. These transition (or bridging) jobs may involve a reduction in working hours, a decline in responsibilities, or a move to self employment or casual work. The baby boomers — men and women born between 1946 and 1965 — are now approaching retirement age, and very little is known about the retirement intentions of this group. This reflects both the fact that older baby boomers are only now beginning to approach retirement age, and the general lack of data about retirement intentions of Australian men and women in this age group.

2. This paper examines the retirement intentions and labour force participation patterns of Australian baby boomers. It has two main specific objectives. First, to describe the retirement intentions of baby boomers: how many are already in a transition job; how many intend to retire gradually; and how long they intend to spend in this transition phase. Second, to identify the main patterns of labour force participation of baby boomers over the seven year period spanning 2000 to 2006, and the main factors that influence the most common patterns of labour supply observed over this period.

3. The data source used in this paper is the Household, Income and Labour Dynamics in Australia (HILDA) Survey (Release 6.1). The population considered is the first cohort of baby boomers, born between 1946 and 1958. The decision to omit baby boomers born after 1958 was dictated upon us by the data, and more specifically by the fact that the wave 3 retirement module was only asked of persons who were aged 45 years or over at the time of interview. Thus, the sample was restricted to men and women aged between 45 and 57 in 2003.

4. Descriptive evidence shows that in 2003, the majority of baby boomers were not retired and had not yet begun the transition to retirement. However, a large proportion of baby boomers expect to retire early — that is, before age pension eligibility age — and that the majority of men and women in this cohort intend to make a gradual transition to retirement.

Among those already in transition jobs, the change from career job to transition job had not necessarily involved a change from full-time to part-time work, but rather a change to a job that was less demanding, a change to a completely different line of work or becoming self-employed. This was particularly true for men, with less than one quarter of those in transition jobs working part-time. Rather differently, the vast majority of those who were still in their career jobs, but who expected to retire gradually, said they expected to make this transition via a change from full-time to part-time work.

There were also differences in the expected retirement age of baby boomers who were already in transition jobs and those who intended to take up a transition job in the future. On average, those who were already in transition jobs expected to retire earlier — at approximately the age when those who intend to retire gradually expect to begin their transition to retirement.

5. Regression analysis indicates that the main predictors of pathways to retirement for baby boomer men and women are health, education, work experience, age and partner's employment status. For boomer women, country of birth and carer responsibilities are also significant predictors of labour force participation patterns.

For baby boomer men and women, having a moderate or severe work-limiting health condition had a strong negative effect on the probability of continuous full-time work, and a positive effect on the probability of either continuous non-participation or a participation pattern involving intermittent work or a return to work after a period of non-employment. Conversely, boomer men and women with a degree qualification were more likely to have patterns of continuous full-time employment, as were those with higher levels of work experience.

There were also differences between factors affecting participation patterns of boomer men and women, suggesting that men are more likely to remain in employment for financial reasons, while women more commonly reduced their working hours for family reasons or because of caring responsibilities. For boomer men, having a partner who was employed had a significant positive effect on the probability of continuous full-time work and a negative effect on the likelihood of intermittent work patterns. On the other hand, for boomer women having a partner who was not employed had a significant negative effect on the likelihood of continuous full-time

work and a positive effect on the probability of continuous non-participation. The presence of resident children had the opposite effect for boomer men and boomer women — increasing the likelihood of continuous full-time work and reducing the likelihood of continuous employment involving part-time work for boomer men, but reducing the probability of continuous full-time work and increasing the likelihood of participation patterns involving intermittent work or a return to work after a period of non-employment among boomer women.

For boomer women, having responsibility as a carer for a spouse or other family member also had a strong negative effect on the probability of continuous full-time work, and a positive effect on the likelihood of having a pattern of continuous non-participation. Boomer men appeared to be more strongly influenced by financial considerations — owning a home outright had a negative effect on the likelihood of having a participation pattern involving continuous full-time work, a positive effect on the likelihood of continuous employment involving part-time work and a positive effect on the likelihood of having a participation pattern involving movements in and out of employment, or a return to work.

I. Introduction

Increased life expectancy together with the trend towards early retirement means that the average number of years Australians are spending in retirement is increasing. The process of retirement is also changing. Traditionally retirement has been viewed as a process that involves an abrupt change — from working continuously in a full-time job to leaving the labour force completely and remaining permanently retired. Today the pathways to retirement are believed to be much more diverse, with many more people expected to take up transition (or bridging) jobs in order to make a more gradual transition into retirement. These jobs may involve a reduction in working hours, a decline in responsibilities, or a move to self employment or casual work. And in some cases, the transition phase might even involve periods of employment interspersed by periods of 'retirement' (i.e., non-employment).

The availability of transition jobs potentially has important implications for the willingness of the mature age population to remain in the labour force. The Productivity Commission (2005) suggests that the trend towards earlier retirement and reduced participation before completely retiring could have challenging economic and fiscal consequences, possibly dampening economic growth, reducing the tax base, and increasing demand for many government services. A key policy issue for the Australian Government, therefore, is how to increase workforce participation by mature age people.

The baby boomers — men and women born between 1946 and 1965 — are now approaching retirement age. The men and women of the baby boomer generation entered the workforce when the predominant form of retirement income was the Age Pension, and are effectively the last generation not to have benefited from the Superannuation Guarantee for their entire working lives (Hamilton and Hamilton, 2006). Most baby boomers will thus rely on the Age Pension as their main source of retirement income. Very little, however, is known about the retirement intentions of this group. This reflects both the fact that older baby boomers are only now beginning to approach retirement age, and the general lack of data about retirement intentions of Australian men and women in this age group. Public policies aimed at encouraging older people to remain in the workforce require a better understanding of the process by which people formulate their retirement plans. Therefore, knowledge of how the baby boomers' pathways to retirement are likely to be determined, and the key factors

that will influence the labour supply of older workers, will become increasingly important.

Using the first six waves of the Household, Income and Labour Dynamics in Australia (HILDA) Survey, this paper examines the labour force participation patterns and retirement intentions of the first cohort of baby boomers. For reasons explained later in the paper, however, data constraints force us to restrict our attention to persons born between 1946 and 1958, and thus ignoring the younger baby boomers.

We begin, in Section II, by reviewing previous research. Section III then provides further information about the data used in this study. Section IV presents descriptive evidence about the retirement intentions of baby boomers: how many are already in a transition job; how many intend to retire gradually; and how long they intend to spend in this transition phase. Section V provides a description of the main patterns of labour force participation of baby boomers over the seven year period spanning 2000 to 2006, and reports estimates from a model identifying the main factors that influence the most common patterns of labour supply observed over this period. Section VI concludes.

II. Previous Research

Evidence on the transition to retirement mostly comes from studies undertaken in the United States. Several studies, including Gustman and Steinmeier (1984), Honig and Hanoch (1985), Ruhm (1990) and Clark and Quinn (2002), have found that older workers in the United States follow a diverse range of pathways to retirement, and a substantial number experience a transitional period, which may involve reduced working hours, starting their own business, or taking a job that is less demanding than their career job, before retiring completely.

This literature shows that estimates of the incidence of partial retirement vary according to the definition of retirement and partial retirement used. Using the Retirement History Longitudinal Survey (RHS) data, which contains information on a random sample of men and unmarried women aged between 58 and 63, and interviewed at two-year intervals between 1969 and 1979, Blau (1994) found that 13% of older men who had left full-time employment had moved into part-time work. Rather differently, Ruhm (1990) used a self-reported definition of partial retirement and found that over 40% of household heads had partially retired, while Rust (1990),

using a measure of annual work hours, found that just 22% of men had moved into partial retirement.

Studies based on the Health and Retirement Study (HRS) from the 1990s also identified varying degrees of partial retirement. Quinn (1997) found that around 40% of men who had left a career job moved to a bridging job rather than straight to full retirement, while Kim and Devaney (2005), using a self reported definition of retirement, concluded that 32% of full-time workers moved to partial retirement. Finally, Cahill et al. (2005), using ten years of HRS data from 1992 to 2002, found that of those who had left their career jobs by 2002, approximately two-thirds had moved to a bridging job rather than directly out of the labour market, and that partial retirement was most common among those at the top and bottom of the wage distribution, encouraged by a desire for quality of life and economic necessity respectively.

Most of the literature about transitions to retirement has focused on the retirement behaviour of men. This reflects both a relative lack of data about women's retirement decisions, and a tendency for retirement to be thought of as more of a concern for men than for women. However, there is some evidence of gender differences in the retirement process. It has, for example, been found that:

- single women retire later than single men, most likely because of financial limitations (Hatch, 1992);
- compared to married women, women who are not married have a significantly lower probability of leaving the labour force, and a higher probability of exiting retirement (Peracchi and Welch, 1994);
- women move to part-time employment later in life at a higher rate than men (Bacon, 1997; Clark and Quinn, 2002);
- while men who take up bridging jobs often change to jobs in a different industry or occupation than their career job, women who take up bridging jobs are more likely to remain in the same industry and occupation (Ruhm, 1990); and
- while men are more likely to make decisions about retirement based on financial considerations, women's retirement decisions are more commonly

influenced by family considerations such as caring responsibilities and the timing of their partner's retirement (Ruhm, 1996; Disney et al., 1997; Warren, 2006).

Australian studies of retirement transitions

In contrast to the US, Australian researchers have, at least prior to the arrival of the HILDA Survey data, not had access to rich longitudinal datasets with which to study labour force transitions (Wooden and Watson, 2007, pp. 208-209). As a result, relatively little is known about the nature of transitions to retirement within the Australian workforce.

Nevertheless, there is a small research literature of relevance, most of which has had to rely on cross-section data, identifying various factors associated with the labour force participation of mature age Australians. Of note here is the work of Atkinson, Creedy and Knox (1996), and Atkinson and Creedy (1996, 1997), who used the Lifetime Income, Taxation Expenditure and Superannuation (LITES) model to simulate alternative routes through the 'retirement maze'. They found that the taxation of superannuation taxation and age pension system provided no incentive to take superannuation benefits as an income stream rather than a lump sum, and the means testing of the Age Pension created a substantial incentive to retire early. Also of note is the earlier work of Woodland (1987), who examined the effect of wages and pension entitlements on the probability of working full-time or part-time using data from three different surveys of men and women aged 60 and over in 1981 and found that age pension eligibility substantially reduced the probability of remaining in paid employment.[1] Norris and Bradbury (2001) used the Income Distribution Survey Data from the Australian Bureau of Statistics to examine changes in labour force status of men and women aged 50 and over during an eight month period in 1996/97, and found that employment rates were higher for men and women with higher levels of education, people who owned their own home and people who lived in less disadvantaged areas. A survey of the labour market experiences of persons aged 55 to 64 years in Australia undertaken by Wallis Consulting and reported in Commonwealth Department of Family and Community Services in 2003, which

[1] Woodland (1987) used data from the Survey of Older People in Sydney and surveys conducted by the Australian Council on the Ageing (ACOTA) and the Department of Social Security in Melbourne and Adelaide.

examined the reasons for leaving employment for people aged between 55 and 64 and found that over 40% of persons in that age group who sought a new job found it very difficult to regain employment. A framework for the transition to retirement was presented by Borland (2005), along with empirical evidence indicating that a wide range of factors are likely to have important effects on the supply of, and demand for, mature age workers in Australia. Borland concluded that willingness to participate in the labour force was greater for people with better health, for those with higher levels of education, for those whose spouse was employed and where there was no requirement for the person to act as a carer for a family member.

Quite differently, de Vaus et al. (2007) used data from the Healthy Retirement Project (HRP) to compare the well-being of those who retired gradually and those who retired abruptly. The study concluded that it is not the pathway to retirement that has the most influence on outcomes such as health and life satisfaction, but how much choice and control the individual has over the way they retire. Similarly, using a combination of data from the HRP and interviews with 67 older men and women in Melbourne in 1997, Quine et al. (2007) found that a sense of choice over leaving the workforce was essential for good retirement adjustment.

With the availability of the HILDA Survey data, and especially the special set of retirement related questions included in the third wave of the HILDA Survey (and repeated in wave 7), a more comprehensive picture of the transition to retirement will be able to be developed. Indeed, significant research activity on these issues and exploiting the HILDA Survey data is underway, and is already beginning to bear fruit (see, among others: Knox, 2003; Borland and Warren, 2005; Cai and Kalb, 2005; McAlister, Lindenmayer and McLean, 2005; Cobb-Clark and Stillman, 2006; Felmingham et al., 2006; Thomson, 2007; and Zucchelli et. al., 2007).

Like the studies based on the HRS, Australian studies using the HILDA Survey data have shown that estimates of the incidence of partial retirement depend on the definition of partial retirement being used. For example, using data from the wave 3 retirement module, Borland and Warren (2005) found that around 20% of mature age workers aged 45 or older in 2003 reported that their current job was part of a transition to full retirement, and that the proportion of workers in transition jobs is generally higher for females than males. On the other hand, Thomson (2007) used a definition of partial retirement as a reduction in working hours to 30 hours or less per

week and found that 54% of women and 38% of men who were aged 50 and over and engaged in full-time work in 2001 had shifted to partial retirement by 2004. Such large differences across studies reinforce how important definitions of partial retirement and transition jobs are in this literature.

Very differently, Cobb-Clark and Stillman (2006) have shown that a large minority of middle-aged Australians have not yet made any definite plans about their retirement. Using the first three waves of the HILDA Survey data, they examined the retirement plans of middle-aged workers (aged between 45 and 55) and found that approximately two-thirds of the men and more than half of the women in this group were making 'standard retirement plans'; that is, they were able to give an age at which they expected to retire from the labour force. One in five, however, had delayed their retirement planning while one in ten either did not know when they expected to retire or did not expect to retire at all.

As most of the baby boomers are yet to retire, most Australian and international studies of this age cohort focus on the adequacy of their retirement savings and their ability to maintain their current lifestyle in retirement. In Australia, several have commented on baby boomers' low levels of superannuation and higher lifestyle expectations compared to previous generations of retirees (see for example, Preston and Jefferson, 2002; Kelly and Harding, 2004; AMP-NATSEM, 2007). In the United States, Lusardi and Mitchell (2007) used data from the HRS to compare the wealth holdings of baby boomers in 2004 with the wealth of men and women in the same age group in 1992 and found that while patterns of total net worth have changed relatively little, baby boomers are more likely to rely on housing equity than their predecessors. Butrica, Smith and Iams (2003) also used the HRS to compare the wealth of boomer retirees with previous generations, but slightly differently, concluded that baby boomers will be less likely than previous generations to be able to maintain their pre-retirement living standards.

There is also some evidence to suggest that baby boomers expect to continue working longer than men and women of the previous generation. Again using data from the HRS, Gordon, Johnson and Murphy (2006) compared the retirement expectations of US baby boomers in 2004 with the retirement expectations of workers in the same age group in 1992 and found that boomers expected to remain in full-time work longer than the previous generation. Similarly, a study conducted by the American

Association for Retired Persons (2004) found that most baby boomers expected to work in retirement because of a need for extra income.

In Australia, research by AMP-NATSEM (2007) has shown that increasingly baby boomers are planning to delay retirement or are looking for opportunities to re-enter the workforce in order to maintain the type of lifestyle they have had throughout their working lives. A survey run by the Australian Psychological Society (2007) also found that Australian baby boomers intended to delay retirement, with 43% of boomers intended intending to retire in their 60's, 19% in their 70's and 3% in their 80's, leaving one in five who stated that they never intended to leave the workforce.

Hamilton and Hamilton (2006) showed that income and wealth were also strong predictors of retirement expectations of Australian baby boomers, identifying a sharp divide between retirement expectations of high and low income baby boomers — while many high income boomers saw retirement as a change to fewer working hours and more time to enjoy leisure pursuits, those with low levels of wealth had a more traditional concept of retirement and more commonly expected to work past traditional retirement age. Similarly, based on interviews with 78 men and women born between 1946 and 1957, Quine, Bernard and Kendig (2006) identified socioeconomic status as the most important variable associated with retirement planning, with most low socioeconomic status participants, particularly single women, saying they either could not afford to reduce their working hours before retirement, or were employed in occupations that did not offer this option

There is also some limited evidence of some Australian baby boomers expecting to retire early. Using data the Workforce Circumstances and Retirement Attitudes of Olds Australians Survey, Chalmers and Norris (2001) examined patterns of boomers' work intentions and found that women's expectations of early retirement were predicted by partner's income and men who had been working in part-time or casual jobs for ten years or more were more likely to expect to retire early.

The available Australian and international evidence suggests that partial retirement is more common among high income and high wealth individuals, who are able to reduce their working hours and still maintain their lifestyle. Studies from the United States and Australia have found concluded that relatively few baby boomers will retire early and a large minority will continue working past traditional retirement age,

mainly due to the fact that they will not have saved enough to retire completely and still maintain their pre-retirement lifestyle. However, little is known about how the baby boomers expect to make the transition to retirement — how many intend to retire gradually, how long they intend to stay in transition jobs before retiring completely, and what factors influence the decision about how the retirement transition will be made.

III. Data and Sample Selection

As previously noted, the data used in this analysis come from the first six waves of the HILDA Survey. Described in more detail in Wooden and Watson (2007), the HILDA Survey began in 2001 with a large national probability sample of Australian households occupying private dwellings. In the first wave, 7683 households (representing 66 percent of all in-scope households) were interviewed, generating a sample of 15,127 persons who were eligible for interviews (essentially residents of Australia who were aged 15 years or older), of whom 13,969 were successfully interviewed. Almost all of the wave 1 interviews were conducted during the period between 24 August 2001 and 21 December 2001. The members of that initial sample of households then form the basis of the panel to be pursued in each subsequent wave, with each interview being approximately one year apart.

Not all sample members can be expected to respond every wave, and hence the sample size will tend to decline over time as a result of attrition. Indeed, only 72 per cent of respondents from wave 1 were interviewed in wave 6.[2] Nevertheless, a decline in total sample size is not inevitable, and in fact, since wave 4 the sample of responding persons has been increasing. There are three avenues by which the responding sample can grow. First, some non-respondents in the first wave are successfully interviewed in later waves. Second, interviews are sought in later waves with household members who turn 15 years of age. Third, any non-sample members who are residing with an original sample member will be added to the sample for that wave. If, for example, a young person leaves home to set up his or her own household, all members of the new household aged 15 years and over will become part of the target group

[2] If deaths and movements out of scope are excluded (740 persons), the six wave retention rate rises to 76%.

Thus by wave 6, the total number of completed interviews achieved was 12,905, which was only 8% down on the size of the initial responding sample in wave 1. This group comprised 10,085 respondents who were interviewed in wave 1, 1146 who were members of the original sample but under the age of 15 in wave 1, 245 who were adult members of the original sample but did not respond in wave 1, and 1429 persons who joined the sample in subsequent waves.

Sample selection

As mentioned in the introduction, this paper concentrates on the cohort of baby boomers born between 1946 and 1958. The decision to omit baby boomers born after 1958 was dictated upon us by the data, and more specifically, by the fact that the wave 3 retirement module was only asked of persons who, at the time of interview (mostly around late 2003), were aged 45 years or over. Thus in presenting descriptive evidence about retirement intentions from the special retirement module, the sample was restricted to men and women aged between 45 and 57 in 2003 (1342 men and 1471 women).

To examine the labour force transition patterns of the baby boomers, a sample of men and women who were born between 1946 and 1958 and interviewed in both wave 1 and wave 6 of HILDA survey was constructed — a total of 2396 individuals. Of these 2396 people, 2171 were interviewed in all six years, so we have complete information about their labour force status for the entire reference period. For the 225 individuals with incomplete labour force patterns, transition patterns were able to be determined using other information from the HILDA Survey, such as tenure in current job and the calendar of labour force activity for 181 people, leaving 2352 individuals for whom a pattern of annual labour force status for the entire reference period was able to be identified.[3]

III. When Do the Baby Boomers Expect to Retire, and How?

At what age do the baby boomers expect to retire completely? How many expect to make a more gradual transition to retirement? Are expected retirement ages different for those who expect to make a gradual withdrawal from the labour force? And how long do baby boomer men and women expect to stay in transition jobs before retiring completely? These are the questions we seek to answer in this section.

[3] The rules used for imputing missing labour force status are described in Appendix A.

We begin by looking at the retirement status of this cohort in 2003. As should be obvious from the figures reported in Table 1, relatively few baby boomers considered themselves retired at this date. At the time of the wave 3 interview, almost 90% of the male members of this cohort and just over 80% of the females did not consider themselves to be retired. As we would expect, the proportion of men and women who said they were completely retired increased with age, as did the proportion who reported being partly retired. It also appears that retirements among this cohort are commonly the result of ill health.[4]

Table 1: Self reported retirement status in 2003, men and women born 1946–1958 (%)

	Age Group			
	45–49	*50–54*	*55–57*	*Total*
Men				
Completely retired	6.7	9.3	19.7	10.4
Partly retired	*2.4	5.6	9.8	5.1
Not retired at all	90.8	84.4	70.4	84.2
Never been in paid work	*0.1	*0.7	*0.0	*0.3
Total	100.0	100.0	100.0	100.0
Women				
Completely retired	9.9	18.7	33.2	18.1
Partly retired	6.7	8.9	12.8	8.8
Not retired at all	78.7	69.8	51.2	69.5
Never been in paid work	4.7	*2.6	*2.7	3.5
Total	100.0	100.0	100.0	100.0

Note: Population weighted results. * Estimate not reliable.

The 5% of men, and 9% of women, who reported being partially retired were then asked: *"In what sense do you consider yourself partly retired?"* The most common reasons that baby boomer men and women gave for considering themselves to be partly retired were that they worked only casually or occasionally (41.9% of men and 41.6% of women) or that they worked fewer hours than before (27.6% of men and 44% of women).

Expected retirement age

[4] Among men and women who considered themselves to be completely retired, the most common reason given for retiring was because of ill health — 67.2% of men and 36.4% of women said this was their main reason for retiring.

Among the large majority who did not consider themselves to be completely retired, approximately 40% of boomer men and 60% of boomer women said that there was no chance that they would be working past the age of 65. On the other hand, 33.5% of boomer men and 20.6% of boomer women said that the chance that they would work past the age of 65 was 50% or more.

When asked to give an age at which they expected to retire completely from paid work, 7.6% of men and 6.1% of women said that they did not expect to ever retire completely, and a further 5.9% of men and 10.9% of women could not give an expected retirement age, saying that they did not know when they expected to retire (see Table 2). Presumably, for a relatively small, but still sizeable, number of baby boomer men and women, retirement was considered too distant to warrant the making of any definite plans.

Table 2: Age expect to retire completely, men and women born 1946–1958, by age group in 2003 (%)

Age expect to retire completely	*Men*				*Women*			
	45–49	*50–54*	*55–57*	*All*	*45–49*	*50–54*	*55–57*	*All*
< 60	18.4	14.0	9.5	15.1	35.9	22.5	9.3	26.3
60–64	24.0	26.9	29.9	26.2	25.5	33.1	38.8	30.6
65–69	38.2	34.0	38.3	36.7	19.2	21.0	25.7	21.0
70+	7.5	10.9	*6.3	8.5	3.8	5.3	*7.9	5.1
Don't expect to ever retire	5.7	8.3	10.8	7.6	4.5	7.7	*6.9	6.1
Don't know	6.3	5.8	*5.2	5.9	11.0	10.4	11.4	10.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	62.2	63.0	63.1	62.7	59.3	61.0	63.0	60.6

Note: Population weighted results. *Estimate not reliable.

Arguably the main feature of Table 2, however, is the relatively large proportion of boomers expecting to retire 'early'; that is, before the traditional retirement age of 65 — the age at which men are entitled to receive the age pension.[5] Around 41% of baby boomer men said they expected to retire before this age, and this proportion rises to about 44% if we exclude the don't know cases. Indeed, 15.1% said that they expected

[5] The age at which women become entitled to the Age Pension is being gradually increased. It is currently 63.5 and will be 65 by July 2013.

to retire before the age of 60. Nevertheless, it is also clear that retirement expectations are sensitive to current age. Just over 18% of the youngest male baby boomers (those aged between 45 and 49 in 2003) said they expected to retire before the age of 60. By comparison, less than 10% of men aged between 55 and 57 responded this way.

The situation for women is similar. As we might expect, more women (26%) than men expect to retire before age 60, but again the proportion is sensitive to how far someone is from that age. Almost 36% of women workers aged between 45 and 49 in 2003 said that they expected to retire before the age of 60, compared to only 9% of baby boomer women who were in the 55 to 57 age group in 2003.

Of course some of this difference in expectations about early retirement may be attributed to a cohort effect — those who intended to retire early may already have done so and are, therefore, not included in the sample.[6] Another likely explanation for this difference, however, is that expectations about early retirement, and how it will be funded, are overly optimistic, and become more realistic as people get closer to retirement age.

Transitions to retirement

Those who were employed at the time of their 2003 interview were asked if their current job was part of a transition to full retirement from the labour force. As reported in Table 3, 11.4% of employed baby boomer men and 16.6% of women responded that this was so. And as we would expect, the proportion of men and women who reported being in a transition job increased with age, from 7.9% of men and 14.1% of women aged between 45 and 49, to 19.4% of men and 24.3% of women aged between 55 and 57.

[6] Among those who were already retired, 23.1% of men and 38.9% of women said that retiring was something that they wanted to do, rather than something they were forced or pressured to do (by family members, doctors or their employer).

Table 3: Proportion of employed men and women aged 45 to 57 employed in a transition job, 2003 (%)

	Age Group			
	45–49	*50–54*	*55–57*	*Total*
Men	7.9	11.4	19.4	11.4
Women	14.1	16.0	24.3	16.6
Total	10.9	13.5	21.6	13.8

Note: Population weighted results. *Estimate not reliable.

Being in a transition job did not necessarily mean working part-time, and it appears that this is particularly true for men. Among those who said their current job was a transition job, 78.1% of women but only 24.9% of men were working part-time. When asked how their transition job was different to their previous job, the most commonly reported difference was that the transition job was less demanding, or involved less responsibility, than the previous job (see Table 4). While there are no additional details available about exactly how the transition job was less demanding than the career job, for many it is likely to have been a result of a reduction in working hours — 52% of men and 64% of women who said that their transition job was less demanding or involved less responsibility also said that their transition job had involved a change from full-time work to part-time work.

Table 4: How is your transition job different to the job you had prior to making this transition (%)

	Men	*Women*	*Total*
Less demanding or less responsibility	51.0	68.8	61.1
Change from full-time to part-time work	33.6	58.9	47.7
Involves a completely different line of work	37.0	48.9	43.7
Change to casual or contract work	34.3	34.9	34.6
Provides more opportunities for working at or from your home	34.5	26.1	29.8
Change to working for yourself rather than for someone else	26.0	*10.5	17.4
Change to working for someone else rather than for yourself	*11.4	*12.4	11.9

Note: Population weighted results. *Estimate not reliable.

Moving from full-time work to part-time work as part of a transition to retirement was much more common for baby boomer women than for men — 58.9% of women reported moving to part-time work compared to 33.6% of men.[7] Of the 78.1% of women who were in transition jobs and also working part-time, only 59% said that moving to a transition job involved a change from working full-time to working part-time. Therefore, it must be the case that a substantial proportion of baby boomer women were already working part-time before they began their transition to retirement.

For many of the baby boomers who were already in transition jobs, and particularly for women, changes such as moving to a completely different line of work or moving to casual or contract work were accompanied by a change from full-time to part-time work. For 37% of men and 49% of women in transition jobs in 2003, the change to a transition job had involved a move to a completely different line of work, and among those who had changed to a completely different line of work, 40% of men and 60% of women had also reduced their working hours to part-time. Similarly, among the 34% of men and 35% of women who said that their transition job had involved a change to casual or contract work, 64% of men and 87% of women said that this change had also involved a change to part-time work.

Moving into self-employment was also a relatively common way to make the transition to retirement, with around one quarter of baby boomer men who were in transition jobs saying that their transition job had involved a change to working for themselves rather than for someone else. For almost half of the men who had become self-employed as part of their transition to retirement, this change had also involved a change from full-time work to part-time work.

Retirement intentions – boomers not yet retired or in transition jobs

Men and women who were employed, but in career jobs rather than transition jobs, were asked if they expected to withdraw from the labour force all at once, or to withdraw from employment gradually. Approximately 60% of baby boomers in this category said that they expected to withdraw from the labour force gradually. Among those who expected to make a gradual withdrawal from the labour force, the most

[7] For men, this figure is higher than the proportion in transition jobs who were actually working part-time (less than 35 hours per week). The discrepancy may be a result of different ideas of what part-time hours means. Another possible explanation is that some of those men who moved to a part-time job at the beginning of their transition to retirement subsequently increased their working hours.

common path they expected to follow in making this transition was via a move from full-time work to part-time work (Table 5).

Compared to the boomer men and women already in transition jobs, a higher proportion those who were still in career jobs but expected to take up a transition job at a later stage expected to change to casual or contract work, do more work from home or become self employed. However, more than half did not expect that their transition job would be less demanding or involve less responsibility than their current job, even though it was very likely that they expected their transition job to involve part-time work.

Table 5: How do you expect to achieve this gradual withdrawal from paid work (%)

	Men	*Women*	*Total*
Change from full-time to part-time work	88.4	86.6	87.6
Change to casual or contract work	62.0	46.9	55.4
Change to a job that is less demanding / involves less responsibility	54.0	41.2	48.3
Spend more time working from home	50.1	31.9	41.8
Increase time spent on voluntary or charity work	34.1	45.6	39.3
Change to working for yourself rather than for someone else	31.3	17.5	25.1
Change to a completely different line of work	28.0	20.7	24.7
Change to working for someone else rather than for yourself	13.1	7.5	10.6

Note: Population weighted results.

The differences between the characteristics of actual transition jobs and expectations about future transition jobs may reflect differences between the types of transition jobs taken at a particular age. For example, for those who took up a transition job in their late forties or early fifties, the transition job may be more likely to have involved a move to full-time self-employment rather than a change to part-time work, while for those who intend to take up a transition job in their sixties, the transition might be more likely to involve a substantial reduction in working hours. On the other hand, these differences might also be the result of unrealistic expectations among those who are yet to begin their transition to retirement, and it is possible that these expectations may change as they get close to their expected retirement age.[8]

[8] In wave 7 of the HILDA Survey the retirement module is included for the second time, which will enable us to examine changes in expectations about transition jobs.

Are expectations about retirement age also different among men and women who are already in transition jobs compared to those who are not? Do men and women who intend to make a gradual transition to retirement expect to remain in the workforce longer than those who do not intend to take up a transition job? Table 6 compares the expected retirement age of men and women who are not yet retired, according to whether they are currently in a transition job or whether they intend to take a transition job before retiring from the workforce completely.

Table 6: Retirement expectations by current employment status, 2003, employed men and women born 1946–1958 (means)

	Expected retirement age	*Actual / expected age at start of retirement transition*	*Expected transition time (years)*
Men			
Currently in a transition job	60.9	48.5	12.6
Intend to take a transition job	63.6	60.4	3.6
Don't intend to take a transition job	61.7	n.a.	0
Women			
Currently in a transition job	58.6	47.6	10.9
Intend to take a transition job	61.4	58.4	3.4
Don't intend to take a transition job	60.0	n.a.	0

Note: Population weighted results. *Estimate not reliable.

The average expected retirement age among those who were already in transition jobs in 2003 was 61 for men and 59 for women. Men and women who were not in transition jobs in 2003 and did not intend to retire gradually had average expected retirement ages of 62 and 60 respectively, and those who were not in transition jobs but expected to retire gradually had the highest expected retirement ages, with averages of 64 for men and 61 for women.

While the difference in expected retirement age between those who were already in transition jobs and those who were not in transition jobs but intended to retire gradually was around three years, there was a substantial difference between the age at which those who were already in transition jobs had taken up their transition job and the age at which those who were not in transition jobs intended to begin their transition to retirement. Among men and women who were already in a transition job,

the average age at which their transition job began was around 48, but for those who intended to retire gradually but were not yet in a transition job, the average age they expected to begin their transition to retirement was 60 for men and 58 for women — approximately the age at which those who were already in transition jobs intend to retire completely. This suggests that it might be the case that there are differences between those who make an early, and therefore long, transition to retirement and those who intend to retire gradually, with a much shorter time spent in a transition job.

IV. Baby Boomers: Patterns of Labour Force Participation, 2001 to 2006

How many baby boomers have remained in continuous employment? How common is it to have moved from full-time work to part-time work, or returned to work after an early retirement? Table 7 provides an overview of changes in labour force status of baby boomer men and women between 2001 and 2006.

Table 7: Labour force transitions between 2001 and 2006 — men and women born between 1946 and 1958 (%)

	Labour force status in 2006				
Labour force status in 2001	*Employed full-time*	*Employed part-time*	*Unemployed*	*NLF*	*Total*
Men					
Employed full-time	83.5	8.0	*1.3	7.2	100.0
Employed part-time	38.1	48.1	*1.9	*11.9	100.0
Unemployed	38.7	*14.4	*9.9	*37.1	100.0
NLF	*10.8	*8.7	*1.9	78.7	100.0
Total	68.9	10.9	1.8	18.4	100.0
Women					
Employed full-time	70.0	17.3	*1.2	11.6	100.0
Employed part-time	24.7	57.3	*1.7	16.3	100.0
Unemployed	*29.3	*25.7	*16.0	*28.9	100.0
NLF	*4.9	13.5	*2.1	79.5	100.0
Total	38.4	28.1	2.1	31.5	100.0

Population weighted results. * Estimate not reliable.

It is clear from Table 7 that the majority (83.5%) of baby boomer men who were employed full-time in 2001 were still in full-time work five years later. Only 8% of boomer men who were working full-time in 2001 had moved to part-time work by 2006, with a further 7.2% having left the labour force. Compared to baby boomer

men, transitions out of full-time work were more common for baby boomer women, with 17.3% moving from full-time work to part-time work and 11.6% moving from full-time work to non-participation.

For many boomer men, it appears that part-time work was a temporary situation, with less than half of the men who were in part-time employment in 2001 still working part-time in 2006, and almost 40% having moved into full-time work. On the other hand, of the 30% of baby boomer women who were working part-time in 2001, almost 60% were still in part-time work in 2006, 25% were working full-time, and 16% were no longer in the labour force. In other words, it was more common for boomers, particularly men, who were working part-time in 2001 to have increased their working hours than to have retired. It was also more common for those who were unemployed in 2001 to have moved into employment rather than out of the labour force, with 53% of men and 55% of women working either full-time or part-time by 2006. Most baby boomers who were not in the labour force in 2001 were not working or looking for work in 2006, suggesting that for the majority those who had already left the labour force, this was a permanent decision.

While Table 7 shows changes in labour force status between 2001 and 2006 it does not provide any information about patterns of participation. For example, how many remained in full-time work for the entire seven year period? How common is it to follow the traditional route of moving straight from full-time work to retirement? How many make a more gradual transition to retirement? And how many leave the labour force after a period of unemployment? The longitudinal nature of the HILDA Survey data allows us to identify the different labour force participation patterns of Australian baby boomers over a seven year period.[9]

By constructing patterns of labour force status at the time of interview in each year from 2001 to 2006, a total of 202 unique patterns of movement between full-time work, part-time work, unemployment and being out of the labour force were identified.[10] For example, patterns of moving from full-time work to part-time work

[9] While only six waves of data are used, the calendar in the first wave begins in July 2000, which provides information about labour force status one year before the first interview, and this allows us to observe transitions over a seven year period.

[10] It should be noted that not all labour force transitions can be picked up using labour force status at the time of interview. Blau (1994) showed that studying the labour force history of men at quarterly intervals revealed significant numbers of transitions that are missed in studies based on annual or biannual data, and suggests that this is even more important in the case of married women whose

such as FPPPPPP, FFFPPPP and FFFFFFP are all grouped under the same pattern and labeled 'FP'. The most common patterns of labour force participation over the seven year period are shown in Table 8. It should be noted that, these patterns of labour force participation, for example the pattern of continuous full-time work, may or may not involve a transition job such as a change to casual work or casual employment, or a reduction in working hours. Section III has shown that for approximately half of the boomer men and women already in transition jobs, moving to a transition job had involved a change from full-time to part-time work; and that the vast majority of those who expect to retire gradually, but have not yet taken up a transition job, expect to work part-time. It is also clear that transition jobs do not necessarily mean a move from full-time work to part-time work, particularly for men who began their transition job in their forties or early fifties. However, other types of transition, such as a move to self-employment or casual work while still working full-time are very difficult to identify without explicitly asking respondents if that change was in fact part of a transition to retirement.[11] For this reason, the transition patterns in this section are limited to the four states of full-time work, part-time work, unemployment and non-participation.

intermittent labour force participation patterns result in many relatively short spells of participation and non participation. There is potential to extend this work by using the calendar information in the HILDA Survey data to pick up quarterly or even monthly labour force transitions.

[11] Very few baby boomer men and women moved into self employment or casual work during the reference period — 3% of men and 2% of women who were employed throughout the reference period had moved from being an employee to being self employed, and a further 3% of men and 3% of women had moved into casual employment.

Table 8: Labour force participation patterns, 2000–2006 (%)

Transition pattern	*Men*	*Women*	*All*
F (Continuous full-time)	54.8	22.0	37.8
N (Continuous NLF)	7.7	15.8	11.9
P (Continuous part-time)	*1.0	10.6	6.0
FN (Traditional full-time to NLF)	4.5	3.7	4.1
FP (Full-time to part-time)	4.1	3.7	3.9
PF (Part-time to full-time)	*2.1	5.0	3.6
FPF (Full-time, Part-time, Full-time)	2.9	3.0	2.9
PN (Part-time to NLF)	*0.4	3.0	1.7
PFP (Part-time, Full-time, Part-time)	*0.8	2.3	1.6
FUF (Full-time, Unemployed, Full-time)	2.5	*0.4	1.4
NPN (NLF, Part-time, NLF)	*0.3	1.9	1.1
NP (NLF to Part-time)	*0.2	2.4	1.3
UN (Unemployed to NLF)	*1.0	*0.9	*1.0
FPN (Full-time to part-time to NLF)	*0.3	*0.7	*0.5
Others	17.4	24.7	21.1
Total	100.0	100.0	100.0

Notes: Population weighted results. * Estimate not reliable.

For more than half of the men and women born between 1946 and 1958, labour force status remained unchanged for the entire seven year period. The most common pattern of labour force participation was to have remained in full-time work for the entire seven year period, and the next most common pattern was to have remained out of the labour force for the entire reference period. The proportion of baby boomers who had followed the traditional route of moving straight from full-time work to being out of the labour force was 4.5% for men and 3.7%, and a further 4.1% of men and 3.7% of women had reduced their working hours from full-time to part-time.

Completing a gradual transition from full-time work, to part-time work, to complete retirement during this seven year period was extremely uncommon (less than 1%). However, it could be assumed that for many of those who moved from full-time work to part-time work, this was the beginning of a gradual transition to retirement. Similarly, a change from part-time work to non-participation, particularly for men, may have been the completion of a gradual transition from full-time work that began before the start of the reference period.

For boomer men, the three most common participation patterns of continuous full-time work, continuous non-participation and the traditional shift from full-time work to retirement accounted for 67% of all participation patterns. For women these three patterns made up 41.5% of all participation patterns and, while continuous part-time

employment was very uncommon for baby boomer men, 10.5% of baby boomer women had been working part-time for the entire seven year period. Still, a substantial minority of baby boomers — 17.4% of men and almost a quarter of women — had more complex transitions than those described in Table 8. It is important to note that in 2006, the men and women in this cohort were aged between 48 and 60 — their pathways to retirement are mostly yet to be completed. Those who had already left the labour force would be considered to have retired quite early, and the many of those who intend to retire gradually would not yet have begun their transition to retirement.

In order to identify the factors associated with specific patterns of labour force transition for baby boomers, the 202 possible participation patterns were used as a starting point to identify the categories to be included as the dependent variable in a multinomial logit analysis. We began with a larger set of categories, including separate categories for patterns involving a return to work after time out of the labour force, non-traditional paths from employment to non-participation, and patterns of continuous full-time employment involving a reduction in working hours, a change to casual work or a move to self employment. However, for some of these categories the number of cases was very small, and when Cramer-Ridder (1991) tests were applied, the results indicated that some categories should be combined.[12] The final subgroups are defined as follows:

1. Continuous full-time work (F).
2. Continuous employment involving part-time work (e.g., P, PF, FP, FPF, PFP).
3. Not in the labour force for the entire period; i.e., continuous NLF (N).
4. The traditional retirement pattern of moving from full-time work to not in the labour force (FN).
5. All others. This category contains patterns involving other paths from employment to non-participation (e.g., PN, FPN, FPFN, UN, PUN), a return to work after a period of unemployment or non-participation (e.g., UF, NP, UNF) and patterns involving movements in and out of employment (e.g., FNFN, FUP, PNUF).

[12] That is, apart from the intercept, the coefficients for the two categories are identical, so the model would be improved if the categories were combined.

For baby boomer women, but not for men, Cramer-Ridder tests indicated that a sixth category — other paths from employment to non-participation (e.g. PN, FPN, FPFN, UN, PUN) — could be included in the multinomial logit model.[13]

The model to be estimated takes the following form:

$$\Pr(Y_i = j) = \frac{e^{\beta_j' x_i}}{\sum_{k=1}^{j} e^{\beta_k' x_i}} \quad \text{for j = 1, 2, …, J}$$

where Pr(*Yi = j*) is the probability that individual *i* belongs to subgroup *j*, *Xi* is a vector of factors assumed to be related to an individual's labour force participation decision (such as age, education, health, carer status, income of other household members, home ownership and household net worth[14]), and B*j* are vectors of parameters to be estimated.[15] In order to identify the model, the categories are normalised around one of the five (or six) possible categories, which in this paper is the continuous full-time work category. That is, the set of coefficients for one category (in this case β_1) are set to zero, and the remaining coefficients measure change in the odds of being in any particular category, relative to the base category.

Previous studies (Woodland, 1987; Norris and Bradbury, 2001; Knox, 2003; Borland, 2005; Cai and Kalb, 2005; Cobb-Clark and Stillman, 2006) have shown that age, gender, health, education, work experience, carer responsibilities, the presence of resident children, owning a home outright, marital status and labour force participation of one's spouse are all important determinants of labour force participation for the mature age population. However, with the exception of Cobb-Clark and Stillman, these studies are based on cross sectional data and only identify factors affecting labour force participation at one point in time.

There are very few studies that have used longitudinal data to examine patterns of labour force participation among mature age workers. Blau (1994) and Ruhm (1990) used the Social Security Administration Retirement History Longitudinal Survey

[13] The Chow test rejects the hypothesis that the coefficients are equal in the male and female sub samples, so the models are estimated separately for men and women.

[14] With the exception of household net worth, these factors are all observed in wave 1 (2001). Household net worth is measured in wave 2.

[15] The multinomial logit model makes an assumption known as the Independence of Irrelevant Alternatives (IIA). That is, the odds of being in one category, relative to the base category, do not depend on the other alternatives available – the other alternatives are irrelevant. In this case the Hausman test does not reject the hypothesis that the IIA assumption holds.

(RHLS) to examine the patterns of labour force participation of men and women aged between 58 and 63 in 1969, and Peracchi and Welch (1994) used data from the Current Population Survey (CPS) to examine year-to-year transitions between labour force states of men and women who were aged between 49 and 68 in 1969. These studies identified health, marital status, education, work experience and household wealth as the factors most strongly associated with particular patterns of labour force participation. More specifically, men with self–reported health problems were found to be less likely to remain in continuous full-time employment, more likely to be continuously out of the labour force, and less likely to have erratic patterns of work than healthy men (Blau, 1994). Men who were not married had a higher probability of leaving the labour force and a lower probability of exiting retirement, and women who were not married had a significantly lower probability of leaving the labour force and a higher probability of exiting retirement (Peracchi and Welch, 1994). More educated men were likely to postpone exiting from the labour force longer than other men and less likely to follow the traditional pattern of moving directly from full-time work to complete retirement (Blau, 1994), while high school graduates were more likely to reverse partial retirement, but less likely to re-enter the labour force after completely retiring (Ruhm, 1990). Men and women with more work experience were found to be less likely to have erratic patterns of labour force participation or patterns of continuous non-participation, and higher levels of assets have been associated with an increased likelihood of participation patterns involving part-time work and a reduction in the likelihood of erratic participation patterns (Blau, 1994).

Based on these previous studies, the expectations about the explanatory variables used in this model are as follows. It is expected that older baby boomers will be less likely to remain in continuous full-time work, and more likely to be continually out of the labour force, while patterns involving part-time work are expected to increase with age.

Health is expected to be a strong predictor of labour force participation patterns of boomer men and women. Those with a work-limiting health condition or disability at are expected to be less likely have patterns pf continuous full-time work, more likely to be continuously out of the labour force, and more likely to have patterns involving part-time work or movements in and out of the labour force. Furthermore, those who experienced a worsening in health during the reference period are expected to be more

likely to have participation patterns involving a reduction in working hours, either moving from full-time to part-time work or moving from employment to non-participation.

Household characteristics such as marital status, partner's employment status, the presence of resident children and responsibilities as a carer are also expected to have a strong influence on patterns of participation. It is expected that single men and women will be more likely than those with a partner to have a pattern of continuous full-time work, while partnered women are expected to have an increased likelihood of being continuously out of the labour force or to have participation patterns involving part-time work. As many couples presumably choose to co-ordinate their retirement, it is expected that men and women whose partner is employed will be more likely to continue working themselves. It is also expected that baby boomers who have resident children will be more likely to have patterns of continuous employment and patterns of continuous full-time work, as they require more income than those who do not have children to support. On the other hand, those with responsibilities as a carer for their spouse or another household member are expected to be more likely to remain continuously out of the labour force, or to work part-time.

Men and women with higher levels of education and work experience, i.e those with high earning capacity, are hypothesised to be more likely to remain in full-time work. However, some of those able to earn high wages may reach a point where they have saved enough for a comfortable retirement and so decide to leave the labour force completely, or substantially reduce their working hours. Those in wealthier households and those who own their home outright are also assumed to be less likely to need to continue working, and so are expected to be more likely to have participation patterns involving part time work or non-participation.

While there is no clear evidence that country of birth has a significant impact on retirement behaviour or patterns of transitions to retirement, dummy variables indicating those born in a mainly English speaking country (other than Australia) or a non-English speaking country are included to identify cultural differences in transition patterns. Finally, an indicator for those who live in a major city is included, as people living in a major city may have more opportunities to move in and out of paid work than those living in regional or remote areas.

A list of the explanatory variables included in the model, along with short descriptions and summary statistics, are provided in Table 9. The estimation results for men and women are reported in Tables 10 and 11, respectively.[16] As coefficients are difficult to interpret in the multinomial logit model, marginal effects are reported. For dummy variables, marginal effects can be interpreted as the change in the predicted probability of being in a particular group if the value that variable is changed from zero to one, and all other explanatory variables held constant at the mean value. For continuous variables, the marginal effect is the change in the predicted probability of being in a particular group when the value of that variable is increased by one unit, and all other explanatory variables are held constant at the mean value.

For baby boomer men, the main predictors of labour force participation patterns are health, education, age work experience and partner's employment status. The likelihood of having been in continuous full-time work in all seven years declines with age (by 2% for each additional year), while the likelihood of being continuously out of the labour force or moving straight from full-time work to non-participation rises, albeit only slightly, with age.

For men in this cohort, health had the strongest effect on the probability of being in continuous employment. Compared to men who reported no health problems in 2001, men who reported a moderate or severe work-limiting health condition were 30% less likely to have worked full-time for the entire reference period, 7% less likely to have had a pattern of continuous employment involving part-time work, 15% more likely to have been out of the labour force for the entire seven years, and 19% more likely to have had participation patterns involving a return to work from non-participation or transitions in and out of employment.

Baby boomer men were also more likely to have been in continuous full-time employment if they had a partner who was also employed. Men with a partner who was employed in 2001 were 17% more likely than single men to have been in continuous full-time work, and 18% less likely to have more complicated patterns of labour force participation such as moving in and out of employment or returning to work after a period of non-participation.

[16] Table A1 provides the results of likelihood ratio tests for the joint significance of the explanatory variables.

Table 9: Variables included in multinomial logit analyses

		Men		*Women*	
		Mean	*S.E.*	*Mean*	*S.E.*
Age	Age in 2001[17]	48.61	0.11	48.57	0.11
Experience	Percentage of years in paid work since leaving full-time education	92.14	0.43	70.46	0.75
Own home	Owns home outright	0.41	0.02	0.46	0.01
Resident children	Has resident children under the age of 15	0.38	0.01	0.29	0.01
Carer	Has responsibility as a carer for spouse or other family member	0.03	0.01	0.06	0.01
Worsening in health	No long-term health condition or disability in 2001, but have a health condition or disability in 2006	0.14	0.01	0.16	0.01
Major city	Living in a major city	0.60	0.01	0.61	0.01
Income of other household members	Income of other household members in last financial year ($'000)	27.19	0.81	45.46	1.52
Household net worth	Total household assets – Total household debts (2002, $'00000)	5.75	0.22	5.91	0.22
Partner's Employment status (Control = no partner)					
Partner employed	Partner or spouse in paid work at time of wave 1 interview	0.58	0.02	0.56	0.01
Partner not employed	Partner or spouse not in paid work at time of wave 1 interview	0.23	0.01	0.17	0.01
Health (Control = No work limiting health condition)					
Mild work limiting health condition	Health condition or disability that has little or no impact on the individual's ability to work	0.08	0.01	0.05	0.01
Mod/severe work limiting health condition	Health condition or disability that limits the amount of work the individual is able to do	0.17	0.01	0.18	0.01
Highest level of education (Control = Year 11 or below)					
Degree	Bachelor, honours or postgraduate degree	0.25	0.01	0.22	0.01
Certificate	Trade certificate or diploma	0.39	0.01	0.23	0.01
Year 12	Year 12	0.09	0.01	0.12	0.01
Country of Birth (Control = Australian Born)					
MESB	Born in a mainly English speaking country	0.15	0.01	0.12	0.01
NESB	Born in a non-English speaking country	0.13	0.01	0.15	0.01

[17] Linear age is used as there are too few cases for age dummies to be used.

Table 10: Multinomial logit estimates of labour force patterns (marginal effects at the mean), boomer men

	Continuous full-time	*Continuous employment involving part-time work*	*Continuous NLF*	*Traditional FT to NLF*	*Other*
Age	-0.02**	0.001	0.002*	0.005**	0.012*
	(0.005)	(0.004)	(0.001)	(0.001)	(0.005)
Experience	0.014**	0.00005	-0.001**	0.0001	-0.014**
	(0.002)	(0.001)	(0.0004)	(0.0002)	(0.002)
Own home outright	-0.138**	0.053*	0.004	-0.003	0.072*
	(0.037)	(0.025)	(0.005)	(0.008)	(0.033)
Resident children	0.083*	-0.057*	-0.007	-0.01	-0.01
	(0.041)	(0.026)	(0.005)	(0.01)	(0.036)
Carer	-0.068	-0.0121	0.060	0.012	0.008
	(0.129)	(0.085)	(0.041)	(0.02)	(0.095)
Worsening in health	-0.065	-0.051^	0.026	0.004	0.054
since 2001	(0.052)	(0.028)	(0.019)	(0.011)	(0.047)
Major city	0.018	-0.012	-0.008	0.025**	-0.0003
	(0.038)	(0.025)	(0.006)	(0.009)	(0.033)
Income of other	-0.002^	0.001	0.0001	0.00004	0.001
household members	(0.001)	(0.001)	(0.0001)	(0.0001)	(0.001)
Household net worth in	0.005^	0.002	-0.0005	-0.0001	-0.006^
2002	(0.003)	(0.002)	(0.001)	(0.001)	(0.003)
Partner's Employment status (Control = no partner)					
Partner employed	0.174**	0.021	-0.018^	0.001	-0.176**
	(0.056)	(0.037)	(0.01)	(0.01)	(0.049)
Partner not employed	0.004	0.014	-0.00002	0.006	-0.028
	(0.059)	(0.043)	(0.006)	(0.014)	(0.045)
Health (Control = No work limiting health condition)					
Mild work limiting	-0.129^	0.003	0.008	0.028	0.074
health condition	(0.066)	(0.042)	(0.017)	(0.027)	(0.064)
Mod/severe work	-0.303**	-0.069*	0.151**	0.001	0.193**
limiting health cond.	(0.054)	(0.029)	(0.044)	(0.01)	(0.054)
Highest level of education (Control = Year 11 or below)					
Degree	0.163**	0.019	-0.015*	-0.008	-0.168**
	(0.047)	(0.034)	(0.006)	(0.009)	(0.037)
Certificate	0.007	-0.034	-0.01^	0.009	0.037
	(0.044)	(0.029)	(0.005)	(0.011)	(0.039)
Year 12	-0.04	0.016	-0.005	0.002	0.037
	(0.067)	(0.044)	(0.006)	(0.014)	(0.06)
Country of Birth (Control = Australian Born)					
MESB	0.088^	-0.011	-0.012*	0.003	-0.061
	(0.047)	(0.032)	(0.005)	(0.011)	(0.04)
NESB	-0.069	0.074^	-0.004	-0.013	-0.019
	(0.0575)	(0.045)	(0.006)	(0.008)	(0.048)
N	610	136	78	41	224

Number of observations = 1089
LR chi2(72) = 633.25 Prob > chi2 = 0.0000
Log likelihood = -1003.093 Pseudo R2 = 0.2399

^ significant at 10%; * significant at 5%, ** significant at 1%, standard errors in parentheses.

Table 11: Multinomial logit estimates of labour force patterns (marginal effects at the mean), boomer women

	Continuous full-time	*Continuous employment involving part-time work*	*Continuous NLF*	*Traditional FT to NLF*	*Other paths from employment to NLF*	*Other*
Age	-0.005	-0.005	0.009**	0.005**	0.008**	-0.011*
	(0.003)	(0.005)	(0.002)	(0.001)	(0.002)	(0.005)
Experience	0.004**	0.002**	-0.003**	0.0001	-0.0004	-0.003**
	(0.001)	(0.001)	(0.0004)	(0.0002)	(0.0003)	(0.001)
Own home outright	-0.043^	0.049	-0.001	-0.003	0.013	-0.016
	(0.023)	(0.032)	(0.015)	(0.008)	(0.017)	(0.033)
Resident children	-0.072**	-0.032	0.024	-0.01	0.007	0.082*
	(0.024)	(0.036)	(0.02)	(0.011)	(0.021)	(0.037)
Carer	-0.177**	-0.114^	0.127**	0.013	0.041	0.109
	(0.025)	(0.067)	(0.049)	(0.021)	(0.045)	(0.074)
Worsening in health	-0.045	-0.082*	0.01	0.004	0.049^	0.063
since 2001	(0.028)	(0.039)	(0.021)	(0.011)	(0.028)	(0.045)
Major city	0.001	-0.001	0.001	-0.0001	0.001	-0.001
	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)
Income of other	-0.001*	-0.0001	0.0001	0.00004	0.0002	0.0004
household members	(0.0003)	(0.0003)	(0.0001)	(0.0001)	(0.0001)	(0.0003)
Household net worth	-0.003	-0.02	0.014	0.026**	-0.037*	0.02
in 2002	(0.024)	(0.032)	(0.015)	(0.009)	(0.018)	(0.033)
Partner's Employment status (Control = no partner)						
Partner employed	-0.008	0.097*	-0.021	0.001	-0.013	-0.056
	(0.029)	(0.039)	(0.02)	(0.01)	(0.021)	(0.041)
Partner not	-0.076*	-0.023	0.068*	0.006	-0.023	0.049
employed	(0.031)	(0.053)	(0.031)	(0.014)	(0.021)	(0.051)
Health (Control = No work limiting health condition)						
Mild work limiting	-0.009	-0.035	0.004	0.028	-0.001	0.012
health condition	(0.048)	(0.065)	(0.039)	(0.028)	(0.04)	(0.074)
Mod/severe work	-0.116**	-0.198**	0.151**	0.001	0.051^	0.111**
limiting health cond.	(0.023)	(0.033)	(0.034)	(0.01)	(0.027)	(0.043)
Highest level of education (Control = Year 11 or below)						
Degree	0.138**	0.007	-0.079**	-0.008	-0.019	-0.038
	(0.037)	(0.039)	(0.015)	(0.009)	(0.019)	(0.041)
Certificate	0.055^	-0.035	-0.03*	0.009	-0.027	0.03
	(0.033)	(0.037)	(0.015)	(0.011)	(0.017)	(0.041)
Year 12	0.088^	-0.074	-0.038**	0.001	-0.029	0.053
	(0.048)	(0.047)	(0.015)	(0.014)	(0.021)	(0.052)
Country of Birth (Control = Australian Born)						
MESB	-0.021	-0.015	0.047	0.002	-0.028	0.014
	(0.03)	(0.044)	(0.032)	(0.011)	(0.021)	(0.048)
NESB	-0.016	-0.166**	0.074*	-0.013	-0.008	0.128**
	(0.031)	(0.038)	(0.03)	(0.008)	(0.023)	(0.047)
N	270	365	173	40	78	325

Number of observations = 1251
LR chi2(90) = 659.11 Prob > chi2 = 0.0000
Log likelihood = -1667.8135 Pseudo R2 = 0.1650

^ significant at 10%; * significant at 5%, ** significant at 1%, standard errors in parentheses.

In terms of education, men with a degree were 16% more likely than men whose highest level of education was year 11 or below to have been in continuous full-time employment, 17% less likely to have moved in and out of employment or returned from work after a period of non-participation and 1.5% less likely to have been out of the labour force for the entire seven years. Men with higher levels of work experience were also more likely to have remained in continuous full-time work and slightly less likely to have either been out of the labour force for the entire seven year period or to have had participation patterns involving movements in and out of employment.

Owning a home outright reduced the probability of having been in continuous full-time work by 14%, and increased the likelihood of having had a pattern of continuous employment involving part-time work by 5%. Those who had resident children under the age of 15 in 2001 were 8% more likely to have been in full-time work for the entire reference period and 6% less likely to have had patterns of continuous employment that involved part-time work. Compared to Australian born men, men who were born in a mainly English speaking country (other than Australia) were more likely to have been in continuous full-time work and less likely to have been out of the labour force for the entire reference period. The probability of following the traditional route from full-time work to complete retirement was 2.5% higher for men who lived in a major city compared to those living in regional or remote areas.

The income of other household members had only a very small effect on the labour force participation patterns of baby boomer men, slightly reducing the probability of being in full-time work for the entire seven year period. Similarly, the effect of household net worth on labour force patterns was very small, with a $100,000 increase in household net worth increasing the likelihood of continuous full-time work by 0.5%.

For baby boomer women, carer status, health, education, country of birth, work experience, age and partner's employment status were strong predictors of labour force participation patterns. Among baby boomer women, patterns of continuous non-participation increased slightly with age. The probability of moving from employment to non-participation — either straight from full-time work or though a more gradual transition — also increased with age, while the likelihood of having had a more complicated participation pattern involving transitions in and out of employment or a return to work decreased slightly with age.

As was the case for boomer men, health was a strong predictor of labour force participation patterns for baby boomer women. Those who reported having a moderate or severe work limiting health condition in 2001 were 15% more likely to have remained out of the labour force for the entire seven year period, 11% more likely to have had participation patterns involving movements in and out of employment, 20% less likely to have had a pattern of continuous employment involving part-time work, and 12% less likely to have been in continuous full-time employment. Compared to those who reported no long-term health problems in either 2001 or 2006, women whose health had deteriorated since 2001 were 8% less likely to have had patterns of continuous employment that included part-time work.

For baby boomer women, having a responsibility as a carer for their spouse or another family member substantially reduced the probability of having had a pattern of continuous employment, and increased the likelihood of having been out of the labour force for the entire seven year period. Having resident children under the age of 15 also reduced the likelihood of having been in continuous full-time work for the entire seven years and increased the probability of more complicated transitions in and out of employment by 8%. This result is the opposite of that for men, who were more likely to have remained in continuous full-time employment if they had resident children under the age of 15, and suggests that for men, the presence of children creates a financial incentive to continue working full-time, while women are more likely to work fewer hours, or have patterns of intermittent work, in order to care for the children.

Compared to women who had not completed high school, women who had completed Year 12 or a certificate qualification were less likely to have had patterns of continuous non-participation. Women with a degree qualification were also less likely to have had patterns of continuous non-participation, and 14% more likely to have been in continuous full-time employment. The amount of work experience a woman had also had a small but significant effect on women's patterns of labour force participation — women with more labour force experience were more likely to have remained in continuous full-time employment and less likely to less likely to have been out of the labour force for the entire reference period or to have participation patterns involving movements in and out of employment.

While having a partner who was employed increased the probability of continuous full-time work for baby boomer men, for baby boomer women, having a partner who was employed in 2001 increased the probability of having had a pattern of continuous employment involving part-time work by 10%. Furthermore, having a partner who was not employed reduced the probability of continuous full-time employment by 7.6% and increased the probability of continuous non-participation by 7%.

There also appear to be some cultural differences in the patterns of labour force participation of baby boomer women. Women who were born in non-English speaking countries were 16.6% less likely than Australian born women to have had a pattern of continuous employment involving part-time work, 13% more likely to have had a pattern of participation involving movements in and out of employment and 7% more likely to have remained out of the labour force for the entire seven-year period.

As was the case for men, the effect of the income of other household members on the labour force patterns of baby boomer women was quite small — a $10,000 increase in the income of other household members reduced the probability of continuous full-time employment by only 0.1%. Household net worth also had a small but significant effect on women's labour force participation patterns, with a $100,000 increase in household net worth increasing the probability of having followed the traditional path of moving straight from full-time work to non participation by 2.6% and reducing the probability of having followed an alternative path from employment to non-participation by 3.7%.

In summary, having a moderate or severe work-limiting health condition had a strong negative effect on the probability of continuous full-time work for baby boomer men and women, while higher levels of education and work experience increased the likelihood of remaining in continuous full-time work. There were also differences in the factors affecting participation patterns of boomer men and women. For example, the presence of resident children had the opposite effect for boomer men and boomer women, increasing the likelihood of continuous full-time work for boomer men and reducing the probability of continuous full-time work for boomer women. For boomer women, but not for men, having responsibility as a carer for a spouse or other family member had a strong negative effect on the probability of continuous full-time work, and a positive effect on the likelihood of having a pattern of continuous non-

participation. Boomer men, on the other hand, were less likely to remain in continuous full-time work once they had paid off their mortgage.

VI. Conclusion

Descriptive evidence shows that in 2003, most of the baby boomers born between 1946 and 1958 were yet to retire and only a small minority considered themselves to be partly retired. However, a large proportion of men and women in this cohort expected to retire early; that is, before age pension eligibility age.

While relatively few considered their current job to be part of a transition to retirement, the majority of baby boomers expected to eventually make a gradual transition to retirement. Among those already in transition jobs, the change from career job to transition job had not necessarily involved a change from full-time to part-time work, but rather a change to a job that was less demanding, a change to a completely different line of work or becoming self-employed. This was particularly true for men with less than one quarter of those who in transition jobs working part-time. Rather differently, the vast majority of those who were still in their career jobs, but who expected to retire gradually, said they expected to make this transition via a change from full-time to part-time work.

There were also differences in the expected retirement age of baby boomers who were already in transition jobs, those who intended to take up a transition job in the future and those who did not intend to make a gradual transition to retirement. On average, those who were already in transition jobs expected to retire earlier — at approximately the age when those who intend to retire gradually expect to begin their transition to retirement.

A multinomial logit model was used to identify the factors associated with the labour force participation patterns of baby boomers over the seven year period between 2000 and 2006. However, the number of pathways that were included in this model was restricted by sample size and the fact that while the majority of baby boomers intend to make a gradual transition to retirement, most were still in their career jobs during the reference period. Still, even with a limited number of pathways, the results indicate that for men and women in this cohort, health, education, age, work experience and having a partner who is still in the labour force are strong predictors of labour force participation patterns; and, for baby boomer women, country of birth and

having responsibility as a carer for another family member also strongly affect patterns of labour force participation.

Appendix: Rules for determining missing labour force status for those individuals who were not interviewed in each wave

For those individuals who were not interviewed in each of the six waves of the HILDA Survey, annual labour force status was determined according to the following rules:

1. If the person was employed by the same employer and working similar hours in the waves before and after the missing period, had no calendar activity indicating they had been unemployed or out of the labour force, then the person is assumed to be working the same hours (full-time or part-time) during the missing period.

2. If the person was out of the labour force in the waves before and after the missing period, said that they had not worked since their last interview and there is no unemployment activity on the calendar, then labour force status for the missing period is set to 'not in the labour force'.

3. If a person was working for the same employer before and after the missing period, had no unemployment or time out of the labour force on the calendar, but had changed from full-time to part-time work or vise versa, it is assumed that the change in hours happened half way between interviews and labour force status (full-time or part-time) is set according to the working hours reported in the interview immediately after the missing period.

4. If a person changed from full-time to part-time work, or vise versa, during the missing period, full-time or part-time status for the missing period is set according to tenure with current employer (assume changed hours when changed jobs).

5. For those who were unemployed or not in the labour force prior to the missing period and employed after the missing period, labour force status for the missing period is set according to tenure in current job, if only one job since last interviewed, otherwise set according to calendar information if possible.

6. For those who were employed at the interview before the missing period and out of the labour force at the interview after the missing period, those who said they were not employed in the last twelve months and who had no unemployment activity on the calendar were set to 'out of the labour force', otherwise, labour force status was determined, if possible, from calendar information.

7. For all cases where labour force status could not be determined according to the rules above, labour force status was determined from calendar information if this was possible.

Table A1: Likelihood ratio tests for joint significance of explanatory variables

	Men		*Women*	
	chi2	*Prob > chi2*	*chi2*	*Prob > chi2*
Age	35.366	0.000	37.032	0.000
Partner employed	17.077	0.002	6.409	0.171
Partner not employed	1.068	0.899	10.803	0.029
Mild work limiting health condition	8.445	0.077	1.960	0.743
Mod/severe work limiting health condition	83.145	0.000	68.054	0.000
Worsening in health since 2001	13.366	0.010	7.874	0.096
Experience	119.406	0.000	189.823	0.000
Degree	20.572	0.000	31.196	0.000
Certificate	8.169	0.086	7.465	0.113
Year 12	1.955	0.744	9.727	0.045
Own home outright	15.305	0.004	5.027	0.285
Resident children	8.412	0.078	11.773	0.019
MESB	7.570	0.109	3.074	0.546
NESB	5.779	0.216	22.936	0.000
Carer	9.776	0.044	24.423	0.000
Major city	2.783	0.304	10.872	0.028
Income of other household members	4.845	0.595	5.590	0.232
Household net worth in 2002	7.305	0.121	0.566	0.967
Tests for significance of grouped variables:				
Partner's Employment status (Control = no partner)	27.235	0.001	29.044	0.000
Partner employed				
Partner not employed				
Health (Control = No long term health condition)	92.035	0.000	70.735	0.000
Mild work limiting health condition				
Mod/severe work limiting health condition				
Highest level of education (Control = Year 11 or below)	40.883	0.000	38.345	0.000
Degree				
Certificate				
Year 12				
Country of Birth (Control = Australian Born)	13.923	0.084	25.220	0.001
MESB				
NESB				

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