

EARLY RETIREMENT: DOES IT LEAD TO DEPENDENCY ON INCOME SUPPORT?

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**Early Retirement:
Does it lead to dependency on income support?**

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A Component of the Research Project on
Workforce Circumstances and Retirement Attitudes of Older Australians

A Report prepared for the Department of Family and Community Services

November 2001

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Summary

This report presents analysis of Department of Family and Community Services' (FaCS) 'Workforce Circumstances and Retirement Attitudes of Older Australians' survey. It was prepared to assist FaCS' assessment of policy options to encourage employment and self-sufficiency among people aged 50 or over. The analysis focuses on identifying four groups of individuals: those older than official retirement age who retired early; those younger than official retirement age who anticipate early retirement; age pensioners who retired early; and those younger than official retirement age who anticipated retiring early and expected to receive the age pension. Identification of these groups goes some way towards answering the following questions.

- Who retires before official retirement age in Australia?
- What forms of early retirement are associated with dependency on the age pension?
- Which Australians retire early, having made financial provision for their retirement sufficient for them not to rely on the age pension?

The literature generally describes retirement in terms of transition from the paid labour market to economic inactivity, although as the brief literature review in Section 2 shows, there are important nuances in the definition. The FaCS survey is structured to describe retirement in terms of the paid labour market, making it difficult to discuss differences in notions of retirement between men and women. We find that a significant number of Australians work while retired. We also summarise the relationships observed in the literature between socio-demographic characteristics and employment characteristics, and early retirement and income sources in retirement.

Section 3 of the report introduces the reader to the FaCS survey and the characteristics used as explanatory variables in the empirical analysis. It also describes the two groups of respondents used to explore expectations about retirement and experiences of retirement. The 'pre-retirement age' group comprises respondents below retirement age working or temporarily not working when surveyed. The 'retirement age' group comprises respondents old enough to receive the age pension regardless of whether they were working or self-reported as retired when surveyed. Observed differences between the two groups may reflect differences between anticipated and actual experiences of retirement, differences between cohorts or differences in the membership of the two groups.

Section 4 summarises the findings from empirical analysis to identify differences between people who retire before the official retirement age and those who retire at a later age. The main findings of this section are:

- Centrelink customers, regardless of sex, were no more or less likely than non-customers to anticipate early retirement.
- This analysis suggested that men's anticipated early retirement was related to financial preparedness for retirement and men's ability to work in the pre-retirement years. Home-

owners were more likely to anticipate early retirement than renters were. The analysis identified two groups of men, relatively eager to retire early. They were men working full-time when surveyed, and men working in casual or part-time jobs that had not worked full-time for over ten years and were not looking for full-time work. Most of the men in the second group may have been discouraged from searching for full-time work. Analysis presented in Section 5 suggests men in the second group were least likely to feel they had control over the age at which they would retire. Men with disabilities that made it difficult for them to work were also more likely to expect early retirement.

- In contrast, home ownership bore no relationship with men's actual early retirement. Our research identified two important explanators of actual early retirement. Employees were more likely to have retired early. Men with university or TAFE college qualifications were most likely to have retired early and men least likely were those with trade qualifications or men who had not completed secondary school.
- Our analysis suggests that women's anticipation of early retirement was related primarily to their marital status, and consequently their partners' financial preparedness to retire. Marital status and the partner's income tend also to be important indicators of women's attachment to the paid labour market. Never married women and partnered women were more likely to anticipate early retirement than widows, separated or divorced women. In terms of their working-life job, women in management, trade related, or intermediate production occupations or women whose last full-time job was long ago were least likely to anticipate early retirement.
- Women's actual early retirement also depended crucially on marital status. Women, whose partner was retired when surveyed, were more likely to have retired early. Overseas born women were less likely to have retired early.

The decision to retire is made with a degree of choice. Section 5 reports on empirical analysis undertaken to explain the degree of control that non-retired people expect to have over the age at which they retire. The main findings of the section are:

- Centrelink customers were no more or less likely to feel they had control over their retirement age than non-customers were. Nonetheless, the respondent's ability to work and sense of financial security, in terms of home ownership, proved to be important predictors of the respondent's sense of control over his/her retirement age.
- The explanatory power of home ownership was unique to the 'total control' equations. Respondents still purchasing their homes were less likely to feel they would have 'total control', presumably because they felt compelled to continue working until they meet most, if not all, of their loan repayment commitment.
- Disability status was an important explainer of the perception of control over retirement. Women with a long-term disability were less likely to feel they had 'some control'. If that disability hindered their ability to work, they were less likely to feel they had 'total control'. Men with a long-term disability were less likely to feel they had 'total control', although men

with a shorter-term disability that did not hamper their ability to work were more likely than other men to feel they had ‘some control’.

- Regardless of sex, employed respondents were more likely to feel they had ‘some control’. Employed men were also more likely to feel they had ‘total control’ although employment was unimportant for women’s sense of ‘total’ control. When employment was broken down into occupation, men currently working in part-time or casual jobs who last worked in a full-time job over ten years previously were least likely to feel they had ‘some’ or ‘total’ control. Analysis presented in Section 4 suggests that these men were very likely to anticipate early retirement. This suggests that men employed in casual jobs were not using casual employment to transit into retirement. Rather, casual work may have been the only work they could find and their dissatisfaction with it may encourage early retirement. Among working men, we found that the extent of control tended to increase with the skill of the occupation.
- University educated men were more likely than other men to feel they had ‘some control’ while overseas born men were less likely to feel they had ‘some control’. Education attainment and ethnicity are important indicators of paid labour market success.

Section 6 reports on a key component of the analysis, describing the relationship between individual characteristics and both intended and actual sources of retirement income. We distinguish between a government-financed retirement and a self-funded retirement. The main findings of this section are:

- Regardless of sex, close to half of the ‘pre-retirement age’ sample anticipated receiving a lump-sum super pay out. Around ten per cent of respondents expected to receive a pension based on years of service from their current employer. Nearly one-third of the women and 40 per cent of men expected to receive a pension bought with superannuation or other funds. Half of the respondents expected to receive investment income from savings, shares and property for example. Women were far more likely than men were to expect financial support from their spouse in retirement. Half the surveyed women and thirty per cent of the men expected to receive the age pension in retirement. However, only 9 per cent of men and 11 per cent of women expected to receive only the age pension in retirement.
- Nearly 60 per cent of the men’s ‘retirement age’ group was in receipt of the age pension and over 70 per cent of women. Close to 40 per cent of both men and women were in receipt of investment income. Around 30 per cent of men received a lump-sum super pay-out and the same percentage received income from a pension bought with superannuation or other funds. The corresponding rates for women were much lower, that is 15 per cent and 13 per cent respectively. Intriguingly, less than one per cent of both men and women received income from a partner.
- It is inappropriate to compare the proportions from the ‘retirement age’ and ‘pre-retirement age’ groups, since these groups are derived from substantially different populations, and the weighting process does not account for this difference. Despite this, we found remarkable consistency in the estimated relationships between characteristics and anticipated and actual sources of income in retirement.

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- The propensity to anticipate receipt of government support in retirement increased with age. There are a number of explanations for this finding. For example, it may be that younger cohorts of Australians are more financially prepared for retirement. Equally, those that retire early might be better financially prepared than those who remain attached to the labour market (and in the sample under analysis) are. Women aged less than 50 were less likely than older women were to anticipate complete reliance on government support. In contrast, the group of men aged 55 to 59 was most likely. These findings are consistent with both explanations. Indeed, we see younger respondents more likely to expect receipt of lump-sum super and pension income purchased with funds such as superannuation, although men aged 55 to 60 were least likely to expect pension income. It seems that men who retire around the age of 60 do so with the least adequate level of financial provision. Perhaps, they need financially to work until official retirement age, but retire in response to poor job opportunities.
 - In terms of education, anticipated and actual income sources in retirement were somewhat consistent. Amongst the ‘retirement age’ group, regardless of sex, the likelihood of being in receipt of the age pension fell as the respondent’s education level increased. In contrast, the likelihood of receiving investment income rose with education level. Tertiary educated women were more likely to anticipate receiving investment income and men who had at least finished their HSC were less likely to anticipate complete reliance on government support in retirement than less educated men.
 - The occupation of the working-life job acted as a guide to expected personal wealth in retirement and to the forms of financial support. Regardless of sex, the more skilled the occupation the less likely the respondent was to anticipate government support in retirement. The analysis also identified males working in part-time or casual jobs, whose last full-time job was long ago, as the most likely to anticipate government support. Analysis presented in Sections 4 and 5 identified this group as disadvantaged. Lump-sum super coverage appears to be relatively even across male occupations, although women’s occupation identified women anticipating receipt of superannuation income. For example, women managers were relatively unlikely to anticipate a lump-sum super pay-out. Instead, they anticipated investment income. Women’s occupation was also related to anticipated receipt of spousal support. Again, these expectations were reasonably well matched by the actual sources of income in retirement, even down to the identification of female managers as the most likely to be in receipt of investment income.
 - Men who owned a home outright were less likely than other men were to expect any association with government support in retirement. Regardless of sex, outright home owners had invested earnings. In retirement, home owners were less likely to be in receipt of the age pension and more likely to be in receipt of investment income, regardless of sex.
 - In terms of anticipated reliance on income support in retirement, it seemed that women were better financially prepared for retirement if they were ‘de-jure’ married to a man earning income in the paid labour market. Although income-earning capacity of the partner was also important for men’s anticipated financial sources, their primary concern appeared to be the provision of financial support to dependents. Hence, men that had never married and men that were married to a working partner were best prepared for retirement. In retirement

separated and divorced women were most likely to be in receipt of the age pension, while this group of men tended to be the least likely.

In Section 7, we record our findings on the characteristics associated with early retirement and a government financed early retirement. The main findings of this section are:

- Our ‘pre-retirement age’ models performed poorly in terms of ability to explain outcomes. Only 1 per cent of men and 6 per cent of women who anticipated a government financed early retirement were so predicted by the estimated models. Nonetheless, many of the observed characteristics were related to the tendency to retire early and receive government support in retirement. Men’s ‘retirement age’ model had reasonable explanatory power, while few of the explanatory characteristics were statistically relevant.
- While male customers were more likely to anticipate a government financed early retirement, women customers were not.
- Men younger than 55 and women younger than 50 were most likely to expect this funding source, although we concluded in earlier sections that respondents retiring at such young ages were well prepared financially for retirement.
- In terms of the occupation of the ‘working-life’ job, regardless of sex, the more skilled the occupation the less likely the respondent was to expect a government financed early retirement. Again, we find that the group of men who had not worked in a full-time job for some time was most likely.
- Among the ‘retirement age’ group male employees in their career job were more likely than others. Females with tertiary education were less likely than less educated women and female home-owners were less likely.

Section 8 addresses FaCS’ (2000) hypotheses, showing that many were covered in the analysis undertaken here and pointing out that many of the remaining hypotheses could not adequately be tested by the available data.

1 Introduction

Over the second half of the twentieth century, at least, the western world has experienced a rapid decline in the labour force participation rate of older men and an increasing proportion of elderly in the population.¹ Researchers, such as Jacobs et al. (1991a), have shown that the early exit trend has affected women as well, although the increasing trend in women's labour force participation masks the trend in cross-sectional figures.

The increased tendency for workers to withdraw from the paid labour market before the age of admission into public old-age pension systems has exacerbated the increased pressure on the public purse to fund old-age pension systems as the population ages. The OECD's analysis starkly illustrates this problem. 'In the next 25 years, the number of persons of pensionable age will rise by 70 million, while the working age population will rise by only 5 million' (OECD, 1999:1).

VandenHeuvel (1999), using ABS Labour Force Survey data, shows that the participation rate of Australian men aged 45 to 54 fell from 92 per cent to 89 per cent between November 1978 to November 1993. For men aged 55 to 59, the comparable fall was 81 per cent to 73 per cent, and for men aged 60 to 64 the fall was 67 per cent to 46 per cent. Using the same data, we updated the participation rates to find that they stabilised during the 1990s. The corresponding participation rates in November 2000 were 88 per cent, 73 per cent and 48 per cent (ABS, 2000).

Studies of the reasons for the early exit trend tend to focus on the system of social protection. They claim that the system of public and private social protection encourages older members of the working-age population, or specific groups among them, to stop working. Guillemard and Rein (1993) explain that these claims are grounded in rational choice theory.

VandenHeuvel (1999) concluded that a sizeable proportion of mature age persons was successful in the labour market in the 1990s. These older workers maintained their employment in highly skilled jobs and were happy with the hours they worked. Nevertheless, making allowance for hidden unemployment, she also found unemployment to be a serious problem for older Australians relative to younger Australians, especially for people aged 55 or more. Average unemployment duration was relatively long, as was the possibility of unemployment.

This report, commissioned by the Department of Family and Community Services (FaCS), uses the 'Workforce Circumstances and Retirement Attitudes of Older Australians' survey to explore the expectations and experience of retirement of older Australians. Its focus is on identifying individuals who retire early, and individuals whose early retirement leads to financial dependence on income support when they reach official retirement age. Analysis tells us that a sizeable proportion of intending retirees mistakenly believes that superannuation can fund retirement (House of Representatives, 2000:11).

¹ Costa (1998) reminds us that, for the US, Britain, France and Germany at least, this is not the first generation to experience rising retirement rates and an increasing proportion of elderly. Her research shows that most of the decline in the labour-force participation rates of US men age 65 or older in the past century, occurred before 1960.

The FaCS survey² data were collected from two telephone surveys conducted by The Wallis Group in June and July 2000. Wallis sampled both Centrelink customers and non-customers, aged 45 through 69. As well as documenting their demographic characteristics, the survey asked questions about respondents' attitudes towards, expectations of and experiences of the transition from work to retirement (The Wallis Group, 2000a; The Wallis Group 2000b, The Wallis Group 2000c).

² We use 'FaCS survey' to describe the Workforce Circumstances and Retirement Attitudes of Older Australians survey throughout this report.

2 Retirement

In this Section we briefly explore the meaning of retirement in the literature. We also summarise the relationships observed in the literature between socio-demographic characteristics, employment characteristics and early retirement and income sources in retirement. In turn, we describe the meaning of retirement in the FaCS survey.

2.1 Defining Retirement

Although generally defined in terms of transition from the paid labour market to economic inactivity and the age of the retiree, the meaning of retirement is nonetheless fluid. It is commonly thought of as the immediate transition from a career job to economic inactivity (Quinn et al., 1998). However, this transition process is not always so clear-cut. The transition period can take time, as the individual takes on bridging jobs after leaving his/her career job. Further, it may be difficult to identify a career job, especially for women who exited the labour market to care for children and returned to part-time or casual employment when their caring role became less demanding. Retirement could also be denoted by a significant reduction in the number of hours worked and/or in reduced labour market earnings. Alternatively, it could be defined in terms of whether the person is in receipt of age-related benefits such as an employer pension or publicly funded income support.³ Finally, retirement may be observed through self-identification.

Guillemard and Rein (1993) explain that the individual's age at retirement, as well as the way he/she transfers from the paid labour market to economic inactivity, has changed significantly over time. For example, part-time and casual jobs have increased in importance over the past decade or so. Furthermore, there are cross-country differences in the transition process. For example, in continental Europe transition from full-time work to economic inactivity is usually abrupt, and occurs before the retiree gains the standard age of retirement. However, in the UK and US exit from the prime age employer is commonly followed by a 'bridging' job (Blöndal and Scarpetta, 1998b). The policy environment encourages this transition behaviour, as private pension plans in the US and the UK do not prevent workers combining occupational pension plans with income from an employer not paying the pension.

Even once defined, the analysis of retirement decisions is complicated. Potential retirees lack both the full information and, possibly, the skills to analyse complex work and savings decisions (Hedges 1998 in Boaz, Hayden and Bernard 1999:17, Loewenstein et al 1999). Hedges also identifies uncertainty about the future and the complexity of the financial planning system as factors that compound the difficulties involved in planning for retirement. Rabin (1999) makes the point that self-selection problems exist for those comparing retirees with non-retirees. For example, if those with the most anxiety about their retirement finance delay retirement, then one will find that the retired are less anxious than those on the verge of retirement are. To

³ Social security in the U.S. is mandatory public social insurance program and nearly universal. Employer-based pension programs are not mandatory and not universal.

compensate for this Rabin (1999) suggests that it would be useful to compare the expectations of those far away from retirement with the retired group.

In Section 2.4 we unpack the meaning of retirement in the FaCS survey. Our major empirical analysis is undertaken with two groups of people, the views of the first group represent retirement-age experiences and the views of the second group represent retirement-age expectations. The first group includes those older than the official retirement age. Membership of the second group was restricted to workers and those closely attached to the labour market younger than official retirement age.

2.2 Women and Retirement

The retirement literature tends to be male-centric, lacking strong theoretical and empirical bases for discussions of women and retirement (Encel and Studencki, 1996: 25). The vast majority of men have a continuous relationship with the paid labour market, marked by career progression. In contrast women's relationship with the paid labour market is more diverse and complex, for the most part because they have primary responsibility for the care of their children. Absences and career changes often mark this relationship.

Retirement tends to be conceptualised in terms of the male experience, as withdrawal from a career job to economic inactivity. Women's experiences do not tend to fit within this model. For example, many women leave their career on the birth of their children. Miniaci and Stancanelli (1998) acknowledge that women leave employment for reasons other than retirement, unemployment and disability; family caring being an important exit route from employment. Since child-care within the home is not generally described as an economic activity this is analagous to the male experience of retirement. If however, caring within the home is seen as an economic activity, we know that many women approaching retirement age leave paid work to care for elderly relatives. Hence, they may not conceive of their exit from paid work as retirement. Indeed a qualitative study of women ceasing part-time employment found that some of the women interviewed felt that the notion of retirement did not really apply to them (Finch and Elam, 1995, cited in Boaz et al., 1999:16).

Unfortunately, we were unable to construct a female notion of retirement using the FaCS survey data. It does not provide an adequate life history for women. Nor does it allow the respondent to describe his/her meaning of retirement. Because of its focus on the relationship with the paid labour market, it may confuse women's exit from the paid labour market to move into a caring role with retirement, for example. We do however model women separately to men in this report.

2.3 The Retirement Decision

In this sub-section we summarise the major findings of the literature that seeks to uncover empirical relationships between individual characteristics and retirement, specifically the age of retirement and sources of income in retirement. We describe the studies used in this review in Table 1. The reviewed analysis is based on UK and US data. It generally focuses on men and sees retirement in terms of economic inactivity. Furthermore, it tends to suffer from that self-selection problems identified by Rabin(1999), previously outlined in Section 2.1 of this report. The conclusions should be interpreted in light of these qualifications.

Retirement

- In terms of occupation, professionals retire later than do white and blue-collar workers (Quinn et al., 1998). The more highly skilled worker the later they expect to retire. For example managerial and professional workers intend to retire at relatively old ages (Montalto et al, 2000).
- The self-employed retire later than other employees do (Blöndal and Scarpetta, 1998b; Quinn et al., 1998).
- The retirement decisions of members of a heterosexual couple are interdependent. The probability that one will retire is higher if one's partner is economically inactive (Blöndal and Scarpetta, 1998b). Marital status in itself is unrelated to the tendency for men to retire (Quinn et al., 1998; Miniaci and Stancanelli, 1998), but the presence of a working spouse reduces the probability that men will retire (Miniaci and Stancanelli, 1998). For women, marriage significantly increases the probability of retirement (Miniaci and Stancanelli, 1998).
- Better-educated people stay in the labour force longer (Blöndal and Scarpetta, 1998a).
- Early retirement is not industry specific (Jacobs et al., 1991b: 83). Early retirement is concentrated in declining or slow growing sectors, for example manufacturing, mining and construction (Blöndal and Scarpetta, 1998a). Service sector workers retire later than other employees do, while workers in goods-producing sectors are more likely to be early retirees (Blöndal and Scarpetta, 1998b).
- Having a health condition that limits work ability increases the tendency to retire (Quinn et al., 1998).
- Wealth is unrelated to the tendency to retire (Quinn et al., 1998).
- Part-time employment significantly decreases the probability of retirement for both men and women (Miniaci and Stancanelli, 1998). Part-time work increases the probability of retirement (Quinn et al., 1998).
- The presence of dependent children decreases the probability of retirement (Quinn et al., 1998).
- Home-owners retire earlier (Quinn et al., 1998).
- Wage in the job four years earlier has no effect on the tendency to retire (Quinn et al., 1998).
- Blacks and Hispanics have lower planned retirement ages than white non-Hispanics (Montalto et al, 2000).

- Planned retirement age increases with age, higher life expectancy and non-investment income (Montalto et al, 2000).⁴
- Early retirement appears to be more influenced by the subjective factors of self-rated health and attitudes, than by demographic characteristics (Palmore et al, 1985:34).

⁴ The finding by Montalto et al (2000) that planned retirement age increases with age could be explained by adjustments made over time, as a person realises that they will have insufficient funds for retirement as they come closer to it. The relationship could also be due to a cohort effect (i.e. generational change about age norms, what constitutes a working life etc.)

Table 1: Summary of Econometric Studies Reviewed

Study	Country and data set	Sex and age of sample	Model	Official retirement age	Early retirement	Financing retirement
Blöndal and Scarpetta (1998b)	15 OECD Countries. Time frame: 1971-1995	Men aged 55-64	Pooled cross-country time series OLS regressions. Explanatory variables include different measures of non-employment benefits		Participation rate, i.e. ratio of employed plus unemployed to total males.	N/A
Miniaci and Stancanelli (1998)	U.K. British Household Panel Survey 1991, 1992, 1993, 1994, 1995	Men 56+ and women 51+ in 1991, modelled separately.	Hazard rate analysis of exit to retirement. Explanatory variables include demographic characteristics, job characteristics, institutional characteristics (type of pension scheme) and partner's labour market participation	Age of eligibility for State Pension is 65 for men and 60 for women.	Retirement is exit from the labour market using last job spell that started before age of 65 for women and 70 for men.	Hazard rate model (for men) with the same exit possibilities. Participation in an occupational pension scheme increases their retirement hazard (i.e. likely to retire earlier).
Montalto et al (2000)	U.S. 1995 survey of Consumer Finances	Men and unmarried women aged 35-70 years currently working full time (35+ hours per week)	OLS regression, incorporating a correction factor for those working full-time. Explanatory variables include demographic characteristics, self-reported health, occupation, job characteristics and sources of finance	Age of eligibility for normal Social Security retirement benefits is 65	Planned retirement age, where retirement is defined as not working full-time	N/A
Palmore et al (1985)	USA National Longitudinal Survey: 1966, 1971, 1976	Men aged 65-69 in 1976, not subjectively retired and working 16+ hours per week in 1966	Multinomial logit. Explanatory variables included demographic, socio-economic status, health, job characteristics and attitudes to retirement.	Age of eligibility for normal Social Security retirement benefits is 65	Retired before age 65. i.e. working less than 35 hours per week	N/A
	Retirement History Study 1969, 1971, 1973, 1975	Men aged 66 in 1975, not subjectively retired and working 16+ hours per week in 1969			Retired before age 65. i.e. working less than 35 hours per week and receiving Government retirement pension	
Quinn et al (1998)	USA Health and Retirement Survey 1992, 1994, 1996	Men and women aged 55-61 working in 1992	Multinomial logit. Explanatory variables include demographic characteristics, health, spouse's employment status, job characteristics.	Age of eligibility for normal Social Security retirement benefits is 65. Reduced retirement benefits can be received as early as age 62.	No longer working in 1996	Not working in 1996 and receiving pension benefits.

Choice to Retire

In Australia, there is concern that early retirees tend to be forced into early retirement by the lack of employment opportunity (Fitzgerald and Rooney 1999, cited in House of Representatives, 2000:11). Involuntary early retirees are more than twice as likely as voluntary retirees to depend on social security payments (Bacon and Gallagher, cited in House of Representatives, 2000:12). Amongst individuals facing redundancy and insecure employment prospects, early retirement is an attractive alternative to maintaining a precarious foothold in the labour market (Blöndal and Scarpetta, 1998a).

As a measure of the extent of involuntary early retirement, only 58 per cent of individuals in the Eurobarometer survey (people aged 60 or more living in the European Union) felt that at the time of their retirement they did not want to continue working, either full or part time (Walker and Maltby, 1997).

Little empirical analysis has been undertaken with the intention of identifying who is forced into early retirement. There is some evidence in Australia that better-educated individuals are less susceptible to redundancy and retrenchment, two factors linked with lack of choice (Encel and Studencki, 1996).

Financing Retirement

Public policy changes over the past few decades have been designed to encourage Australians to increase their financial self-reliance in retirement. Movement from reliance on government support in retirement to a largely self-funded retirement is still in the transition phase. It is informative to look to other regimes as a guide to individual factors associated with self-reliance.

A relevant study, Quinn et al (1998), estimated a multinomial logit model of the source of retirement income. Their analysis was based on a sample of US individuals who were working in 1992, and examines their employment status and income sources in 1996. The researchers found that, regardless of sex, a health condition that limited the amount or type of work a person could do increased the probability that the person would retire with social security or no retirement benefits. Increased years of education served to decrease the likelihood that an individual would retire with social security, or no retirement benefit. Retirees who had been self-employed were more likely to receive social security solely than other retirement benefit combinations.

2.4 Retirement in the FaCS survey

As Section 2.1 explained, retirement is generally defined in relation to attachment to the paid labour market. The FaCS survey gave respondents the opportunity to express their own view of retirement in relation to the paid labour market. Respondents who were not working in the paid labour market were asked to describe themselves in terms of a list of main activities that included fully-retired, partly retired, unemployed and volunteering, amongst others (question A10). Respondents, working in the paid labour market, were also asked if they were fully or partly retired.

Table 2: Labour Force Participation and Retirement

Sex/Age	Working				Total	Fully Retired	Semi Retired	Retired and working	n
	Permanent full time	Permanent part time	Casual	Unemployed		%	%	%	
Men									
45-49 years	77.6	4.9	4.6	5.2	87.1	0.6	2.2	1.9	555
50-54 years	68.0	7.0	4.9	6.8	79.9	2.1	6.4	5.0	556
55-59 years	47.5	7.3	10.2	5.1	65.0	8.8	14.2	10.2	496
60-64 years	25.4	5.2	9.5	4.7	40.1	29.1	15.2	12.7	626
65-69 years	5.9	5.3	8.3	0.5	19.5	74.0	10.9	12.5	431
Women									
45-49 years	37.9	28.1	13.5	3.2	79.5	0.8	5.1	4.7	618
50-54 years	38.9	22.2	7.0	3.0	68.1	3.8	7.5	6.6	705
55-59 years	27.7	15.8	7.1	3.4	50.6	13.9	12.6	9.0	699
60-64 years	7.1	9.1	6.9	1.1	23.1	43.7	13.0	11.6	576
65-69 years	2.8	4.7	6.0	0.2	13.5	67.3	7.6	7.5	286
Persons	39.3	12.2	7.8	3.7	59.3	18.7	8.7	7.4	5 548

Note: percentages given are weighted, while 'n' represents unweighted sample size

Table 2 summarises the labour force attachment and retirement pattern of respondents by age and sex. The categories ‘fully retired’ and ‘semi-retired’ are mutually exclusive. However, attachment to the paid labour market and retirement is not.

As Table 2 shows however, many people working in the paid labour market considered themselves to be retired, either partially or fully. For example, 12.5 per cent of men aged 65-69 (that is of age pension age), considered themselves to be both retired and working. Similarly, 11.6 per cent and 7.5 per cent of women aged 60-64 and 65-69 respectively said they were retired and working. These observations highlight the tendency for individuals approaching the official age of retirement to transit gradually into a state of economic inactivity through less time-demanding forms of employment. The proportion of men in casual employment almost doubles with age. However, no one responded that they were unemployed and retired or unemployed and semi-retired.

While the structure of the FaCS survey seems to have encouraged respondents to report that they combine paid work and retirement, it seems to have discouraged the reporting of the combination of retirement and other activities, such as volunteering. There were very few multiple responses to question A10. No respondent described themselves as retired and undertaking home duties. Only one respondent described himself as retired and a volunteer. ABS data on highly committed volunteers, analysed by Lyons and Hocking (2000), showed that over 40 per cent of highly committed volunteers were not participating in the paid labour force. Persons aged 65 to 74 accounted for approximately 15 per cent of all highly committed volunteers in Australia. Indeed, the rate of committed volunteering for members of this age group was 4.4 per cent.⁵ This would suggest that more than one respondent was combining retirement and volunteering, especially as there would be more volunteers than there were highly committed volunteers.

This aside, Table 3 focuses on respondents in paid employment. We look at their self-reported retirement status and the type of employment they were jointly undertaking. Again the percentages are weighted and the sample sizes unweighted. The proportion of respondents who were working but also fully retired was small, less than two per cent regardless of sex. Greater proportions were working and semi-retired, over nine per cent of both men and women. Nearly 80 per cent of fully retired workers were employed in casual jobs, regardless of sex. Semi-retired workers were far more likely to be in permanent work. Nearly one quarter of men in this category was working in full-time permanent jobs, with close to 40 per cent in part-time permanent jobs. Corresponding proportions for women were nine per cent and 55 per cent respectively.

⁵ Figures calculated from Tables 4.2, 4.1 and 4.4 respectively, of Lyons and Hocking (2000).

Table 3: Retirement Status of Workers

	Fully Retired	Semi Retired
	%	%
Men (n=1 057)	1.8	9.4
<i>% of these retirees who are</i>		
Permanent FT	0.9	21.8
Permanent PT	22.5	36.9
Casual	76.6	41.3
Women (n=1 061)	1.6	12.3
<i>% of these retirees who are</i>		
Permanent FT	2.2	9.2
Permanent PT	19.4	54.5
Casual	78.4	36.3

Note: % weighted, n unweighted number of observations.

3 Design of the Analysis

We designed this analysis primarily to determine which Australians are likely to retire early without having made adequate financial provision for their retirement. For the purposes of this analysis, we assume that adequate provision implies no need for government financial assistance through the age pension. Shaver and Thompson (2001) remind us that during the 1980s and 1990s mandated private occupational superannuation supplemented provision of the age pension. This period also saw a widening in the spread of private pension coverage. Although heavily subsidised from the public purse, this private saving is intended to contain public expenditure and thus reliance on it is preferred over reliance on the age pension.

There is concern that those who access their superannuation and spend much of it before they reach age pension age are double-dipping.⁷ Current government policy does not discourage this behaviour. Australia's compulsory preservation age for superannuation is currently 55, although it will increase to 60 in 2025. Furthermore, since Australians can take their superannuation as a lump sum, rather than as a pension, individuals can easily spend their superannuation before reaching official retirement age. Even income support recipients are encouraged to access their superannuation before official retirement age. Until 1996, superannuation and lump-sum pay-outs were not included in the income support assets test for individuals younger than the official retirement age. Since 1996, superannuation and lump-sum pay-outs are included in the assets test for individuals over the age of 55, who have been in receipt of income support for at least 39 cumulative weeks since their 55th birthday.

Our methodology is similar to that of Gustman and Steinmeir (2000). They undertook empirical analysis of US data to consider whether individual factors leading to wealth accumulation led also to early retirement. While the FaCS survey does not contain information on accumulated wealth, it provides a guide to the sources of financial support availed by retired Australians and the intended sources of Australians pre-retirement.

3.1 Analysis Groups

The survey comprised 2664 men and 2884 women.⁸ Of the women, 65 per cent were Centrelink customers and 62 per cent of the men were Centrelink customers. Wallis' reports on their analysis of the survey responses provide a thorough guide to bi-variate relationships between individual characteristics and the responses (The Wallis Group, 2000).

Our multi-variate analysis focuses on two groups, henceforth denoted as the 'retirement age' group and the 'pre-retirement age' group. The 'retirement age' group comprises individuals of age pension age, regardless of whether they were working or whether they self-reported as retired. We did not include those younger than age-pension age who self-reported as retired since we were concerned to model the tendency to receive age pension. The 'pre-retirement age' group

⁷ Age pension age is currently 65 for men and 62 for women.

⁸ We adjusted the sex and age of some of the customer records, in light of the information in the FaCS administrative data set.

comprises respondents younger than age-pension age, if they were working or temporarily not working. Section K of the survey asks questions relating to retirement plans. Not all those below retirement age were asked about their retirement plans, only those who were working or temporarily not working.⁹

An alternative approach would have been to group the respondents by whether they classified themselves as retired. We considered this problematic for a number of reasons. Most importantly, the concept of retirement was subjective. Although the survey was meant to inform us of the meaning of retirement for Australians, it is possible that the self-reporting of retirement for those not in paid employment was biased by the structure of question A10. This was discussed in Section 2.4.

The ‘retirement age’ group comprised 431 men and 514 women. As Table 4 shows 70 per cent of the men in this group were in receipt of the age pension and 56 per cent of the women. The ‘pre-retirement age’ group comprised 1374 men and 1219 women. Close to 50 per cent of both men and women were income support recipients.

We use the weighted data to describe other facets of the sample.¹⁰ Although, approximately the same proportions of men and women in the ‘retirement age’ group considered that they were fully retired, age pensioners did not always consider themselves fully retired. Almost 20 per cent of both men and women of age pension age were still working.

In weighted terms, around three-quarters of the male ‘pre-retirement age’ group was working in full-time permanent employment, compared with close to 50 per cent of the women. About one-third of the women were working in part-time permanent employment and 13 per cent in casual jobs. The comparable figures for men were 8 per cent and 8 per cent respectively.

The remaining 859 men and 1151 women were largely excluded from the analysis presented here. These respondents were younger than retirement age, but were not asked questions about retirement expectations. Close to 85 per cent of men and women in this excluded group were in receipt of income support. In weighted terms, 35 per cent of the men and a quarter of the women self reported as retired. A further 45 per cent of the men and just under one quarter of the women were unable to work due to a disability. Another 30 per cent of the women were working within the home.

⁹ Note that the survey was not perfect in this regard. About 20 of the respondents to Section K had never worked. Because they self-reported as unemployed and looking for work, they were included in the analysis. Furthermore, 42 of the respondents who reported that they were currently working were not asked Section K.

¹⁰ We weighted the survey data by sex, age and income support status using ABS population estimates and FaCS income support recipient data. The customer survey was weighted using the FaCS income support recipient data and the non-customer survey using ABS population estimates less the number of FaCS income support recipients. Hence, when using the weights we can pool the two populations.

Table 4: The Analysis Groups

Group	Males %	Females %	Persons
Respondents of age pension age			
Age pensioners	70.1	56.4	
Working full-time in permanent job*	5.9	3.9	
Working part-time in permanent job*	5.3	6.3	
Working in casual job*	8.3	5.6	
Self-report as fully retired*	74.0	58.9	
Home duties*	0.4	9.5	
Sub total**	431	514	945
Respondents of below Age pension age asked about retirement expectations			
Receiving income support	45.6	50.0	
Working full-time in permanent job*	75.8	48.7	
Working part-time in permanent job*	7.5	31.6	
Working in casual job*	8.1	13.2	
Not working and looking for work*	7.0	4.3	
Sub total**	1 374	1 219	2 593
Respondents of below age pension age NOT asked about retirement expectations			
Receiving income support	85.6	85.1	
Working*	3.4	1.6	
On home duties*	0.3	31.0	
Unable to work due to disability*	45.3	23.2	
Self-report as fully retired*	35.2	25.3	
Sub total**	859	1 151	2 010
Total **	2 664	2 884	5 448

Note: * These percentages are weighted.
 ** These sample sizes are unweighted.

While membership of the ‘retirement age’ group closely approximates the population of those who were age qualified for the age pension, membership of the ‘pre-retirement age’ group is more difficult to conceptualise. Membership of the ‘pre-retirement age’ group depends on the tendency to retire early. While we might hypothesise that early retirement depends on financial ability to retire we are also aware that a number of early retirees are forced from the labour market despite not being financially prepared for retirement. Furthermore, some of the most financially able to retire prefer to continue working well after retirement age.

Thus, the effect of age on aspects of retirement could be biased in the ‘pre-retirement age’ group analysis. This group contains different sub-samples of the population at different ages. For example, younger sampled cohorts will include temporarily sick individuals that are permanently disabled with age, consequently leaving the paid labour market. Hence, older cohorts will not

include this group of individuals. Similarly, younger cohorts of women will exclude those women caring for their children who would return to the work force at an older age.

3.2 Explanatory Variables

In this sub-section, we describe the individual characteristics used in the multivariate analysis as descriptors of the dependent variables. Although informed by the literature, summarised in Section 2, the set of included characteristics depends ultimately on the available data and the reliability of the data.

The decision to retire early is one of a set of inter-woven decisions made over the individual's adult life. Furthermore, it is not necessarily a free choice. Early retirement (or exit from the paid labour market) can be forced upon the older worker by, for example, inhospitable labour market conditions and health problems of a close family member.

We hypothesise that the retirement decision depends on financial capacity to retire and the individual's experience of the labour market. This is a relatively narrow perspective, ignoring factors such as the social context. To describe these concepts we use individual fixed characteristics, such as gender and ethnicity. Financial capacity depends on inherited wealth and wealth accumulated over the individual's working life. Accumulated wealth is primarily dependent on income earning ability; although inherited wealth has implications for income earning capacity. The minimum age of the sample is 45; hence, the foundation for income earning capacity has been well laid. An individual's occupation and employment status will be good guides to earning capacity. Housing ownership is also another guide. For women especially, marital status is important since never married women of this age group tend to be financially disadvantaged. Income was not feasible to use, because too few people provided their current income and current income is not necessarily a good guide to accumulated wealth.

Income. Over ten per cent of the respondents did not answer the question on income so we did not use it in the analysis.

Occupation. Occupation is intended to describe the individual's income earning capacity over her working life, rather than at the point in time of the interview. In so doing it will represent the individual's earned wealth. Occupation may also proxy non-pecuniary benefits associated with work. The Appendix details our methodology for determining the job that best describes the individual's working life income earning capacity, the "working-life job". The survey tells us the occupation of that job. As described in the Appendix, full-time permanent work takes precedence over other work when determining the "working life job".

Ideally we would have used the job, in which most of the individual's working time was spent. However, the survey does not contain this information. When questioned about their previous/last job in Section D, respondents were guided to think about their main occupation before their current job. They were not asked whether the current job was their main job, so if the current job was full-time and more than ten years old it was automatically the main job.

Occupation was coded into a set of zero-one indicator variables: manager, professional, associate professional, trade, advanced clerical, intermediate clerical, intermediate production, elementary

clerical, labourer, don't know, part-time/casual full-time past, full-time past, part-time past, never worked.

The FaCS survey's occupation classifications matched the ABS Australian Standard Classification of Occupations (ASCO). In general, ASCO ranks occupations in terms of their skill level. Skill level, we presume, is related positively to life-time earnings.

Education. Education has an ambiguous relationship with retirement. On the one hand, higher education increases the opportunity cost of ceasing work, given that education is closely related to earned income. Furthermore, as Quinn et al. (1998) suggest, education may increase non-pecuniary benefits associated with work. These forces will act to prolong the working life of the more educated person. On the other hand, education is another proxy for wealth accumulation, being both indicative of inherited wealth through opportunity for study and employability in the paid labour market.

Highest level of education attained was coded into the following set of dichotomous variables; primary school only, some secondary school, school certificate, higher school certificate, trade, TAFE and University degree.

Employee. We theorise that employees might be better prepared for retirement, because they receive employer-funded superannuation. Self-employed individuals might be less inclined to adequately provide for themselves.

Home-ownership. Home-ownership is also theorised to encapsulate wealth accumulation, both earned and un-earned.

Categories best describing the house in which the respondents live were coded into three zero-one indicator variables;

- own home outright (own house without a mortgage, deemed interest in home, home owned fully, home owner but lives elsewhere, home owner in government aged care, home owner in special residence, joint ownership, life interest, other form of ownership);
- purchasing a house (own house but paying off mortgage, home, owned partly, purchasing home owner), and the remainder (rent from state housing authority, rent from a private landlord, live rent free in friend/relative's house; and
- no home owned, non-home owner in special residence, nursing home, non home owner, purchased life tenancy).

We regard those that own their home outright as having the most wealth and those that do not own a home as having the least wealth. Naturally, this categorisation is only an approximation since we have no information on the value of the homes owned. We would expect home owners to retire earlier than others.

Home ownership also describes the individual's current financial commitments. Those who own a home outright are less pressured to work than those that are renting or paying off a mortgage. Hence, we would expect outright home owners to retire earlier than others.

Current paid employment status, including income support status. Current employment status has differential meanings depending on factors such as the age and sex of the individual. For example, it may indicate the financial need to work, the ease with which the individual can find employment, and/or the non-pecuniary benefits associated with employment.

Because we have information on whether non-working respondents were looking for work we were largely able to distinguish voluntary exit from employment from involuntary exit.¹² We hypothesise, for example, that men in casual/part-time work who were looking for work were in financial need whereas those not looking for work could be semi-retired by choice or discouraged permanent job seeker.

We hypothesise that many of the women in this cohort, who married or established a de-facto relationship earlier in their lives, would regard their employment as peripheral to their partner's employment. In general, these women would have worked before having children, left employment to act as primary care-givers to their children and based their decision on returning to the work-force primarily on financial need. They would have expected their partner to provide financially for their retirement. In contrast those women who never married would have established careers in much the same way as men did, and established their own retirement fund. Because of discrimination in the paid labour market never-married women may have accumulated less wealth than similar men.

Respondents were asked about their current employment status and job-search status. The nature of the sampling means that there was a close relationship between the customer status and employment status. Very few non-customers of work-force age were not working.

We combined the responses of those in the 'pre-retirement age' group into the following dichotomous variables:

- working in a full-time permanent job;
 - working in a part-time permanent job;
 - working in a casual job;
 - working in a full-time permanent job and looking for work;
 - working in a part-time permanent job and looking for work;
 - working in a casual job and looking for work;
 - not working and looking for a full-time job;
 - not working and looking for part-time or casual job;
 - customer;
 - customer not working and looking for a full-time job; and
 - customer not working looking for a part-time or casual job (but not a full-time job).
- (the category described by the intercept is non-working non-customers)

When analysing the 'retirement age' we describe group employment by a set of three dichotomous variables: permanent full-time job; permanent part-time job; and casual job.

¹² We could also use survey data to tell us whether the non-worker chose to leave his job.

Partner's employment status. Respondents were asked firstly if their partner had a permanent paid job. If the partner did not have this type of job, the respondent was asked what their partner's current work status was, unprompted. The responses were coded into a non mutually-exclusive variable. This coding process appears to be problematic. For example, the nineteen possible responses associated with this variable included full-time work and part-time or casual work. Furthermore, only three respondents answered that their partner received the age pension, despite the fact that the respondent was in receipt of the age pension and the respondent's partner was above age pension age.

Nonetheless, we used the variable. The variable is a mutually exclusive set of dummy variables: partner working in permanent paid job; partner disabled, partner retired and partner unemployed.

Age. For the 'pre-retirement age' group age is included as a set of dummy variables, 45-49, 50-54, 55-60, 60-65, 65 or older. Age primarily reflects cohort effects and/or the time until official retirement.

Marital status. Marital status was included in both sets of analysis. This variable probably has differential meaning for men and women. It is possible that the decision to retire for members of a couple is dependent on their partner's retirement decision. However, married or partnered women may well feel more pressure to work as they approach retirement if their partner is finding it difficult to work, and less pressure to work if their partner is comfortably off. Marital status is described by a set of dummy variables – never married, in a de-facto relationship, married, separated or divorced, and widow/widower.

Disability status. Respondents were asked if they had a 'long-term health condition, impairment, frailty or disability of any kind'. We coded those who answered "yes" into a group denoted the 'long-term disabled'. Those who answered "no" were asked if they had 'any health condition which restricts you in everyday activities, that has lasted or is likely to last for six months or more'. We coded those who answered "yes" into the 'shorter-term disabled' group. Members of both groups were asked whether their condition meant they were 'limited in the kind of work you could do or the hours you could work'. Two dummies were created describing members of both disability groups whose condition was work restricting.

Overseas born. We constructed two indicator variable to show which respondents were both overseas and which of the overseas respondents were born in non-English speaking countries. Considering the typical immigrant from each of the source countries, we included Canada, Ireland, New Zealand, South Africa and the USA as English speaking countries. All other countries were regarded as non-English speaking.

Industry. Although the literature pointed to the importance of industry the self-employed and those in business partnerships were not asked what industry they worked in, so we did not use this variable in the analysis.

3.3 The Characteristics of the Analysis Groups

We analysed two sub-groups of respondents; the 'retirement age' and 'pre-retirement age' groups. The remaining group, those younger than age pension age who were not in the labour

force, were excluded from the analysis. We differentiated the samples by sex because we expect men and women to have different experiences of retirement.

Below we describe the average characteristics of the two samples. Some respondents were excluded, specifically those who did not provide information on marital status, partner's employment status, education or home ownership. Men who had never worked were also excluded from the analysis since they are a distinct group, but there were too few of them to provide an adequate picture of the experience of the average man who had never worked.

'Retirement age' group

Table 5 describes the 'retirement age' group in terms of the characteristics of the unweighted average group member. By far the majority of respondents were in relationships, primarily de-jure marriages. However, 30 per cent of the women were not partnered, compared with only 20 per cent of the men. Women were far more likely to be widows than men were to be widowers.

Regardless of sex, about 60 per cent of the partnered respondents reported that their partner was retired. About one-quarter of the partnered women reported that their partners were working, compared with just over ten per cent of the partnered men. Close to 20 per cent of both men and women were working. Regardless of sex, the distribution across full-time permanent jobs, part-time permanent jobs and casual jobs was relatively even. Nearly 50 per cent of the women reported that they were last working in their career job over ten years ago. Consequently, we do not know the career occupation of half of the women. The corresponding figure for men was close to 30 per cent.

Women were less educated than men were and far less likely to have been born overseas. Roughly 90 per cent of respondents, regardless of sex, were home-owners. There were too few purchasers to separate them from outright owners.

Forty per cent of the men had a long-term disability and thirty per cent of the women. Roughly half these respondents, regardless of sex, claimed that the disability hampered their ability to work. A further five per cent of men and six per cent of women had a shorter-term disability. Again around half of these respondents reported that their disability restricted their ability to work.

Table 5: Retirement Age Group

	Men Unweighted %	Women Unweighted %
Marital status		
Never married	5.7	4.9
Married and de-facto	78.3	67.0
Separated/divorced	9.1	9.5
Widow/widower	6.9	18.7
Partner's employment status		
Working in a permanent paid job	8.4	16.4
Retired	43.0	40.8
Education		
Primary school	7.4	8.7
Some secondary school	17.0	25.0
School certificate	13.3	20.7
Higher school certificate	16.8	18.1
Trade certificate	15.1	n/a
TAFE	14.1	n/a
TAFE/Trade certificate	n/a	17.2
University degree	16.3	10.3
Home ownership		
Outright owner/Purchaser	90.1	89.0
Non home-owner	9.9	11.0
Current employment status		
Full-time permanent job	6.4	6.1
Part-time permanent job	5.7	7.7
Casual job	7.7	5.1
Occupation		
Manager	9.1	6.1
Professional	14.3	11.0
Associate professional	13.3	5.9
Trade	11.9	n/a
Advanced and intermediate clerical	6.9	n/a
Advanced clerical and trade	n/a	5.9
Intermediate production	7.9	n/a
Intermediate production and intermediate clerical	n/a	10.8
Elementary clerical	n/a	4.9
Labourer	n/a	4.1
Elementary clerical and labourer	9.9	n/a
Worked in the past	26.7	46.1
Never worked	n/a	5.5
Employee	46.2	29.4
Born overseas	30.9	21.9
Born in a NESB country	26.7	18.3
Long-term disability	40.7	30.6
Long-term disability hampers work	31.4	21.0
Shorter-term disability	5.4	6.1
Shorter-term disability hampers work	3.2	4.1
Total (n)	405	493

The pre-retirement age group

Table 6 details the measured characteristics of the group of individuals from which the information on retirement expectations was collected. As Table 6 shows there were enough respondents in each of the five year age groups to provide a guide to the behaviour of the average respondent in the relevant age group.

Nearly 70 per cent of the men and fifty per cent of the women were married, and close to five per cent, regardless of sex, in de-facto relationships. Just over one third of the women were separated or divorced and nearly ten per cent widows. In contrast only twenty per cent of the men were separated or divorced and only 2 per cent were widowers. This under-representation of currently partnered women and over representation of previously partnered women reflects the tendency of couple households to rely on the labour market earnings of the male partner. Ten per cent of the men and seven per cent of the women were never married.

Roughly half of the partnered men had partners in full-time permanent employment, compared with 70 per cent of the partnered women. A further 30 per cent of the partnered women had disabled or retired partners, with the remainder unemployed. Much smaller proportions of the partnered men had disabled, retired or unemployed partners.

Women were much less likely to have trade certificates. These aside they tended to be more educated than men.

Approximately half the 'pre-retirement age' respondents were outright home-owners, regardless of sex. A further 20 per cent were purchasing a home and just over one-quarter of the groups were non home-owners.

Centrelink customers made up 45 per cent of the men's group and half of the women's group. Recall that these are unweighted figures. Nearly half of the men and thirty per cent of the women were in full-time permanent work, with a small number of these workers also looking for work. Ten per cent of men and thirty per cent of women were in part-time permanent work and 15 per cent and twenty-one per cent in casual work. The men in casual and part-time permanent work were far more likely than the women and their counterparts in full-time permanent employment to be concurrently looking for work. There were a small number of non-customers not working and looking for work. Twenty per cent of the men were out of work customers looking for permanent work, and five per cent were out of work customers looking for part-time or casual work only. The comparable figures for women were ten per cent and seven per cent.

In terms of occupation of career job, less than ten per cent of men and about fifteen per cent of the women had not worked in their main job for over ten years. Just over one-third of the men and under half of the women had been employees in their main job.

Around one-quarter of the groups, regardless of sex, were born overseas, with most born in non-English speaking countries.

Thirty per cent of the men and a quarter of the women had a long-term disability, with over two-thirds of the disabled respondents reporting that their disability hampered work. A further five

per cent or so had a short-term disability, with similar proportions finding that the disability hampered work.

Table 6: Pre-retirement Age Group

	Men Unweighted %	Women Unweighted %
Age in years		
45-49	30.8	35.9
50-54	29.1	33.2
55-60	20.5	25.5
60+	18.7	5.5
Marital status		
Never married	10.3	6.5
De-facto	4.4	2.9
Married	66.0	49.6
Separated/divorced	17.8	33.6
Widow/widower	1.6	7.4
Partner's employment status		
Working in a permanent paid job	32.5	35.6
Working in another job	1.9	N/A
Disabled	1.7	5.5
Retired	3.5	5.1
Unemployed	2.9	2.7
Age of youngest children living at home		
Less than school age	2.1	N/A
School age	22.1	N/A
School age or less	N/A	20.4
Education		
Primary school	4.6	2.7
Some secondary school	14.2	14.8
School certificate	17.3	24.6
Higher school certificate	16.0	17.7
Trade certificate	12.3	1.6
TAFE	13.9	16.0
University degree	21.8	22.6
Home ownership		
Outright owner	51.7	51.7
Purchaser	23.1	21.1
Non home-owner	25.2	27.2
Centrelink customer	45.4	50.1
Current employment status		
Full-time permanent job	45.7	28.8
-and looking for work	3.4	1.6
Part-time permanent job	8.8	27.9
-and looking for work	3.5	4.3
Casual job	14.5	20.8
- and looking for work	7.8	7.0
Not working customer, looking for full-time work	19.4	9.7
Not working customer, looking part-time/casual work	4.9	6.5

Table 6: Pre-retirement Age Group: Continued

	Men Unweighted %	Women Unweighted %
Occupation		
Manager	11.0	6.2
Professional	16.2	18.2
Associate professional	14.8	10.5
Trade	16.5	4.4
Clerical – intermediate and advanced	7.5	N/A
Advanced clerical	N/A	5.5
Intermediate clerical	N/A	18.7
Intermediate production	10.9	1.7
Elementary clerical	3.5	8.2
Labourer	9.6	8.9
Don't know	3.6	2.4
Currently part-time/casual, full-time too long ago	2.6	9.9
Currently not working, full-time too long ago	3.9	4.1
Part-time/casual past or Never worked		1.3
Employee	37.2	34.6
Born overseas	27.1	24.2
Born in a NESB country	23.8	20.3
Long-term disability	28.8	24.8
Long-term disability hampers work	20.7	17.1
Shorter-term disability	5.3	5.9
Shorter-term disability hampers work	3.5	3.9
Total (n)	1 356	1 210

Table 7 describes the employment status of the ‘pre-retirement age’ group and Table 8 describes the employment status and job sought of the job seekers within that group. The groups are divided by customer status. There were very few non-customers who are not working, only 25 men and 14 women. Although some of them were looking for work, there were too few to differentiate between on job-seeking status. This group is in the intercept.

Table 7: Employment Status by Sex and Customer

	Men		Women	
	Customer Unweighted %	Non-customer Unweighted %	Customer Unweighted %	Non-customer Unweighted %
Working				
looking for work	59.3	9.6	34.3	6.3
full-time permanent	5.9	84.8	4.9	56.1
part-time permanent	29.2	7.7	40.6	33.2
casual	64.8	7.5	54.5	10.7
Sub total (n)	219	716	347	590
Not working				
looking for work	83.1	72.0	75.7	50.0
Sub total (n)	396	25	259	14
Total (n)	615	741	606	604

We are interested in the relationships between job-seeking and the dependent variables. However, as Table 7 shows, job-seekers can be working or not working, or customers or not. Given the numbers in the sample, we were able to distinguish between workers based on the type of job they had (full-time permanent, part-time permanent and casual) and within each of those groups based on job-search. However, we did not distinguish between job-seeking workers based on their customer status.

Table 8: Employment Status and Job Sought of Job Seekers by Sex and Customer

	Men		Women	
	Customer Unweighted %	Non customer Unweighted %	Customer Unweighted %	Non customer Unweighted %
Working				
full-time permanent	2.3	62.3	2.5	43.2
part-time permanent	26.2	18.8	32.8	35.1
casual	71.5	18.8	64.7	21.6
Sub total	130	69	119	37
Not working				
Looking for full-time permanent	79.9	72.2	59.7	57.1
Sub total	329	18	196	7
Total (n)	459	87	315	44

4 Early Retirement

In this section we describe the results of estimation of logit equations explaining whether members of the ‘pre-retirement age’ group anticipated retiring early and whether the members of the ‘retirement age’ group had retired early. Early retirement is defined as retirement before satisfying the age requirement for receipt of the age pension. Information about expected retirement age was gathered in Question K4. Information about actual age at retirement was gathered in Question A13. Retirement was not defined consistently for the two groups. Respondents in the ‘pre-retirement age’ group were allowed more freedom in their definition. Observed differences between the ‘pre-retirement age’ group and ‘retirement age’ group results might reflect the variation in the definitions of retirement, cohort effects and/or the disparity between the expectation and the reality of retirement.

Table 9 summarises the results of estimation. We report the estimated coefficients in the Annex. It shows the proportions of the groups that expected to retire early or did retire early and summarises the ability of the variables listed in Table 5 and Table 6 to describe the tendency of individuals to retire early. It also shows, by a tick, which of the explanatory variables had a statistically significant relationship with the relevant dependent variable.

The main findings of this section are:

- Table 9 shows that one third of the men in the unweighted ‘pre-retirement age’ group and 44 per cent of the women expected to retire early. In contrast, 59 per cent of the unweighted ‘retirement age’ group men and 44 per cent of the women had retired early. In 1997 ABS data showed that, among men who had retired from full-time work, 77 per cent of those aged 45 or more had retired when they were younger than the official age pension age (ABS, 1997). Among women 77 per cent of those aged younger than 55 had retired and of those aged from 55 to 64, 21 per cent had retired before the official age pension age (ABS, 1997).
- The list of individual and employment characteristics proved to have much the same power of explanation for women, regardless of whether it was explaining expected or actual retirement. For men, the variables were better able to explain actual retirement than expected retirement. For example, nearly 60 per cent of men who had retired early were so predicted by the estimated model and 76 per cent of men who did not retire early were correctly predicted. The comparable figures for men’s expected retirement were only 33 per cent and 20 per cent.

Table 9: Significant Relationships Between Early Retirement and Observed Characteristics

	Men		Women	
	Expected	Actual	Expected	Actual
Age	✓	N/A	✓	N/A
Marital status and partner's employment status			✓	✓
Dependent children				
Education		✓		
Home ownership	✓			
Centrelink customer				
Current employment status	✓			✓
Occupation of career job	✓	✓	✓	✓
Employee in career job		✓		
Born overseas				✓
Disability	✓			
Early retirement (%)	33.0	58.5	44.3	44.0
Correctly modelled retirement events (%)	20.1	75.9	57.1	51.6
Correctly modelled non-retirement events (%)	87.8	40.0	69.1	65.9

- There were major differences in the important relationships, both between men and women and between men's anticipated and actual retirement. However, Centrelink customers, regardless of sex, were no more or less likely than non-customers to anticipate early retirement.
- This analysis suggested that men's anticipated early retirement was related to men's financial preparedness for retirement and men's ability to work in the pre-retirement years. Home-owners were more likely to anticipate early retirement than renters were. Another two groups identified by the analysis as relatively likely to retire early were; men working full-time when surveyed, and men working in casual or part-time jobs who had not worked full-time for over ten years and were not looking for full-time work. Most of the men in the second group may have been discouraged from searching for full-time work, since analysis presented in Section 5 suggests that these men were least likely to feel they had control over the age at which they would retire. Men with disabilities that made it difficult for them to work were more likely to expect early retirement.
- In contrast, home ownership bore no relationship with men's actual early retirement. Our research identified two important explanators of actual early retirement. Employees were more likely to have retired early. Men with university or TAFE college qualifications were most likely to have retired early and men least likely were those with trade qualifications or men who had not completed secondary school.
- Our analysis suggests that women's anticipation of early retirement was related primarily to their marital status, and consequently their partners' financial preparedness to retire. Recall that it is a select group of women within which these relationships hold. Members of the group were attached to the paid labour market in their older years. Marital status and the partner's income tend also to be important indicators of women's' attachment to the paid labour market. Never married women and partnered women were more likely to anticipate early retirement than widows, separated or divorced women. In terms of their career job,

women in management, trade related, or intermediate production occupations or women whose last full-time job was long ago were least likely to anticipate early retirement.

- Women's actual early retirement also depended crucially on marital status. Women, whose partner was retired when surveyed, were more likely to have retired early. Overseas women were less likely to have retired early.

4.1 Expected Early Retirement

We constructed the dependent variable from the responses to question K4. It is a dichotomous variable set to one if the age the respondent thought they would retire (stop working) was less than the age at which they would qualify for the age pension, and set to zero otherwise.

Regardless of sex, the tendency to expect early retirement decreased with age, with those aged less than 50 the most likely. Those who continue to work, and remain within the group, are less willing or able to retire early.

Amongst men, those working full-time were most likely to expect early retirement. Men working part-time who were also looking for work were least likely. In contrast, women's current employment status bore no relationship with their tendency to expect early retirement. These findings support the hypothesis that the tendency for men to expect early retirement is related to their financial ability to retire early. It seems that the more employable a man is in the years before his official retirement the more likely he is to expect early retirement. It is possible that women based their financial ability to retire largely on the earnings of their partner, if they had one.

Male home owners, be they outright owners or purchasing, were more likely to expect early retirement. This finding fits in with the wealth argument. But it is intriguing that it is not an important relationship for women.

Men with disabilities that made it difficult for them to work were more likely to expect early retirement; the long-term disabled more likely than the shorter-term disabled.

Marital status was unimportant for men. Separated or divorced women and widows were less likely than other women to expect early retirement. Never married women and partnered women were equally likely to anticipate early retirement. This could reflect differences in notions of retirement. Women may not feel they have retired if they are looking after a partner. This finding could also reflect differences in financial preparedness for retirement.

In terms of men's career occupation, those working in part-time or casual jobs, whose last full-time job was long ago, were most likely to anticipate early retirement. Respondents in this group were probably in the transition phase between full-time paid employment and economic inactivity. Group members may have been financially prepared for retirement or discouraged full-time job-seekers, ill prepared financially for retirement.

In terms of women's career occupation, elementary clerical workers were most likely to anticipate early retirement. A group of occupations, of mixed skill level, was next most likely. The occupations included in this group were professionals, associate professionals, intermediate

clerical and labourers. Least likely to expect early retirement were managers, trade-related, intermediate production, and those who had never worked, or whose last full-time job was long ago.

4.2 Actual Early Retirement

Using question A13 (the age the respondent retired) we constructed a dependent variable as a dichotomous variable set to one if the respondent retired before official retirement age and zero otherwise. Respondents were asked at what age they retired if they reported they were fully- or semi-retired. Recall that the process by which the questionnaire determined whether the respondent was retired allowed concurrent retirement and employment in the paid labour market.

In terms of occupation, respondents who were last working in a full-time job over ten years ago were most likely to have retired early, regardless of sex. This is to be expected.

Education served to increase the propensity to retire early for men. Men with university degrees or TAFE qualifications were most likely to have retired early. Next most likely were those with HSC or school certificates. Least likely were those who had not completed secondary school or who had trade qualifications. This finding suggests the possibility that education is an important determinant of an individual's wealth over and above their occupational attainment. It also questions the presumption that the more educated the individual the more psychic benefits from work he receives.

This is an interesting finding since the estimated relationship between education and expected retirement was insignificant. It is possible that we have identified differences between the two cohorts in the relationships between education and factors important to the retirement decision. Furthermore, Blondal and Scarpetta (1998a) found that better-educated people stay in the labour force longer. These findings are not necessarily inconsistent, since retirement and labour force participation can occur concurrently.

Men who were employees in their 'working-life job' were most likely to have retired early. It is possible that self-employed men enjoy their work more or suffer less age discrimination.

The relationships for women were quite different. Overseas born women were less likely to have retired early. Those currently working full-time were less likely to have retired early, as would be expected. However, this was not the case for men. Women whose partner was retired were more likely to have retired early.

5 Control Over Retirement Age

This section reports the results from multivariate analysis to determine whether we can identify those in the “pre-retirement age” group most likely to feel they would be instrumental in determining the age at which they retire. We were unable to ask this question of the “actual” group. We set out to explain two levels of control, ‘total control’ and ‘some control’. The findings of this section are:

- Centrelink customers were no more or less likely to feel they had control over their retirement age than non-customers. However, respondents’ ability to work and their sense of financial security, in terms of home ownership, proved to be important predictors of the respondents’ sense of control over their retirement age.
- The explanatory power of home ownership was unique to the ‘total control’ equations. Respondents still purchasing their homes were less likely to feel they would have ‘total control’, presumably because they feel compelled to continue working until they have met most, if not all, of their loan repayment commitment.
- Disability status was an important explainer of the perception of control over retirement. Women with a long-term disability were less likely to feel they had ‘some control’. If that disability hindered their ability to work, they were less likely to feel they had ‘total control’. Men with a long-term disability were less likely to feel they had ‘total control’, although men with a shorter-term disability that did not hamper their ability to work were more likely than other men to feel they had ‘some control’.
- Regardless of sex, employed respondents were more likely to feel they had ‘some control’. Employed men were also more likely to feel they had ‘total control’ although employment was unimportant for women’s sense of ‘total’ control.
- Men currently working in part-time or casual jobs who last worked in a full-time job over ten years previously were least likely to feel they had ‘some’ or ‘total control’. Analysis presented in Section 4 suggests that these men were very likely to anticipate early retirement. Among working men, we found that the extent of control tended to increase with the skill of the occupation.
- University educated men were more likely than other men to feel they had ‘some control’ while overseas born men were less likely to feel they had ‘some control’. These two groups of men generally represent opposite sides in the spectrum of paid labour market success.

5.1 Expected Control Over Retirement Age

Using question K1 we constructed two dichotomous variables as dependent variables. The first, ‘total control’, was set to one if the respondent believed that the age at which he/she retires will be ‘entirely determined by when she/he wants to retire’. This variable was set to zero for those respondents who felt their retirement age was ‘entirely beyond their control’, ‘partly determined by their own wishes and partly determined by other circumstances’, or who ‘did not know’. The second dichotomous variable, ‘some control’, includes respondents who felt their retirement age

was ‘partly determined by their own wishes and partly determined by other circumstances’ in the category coded as one, rather than zero.

Table 10 summarises the estimation results from logit regression analysis describing the previously described dichotomous variables. As the table shows 62 per cent of the male respondents and 66 per cent of the female respondents anticipated that they would have some control over their time of retirement. Nearly half of those who felt they had some control felt they had total control over the retirement age, that is 29 per cent of both men and women.

5.2 Explaining ‘Some Control’

When explaining ‘some control’, the men’s model proved to be better able to explain outcomes, correctly predicting 79 per cent of those who felt they had control and 52 per cent of those who did not feel they had control. The comparable figures for the women’s model were 85 per cent and 34 per cent. The models found it difficult to identify differences between those who felt they had ‘total control’ and others. Less than 20 per cent of men and 5 per cent of women, who felt they had ‘total control’, were correctly predicted by the model.

Table 10: Significant Relationships Between Anticipated Control Over Time of Retirement and Observed Characteristics

	Total control		Some control	
	Men	Women	Men	Women
Age				
Marital status and partner’s employment status				
Dependent children				
Education			✓	
Home ownership	✓	✓		
Centrelink customer				
Current employment status	✓		✓	✓
Occupation of career job	✓		✓	
Employee in career job				
Born overseas			✓	
Disability	✓	✓	✓	✓
Anticipated control over time of retirement (%)	29.3	28.3	61.7	65.6
Correctly modelled events (%)	18.8	4.4	78.9	84.6
Correctly modelled non-events (%)	92.4	96.4	52.0	33.7

Among men, current employment status, career-job occupation, education, ethnicity and disability status proved to have significant relationships with ‘some control’. Among women, only disability status and current employment status were related. Centrelink customers were no more or less likely than non-customers to anticipate control over their retirement. Neither age nor marital status played a role.

Regardless of sex, those in employment were more likely to feel they had ‘some control’. Men in casual work and women in part-time employment, looking for employment, were less likely than other workers, but still more likely than were non-workers.

Men with a shorter-term disability that did not hinder their ability to work were more likely than other men were to feel they had ‘some control’ over their retirement. In contrast, women with a

long-term disability were less likely than other women to consider that they had ‘some control’ over their retirement.

University educated men, generally the most successful in the paid labour market, were more likely than other men to feel they had ‘some control’ over the age at which they retired. Overseas born men were slightly less likely to feel they had ‘some control’, perhaps because they experience discrimination in the paid labour market.

In terms of occupation, there were three groups of men. Those currently working in part-time or casual jobs whose latest full-time job was over ten years ago were least likely to feel they had control. Next came professionals, labourers and those in intermediate production occupations. The most likely to feel in control were managers, associate professionals, trade and clerical workers, and those currently not working whose latest full-time job was long ago.

5.3 Explaining ‘Total Control’

For women, home ownership and disability status were related to ‘total control’. Among men, relevant characteristics were current employment status, occupation of career job, disability status and home ownership.

The explanatory power of home ownership was unique to the ‘total control’ equations. Respondents still purchasing their homes were considerably less likely than outright home owners and non-home owners to feel they had control over their retirement.

Men with a long-term disability and women with a long-term disability that hindered their ability to work were less likely to feel they had ‘total control’ over their retirement date.

For men, the relationship between current employment status and control was similar, regardless of whether it was ‘total’ or ‘some’. Employment status was not important for women in the ‘total control’ equation.

In terms of men’s occupation managers, associate professionals and those not working whose full-time job was in the past were most likely to feel they had ‘total control’. Least likely to feel in control were men working in part-time or casual employment with a full-time job in the past, followed by clerical workers and labourers, then came intermediate production workers and professionals. Those in trade based occupations were second most likely to feel in control.

5.4 Actual Control Over Retirement Age

We were unable to construct a variable describing whether those who were retired did so out of free will.

We have information on the reason for leaving the main job for those who are fully retired, if that job terminated less than ten years ago (Question D12). Of the 516 ‘retirement age group’ men, only 385 provided information. Of the 530 women only 301 did.

We also have information from Questions B3 and B4 about feelings towards work and retirement. Unfortunately, not all members of the ‘actual’ group were asked these questions.

6 Sources of Income in Retirement

This section reports the results of empirical analysis to identify individuals in terms of their sources of funding in retirement. The sources modelled for the 'pre-retirement age' sample were government support, government support only, spousal support, lump-sum super, investment income and pension income bought with funds such as superannuation. The sources modelled for the 'retirement age' sample were all of the above except for government support only.

We do not include early retirement as an explanatory variable because, as results presented in the previous section showed, the individual's propensity to retire early was also related to the same set of characteristics. The sources modelled for the 'pre-retirement age' group include government support, lump-sum super, pension income and investment income. Comparison of the statistically significant relationships between characteristics and early retirement and between characteristics and sources of retirement income will provide a guide as to the relationship between early retirement and income source.

Bacon and Gallagher's empirical analysis of Australian data, cited in Fitzgerald and Rooney (1999: 33), suggests that two groups of males rarely had superannuation as their main source of income, relying primarily on income support. The two groups were males retiring more than ten years before age pension age and males who retired at age pension age. Those that retired very early or worked until they were old enough to receive the age pension were less prepared financially than those who retired a few years before they were old enough to receive the age pension. Bacon and Gallagher also found that involuntary early retirees were more than twice as likely to depend on social security payments (Fitzgerald and Rooney, 1999: 33-34).

The main findings of this section are

- Regardless of sex, close to half of the 'pre-retirement age' sample anticipated receiving a lump-sum super pay out. Around ten per cent of respondents expected to receive a pension from their current employer, based on years of service. Nearly one-third of the women and 40 per cent of men expected to receive a pension bought with superannuation or other funds. Half of the respondents expected to receive investment income from savings, shares and property for example. Women were far more likely than men to expect financial support from their spouse in retirement. Half the surveyed women and some 40 per cent of the men expected to receive income support from the government in their retirement. But only 9 per cent of men and 11 per cent of women expected to receive only government support in retirement.
- Nearly 60 per cent of the men's 'retirement age' group was in receipt of the age pension and over 70 per cent of women. Close to 40 per cent of both men and women were in receipt of investment income. Around 30 per cent of men received a lump-sum super pay-out and the same percentage received income from a pension bought with superannuation or other funds. The corresponding rates for women were much lower, that is 15 per cent and 13 per cent respectively. Intriguingly, less than one per cent of both men and women received income from a partner. This is inconsistent with expectations about spousal support. It is possible that the concept of 'income ownership' changes at retirement.

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- It is inappropriate to compare the proportions from the ‘retirement age’ and ‘pre-retirement age’ groups, since these groups are derived from substantially different populations, and the weighting process does not account for this difference. Nonetheless, we found remarkable consistency in the estimated relationships between characteristics and anticipated and actual sources of income in retirement.
 - The propensity to anticipate receipt of government support in retirement increased with age. Furthermore, women aged less than 50 were less likely than older women to anticipate complete reliance on government support. In contrast, the group of men aged 55 to 59 was most likely. This suggests that early retirees were relatively comfortable with their financial provision for retirement. However, it seems that men who retire around the age of 60 do so without adequate financial provision. Indeed, as the effect of the superannuation guarantee levy deepens, we see younger respondents more likely to expect receipt of lump-sum super and pension income bought with funds such as superannuation, although men aged 55 to 60 were least likely to expect pension income.
 - In terms of education, anticipated and actual income sources in retirement were somewhat consistent. Amongst the ‘retirement age’ group, regardless of sex, the likelihood of being in receipt of the age pension fell as the respondent’s education level increased. In contrast, the likelihood of receiving investment income rose with education level. Tertiary educated women were more likely to anticipate receiving investment income and men who had at least finished their HSC were less likely to anticipate complete reliance on government support in retirement than less educated men.
 - Career job occupation acted as a guide to expected personal wealth in retirement and to the forms of financial support. Regardless of sex, the more skilled the occupation the less likely the respondent was to anticipate government support in retirement. The analysis also identified males working in part-time or casual jobs, whose last full-time job was long ago, as the most likely to anticipate government support. Previous analysis has identified this group as disadvantaged. Lump-sum super coverage appears to be relatively even across male occupations, although women’s occupation identified women anticipating receipt of superannuation income. For example, women managers were relatively unlikely to anticipate a lump-sum super pay-out. Instead, they anticipated investment income. Women’s occupation was also related to anticipated receipt of spousal support. Again, these expectations were reasonably well matched by the actual sources of income in retirement, even down to the identification of female managers as the most likely to be in receipt of investment income.
 - Men who owned a home outright were less likely than other men were to expect any association with government support in retirement. Regardless of sex, outright home owners had invested money that would have otherwise been allocated to mortgage repayments or rent. In retirement, home owners were less likely to be in receipt of the age pension and more likely to be in receipt of investment income, regardless of sex.
 - In terms of anticipated reliance on income support in retirement, it seemed that women were better financially prepared for retirement if they were legally married to a man earning income in the paid labour market. Furthermore, either couples in de-facto relationships

earned less than legally married couples or women in de-facto relationships were less secure about sharing their partner's finances or less likely to want to share them. Although income-earning capacity of the partner was also important for men's anticipated financial sources, their primary concern appeared to be the provision of financial support to dependents. Hence, men were better prepared for retirement if they had never married or were married to a working partner. In retirement separated and divorced women were most likely to be in receipt of the age pension, while this group of men tended to be the least likely.

6.1 Expected Sources of Income in Retirement

Australians have various sources of retirement income, such as accumulated private savings, employment-related superannuation and the age pension. Table 11 describes the respondents' expected means of financial support in retirement (question K7) in both unweighted and weighted terms. We provide the unweighted percentages as a guide to the numbers of individuals to be explained by the logit regression analysis. Respondents could expect to receive financial support from a number of sources, hence the percentages do not add to 100 per cent.

Until 1983, Kelly (1997) explains, the age pension was the dominant form of retirement income in Australia. Superannuation was the preserve of managerial and professional employees. The introduction of occupational superannuation, through industrial relations processes, has extended the coverage of superannuation and redefined the age pension as a safety net. The Superannuation Guarantee Charge was introduced in 1992 to ensure that employers contributed to superannuation. However, superannuation is far from equitably distributed. Based on life-time earnings, the accumulated superannuation of low income earners, including individuals with marginal attachment to the paid labour market, primarily mothers, is relatively small. Furthermore, very low-income earners can trade-off superannuation contributions for wages. Australia's compulsory preservation age for superannuation is currently 55, although it will increase to 60 in 2025. Superannuation can be taken as a lump sum, rather than as a pension. Hence, retirees can consume their superannuation before age pension age, thus qualifying for the means tested age pension. They can also choose to purchase an annuity.

In weighted terms, regardless of sex, close to half of the sampled group expected to receive a lump-sum super pay out. Around ten per cent of respondents expected to receive a pension from their current employer based on years of service. Nearly half of the men and two-thirds of the women who expected to receive a pension from their employer also expected a lump-sum super pay-out.

Nearly one-third of the women and 39 per cent of men planned to purchase a pension bought with superannuation or other funds. Half of the respondents expected to receive investment income from savings, shares and property for example. Women were far more likely than men were to expect financial support from their spouse in retirement. Thirty per cent of the women and 14 per cent of the men expected to receive spousal support.

Half the surveyed women and thirty per cent of the men expected to receive income support from the government in their retirement. But only 9 per cent of men and 11 per cent of women expected to receive only government support in retirement.

Table 11: Expected Sources of Income in Retirement

	Women		Men	
	Unweighted %	Unweighted %	Weighted %	Weighted %
Pension from employer	6.7	9.4	10.9	13.5
Lump sum super pay-out	35.3	37.1	49.0	48.3
Pension bought with super/other funds	23.3	29.7	31.4	38.7
Investment income from savings etc.	36.0	39.5	49.5	52.6
Income from a business	8.6	11.7	12.0	16.0
Government benefits	67.7	61.1	51.9	43.4
Income/pension from spouse/partner	21.0	10.4	30.5	13.5
Part-time/casual work	0.2	0.4	0.4	0.2
Inheritance	0.5	0.4	0.7	0.4
Other	4.1	0.7	0.5	0.8
Don't know	2.3	1.7	1.5	1.3
Total (n)	1 210	1 359	1 210	1 359

Table 12, Table 13 and Table 14 report the expected values, in ranges, of the various sources of retirement income. The series of questions used to construct these tables was problematic since inflationary effects were not taken into consideration. Respondents were not asked explicitly to value in today's dollars or in dollars at the time in the future when they expected to receive the income. Furthermore, if the respondents valued at the time when they expected to receive the pension, the responses would not be comparable, since the further away the respondent was from retirement age the larger the effect of inflation. Nor can the total value of income in retirement be calculated from the components. For example, the superannuation pay-out could be used to buy a pension, both of which were valued.

Table 12: Expected Value of Superannuation Pay-out

	Men	Women
	Weighted %	Weighted %
< \$25,000	8.8	22.6
\$25,000 - \$49,000	11.0	20.7
\$50,000 - \$99,000	17.3	18.2
\$100,000 - \$199,000	18.8	10.0
\$200,000 - \$499,000	22.1	7.5
\$500,000 - \$999,000	6.3	0.3
\$1 million +	1.0	0.3
Refused	3.0	1.2
Don't know	11.8	19.2
Total	504	426*

Note: * One of the respondents did not answer this question

Table 12 shows the value of the expected superannuation pay-out. A significant number of respondents, that is 12 per cent of men and 19 per cent of women, did not know what to expect. The most common reported value was \$200,000 to \$499,000 for men but less than \$25,000 for women. The majority of male respondents who could put a figure on the value expected less than \$200,000 and the majority of women expected less than \$50,000. The gender difference largely reflect the differential employment patterns of men and women.

Table 13 shows the expected annual value of pension income, be it from the respondent's current employer or purchased with superannuation or other funds. One-third of women and one quarter of women did not know what the annual value of their pension would be. Of those that had an idea, the most common response for both men and women was that the value of their pension would lie within the range of \$15,000 to \$24,999.

Table 13: Expected Annual Value of Pension

	Men	Women
	Weighted %	Weighted %
< \$10,000	8.1	14.1
\$10,000 - \$14,999	8.5	13.2
\$15,000 - \$24,999	23.0	20.0
\$25,000 - \$39,999	17.7	15.5
\$40,000 +	16.9	4.5
Don't know	25.8	32.7
Total	464	327

Note: * A pension from your current employer, based on years of service or a pension purchased with superannuation or other funds.

In terms of other wealth in retirement, Table 14 shows that 14 per cent of men and 25 per cent of women were unable to predict its extent. Amongst the group of respondents able to estimate the value of their other income in retirement, the most common response for women was less than \$25,000 and the two most common responses for men were \$200,000 to \$499,000 and less than \$25,000. The majority of both men and women expected to have less than \$200,000.

Table 14: Amount of Other Investments Expect to Have in Retirement

	Men	Women
	Weighted %	Weighted %
< \$25,000	16.4	25.5
\$25,000 - \$49,000	7.6	10.2
\$50,000 - \$99,000	11.2	9.7
\$100,000 - \$199,000	10.5	10.3
\$200,000 - \$499,000	17.4	11.5
\$500,000 - \$999,000	12.1	4.8
\$1 million +	6.8	1.7
Refused	3.6	2.0
Don't know	14.4	24.5
Total	1 356	1 210

Overall, women were less likely than men were to have an expectation of their finances in retirement.

Table 15 compares the respondent's marital status with their ability to put a value on their expected retirement income. In general, married men were the most likely to be able to put a value on their expected retirement income. The least likely group tended to be married women. Amongst women, the most informed seemed to be those in de-facto relationships, followed by separated or divorced women.

Table 15: Respondents Who Could Not Put a Value on Their Expected Retirement Income, by Marital Status

	Men Weighted %			Women Weighted %		
	Other investments	Super pay-out	Pension	Other investments	Super pay-out	Pension
Never married	18.1	11.0	57.8	19.9	26.9	41.2
De-facto	26.8	18.8	39.3	16.8	7.6	28.3
Married	12.2	9.9	21.1	26.2	20.2	33.9
Separated/divorced	18.2	19.7	39.8	21.2	16.4	29.9
Widow/er	25.9	26.8	6.4	26.6	16.0	6.0
Total (unweighted n)	195	59	120	296	82	107

6.2 Regression Results

We model the tendency to expect receipt of the following forms of income in retirement; government support, spousal support, a lump-sum super pay-out, a pension bought with superannuation and/or other funds and investment income. Six separate logistic regression models were estimated for men and women, covering the main sources of income in retirement. The relevant dichotomous dependent variable was equal to one if the respondent expected to receive that particular source of income in retirement (regardless of relative importance in their ‘suite’ of income sources). The survey placed no restriction on the number of sources of income an individual could expect. To make the findings more easily digestible, we summarise the regression results by explanatory variable in the body of the report. Tables containing estimated coefficients and level of significance for each regression appear in Appendix B.

The explanatory power of the models differed markedly (see Table 16), indicating the relative differences in the strengths of the relationships between our list of individual characteristics and the tendency to expect income from various sources in retirement. In general, the model was better able to describe the non-events than the events. In most cases, the model was able to explain close to at least half of the events. However, it did perform poorly when explaining those expecting spousal support and those expecting pension income.

Table 16: Explanatory Power of Models

	Men		Women	
	Correctly modelled events (%)	Correctly modelled non-events (%)	Correctly modelled events (%)	Correctly modelled non-events (%)
Government support	79.3	67.6	54.0	83.4
Government support only	47.9	88.0	49.9	83.5
Spousal support	2.1	99.6	26.0	91.3
Lump-sum super	42.3	77.5	50.6	78.5
Pension	22.0	90.1	6.0	95.9
Investment income	55.9	77.7	51.4	81.4

Table 17 and Table 18 report the estimated significant relationships between the explanatory variables and the expected sources of income. Education, disability status, ethnicity and the presence of dependent children had little explanatory power. For the remaining variables, we describe the relationships in more detail.

Table 17: Significant Relationships: Men

Men	Government support	Government support only	Lump-sum super	Pension	Investment	Spouse
Age	✓		✓	✓		
Marital status and partner's employment status	✓	✓	✓	✓	✓	✓
Dependent children				✓		✓
Education		✓				
Home ownership	✓	✓			✓	
Centrelink customer	✓	✓		✓	✓	
Current employment status		✓	✓	✓	✓	
Occupation of career job	✓	✓			✓	
Employee in career job					✓	
Born overseas		✓				
Disability	✓					

Table 18: Significant Relationships: Women

Women	Government support	Government support only	Lump-sum super	Pension	Investment	Spouse
Age	✓	✓	✓	✓	✓	
Marital status and partner's employment status	✓	✓			✓	✓
Dependent children					✓	
Education					✓	
Home ownership					✓	
Centrelink customer	✓	✓	✓	✓	✓	
Current employment status	✓	✓	✓	✓	✓	
Occupation of career job	✓		✓		✓	✓
Employee in career job						
Born overseas						✓
Disability						

Age

Among women there is a clear pattern between age and the tendency to expect reliance on income support, either partially or entirely, the older the woman the more likely the anticipated reliance. Women younger than 50 were least likely to anticipate reliance on government support and those aged 55 or more were most likely. Women younger than 50 were less likely to expect complete reliance than older women. There is no clear pattern for men. Men aged 55 to 59 were less likely than other men to anticipate the need for government support in retirement, whereas age had no effect on the anticipation of complete reliance on government support.

The findings for women are consistent with a number of explanations. Since the group under analysis consists of individuals attached to the labour market, there may be a tendency for early retirees to be self-funding. It is possible that one's expectations of financing retirement become more realistic the closer the time comes. A third explanation is that younger cohorts of Australians are less likely to consider the age pension a certainty in retirement. Lastly, the younger the cohorts the more likely the respondent will have superannuation. Recall that the

expansion of occupational superannuation commenced in 1983, when the youngest respondent in this group would have been aged 28 and the oldest aged 57.

In support of the first, third and fourth arguments, we found that those aged less than 50, regardless of sex were more likely to expect a lump-sum pay out. However, among men, age bore no relationship with the expectation of investment income. Furthermore, women aged less than 55 were less likely than older women to anticipate access to investment income in retirement.

Furthermore, women aged less than 50 were more likely to expect pension income. Amongst men, those aged from 50 to 54 and those older than 60 were most likely to expect pension income. Those aged 55 to 60 were least likely.

Age bore no relationship with expectation of spousal support for men and women.

These findings suggest that early retirement, at least among those attached to the paid labour market, tends to be undertaken with the belief that self-funding will be possible in retirement. However, there appears to be a group of men, retiring around the age of 60 that will rely on government support in retirement.

Occupation of the career job

Career-job occupation proved to be related to many of the anticipated categories of expected retirement income. Occupation acted as a guide to expected personal wealth in retirement and to the methods by which individuals catered financially for their retirement.

Amongst women, occupation was related to the anticipation of government retirement support, lump-sum super pay out, investment and spousal support. Occupation was unrelated to the anticipation of only Government support in retirement. In general the more skilled the respondent, the less likely she was to anticipate some Government support and the more likely she was to anticipate a lump-sum super pay out.

Female managers were least likely to expect to receive some government retirement support, along with those who had never worked and those currently not working who had worked full-time long ago. The women most likely were labourers or currently working part-time or in casual work, with a full-time job in the past. This finding suggests that women did not only rely on highly skilled employment to give them economic self-reliance in retirement. Women currently not working that had never worked or worked full-time long ago appeared to have little financial need to work. Women managers were highly skilled workers and women currently in part-time or casual work with a full-time job in the past were most likely low skilled women.

Men's tendency to expect some reliance on government support in retirement was related to the skill level of their career occupation. Male managers, professionals, associate professionals and clericals had much the same tendency to expect reliance on Government support in retirement. Those with the greatest tendency were men currently working in part-time or casual jobs, who had worked full-time in the past. This finding suggests that this particular group of men had relatively little financial success in the paid labour market. Labourers were the next most likely.

Furthermore, men working in the lowest skilled occupations, including men who last worked full-time over ten years ago, were most likely to expect reliance on Government support only.

In terms of the anticipated lump-sum super pay-out, it seems that occupation was not a deciding factor for men, although it identified women working in superannuation exposed areas. Among women, professionals, associate professionals, intermediate and elementary clerical and labourers were more likely than others to expect a lump-sum super pay-out.

Occupation played a role in the anticipated spousal income equation for women only. This suggests that women in this cohort factored in marriage and their partner's income to their occupation choice or that a woman's occupation played an important role in determining the income earning capacity of her partner. Women, currently not working with a full-time job in the past were most likely to anticipate spousal income. A large group of women was next most likely. It included women working part-time or casually with a full-time job in the past, managers, professionals and clerical workers. Least likely were associate professionals, trade workers, intermediate production workers, labourers and women who had never worked.

In terms of investment income, it seems that female managers and women currently not working with a full-time job in the past, were more likely to expect investment income. Recall that female managers were relatively unlikely to receive a lump-sum super pay out. Hence, they may organise their own superannuation through their own savings schemes. Among men, managers and associate professionals most expected investment income.

Employee in career job

Among women, being an employee in their career job had no implication for their expected income sources. We expected employees to be more likely than self-employed to expect to receive lump-sum super pay-outs for example. Among men, however, the self-employed were more likely than employees to expect investment income. Perhaps self-employed men use investment to save for retirement. Many self-employed men may have been an employee at some stage in their working lives in the past because they were just as likely as employees to anticipate a lump-sum super pay out.

Marital status and partner's employment status

For both men and women, the relationship between marital status and the anticipated sources of retirement income depended crucially on the presence of a partner, whether the partner was working or had worked, and whether the partner was de-facto. Our findings suggest that among this cohort, our theoretical notion of the interface between household structure and the paid labour market could be best approximated by the traditional male bread-winner model.

In terms of anticipated reliance on income support in retirement, it seemed that women were better financially prepared for retirement if they were legally married to a man earning income in the paid labour market. Furthermore, either men in de-facto relationships earned less than legally married men or women in de-facto relationships were less secure about sharing their partner's finances or less likely to want to share them.

Women with a working partner (married or de-facto) were least likely to expect some income support in retirement. Women without partners or with partners who were not working or disabled were next most likely. Women with disabled partners were most likely.

Married women with a working partner were least likely to expect only government support in retirement. Married women with retired or unemployed partners were next least likely. Next came un-partnered women, married women with disabled partners and de-facto women with working partners. Most likely were women in de-facto relationships with retired or unemployed partners.

Although income earning capacity of the partner was also important for men's anticipated financial sources, their primary concern appeared to be the provision of financial support to dependents. Hence, men were better financially prepared for retirement if they had never married or were married to a working partner.

Never married men, widowers and men with partners retired from the paid labour market exhibited the lowest tendency to expect reliance on government support in retirement. Next came married men with working partners, followed by separated or divorced men and married men with partners who had not worked. Men in de-facto relationships exhibited the greatest tendency to anticipate receipt of the age pension. Those with a partner who had not worked had a higher tendency than those whose partner had worked.

In terms of government support only, never married men and married men with working partners were least likely to expect only government support. Next least were married men with non-working partners and divorced or separated men. Then came de-factos with working partners. Widowers and de-factos with partners not working were most likely to expect only government support in retirement.

Our estimations did not find a significant relationship between marital status and partner's employment status and women's expected receipt of labour market earnings related retirement income, such as lump-sum pay-outs or pension income. This is an interesting finding since we found that these variables were an important determinant of anticipated total private household income. One possibility is that all women tend to use their superannuation to pay off housing loans or put into investment funds.

However, marriage did have an effect for men. Separated/divorced men were less likely to expect a lump-sum pay-out. Men with working partners were more likely to expect pension income.

In terms of spousal support married women were more likely to expect support than women in de-facto relationships. If the male partner was working, retired or unemployed the likelihood increased further. Men with working partners, be they de-factos or not, were more likely than other men to expect spousal support. These findings are consistent with our earlier proposition that women tend to use their employment related retirement funds to buy other assets, and that these assets were jointly owned when the women were in a relationship.

Men with partners were less likely than other men to expect investment income, although those with working partners exhibited a tendency closer to non-partnered men. De-facto men were less

likely to anticipate investment income than married men. Among women, widows and women with partners who were working, disabled or retired were more likely to anticipate investment income. The group that was less likely included, never-married women, separated and divorced women, and partnered women with unemployed partners.

Dependent Children

Women with dependent children were more likely to anticipate investment income.

Men with school age children, a small but significant group, were more likely to expect spousal support. Perhaps their partners are more likely to be career women since they appear to have delayed having a family.

Men with children at school were less likely to expect pension income.

Education

Education barely played a role. Tertiary educated women were significantly more likely than other women to expect investment income. University educated men and men who had completed their HSC or received a trade certificate were less likely than others to expect only government support.

Current employment and job-search

Women appear to be working out of financial necessity. Our estimations show that women employed in casual jobs, who were also looking for work, were more likely than other women to expect income support in retirement. The majority of women working in casual employment and looking for work were customers.

Women working full-time were least likely to expect complete reliance on government support in retirement. Women in part-time work who were not also looking for work were next least likely. Next came casual workers and part-time workers looking for work. The most likely group was casual workers looking for work.

In contrast men's current employment status was unrelated to their tendency to expect government support in retirement. However, men working part-time were less likely than others to expect complete reliance on government support in retirement.

Among women, current employment status was related to the expectation of a lump-sum super payout. Full-time workers and part-time workers not looking for work were most likely to expect it. Next came casual workers, not looking for work and part-time workers looking for work. Next came casual workers looking for work. Least likely were non-workers, regardless of whether they were looking for work.

Among men those working full-time were more likely to expect a lump-sum super pay-out.

Spousal support was unrelated to current employment status for women and men.

Working women were more likely to expect income from a pension. Among men it was those currently working full-time and looking for work who were most likely to expect pension income. Those not working, and whose last full-time job was over ten years ago were least likely.

Men working full-time, but looking for work were more likely than others to expect pension income in retirement.

With respect to investment income, women in part-time work or those not working looking for part-time or casual work were most likely to expect investment income. Among men, those in part-time or casual work were more likely than full-time workers or non-workers to expect it. Perhaps these men felt financially able to cut down their hours of work before their official retirement age.

Customers

Regardless of sex, customers were more likely than others to expect to be receiving government support and more likely to expect only government support in retirement.

Regardless of sex, customers were less likely to receive investment income and pension income. Female customers were less likely to expect a lump sum super pay out. Although there was a negative relationship between customer status and the tendency for men to expect a lump sum super pay out this variable was insignificant at the ten per cent level. This may suggest the more wide-spread coverage of men in superannuation schemes. The sort of jobs that women customers obtain appear not to be covered by superannuation.

Customer status was unrelated to spousal support.

Home-ownership

In relation to home-ownership, men who owned their home outright were less likely than other men were to expect either some or complete reliance on government support were. However, among women we did not observe a relationship between home-ownership and expected receipt of government support. In contrast, outright home-owners, regardless of sex were more likely to anticipate investment income in retirement. This group of respondents was 'free' to invest money that would have otherwise been allocated to mortgage repayments or rent.

It is possible that un-partnered women who own houses have less wealth than male home-owners. In this group we know that the previously partnered women seem to be relatively financially disadvantaged. Furthermore partnered female home-owners may be less aware of total family wealth, since in the majority of couples the male partner will have been the primary income earner.

Home-ownership bore no relationship with the expectation of a lump-sum super pay out, pension income or spousal support.

Disability

Among women, we did not find a statistically significant relationship between their disability status and their retirement income expectations.

However, men with a long-term disability were more likely than other men were to anticipate receiving the age pension in retirement.

Disability status exhibited no relationship with only government support. Nor was disability status related to any other category of expected income.

It is possible that disability status is reflected in occupation. We discuss this possibility in Section 6.3.

Country of Birth

Country of birth proved to have little explanatory power in the models.

Women, born overseas in non-English speaking countries, were less likely to expect spousal support.

Men born overseas, in English speaking countries, were least likely to expect only government support. Those born overseas in non English speaking countries were most likely to expect it.

6.3 Why Doesn't Disability Play a Role?

Disability status played a minor role in explaining expected sources of income in retirement. Since there is a concern that older discouraged job-seekers end up receiving the Disability Support Pension, we were concerned to unpack this relationship as much as possible. There is a possibility that the disability status/expected source of income relationship was encapsulated in the relationship between occupation and expected source of income or current employment status.

Table 19 shows the proportion of men with long-term disabilities by occupation. Roughly 30 per cent of both men and women in the 'pre-retirement age' group had long-term disabilities.

Over 70 per cent of men who were not working and who had last worked in a full-time job over ten years previously had long-term disabilities. Nearly 40 per cent of men working part-time or in casual jobs when surveyed, whose last full-time job was similarly long ago were long-term disabled. Because members of these sub-groups of respondents had left their full-time job so long ago, we had no way of knowing whether they left the job because of the disability or the disability began in the intervening period.

Other occupational groups in which long-term disabled men were substantially over-represented were elementary and intermediate clerical workers, trades-persons and labourers.

Table 19: Proportion of Men and Women With Long Term Health Disability, By Occupation

	Men Unweighted %	Women Unweighted %
Managers / administrators	17.7	16.7
Professionals	17.1	20.3
Associate professionals	22.0	22.5
Tradespersons and related workers	32.8	29.4
Advanced clerical and service workers	20.5	19.8
Intermediate clerical, sales and services	36.7	26.2
Intermediate production and transport workers	29.1	31.5
Elementary clerical, sales and services workers	33.1	26.6
Labourers and related workers	37.5	24.6
Don't know	29.2	16.9
Part-time / casual, full time in past	35.7	21.8
Not working, full-time in past	71.7	42.5
Not working, part-time / casual in past	21.7	50.6
Not working, never had job	N/A	40.4
All	29.5	27.5

Among women the occupational categories most over-represented by long-term disabled respondents were the three not-working categories; never had a job, worked part-time or casually in the past and worked full-time in the past. However, overall the women in these occupational groups seemed to do well in terms of expected sources of income in retirement. This implies that the experiences of the disabled women were not reflected in the analysis, since there were too few of them.

6.4 Indicators of Wealth – Education, Occupation and Home-Ownership

We used three main variables to approximate wealth accumulation in our analysis; education, occupation of main job and home-ownership. Education is an important indicator of an individual's income earning potential in the paid labour market, at least compared to members of their own sex. We see occupation of main job as a guide to working-life labour market outcome. Home-ownership is a wider guide to wealth accumulation outcomes, both from income earned and inherited.

Table 20 reports cross-tabulations of the relationships between education and occupation, and housing tenure and occupation for men and women. In the home-ownership section of the Table, for example, respondents were classified according to whether they owned the home outright, were purchasing a home or did not own a home. In the education section, respondents were grouped according to whether they had completed a university degree, had a trade certificate or had completed secondary education or less.

Few people did not own a home, either outright or purchasing, that is 15 per cent of men and 14 per cent of women. At age 45, most people who will buy a house have already done so. Furthermore, this sample is restricted to those attached to the paid labour market.

Table 20: Home Ownership and Education, by Sex and Occupation

Occupation	Home Ownership			Education		
	Owner	Purchaser	Neither	Secondary or Less	Trade	Tertiary
<i>Men</i>						
Managers / administrators	63.6	24.7	11.6	46.9	6.9	46.2
Professionals	54.4	35.8	9.9	15.3	3.2	81.5
Associate professionals	63.9	24.3	11.8	43.2	10.1	46.7
Tradespersons and related	62.7	26.1	11.2	46.2	38.1	15.6
Advanced clerical and service	72.5	18.1	9.4	67.8	9.0	23.2
Intermediate clerical, sales and services	57.8	31.7	10.5	65.1	5.9	29.0
Intermediate production and transport	49.5	30.7	19.8	74.5	9.1	16.4
Elementary clerical, sales and services	53.4	21.9	24.7	78.9	4.5	16.6
Labourers and related	46.6	27.5	25.9	74.8	14.0	11.2
Don't know	52.0	24.3	23.7	52.5	9.3	38.2
Part-time / casual, full time in past	71.7	4.6	23.8	52.2	6.0	41.8
Not working, full-time in past	66.0	8.6	25.4	64.1	12.6	23.3
Not working, part-time / casual in past	21.7	78.3	.	100.0	.	.
<i>All Men</i>	58.5	26.4	15.1	49.2	12.4	38.4
<i>Women</i>						
Occupation	Owner	Purchaser	Neither	Secondary or Less	Trade	Tertiary
Managers / administrators	65.2	29.8	5.0	53.0	1.1	45.9
Professionals	61.7	27.8	10.5	15.7	3.0	81.3
Associate professionals	56.2	31.2	12.5	66.4	1.2	32.4
Tradespersons and related	53.6	36.5	9.9	73.8	2.4	23.8
Advanced clerical and service	62.5	28.1	9.4	60.9	5.2	34.0
Intermediate clerical, sales and services	59.9	24.3	15.8	68.7	2.6	28.8
Intermediate production and transport	78.2	18.4	3.5	83.1	.	16.9
Elementary clerical, sales and services	66.6	15.1	18.3	87.0	.	13.0
Labourers and related	62.6	18.8	18.6	92.0	.	8.0
Don't know	70.8	20.3	8.9	73.8	3.6	22.6
Part-time / casual, full time in past	56.3	30.8	13.0	60.8	1.7	37.5
Not working, full-time in past	74.1	6.3	19.6	82.0	1.3	16.7
Not working, part-time / casual in past	88.6	.	11.4	94.2	.	5.8
Not working, never had job	79.7	2.1	18.1	87.2	0.3	12.5
<i>All Women</i>	64.7	21.3	14.0	63.7	1.9	34.4

Note: Percentages are unweighted and may not add up to 100 due to rounding

As we expected, it seems that occupation and home ownership were related, at least for men. For men, respondents in the less skilled occupations were substantially more likely to be neither purchasing a home nor a home owner. However, the tabulations also show that outright homeowners were over-represented in the sub-group of men not working full-time at the time of the survey, but who had worked full-time over ten years before the survey. These observations highlight the different paths that lead men out of the labour market as retirement approaches.

Among women, it was difficult to see a simple correlation between home ownership and occupation. However, outright home owners were over-represented among women who were not working when surveyed, suggesting that in general these women chose not to work because they felt comfortable with their financial situation.

In terms of education, 38 per cent of men were tertiary educated and 34 per cent of women. These simple tabulations suggest that education and occupation were related. The most educated respondents were generally over-represented in the highly skilled occupations and the least educated respondents were over-represented in lower skilled occupations.

Both male and female professionals were predominantly tertiary educated, over 80 per cent in both cases. Amongst men, the occupations next most densely populated with the tertiary educated were managers/administrators and associate professional, at close to 50 per cent. Just over 40 per cent of men working in part-time/casual jobs whose last full-time job was over ten years in the past were tertiary educated. This finding suggests that tertiary educated men were more likely to leave their main job before retirement and spend some time in part-time or casual work before complete withdrawal from the labour market. Perhaps they were more financially able to do this.

Almost 50 per cent of female managers/administrators were tertiary educated. The next most densely populated occupation in terms of tertiary education was women working part-time or in casual jobs that had worked full-time in the past.

6.5 Actual Sources of Income at Retirement Age

Here we report our findings from logit regression estimation of the relationships between respondent characteristics and the tendencies for members of the retirement age group to receive various forms of income in retirement. Table 21 shows the weighted and unweighted proportions of respondents in receipt of the various forms of retirement income. The information on government support was based on the respondents' customer status. Information on private sources of income was collected in Question L1. Respondents were only asked this question if they were working at the time of the survey, so some of the 'retirement age' group is excluded from the analysis of private income sources.

In weighted terms, Table 21 shows that nearly 60 per cent of the men's group was in receipt of the age pension and over 70 per cent of women. Close to 40 per cent of both men and women were in receipt of investment income. Around 30 per cent of men received a lump-sum super pay-out and the same percentage received income from a pension bought with superannuation or other funds. The corresponding rates for women were much lower, that is 15 per cent and 13 per cent respectively. Intriguingly, less than one per cent of both men and women received income from a partner.

Table 21: Actual Sources of Income in Retirement*

	Men	Women	Men	Women
	Unweighted %	Unweighted %	Weighted %	Weighted %
Pension from employer	5.9	2.2	5.8	2.0
Lump sum super pay-out	31.6	16.4	31.3	14.8
Pension bought with super/other funds	27.0	14.4	26.7	12.7
Investment income from savings etc.	41.2	42.7	40.4	36.2
Income from a business	6.2	11.8	11.8	8.6
Government benefits**	70.6	72.8	56.0	72.3
Income/pension from spouse/partner	0.3	0.9	0.3	0.5
Total (n)	374	457	374	457

Note: * 31 men and 36 women from 'retirement age' group were excluded from this analysis, because they did not answer question L1. All the excluded respondents were working.

** The government benefits analysis is based on the complete data set, that is 405 men and 493 women.

Table 22 summarises the explanatory power of the models, showing for each income source modelled the proportion of respondents in receipt of that income source correctly modelled and the proportion of respondents not in receipt correctly modelled. On this basis the explanatory characteristics were best able to distinguish between respondents on the basis of whether they were in receipt of the age pension. The characteristics also had reasonable explanatory power in the equations explaining investment income receipt.

Table 22: Explanatory Power of Models

	Men		Women	
	Correctly modelled events %	Correctly modelled non-events %	Correctly modelled events %	Correctly modelled non-events %
Government support	89.2	52.3	82.2	69.1
Lump-sum superannuation	19.5	87.9	6.7	96.6
Pension from superannuation	20.8	91.2	13.6	96.9
Investment income	44.8	73.2	50.3	71.0

Table 23: Significant Relationships: Men

Men	Government support	Lump-sum superannuation	Pension	Investment
Marital status and partner's employment status	✓	✓	✓	
Education	✓			✓
Home ownership	✓	✓		✓
Current employment status	✓			✓
Occupation of career job	✓		✓	✓
Employee in career job			✓	
Born overseas			✓	
Disability		✓		

Table 23 and **Error! Not a valid bookmark self-reference.** show, for each financial source equation, which of the characteristics provided statistically significant explanatory power, for men and women respectively.

Table 24: Significant Relationships: Women

Women	Government support	Lump-sum superannuation	Pension	Investment
Marital status and partner's employment status	✓		✓	✓
Education	✓		✓	✓
Home ownership	✓			✓
Current employment status	✓			✓
Occupation of career job	✓		✓	✓
Employee in career job	✓			
Born overseas	✓			✓
Disability	✓	✓		

Home-ownership

There were too few purchasers to split them from outright owners. Home owners were less likely to be in receipt of the age pension and more likely to be in receipt of investment income, regardless of sex. Home-owning men were also more likely to be in receipt of lump-sum super income.

Education

Regardless of sex, the likelihood of being in receipt of the age pension fell as the respondent's education level increased. Those with tertiary education were least likely to be in receipt of income support. Women who have not completed secondary school were most likely to be in receipt of the age pension. Men who had not completed their higher school certificate were most likely.

The likelihood of receiving investment income was positively related to education for both men and women. Tertiary educated respondents were most likely to receive investment income and those who had not completed secondary school least likely. We observed a similar relationship for women's pension income, although the group least likely included all respondents who had no post secondary-school qualifications.

Current employment status

Full-time workers were included in the data set used to estimate the relationship between income support receipt and observed characteristics. However, they were excluded from the data set used to estimate the relationships between observed characteristics and other sources of income in retirement.

Women and men working full-time were least likely to be in receipt of income support. Women working in casual jobs were the most likely, followed by those working part-time and non-workers. Among men those working casually or not working were most likely, followed by those working part-time.

Current employment status was also related to the tendency to receive investment income. Women working part-time were less likely than those working in casual employment or not working to receive investment income. Men working in casual employment were less likely than part-time workers or those not working to receive investment income.

Marital status and partner's employment status

Regardless of sex, respondents with a working partner were least likely to be in receipt of the age pension. While separated and divorced women were most likely to be in receipt of income support, this group of men were less likely than never married men, widowers and men with a non-working partner.

Never married women were most likely to have income from a pension bought with superannuation, for example. Next most likely were separated and divorced women, widows and women whose partner was not retired. Least likely were women whose partner was retired. In contrast, men with a partner who was working or who they thought of as retired were less likely to have pension income.

Married women whose partner was not working were less likely to have investment income.

Men with a partner who they thought of as retired were more likely to have income from lump-sum super.

Born overseas

Women born overseas in a non-English speaking country were more likely to be in receipt of the age pension. Men born overseas in English speaking countries were less likely to be in receipt of pension income.

Disability status

Women with a long-term disability were more likely than others to be in receipt of the age pension. Women with a long-term disability that impinged upon their ability to work were less likely to be in receipt of lump-sum super than other women were. Men with a long-term disability were less likely to be in receipt of lump-sum super.

Employee in career job

Women who had been employees in their career job were more likely to be in receipt of the age pension.

Men who had been employees were more likely to be in receipt of pension income bought with super.

Occupation in career job

Women whose last full-time job was long ago were more likely to be in receipt of the age pension. We found a complex relationship between men's career occupation and their propensity

to be in receipt of the age pension. In general the more skilled the occupation the less likely the man was to be in receipt of the age pension, but the relationship was not consistent. For example, tradesmen were most likely, followed by those who had worked in intermediate production, elementary clerical and labouring jobs. Associate professionals were next most likely and the group that was least likely included clericals, professionals, managers and those who had left their career job over ten years ago.

Occupation also proved important in the investment and pension equations. It seems that among women, managers, associate professionals, and those in advanced clerical and trade occupations were equally likely to have income from pensions bought with super income. Least likely were elementary clerical employees. For men, those in trade related occupations were less likely than others to have pension income.

In terms of investment income, men in trade related and intermediate production jobs were less likely than others to be in receipt of investment income. Men whose job was well in the past were also less likely but only borderline significant at the ten per cent level. While women's occupation was related to investment income receipt, the relationship was imprecisely measured. It seems that managers were most likely. But we cannot really judge between the others.

7 What are the Characteristics Associated with a Government Financed Early Retirement?

Observing the increasing dependency ratio¹³ in recent times European Union members have instigated various policy changes in order to stem the anticipated crisis in the social security budget. According to the European Commission (1997:118), a major aim of policy initiatives to change pension systems has been “to reduce the cost falling on systems of social protection, independently of their effect on early retirement *per se*”. Early retirees that require financial support from the government in retirement are a crucial research group for policy makers.

In this section we report our findings from analysis to determine the characteristics associated with a government financed early retirement, both expected and actual. Answering this question is a step towards determining a policy response aimed at reducing the burden on the government budget.

The main findings of this section are:

- Our ‘pre-retirement age’ models performed poorly in terms of ability to explain outcomes. Only 1 per cent of men and 6 per cent of women who anticipated a government financed early retirement were so predicted by the estimated models. Nonetheless, many of the observed characteristics were related to the tendency to retire early and receive government support in retirement. Men’s ‘retirement age’ model had reasonable explanatory power, while few of the explanatory characteristics were statistically relevant.
- While male customers were more likely to anticipate a government financed early retirement, women customers were not.
- Men younger than 55 and women younger than 50 were most likely to expect this state, even though we concluded in earlier sections that respondents retiring at such young ages were well prepared financially for retirement.
- In terms of career occupation, regardless of sex, the more skilled the occupation the less likely the respondent was to expect a government financed early retirement. Again, we find that the group of men who had not worked in a full-time job for some time were most likely.
- Among the ‘retirement age’ group male employees in their career job were more likely than others. Females with tertiary education were less likely than less educated women and female home-owners were less likely.

¹³ The dependency ratio is a measure of the dependence that non-working people have on working people. It is often measured by the population aged less than 15 plus the population aged over 65 divided by the working age population.

Table 25 summarises our estimation results for both men and women and the ‘retirement age’ and ‘pre-retirement age’ groups.

Table 25: Significant Relationships Between a Government Financed Early Retirement and Observed Characteristics

	Men		Women	
	Expected	Actual	Expected	Actual
Age	✓	N/A	✓	N/A
Marital status and partner’s employment status	✓	✓	✓	
Dependent children				
Education				✓
Home ownership	✓			✓
Centrelink customer	✓	N/A		N/A
Current employment status	✓			✓
Occupation of career job	✓	✓	✓	
Employee in career job		✓		
Born overseas				
Disability			✓	
Government dependent early retirement (%)	16.7	42.5	26.8	29.2
Correctly modelled events (%)	1.3	50.6	6.2	14.6
Correctly modelled non-events (%)	98.8	63.9	96.3	92.2

7.1 Expected Government Financed Early Retirement

Only 17 per cent of the male respondents and 27 per cent of the female respondents in the pre-retirement age group anticipated a government financed early retirement. Recall that 61 per cent of the men expected government support and 33 per cent anticipated early retirement. For women the corresponding percentages were 68 per cent and 44 per cent. Roughly half of those anticipating early retirement anticipate government support. Our models performed poorly in terms of ability to explain outcomes. Only one per cent of male events and six per cent of female events were modelled correctly, while the model accurately predicted almost all the non-events. Men and women have different concepts of retirement.

However, many of the observed characteristics were related to the tendency to expect a government dependent early retirement.

Male customers were more likely than non-customers to expect this, although women were not. This finding highlights the different expectations of retirement held by men and women. Women’s concept of retirement is not adequately covered in this survey.

Men younger than 55 were more likely than older men to expect this. Women younger than 50 were most likely, followed by women aged 50 to 59.

Widowers were more likely than other men to expect a State dependent early retirement. In contrast widows were least likely to expect it, followed by separated and divorced women.

Women with a shorter-term disability were more likely than other women. Disability was not important for men.

Men who owned or were purchasing their homes were more likely than others to expect it. Home ownership was irrelevant for women.

Men working part-time and also looking for work were most likely to expect it.

In terms of occupation, women whose career job had been in a managerial position or who had never worked were least likely to anticipate a government dependent early retirement. The tendency to expect this tended to increase as the skill level of the occupation decreased, although the relationship was not perfect.

Amongst men the same observation could be made. The least likely were a larger group consisting of managers, professionals, associate professionals, trade related, and clerical staff were least likely. Most likely tended to be those whose full-time job was long ago.

7.2 Actual Government Financed Early Retirement

The men's model had reasonable explanatory power. It correctly predicted half of those in a government financed early retirement and 64 per cent of the men not in the group. However the women's model performed badly, correctly predicting nearly all the non-events, but only 15 per cent of the government financed early retirement group.

Few of the characteristics were related to the tendency to be in government financed early retirement. Naturally, those whose last full-time job was long ago were more likely than others.

Among men, those who were employees in their career job were more likely to be in this position. Men whose partner was working were less likely. Perhaps their partners have taken up employment, in response to their early retirement so as to ensure they do not need income support in retirement.

Among women, those in casual employment were more likely. Having a retired partner was border-line significant, and those with retired partners were more likely than others to be in state dependent, early retirement. Tertiary educated women were less likely and those who owned a home, either outright or still purchasing, were less likely.

8 Addressing FaCS' Research Objectives

In this section we briefly discuss each of FaCS' research objectives, in terms of whether they could be met with information extracted from the survey data and the limitations that should be attached to answers gleaned from the survey data.

1. What are current attitudes in respect to work and retirement?

Wallis' cross-tabulations provide a useful guide.

2. What factors lead to withdrawal from the labour market? To what extent is withdrawal forced or voluntary?

Many of the hypotheses within this objective would benefit from a comparison with younger people, for example 'mature age workers are more likely to drop out of the labour market than are younger workers'.

Furthermore, we are concerned that withdrawal from the labour market did not occur at the same moment in time for all respondents. Since the 1991-1993 recession, overall employment growth and a reduction in the unemployment rate have marked the Australian labour market. Much of the expansion in the labour market had taken place by 1997. Relative to the working age population there has been no significant employment growth since 1995 (Gregory, 2000). Nor did withdrawal occur at the same age.

3. Do factors leading to withdrawal from the labour market differ for individuals with a disability? Do labour force barriers differ for people with disabilities?

The survey data tell us if the individual had the disability, described in the survey, when they lost their job. But we can not tell whether the disability was on-going or caused at work. We do know if the job was lost because of sickness/disability.

There were 997 DSP recipients, 608 men and 389 women. All but 19 of the men and 9 of the women reported that they had a long-term disability. A further 9 men and 3 women reported they had a restrictive health condition. Among men who had a long-term disability and were in receipt of income support, 13 per cent received the age pension, 57 per cent DSP and 24 per cent Newstart Allowance. The similar percentages for women were 12 per cent, 40 per cent and 12 per cent. A further 15 per cent of women were in receipt of Widow Allowance or Widow Pension and 12 per cent in receipt of Parenting Payment or Partner Allowance.

Table 26: Disability Status by Customer and Sex

	Long-term disability	Restrictive health condition	n
Customers			
Women	50.3	6.9	1 880
Men	63.1	4.9	1 643
Non-customers			
Women	17.1	4.3	1 004
Men	18.0	4.6	1 001

Table 27: Age and Job Loss of Disabled Respondents

	Below Age Pension age	Work restricting	Lost job in last 10 years	n
Customers				
Women	87.7	83.9	49.6	1 075
Men	85.9	88.0	70.6	1 118
Non-customers				
Women	74.0	61.4	40.0	215
Men	82.7	51.3	52.2	226

3,036 respondents lost a job in the last ten years; 27 percent due to disability or sickness. Of those who reported being disabled and lost a job, 46 percent reported that they had lost it due to disability or sickness.

Of those who lost a job in the last ten years the proportions who lost the job due to a disability/sickness were; 47 per cent, 52 per cent, 28 per cent and 19 per cent for female customers, male customers, female non-customers and male non-customers respectively.

The comparable population figures were 31 per cent, 37 per cent, 10 per cent and 6 per cent respectively.

There were only 86 women and 118 men non-customers who reported on why they lost jobs and 533 women customers and 413 men. This is too few to provide us with a guide as to the events surrounding job loss for disabled workers.

4. What are people's workforce experiences after retirement or retrenchment? For those who have tried to enter the workforce what barriers have been encountered?

Firstly, it would have been better if comparison could be made with the experiences of younger Australians. Secondly, respondents were retrenched at different stages of the economic cycle, and at different ages.

A reasonable number of respondents, who had left a job they considered their last main job in the previous ten years, had been retrenched, that is 161 non-customers and 412 customers. Table 28 reports the age distribution and Table 29 reports the year of retrenchment, highlighting the divergence.

Similarly Table 30 and Table 31 report the age distribution and year of retirement.

Table 28: Age When retrenched by Customer and Sex

	Customer		Non-customer	
	Women	Men	Women	Men
Age when retrenched				
35-39 years	1.0	1.3	0	0.8
40-44 years	18.0	10.9	6.5	16.2
45-49 years	21.0	17.9	35.5	26.9
50-54 years	41.0	27.6	29.0	23.1
55-59 years	15.0	27.6	19.4	23.8
60-64 years	4.0	14.7	9.7	9.2
65-69 years	0	0	0	0
Total (n)	100	312	31	130

Table 29: Year of Retrenchment by Customer and Sex

	Customer		Non-customer	
	Women	Men	Women	Men
Year of retrenchment				
1991-1995	40.0	47.1	32.3	41.7
1996-1997	21.0	21.8	22.6	19.2
1997-1998	14.0	15.1	16.1	10.8
1998-1999	14.0	8.7	6.5	13.1
1999	6.0	5.5	12.9	5.4
2000	5.0	1.9	9.7	3.9
Total (n)	100	312	31	130

Table 30: Age of Retirement by Customer and Sex

	Customer		Non-customer	
	Women	Men	Women	Men
Age retired from job				
35-39 years	0	0	0	0
40-44 years	0	0	0	0
45-49 years	5.9	1.0	3.5	2.6
50-54 years	22.1	3.1	8.8	5.1
55-59 years	35.3	18.6	33.3	37.2
60-64 years	30.9	62.9	49.1	44.9
65-69 years	5.9	14.4	5.3	10.3
Total (n)	68	97	57	78

Table 31: Year of Retirement by Customer and Sex

	Customer		Non-customer	
	Women	Men	Women	Men
Year of retirement				
1991-1995	45.6	28.9	29.8	37.2
1996-1997	27.9	29.9	22.8	20.5
1997-1998	10.3	16.5	8.9	12.8
1998-1999	5.9	12.4	12.3	9.0
1999 (2 nd half)	5.9	8.3	10.5	7.7
2000 (1 st half)	4.4	4.1	15.8	12.8
Total (n)	68	97	57	78

5. What are critical factors in deciding not to work or to work reduced hours? When does planning for these decisions start and when are these decisions made?

This could be examined using data collected in the survey.

6. Are changes that people make to their financial circumstances dependent on their labour force circumstances?

This may be answered by comparison of expectations about how retirement will be funded and actual funding in retirement. However, it would have been more interesting if those who retired below retirement age had been asked about their expectations at the time they did retire. It would also be interesting to identify respondents who retired and used up their own financial resources, so as to rely on income support in retirement.

7. What characteristics are associated with successful and poor labour market outcomes or non-participation?

This question could be approached from a point in time perspective. But important unobserved differences must be acknowledged. Respondents have varying financial situations unrelated to labour market outcomes, make different choices in terms of investing that income and have varying degrees of commitment to a career.

Theoretically, labour market outcome will depend on a set of individual characteristics, including employability (human capital, work experience), perceived employability (age will be relevant here) and motivation to work (financial and non-financial), and a set of factors describing the labour market.. Financial motivation to work will be affected by current assets, number of dependents etcetera. However, each feeds into the other. For example, financial motivation to work (or assets) will be affected by past labour market outcomes and past labour market outcomes are important predictors of current labour market outcomes.

Simple-cross tabulations, as reported by Wallis, could answer many of the hypotheses. For example, Wallis' coverage of the attitudes to work and retirement in Section 5 of Research Report 3. Wallis has made comparisons by customer, for those below retirement age and working, those above retirement age and working, those not working and not retired and those retired. Their conclusion seems adequate, that is customers are no less likely than customers to enjoy work, feel less appreciated or be more desirous of early retirement, or would be any less likely to go on working after retirement age if they could.

8.1 Policy Suggestions From the Literature

Policy attempts in the European Union to reduce the pressure on the social security budget include the following (European Commission, 1997):

- Increasing the official age of retirement;
- Extending the contribution period required for full pension eligibility;
- Changing the reference salary on which the pension is based;

-
- Combating discrimination of older workers in the labour market;
 - Making partial retirement a real possibility;
 - Abolishing (in the Netherlands) a directive which allowed firms to dismiss older workers first in the event of redundancies (p 121); and
 - Tightening disability benefit rules.

Related recommendations in the literature:

- House of Representatives (2000: Recommendation 22, p xxvi) notes that making partial access to superannuation funds possible for those who are undertaking a phased retirement needs to be balanced with accompanying effective measures against coercion.
- Palmore et al (1985:16) recommends that ‘programs to reduce negative effects of retirement should concentrate on those retiring for poor health, they are the most vulnerable and most negatively affected group’.
- Carey (1999) recommends Australia increase education and investment in lifelong training.
- OECD (1999:4) recommends removal of disincentives for workers to take early retirement that exist in public pension systems, social programs and tax systems. The document also advocates enhancing the employability of older workers, providing incentives to work longer and changing the attitudes of firms towards hiring and retraining older workers.

Appendix A: Describing ‘Working-life’ Employment Status

For the purposes of this analysis, variables associated with working life employment status (such as occupation and employee) are intended to describe the individual’s income earning ability over her working life, rather than at a point in time. We sought to identify the job that best represented the individual’s career status. Questions seeking information on present and past work situations, such as whether the individual was working in a permanent, full-time job or had one in the past, appeared in Section A of the questionnaire. Questions pertaining to the individual’s occupation and tenure with their employer at the time of the survey appeared in Section C. Questions about the individual’s past employment were asked in Section D. Section D contains information about the individual’s last main job. This main job may not match the previous jobs discussed in Section A. For the purposes of this analysis we assume that it does.

We assume that full-time permanent employment has precedence over other forms of employment. Respondents were only asked about previous jobs if they had been working in those jobs in the past ten years. Henceforth, the past ten years is described as “recent past” and more than ten years ago is described as “long ago”.

Below we describe the set of rules used to determine the career occupation.

Rules for Determining Career Occupation

Use information about current job (from sections A and C of the survey)

- i) Individuals working in a full-time permanent job when surveyed.
- ii) Individuals working in a part-time permanent or casual job when surveyed, who had not previously worked in a full-time permanent position.
- iii) Individuals working in a part-time permanent or casual job when surveyed, who had worked in a full-time permanent position in the past. However, they reported that the present job was their main job but they had just cut back their hours.

Use information about last main job (from section D of the survey)

- iv) Individuals working in a part-time permanent or casual job when surveyed, who had a full-time permanent job in the recent past.
- v) Individuals not working when surveyed, who had a permanent full-time job in the recent past.
- vi) Individuals not working when surveyed, who had not worked in a permanent full-time job in the past, but had worked in a part-time or casual job in the recent past.

Do not use job information; code separately

- vii) Individuals, not working when surveyed, who had never worked in a full-time permanent job, but who had worked in a part-time or casual job long ago. Described as “part-time casual past”.
- viii) Individuals working in a part-time permanent or casual job when surveyed, who had worked in a full-time permanent job long ago. Described as “Part-time/casual, full-time past”.
- ix) Individuals not working when surveyed, who had worked in a full-time permanent job long ago. Described as “Full-time past”
- x) Individuals who had never worked. Described as ‘Never worked’.

Figure A. 1: Describing Employment Status

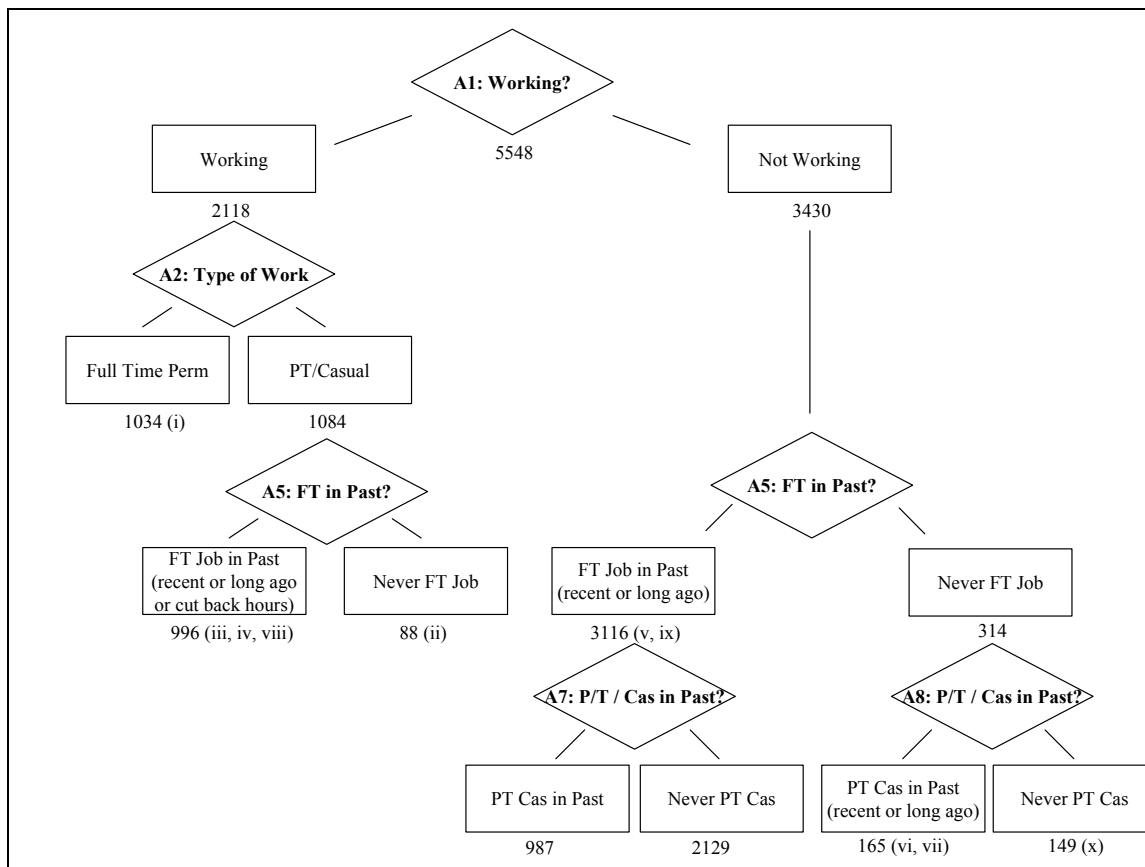


Figure A.1 describes the ‘mapping’ of the above decision rules onto the FACS Survey design. In the Figure, diamonds represent FACS Survey questions from Section A. Boxes are the possible responses to each question. Moving down a path of questions and responses, at the end of each path of interest there is a Roman numeral indicating which decision rules apply to that combination of responses. (Numbers refer to the sample size of each response.) For example, if a

person answers ‘I am working’ to A1, they move down the left hand path. If they then answer, ‘my type of work is full time permanent’, they come to the end of that path of interest¹⁴ and the (i) indicates that the first decision rule applies, we use their current job information to determine their occupation.

Figure A.1 shows that 149 people have never had a job, whether part time or casual or full time permanent. Table A. 1 breaks this group down by their stated current main activity (question A10). 131, or 88 per cent, of those who had never worked were women. All those people on home duties were women. All those on a pension were women. Most of the women on a pension were in receipt of Widow Allowance (12), 2 were on DSP, 1 on Parenting Payment Single and 2 on 2. 28/33 of the disabled were women.

Table A. 1: Describing the People Who Have Never Worked

Current Main Activity	n
Unemployed and looking for work	16
Disabled, can’t work	33
Retired	22
Semi-retired	4
On a pension	17
Carer for elderly or sick relative	4
Home duties	45
Student	2
Don’t need to work	2
Voluntary work	1
Other	3
Total (n)	149

People Unaccounted for with the Classification Rules

Following the above classification rules, 762 people were not accounted for (i.e. they were not asked Section D of the FACS Survey even though they had a previous job). The reasons for this are explained below.

Those who said they were not currently working (327 of the 762 people unaccounted for) were not asked Section D because their previous jobs were too long ago. Who were these people? 310 had had a permanent full-time job in the past and the remaining 17 had previously held a part-time or casual job. Three of those with a permanent full-time job in the past reported that they were looking for work. All of the 327 reported being retired ie question A10r5 = 1.

¹⁴ It is the end of a path because we do not have an interest in part-time or casual jobs that person may have had – the permanent full time job is to take precedence for this analysis.

Table A. 2: Describing Non-workers Unaccounted for in the Survey

Years since last main job	Permanent full-time	Part-time/casual
10-19 years	205	11
20+	100	6
Can't recall	5	0
Total (n)	310	17
Women	62%	100%
Below retirement age	38% of women and 22% of men	

The remaining 435 people unaccounted for, were currently working in part-time or casual employment and had a full-time permanent job in the past. 299 of them were women.

Table A. 3: Describing Workers Unaccounted for in the Survey

Time since last main job	D1a	D1b (fully retired*)
10-19 years	117	1
20+	51	1
Can't recall	5	1
In same job – just cut back hours	3	
Total (n)	176	3
Women	134	2

Note: * These 3 people are working – so according to Wallis filters they should not have been asked d1b.

The remaining 256 people of this ‘working’ group said they had been with their current employer (166 total, 129 women) or had been self-employed or business owners (90 total, 34 women) for 10 years or more (question C13). For these people their current job is the more correct to use. We use question C1 to determine self-employment / employee status (Noting that in a five cases, responses are not consistent between C1 and C13).

Appendix B: Regression Results

Table B. 1: Coefficient Estimates from Logit Regressions for Anticipated Early Retirement

Variable	Men		Women	
Intercept	-2.6606	*	-3.4550	*
Current paid employment status				
Full-time permanent job	0.8245	*	0.4637	
Part-time permanent job	0.1003		0.5911	**
Casual job	-0.043		0.0877	
Unemployed, looking for full-time permanent job	0.3885		0.1241	
Unemployed, looking for part-time or casual job	0.4925		0.0648	
Working full-time, looking for work	-0.2286		0.3817	
Working part-time, looking for work	-1.0083	*	0.3613	
Casual worker, looking for work	0.2829		-0.1885	
Partner employment status				
Partner works in permanent full-time job	0.1485		0.4433	
Partner disabled	-0.3999		-0.0248	
Partner retired	0.2677		0.3031	
Partner works in part-time or casual job	0.072		N/A	
Partner unemployed	0.356		-0.1102	
Children				
Youngest child < school age	-0.2286		N/A	
Youngest child school age	-0.2011		N/A	
Children	N/A		0.0221	
Centrelink customer	-0.029		-0.3332	
Occupation				
Professional	-0.0436		0.5507	*
Associate professional	0.4997	*	0.8385	*
Trade	-0.3872		0.2797	
Clerical – advanced and intermediate	0.0768		N/A	
Advanced clerical	N/A		0.5090	
Intermediate clerical	N/A		0.7019	*
Intermediate production	0.2096		0.6592	
Elementary clerical	0.6009		1.1285	*
Labourer	-0.3628		0.7435	
Don't know occupation	0.6899	**	0.6219	
Part-time casual job, full-time long ago	1.0014	*	0.2648	
Not working, full-time long ago	0.6153		0.3723	
Never worked	N/A		0.3587	
Employee	0.3924		-0.2702	
Age				
Age 45-49	1.2105	*	2.8613	*
Age 50-54	1.059	*	2.6308	*
Age 55-59	0.382	**	2.3761	*
Marital Status				
De-facto	0.0946		-0.4241	
Married	0.0551		-0.1545	
Separated/divorced	-0.0425		-0.5920	*
Widow(er)	0.3563		-0.7556	*
Education				
Some secondary education	-0.2201		0.1733	
School certificate	-0.1284		-0.2941	

Table B. 1: Coefficient Estimates from Logit Regressions for Anticipated Early Retirement (continued)

HSC	-0.0659		-0.0006	
Trade certificate	-0.1631		-0.2459	
TAFE	-0.0961		0.0412	
University	-0.2063		-0.1680	
Home Ownership				
Home owner	0.6975	*	0.3002	**
Home purchaser	0.6877	*	0.0397	
Country of Birth				
Overseas born	-0.1682		0.1213	
Born in NESB country	-0.164		-0.2976	
Disability Status				
Long-term disability	-0.168		0.2856	
Shorter-term disability	-0.754		0.4943	
Long-term disability hampers work	0.501	**	0.0194	
Shorter-term disability hampers work	1.4186	*	-0.2504	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 2: Coefficient Estimates from Logit Regressions for Actual Early Retirement

Variable	Women		Men	
Intercept	-0.3019		-1.1272	
Occupation				
Professional	0.0633		-0.5592	
Associate professional	-0.6012		-0.1015	
Trade	N/A		-0.4316	
Advanced clerical and trade	-0.6829		N/A	
Advanced and intermediate clerical	N/A		-0.0601	
Intermediate production	N/A		0.0059	
Intermediate production and clerical	-0.3553		N/A	
Labourer	0.9571		N/A	
Elementary clerical	0.1018		N/A	
Elementary clerical and labourer	N/A		-0.5235	
Career job in past	1.0029	**	1.3686	*
Never worked	0.0961		N/A	
Employee	0.3537		0.6107	
Marital Status				
Married or de-facto	-0.8783		-0.1986	
Separated/divorced	-0.5743		0.1877	
Widow(er)	-0.1344		-0.1003	
Education				
Some secondary	0.0188		0.4459	
School certificate	0.4016		1.0025	**
HSC	0.4237		0.1692	*
TAFE/Trade certificate	0.6727		N/A	
Trade certificate	N/A		0.8056	
TAFE	N/A		1.3786	*
University	-0.1754		1.4926	*
Home owner/purchaser	-0.5124		0.3149	
Country of birth				
Overseas born	-1.2677		-0.3256	
Born in NESB country	0.9206		0.0131	
Disability status				
Long-term disability	0.0264		0.1594	
Shorter-term disability	0.4770		1.0022	
Long-term disability hampers work	-0.0511		N/A	
Shorter-term disability hampers work	-0.6736		N/A	
Disability hampers work	N/A		-0.0255	
Partner employment status				
Partner works in full-time permanent job	0.3310		-0.5882	*
Partner retired	0.9681	*	0.2573	
Current paid employment status				
Full-time permanent job	-1.5572	**	-15.1089	
Part-time job	0.3869		0.1444	
Casual job	1.1109	*	0.3139	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 3: Coefficient Estimates from Logit Regressions for Anticipated Control Over Time of Retirement

Variable	Some control		Total control	
	Men	Women	Men	Women
Intercept	0.3525	1.2053	** -0.7461	-0.2682
Current paid employment status				
Full-time permanent job	0.9457	* 0.7976	* 0.7183	** 0.1175
Part-time permanent job	0.8076	* 0.8076	* 0.912	* 0.0293
Casual job	0.795	* 0.6647	* 1.0693	* -0.0464
Unemployed, looking for full-time permanent job	-0.0726	0.0295	-0.1501	-0.1581
Unemployed, looking for part-time or casual job	-0.1633	-0.0263	0.0588	-0.4304
Working full-time, looking for work	-0.0447	-0.4520	0.1106	-0.5582
Working part-time, looking for work	0.0497	-0.7106	* -0.1202	-0.5350
Casual worker, looking for work	-0.5478	** 0.0110	-0.6798	** 0.1954
Partner employment status				
Partner works in permanent full-time job	0.281	0.0432	0.1398	0.0689
Partner disabled	-0.5837	-0.2487	-0.4609	-0.0235
Partner retired	0.4248	-0.1441	0.5519	0.2771
Partner works in part-time or casual job	-0.5417	N/A	-0.5745	N/A
Partner unemployed	-0.3577	-0.0311	-0.8844	-0.0585
Children				
Youngest child < school age	-0.2221	N/A	-0.543	N/A
Youngest child school age	0.0888	N/A	-0.1545	N/A
Children	N/A	0.3841	* N/A	-0.1764
Centrelink customer	-0.2575	-0.3421	-0.0424	-0.2439
Occupation				
Professional	-0.5902	* 0.1533	-0.8673	* 0.1435
Associate professional	-0.1968	0.2833	-0.217	0.2718
Trade	-0.3555	-0.4367	-0.4823	** -0.5156
Clerical – advanced and intermediate	-0.5964	** N/A	-1.1524	* N/A
Advanced clerical	N/A	0.0917	N/A	0.1778
Intermediate clerical	N/A	-0.0838	N/A	-0.1097
Intermediate production	-0.672	* -0.3474	-0.7298	* -0.6529
Elementary clerical	-0.5162	-0.3894	-1.1132	* 0.0499
Labourer	-0.6988	* -0.4074	-1.0977	* -0.3374
Don't know occupation	-0.2476	-0.7453	-0.0672	-0.5553
Part-time casual job, full-time long ago	-0.9875	* -0.4816	-1.5091	* -0.3317
Not working, full-time long ago	-0.3507	0.0547	-0.7715	-0.0857
Never worked	N/A	0.3287	N/A	0.5753
Employee	-0.2036	0.0296	-0.1602	0.0909
Age				
Age 45-49	0.1836	-0.5348	0.1154	-0.0944
Age 50-54	-0.027	-0.5190	-0.1398	-0.3921
Age 55-59	0.2076	-0.4838	0.1188	-0.3588
Marital status				
De-facto	0.371	-0.1614	0.3669	0.2602
Married	-0.1817	0.2315	0.2016	0.6219
Separated/divorced	-0.2246	-0.2601	0.2261	0.2822
Widow(er)	-0.1108	-0.4987	0.0977	0.2330
Education				
Some secondary education	-0.2315	-0.1768	0.2569	-0.2686
School certificate	0.3117	-0.3082	0.0408	-0.2422

Table B. 3: Coefficient Estimates from Logit Regressions for Anticipated Control Over Time of Retirement (continued)

HSC	0.3913	-0.0662	0.0211	-0.5533	
Trade certificate	0.0554	-0.1788	0.2188	0.2978	
TAFE	0.4579	-0.1637	0.1265	-0.2904	
University	0.7456	* 0.4349	0.4992	-0.2292	
Home ownership					
Home owner	0.1455	-0.0704	-0.2231	-0.2327	
Home purchaser	0.0686	-0.2704	-0.5405	* -0.6225	**
Country of birth					
Overseas born	-0.6058	** 0.3020	-0.0436	-0.2484	
Born in NESB country	0.5233	-0.5674	0.1676	0.3308	
Disability status					
Long-term disability	-0.183	-0.4382	-0.6454	* -0.3408	
Shorter-term disability	1.0407	** 0.2861	-0.1285	-0.3669	
Long-term disability hampers work	-0.3405	-0.1794	-0.2274	-0.6505	*
Shorter-term disability hampers work	-1.0652	** -0.0616	-0.9548	0.0118	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 4: Coefficient Estimates from Logit Regressions for Anticipated Sources of Finance in Retirement: Men

Variable	Government support	Only Government Support	Lump-sum super	Pension	Investment	Spouse
Intercept	-0.1157	-2.3156	-0.8523	-1.4786	* -0.0147	-15.2483
Current paid employment status						
Full-time permanent job	-0.0451	-0.7064	0.7735	* 0.4593	0.2483	0.2130
Part-time permanent job	-0.1987	-1.0943	* 0.1889	0.4721	0.7262	** 0.7515
Casual job	0.1524	-0.3638	-0.2712	0.2622	0.9891	* 0.3536
Unemployed, looking for full-time permanent job	0.3573	0.0949	-0.3703	0.0535	0.5273	0.0283
Unemployed, looking for part-time or casual job	-0.2861	-0.2782	0.1956	0.2505	0.4950	0.2480
Working full-time, looking for work	0.0729	-0.5869	-0.1378	0.8878	* -0.0062	0.3563
Working part-time, looking for work	0.3067	1.0369	** -0.4130	-0.2043	0.3586	-0.1361
Casual worker, looking for work	0.4044	-0.0164	0.3503	-0.0312	-0.5253	0.2220
Partner employment status						
Partner works in permanent full-time job	-0.3995	* -0.4938	** 0.0975	0.3619	* 0.3821	* 0.7653 *
Partner disabled	-0.3438	0.3776	-0.0405	-1.6682	-0.6907	0.5857
Partner retired	-0.7417	** 0.0093	0.2581	0.3394	0.0380	-0.2721
Partner works in part-time or casual job	-0.0516	-0.4208	0.7876	** -0.4239	0.2043	0.6779
Partner unemployed	-0.6675	-0.7874	** -0.2036	0.8964	* 0.3018	0.5894
Children						
Youngest child < school age	0.3601	-0.4135	-0.2161	-0.1377	-0.2930	1.5231 *
Youngest child school age	0.1837	0.2600	-0.1453	-0.3532	-0.0733	0.1937
Centrelink customer	1.3848	1.5768	* -0.4068	-0.7673	* -1.1680	* -0.5510
Occupation						
Professional	0.2743	0.1225	0.3082	0.1920	-0.4214	** 0.4097
Associate professional	0.2131	-0.1443	0.2245	0.1248	-0.3359	-0.0699
Trade	0.8654	* 0.4392	0.2554	-0.3320	-0.7856	* 0.2509
Clerical – advanced and intermediate	0.5000	0.4871	0.0140	0.3392	-0.5423	** 0.1202
Intermediate production	0.9837	* 0.7038	** 0.1147	-0.2052	-0.9155	* 0.3407
Elementary clerical	0.3767	0.8677	** 0.1885	-0.2003	-1.2460	* -0.1251
Labourer	1.6434	1.4587	* -0.2896	-0.1463	-1.0727	* 0.3646
Don't know occupation	0.4459	0.6065	-0.3522	0.0504	-0.2699	0.3697
Part-time casual job, full-time long ago	2.0283	* 1.4574	* -1.0399	-0.0869	-1.0370	* 0.0204
Not working, full-time long ago	1.1738	* 1.3719	* -0.7725	-1.5283	** -1.1728	* -0.8314
Employee	0.2077	0.3040	0.3296	0.0271	-0.4992	* 0.0904

**Table B. 4: Coefficient Estimates from Logit Regressions for Anticipated Sources of Finance in Retirement:
Men (continued)**

Age							
Age 45-49	-1.3421	-0.1461	0.4230	* -0.3901	** 0.1561	-0.1071	
Age 50-54	-1.0609	-0.1113	0.3182	-0.3011	0.0002	0.0643	
Age 55-59	-0.7749	* 0.4486	0.0159	-0.6531	* -0.2251	0.2793	
Marital status							
De-facto	1.2382	* 1.3228	* -0.3610	-0.1192	-0.8347	* 13.0201	
Married	0.5829	* 0.6250	* -0.3321	0.4299	-0.4953	** 12.8117	
Separated/divorced	0.6751	* 0.5909	* -0.5914	* 0.3515	-0.3883	11.1261	
Widow(er)	1.0002	1.3086	* -0.5271	-0.5213	0.1292	-0.1503	
Education							
Some secondary education	0.2759	-0.2767	0.1411	0.1962	-0.1125	-0.4353	
School certificate	0.4352	-0.4665	0.3210	0.3492	0.0158	-0.5098	
HSC	0.0194	-0.7502	** 0.4265	0.6093	0.0835	-0.6968	
Trade certificate	0.1712	-1.0165	* 0.3345	0.6073	0.1508	-0.1623	
TAFE	-0.0407	-0.5992	0.0971	0.5804	0.4626	-0.5072	
University	-0.1909	-0.8762	* 0.3614	0.3362	0.5339	-0.1941	
Home ownership							
Home owner	-0.6625	-0.4737	* -0.100	0.2820	0.9280	* -0.1224	
Home purchaser	-0.2569	-0.2071	0.0401	0.0867	0.2837	-0.0001	
Country of birth							
Overseas born	-0.2346	-1.1747	** -1.003	-0.0430	0.0668	0.0326	
Born in NESB country	0.3346	1.4992	* -0.0974	-0.2250	-0.2018	-0.0233	
Disability status							
Long-term disability	0.5329	0.1676	-0.3082	0.1079	-0.1994	0.3132	
Shorter-term disability	0.1759	-0.1172	-0.0652	0.1981	0.5776	0.6231	
Long-term disability hampers work	-0.2893	0.2727	-0.0072	-0.4160	-0.0264	-0.0716	
Shorter-term disability hampers work	-0.022	-0.3236	-0.6603	0.4128	0.1459	0.5102	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 5: Coefficient Estimates from Logit Regressions for Anticipated Sources of Finance in Retirement: Women

Variable	Government support	Only Government Support	Lump-sum super	Pension	Investment	Spouse	
Intercept	1.3319	-0.8570	-2.3868	* -2.4894	-0.5106	-4.4378 *	
Current paid employment status							
Full-time permanent job	-0.2263	-1.3712	* 2.0967	* 0.8905	** 0.4430	0.1100	
Part-time permanent job	-0.4453	-0.9173	* 1.9592	* 0.8883	** 0.6499	0.4875	
Casual job	-0.4795	-0.2514	1.0804	* 0.9946	* 0.4632	-0.1120	
Unemployed, looking for full-time permanent job	-0.5284	0.2736	0.5125	0.5137	0.2877	-0.8065	
Unemployed, looking for part-time or casual job	0.3680	0.1902	0.3936	-0.0549	0.8192	** 0.4300	
Working full-time, looking for work	0.4585	-12.5617	-0.5122	0.7154	-0.0090	0.2065	
Working part-time, looking for work	0.4861	0.8289	* -0.8366	* 0.0185	0.1004	-0.5366	
Casual worker, looking for work	0.8518	* 0.5376	** -0.6864	** -0.1040	0.1379	-0.2217	
Partner employment status							
Partner works in permanent full-time job	-0.8240	* -1.2711	* 0.2283	0.5741	1.0980	* 0.7232	**
Partner disabled	1.3675	* -0.6619	-0.1740	0.2986	1.1122	* 0.6367	
Partner retired	0.5745	-0.9991	** 0.4918	0.8500	0.9938	* 0.8256	**
Partner unemployed	0.2434	-1.0904	** 0.0196	0.5825	0.0202	1.2317	*
Children	0.2130	-0.0357	0.2525	-0.0225	0.3857	** 0.3079	
Centrelink customer	1.0254	* 1.2504	* -0.8558	* -0.7572	* -1.3764	* -0.5090	
Occupation							
Professional	0.5659	** 0.2926	0.7479	* -0.1083	-0.8163	* 0.7303	*
Associate professional	0.9300	* 0.3035	0.7294	* -0.5495	-0.9979	* -0.1967	
Trade	0.6309	0.3884	0.2006	0.0743	-1.0712	* 0.5049	
Advanced clerical	0.6021	-0.2306	0.2140	-0.0460	-0.8365	* 0.8955	**
Intermediate clerical	0.7290	* 0.2568	0.9067	* -0.1252	-0.9526	* 0.7077	**
Intermediate production	2.1678	* 0.3839	0.5093	-0.3878	-2.0912	* 0.6207	
Elementary clerical	0.7139	** 0.2573	0.6658	* -0.6976	-1.1406	* 0.9319	*
Labourer	1.0497	* 0.4002	0.9517	* -0.3437	-1.2704	* 0.2328	
Don't know occupation	0.1258	0.3679	0.5336	-1.0018	-0.9090	** 0.4871	
Part-time casual job, full-time long ago	1.0376	* 0.3922	0.1763	-0.3096	-1.0751	* 0.8194	**
Not working, full-time long ago	0.4387	0.0905	0.2437	0.1374	-0.5746	1.7009	*
Never worked	0.4473	0.8544	0.6615	-13.6276	-0.8006	-12.2052	
Employee	0.2690	-0.1681	0.0046	0.0052	-1.3764	* 0.3562	
Age							
Age 45-49	-1.1003	* -0.7745	* 0.6162	** 0.6957	** -0.5541	** -0.0214	

Table B. 5: Coefficient Estimates from Logit Regressions for Anticipated Sources of Finance in Retirement:**Women (continued)**

Age 50-54	-0.7650	*	-0.5007	0.5439	0.4344	-0.5932	**	-0.3359		
Age 55-59	-0.4424		-0.4222	0.3513	0.4036	-0.2521		-0.4828		
Marital status										
De-facto	0.3743		1.3488	*	-0.6491	0.2067		-0.6793	2.8567	*
Married	-0.3950		0.4305		-0.5741	-0.1252		-0.4193	3.4630	*
Separated/divorced	0.0141		0.2466		-0.1787	0.1755		0.1860	1.1051	
Widow(er)	-0.6079		0.1438		-0.6012	0.2488		0.9316	0.9957	*
Education										
Some secondary education	-0.4266		0.3677		-0.0576	0.0270		-0.1133	-0.9485	
School certificate	-0.0875		-0.0583		-0.1682	0.2990		0.1722	-0.2547	
HSC	-0.3861		-0.3621		0.3261	0.0058		0.3719	-0.4834	
Trade certificate	-0.5099		-1.9167		0.0864	0.9230		-0.5383	0.2647	
TAFE	-0.8108		-0.2295		0.2157	0.4131		0.3375	-0.7011	
University	-0.8574		-0.6377		0.3772	0.7630		0.8073	-0.5357	**
Home ownership										
Home owner	-0.0381		0.0203		-0.2233	-0.1243		0.8019	-0.2361	*
Home purchaser	0.2824		0.4345		-0.3351	-0.3539		0.1871	-0.0658	
Country of birth										
Overseas born	0.1984		-0.3806		-0.2247	-0.3639		0.2935	0.3633	**
Born in NESB country	0.1268		0.5900		-0.1619	0.5060		-0.1375	-0.8467	
Disability status										
Long-term disability	0.2497		0.1985		-0.2574	0.1905		-0.2687	0.3506	
Shorter-term disability	0.6514		0.2633		-0.2121	-0.5998		-0.1572	-0.0001	
Long-term disability hampers work	-0.0381		0.0091		0.1914	-0.3683		0.4221	-0.1613	
Shorter-term disability hampers work	-0.1903		-0.3481		0.1103	0.7675		0.6979	0.0750	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 6: Coefficient Estimates from Logit Regressions for Actual Sources of Finance in Retirement: Men

Variable	Government support	Lump-sum super	Pension	Investment
Intercept	5.7242 *	-3.3184 *	-36.8432	-1.7891 **
Occupation				
Professional	0.0501	-0.00895	10.3878	0.0304
Associate professional	1.2256 **	0.4616	9.9788	-0.5985
Trade	2.3719 *	-0.0759	9.4611	-0.9751 **
Advanced and intermediate clerical	0.6383	0.4854	11.312	-0.2827
Intermediate production	1.3767 **	-0.2001	9.7917	-1.5476 *
Elementary clerical and labourer	1.4664 *	0.516	0.094	-0.295
Career job in past	0.7994	0.5855	13.1124	-0.8571
Employee	0.3242	0.5561	2.5332	* -0.353
Marital status				
Married or de-facto	0.7915	0.3108	10.4714	0.014
Separated/divorced	-1.5387 **	0.6429	0.8043	0.5384
Widower	-0.3368	-0.5829	1.372	0.1439
Education				
Some secondary	-1.1556	-0.5818	-1.0316	0.4957
School certificate	-1.3396	-0.8145	-0.8197	1.2722 *
HSC	-2.1443 *	-0.381	0.403	1.4295 *
Trade certificate	-1.4313 **	-0.6823	-1.6936	1.3291 *
TAFE	-1.5069 **	-0.4158	0.2788	0.9425
University	-2.854 *	0.1931	0.6059	1.8768 *
Home owner / purchaser	-4.7387 *	1.8294 *	10.648	1.5269 *
Country of birth				
Overseas born	-0.9369	-0.6742	0.8983	-0.5916
Born in NESB country	1.3152	0.2054	-0.1347	-0.0068
Disability status				
Long-term disability	0.1735	0.7498 **	0.0973	-0.5682
Shorter-term disability	-0.4701	0.1889	-10.7751	-0.1614
Disability hampers work	0.7897	-0.5516	-0.5914	0.1863
Partner employment status				
Partner works in full-time permanent job	-1.9485 *	0.2246	-0.0203	0.4265
Partner retired	0.2669	0.7276 *	1.1058	-0.0748
Current paid employment status				
Full-time permanent job	-3.7651 *	N/A	N/A	N/A
Part-time job	-1.24 **	0.4327	-10.6443	0.6058
Casual job	0.0538	-0.2719	1.6821	** -1.3264 *

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 7: Coefficient Estimates from Logit Regressions for Actual Sources of Finance in Retirement: Women

Variable	Government support	Lump-sum super	Pension	Investment	
Intercept	1.9636 **	-2.011 **	-9.2438	-1.3213	
Occupation					
Professional	-0.9518	0.8227	-2.4269	-1.2943	**
Associate professional	0.2319	0.4051	-12.3418	-1.5142	*
Advanced clerical and trade	-0.0286	0.4978	-12.0583	-0.5422	
Intermediate production and clerical	0.5527	0.178	-2.3067	-1.1661	**
Labourer	-0.0165	-0.1318	-11.3497	-1.5126	**
Elementary clerical	0.5362	0.6631	-11.946	-1.1771	
Career job in past	1.2666 *	-0.6086	-2.0534	-1.6311	*
Never worked	-0.5863	-0.1406	-12.1022	-1.344	**
Employee	1.7137 *	-0.0303	-0.3136	-0.5034	
Marital status					
Married or de-facto	-0.1546	-0.0646	-11.9921	-1.0931	**
Separated/divorced	2.0742 *	0.0709	-0.9808	-1.0287	
Widow	-0.1266	0.3351	-1.6645	-0.275	
Education					
Some secondary	-0.5743	-0.2137	10.117	0.9262	**
School certificate	-1.8745 *	0.2187	9.5982	1.6196	*
HSC	-1.7752 *	0.00609	10.2827	1.7723	*
TAFE/Trade certificate	-1.9132 *	0.6302	10.4292	1.5612	*
University	-3.3613	1.1143	11.7273	2.1548	*
Home owner / purchaser	-1.687 *	0.4685	-0.8698	2.052	*
Country of birth					
Overseas born	-0.8447	-0.0554	-10.2012	0.9914	
Born in NESB country	1.4063 **	-0.4019	9.4566	-1.3514	**
Disability status					
Long-term disability	0.8157 **	0.3072	-10.4571	0.2739	
Shorter-term disability	-0.0243	0.00725	2.9888	* -0.3119	
Long-term disability hampers work	0.1623	-1.2159 *	10.3155	-0.6854	
Shorter-term disability hampers work	0.6151	0.3779	-13.5845	0.3444	
Partner employment status					
Partner works in full-time permanent job	-1.7068 *	-0.1492	0.4263	0.9807	*
Partner retired	0.5766	-0.1275	10.4569	0.474	
Current paid employment status					
Full-time permanent job	-2.4949 *	N/A	N/A	N/A	
Part-time job	0.2104	-0.5803	-11.2582	-0.7991	**
Casual job	1.3655 *	-0.4089	-9.6242	-0.6159	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 8: Coefficient Estimates from Logit Regressions for Anticipated State Dependent Early Retirement

Variable	Men		Women	
Intercept	-3.7362	*	-3.9806	*
Current paid employment status				
Full-time permanent job	0.0818		0.5422	
Part-time permanent job	-0.1545		0.4639	
Casual job	-0.2625		-0.0779	
Unemployed, looking for full-time permanent job	0.2537		-0.2072	
Unemployed, looking for part-time or casual job	0.2100		0.1345	
Working full-time, looking for work	-0.3170		0.3328	
Working part-time, looking for work	-1.3234	**	0.5528	
Casual worker, looking for work	0.4777		0.0664	
Partner employment status				
Partner works in permanent full-time job	-0.0111		-0.0012	
Partner disabled	-0.7227		0.6466	
Partner retired	-0.1793		0.6474	
Partner works in part-time or casual job	0.1677		0.2649	
Partner unemployed	0.1700		-0.2667	
Children				
Youngest child < school age	-0.2448		N/A	
Youngest child school age	0.0717		N/A	
Children	N/A			
Centrelink customer	0.6142	**	0.2920	
Occupation				
Professional	0.4314		0.9086	*
Associate professional	0.7532	*	1.4981	*
Trade	0.1791		0.8520	
Clerical – advanced and intermediate	0.2306		N/A	
Advanced clerical	N/A		1.1053	*
Intermediate clerical	N/A		1.0263	*
Intermediate production	1.0164	*	1.7837	*
Elementary clerical	0.8417	**	1.3780	*
Labourer	0.7172	**	1.3588	*
Don't know occupation	0.9051	**	1.3253	*
Part-time casual job, full-time long ago	1.8758	*	1.0948	*
Not working, full-time long ago	1.3614	*	1.0417	**
Never worked	N/A		1.1740	
Employee	0.3624		0.1573	
Age				
Age 45-49	0.5499	*	1.9281	*
Age 50-54	0.4627	**	1.7182	*
Age 55-59	0.1203		1.7007	*
Marital status				
De-facto	0.0873		-0.3232	
Married	0.1841		-0.6704	
Separated/divorced	0.1685		-0.4772	**
Widow(er)	1.0133		-0.9393	*
Education				
Some secondary education	-0.0032		-0.0245	
School certificate	0.2926		-0.1024	
HSC	0.2270		-0.1600	

Table B. 8: Coefficient Estimates from Logit Regressions for Anticipated State Dependent Early Retirement (continued)

Trade certificate	0.1485		-0.1700	
TAFE	-0.4765		-0.3694	
University	-0.2295		-0.1162	
Home ownership				
Home owner	0.4368	*	0.2876	
Home purchaser	0.5332	*	0.2207	
Country of birth				
Overseas born	0.0063		-0.0974	
Born in NESB country	-0.0978		0.2196	
Disability status				
Long-term disability	0.2207		0.2003	
Shorter-term disability	-0.6748		0.7987	**
Long-term disability hampers work	0.1202		0.0394	
Shorter-term disability hampers work	1.0521		-0.5775	

Note: * Significant at the 5% level
 ** Significant at the 10% level

Table B. 9: Coefficient Estimates from Logit Regressions for Actual State Dependent Early Retirement

Variable	Women	Men	
Intercept	-0.1221	-1.334	
Occupation			
Professional	-0.5874	-0.2868	
Associate professional	-0.7314	0.3148	
Trade	N/A	0.3551	
Advanced clerical and trade	-0.9567	N/A	
Advanced and intermediate clerical	N/A	0.2009	
Intermediate production	N/A	0.8054	
Intermediate production and clerical	-0.8175	N/A	
Labourer	0.167	N/A	
Elementary clerical	-0.2622	N/A	
Elementary clerical and labourer	N/A	0.1048	
Career job in past	0.6196	1.3451	*
Never worked	-0.1518	N/A	
Employee	0.6912	0.6028	**
Marital status			
Married or de-facto	-0.6755	0.1976	
Separated/divorced	0.0101	-0.2250	
Widow(er)	-0.0626	-0.2929	
Education			
Some secondary	-0.0481	0.1340	
School certificate	-0.1085	0.5258	
HSC	-0.285	0.3082	
TAFE/Trade certificate	-0.1845	N/A	
Trade certificate	N/A	0.3256	
TAFE	N/A	0.8073	
University	-1.3851	0.0395	*
Home owner / purchaser	-0.7427	-0.4772	*
Country of birth			
Overseas born	-0.9195	-0.4059	
Born in NESB country	0.7604	0.2704	
Disability status			
Long-term disability	-0.0748	0.2424	
Shorter-term disability	0.4452	0.7446	
Long-term disability hampers work	0.3732	N/A	
Shorter-term disability hampers work	-0.5237	N/A	
Disability hampers work	N/A	0.2061	
Partner employment status			
Partner works in full-time permanent job	-0.6715	-1.4802	*
Partner retired	0.6488	0.0970	
Current paid employment status			
Full-time permanent job	-1.1549	-13.9916	
Part-time job	0.2054	-0.9422	
Casual job	1.4101	0.2302	

Note: * Significant at the 5% level
 ** Significant at the 10% level

For the Annex Tables N/A indicates that there were no observations in these categories.

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