Employment retention and advancement of disadvantaged jobseekers

Rosanna Scutella[*] and Leanne Ellis[*#]

* Brotherhood of St Laurence and
# Melbourne Institute of Applied Economic and Social Research

Abstract

Little is known in Australia as to whether the types of jobs that disadvantaged jobseekers are encouraged to enter do actually provide the basis for a 'successful' transition into the labour market. At the very least, this 'successful' transition would consist of being able to retain employment. Ideally, it would then lead to career advancement and wage progression. However, there is evidence suggesting that particularly vulnerable groups of jobseekers find it difficult to retain employment and cycle between joblessness and precarious employment. This study seeks to add to the Australian literature on the dynamics of unemployment and low-paid employment by undertaking an analysis of the long-term employment outcomes of particular groups of jobseekers in Australia. We will use the Household Income and Labour Dynamics in Australia (HILDA) survey to investigate whether entering low-paid employment improves particular groups of jobseekers future employment prospects. Aggregate figures provide at least circumstantial evidence of a 'low-pay no-pay' cycle in the Australian labour market. Further analysis examines the dynamics of this relationship further. We will also examine the use of Employment Retention and Advancement programmes in improving long term employment outcomes of the low-skilled in Australia.

1 Introduction

Long-term joblessness is a leading determinant of poverty and social exclusion. To combat long term joblessness and increase overall workforce participation the Australian federal government has adopted a 'work first' approach to welfare reform over the years. This approach focuses on getting people off government income support and into employment as quickly as possible based on the assumption that even if a job is temporary, the job holder will learn valuable on-the-job skills and their initial job will act as a stepping stone to further employment opportunities.

However, little is known in Australia as to whether the types of jobs that disadvantaged jobseekers are encouraged to enter do actually provide the basis for a 'successful' transition into the labour market. At the very least, this 'successful' transition would consist of being able to retain employment. Ideally, it would then lead to career advancement and wage progression. However, there is evidence suggesting that particularly vulnerable groups of jobseekers find it difficult to retain employment and cycle between joblessness and precarious employment (Dunlop 2002); (Productivity Commission 2006); (Richardson 2003). Evidence from the United Kingdom also suggests that low-paid low-skilled employment, like unemployment, can lead to similar 'scarring' effects on future employment opportunities, as these jobs allow skills to deteriorate and act as signals to prospective employers of low future productivity (Stewart 2007).

In response to such problems, 'Employment Retention and Advancement' (ERA) programmes have been implemented in countries such as the UK and the US that provide in-work support and training for disadvantaged jobseekers re-entering the workforce after a prolonged jobless period (see Hall et al (2005) for the UK and Scrivener et al (2005) for an example of a US program). These programmes are designed to improve longer term prospects of the unemployed and low-paid by providing personal support that continues into the period following entry to work, encouraging training and skills development to improve opportunities for career advancement and wage progression. These programmes therefore have the potential to improve the human capital of workers at the lower end of the labour market consequently reducing the risk of poverty and social exclusion caused by lack of employment over the longer term.

There is currently no such targeted support available for vulnerable low-paid workers in Australia. The primary labour market assistance mechanism that is in place, the Job Network, focuses on short-term outcomes and emphasises rapid movement into any job available, providing no ongoing support to facilitate career advancement or skill development once individuals exit the income support system.

This study seeks to fill part of the gap on research in this area by examining the evidence on whether employment retention and advancement is a problem for Australian jobseekers. In particular we examine whether there is evidence to suggest that groups of jobseekers find it difficult to retain employment and cycle between joblessness and precarious employment. We will use the Household Income and Labour Dynamics in Australia (HILDA) survey to investigate whether entering low-paid employment improves particular groups of jobseekers future employment prospects. Finally we review the effectiveness of Employment Retention and Advancement (ERA) programmes in the US and UK and determine relevant lessons for Australia.

2 Employment retention and advancement for disadvantaged jobseekers: prior evidence

International context

A longitudinal study conducted by Saunders (2005. p21- 25), related to mobility in Canada indicated 47% of those in low paid work in 1996 remained so in 2001. The study concluded:

- Men experience a 73% chance of advancement whilst women were identified as only experiencing a 28% chance of advancing; to be noted only women aged between 25- 29 years experience any career advancement.
- Young workers (16-24) had a high incidence of low pay, but also a high probability (70%) of mobility.
- People who were low paid in 1996 with a university degree had an 80% greater chance of advancement that those with no degree 56% or with those with high school diploma or less 46%.
- Workers in a union had a 68% greater chance of mobility, compared to 46% for non- union members.
- Recent immigrants, especially those who are from visible minorities had a lower rate of advancement
- As were, lone mothers, unattached individuals and persons with a disability.
- There was also evidence of a high concentration of low pay among Aboriginal people.

The low-paid were identified as tending to have more precarious work arrangements, with less access to employer sponsored training, and relatively low union coverage. About half of people who were low-paid in 1996 had failed to escape low pay five years later. Mobility out of low pay is particularly low for women and for the less-educated.

In summary, about half of workers who were low paid remain so five years later, with particularly low mobility out of low pay identified to be difficult for women and for young people. Moreover, the ability to move up has not improved much over time for most demographic groups. Saunders concluded that moving out of low earnings is not necessarily a permanent state: one-quarter of workers who escaped low earnings after four years fell back into low earnings within the following four years.

In Canada, the UK, the US Australia and New Zealand, average education levels have been increasing over the past two decades. So too has the proportion of the workforce that has completed secondary schooling and obtained some post-school qualification. Nonetheless, in all of these countries inequality in the distribution of earnings has risen, the real pay of low wage earners has fallen and, at least for the US and the UK, mobility from low to higher wages has fallen. These trends have been strongest in the US, the country that has the highest levels of formal education in the world. Over one third of low wage workers in those two countries have post-school education: demand has not arisen to meet their supply of skills. These macro facts make it difficult to argue that the solution to inequality in earnings and continuing low wage employment is to be found in raising average levels of education/skills. One concept that can explain this combination of rising average levels of education, a reduction in the size of the tail of low education, and rising earnings inequality is related to the emergence of credentialism (Richardson et.al, 2002 p.64).

In relation to low pay and churning, demographic characteristics of the UK ERA study (2002, pp 17 - 18) found groups that had a greater likehood of experience low paid employment situations were:
- Most participants were single or no longer married, although 22% of ND25+ of ND25+ participants were living with a partner.
- Three quarters of the ND25+ group were male.
- Approx half of the NDLP and WYC groups reported dependant children, whilst 16% of the ND25+ group had dependant children.
- Educational attainment of the entire group was low, with 56% of individuals had achieved minimum academic qualifications or vocational skills. A further 18% had no qualification and a few had attained higher- level qualifications

Work histories of participants fell into 3 main categories. One was of 'female returners' who had taken an extended period of time out of the labour force to have children and were re- entering the work force, factors such as the duration and nature of work experience previous to exit, how long they

remained outside the labour market and whether they had worked part time during that period, influenced the type of work they were able to subsequently obtain. The second group identified were 'manual workers' which were predominately men, mostly in BD25+ group and was characterized by a period of stable manual employment, often with a long tenure at one company followed by a redundancy and break in stable employment. This group was also characterized as experiencing more temporary and casual work opportunities.

The third group identified was located within the 'service sector', which were predominately women, without children or with children and who had continued working after having children. This group contained both women that were employed in unskilled work, such as retail, call centres and production work and those from white collar profession, mostly from administration backgrounds.

According to the ERA report men who had unstable work histories within the manual labour industry appeared to struggle the most with employment retention, with participants sitting a weakness in the job market and predominance of temporary contract work as the significant reasons for the churning.

The experience of churning for lone parents identified by the ERA report (p.3) also highlighted churning to occur due to child care responsibilities and care arrangements. The significance of balance of work and family responsibilities and cost of travel was also featured. Lone parents that had entered the program working part time demonstrated steady work histories and retention was viewed as not an issue for this group, though this group sited challenges arising in advancement, including lack of time for training or looking for a better job.

Stewart and Swaffield (1999) suggest being low paid in one period may in itself increase the probability of being low paid in the next period, even relative to another individual with identical characteristics who was not low paid in the first period. The author's debate employers may view low paid employment with another firm as an indicator of an individuals low productivity and be discouraged from making a job offer. Employers, they add, may also treat holding a low paid job as a signal of a high turnover propensity. The authors also examined the 'supply side' of persistent low paid employment, arguing low paid employment reduces subsequent human capital accumulation (or causing a depreciation of human capital not being utilised), therefore keeping the individual's productivity low and reducing the probability of rising out of low pay in the future. In addition, the authors noted, a spell of low paid employment may influence an individual's perception of their market value and discourage them from applying for better jobs. The study concluded that being low paid may alter workers preferences or motivations substantially, so that they would remain likely to stay in the low paid segment of the labour market.

A U.S research study conducted by Chu, Schochet and Rangarajan (1998), which examined the employment patterns of welfare recipients who secure employment and the factors contributing to job loss, concluded that:
- A large proportion of welfare recipients secured employment in unstable, entry level jobs that provide few fringe benefits such as formal child- care and health care, Varying schedules or employment in evening or night shift work have less availability to public transportation and formal child care. Fluctuating shifts and non- standard shifts and part time work were also associated with high turn over.
- The median employment spell for the study was estimated to be 5 months. The study found the first four to six months after job start is the critical period which workers are most likely to lose their jobs.
- Between 35 to 45 percent of participants reported leaving initial jobs because they were laid off, 10 to 15 percent left because of family reasons, the remaining consisted of a combination of job related factors and personal reasons. Personal factors such as child care, difficulties with transportation, lack of family support and health limitations were sited as significant reasons for job loss.

- A individual who simultaneously works part time and receive partial benefits were found to have considerably shorter employment spells compared with people who obtain a job as they exit welfare or just before they exit welfare. However, how long a person received benefits prior to job start was found to not itself affect the duration of employment spells.
- Most individual characteristics, such as education levels attained or skill levels acquired and local characteristics have only a small effect on employment spell lengths. Supplemental support characteristics, such as child care and accessibility to public transport were identified as having a stronger impact on spell lengths. Education and skills levels, age groups of participants had a strong correlation to whether a person obtains a job they did not deem relevant to length of employment held.
- Job characteristics at the start of the employment spell were strongly associated with the duration of employment spells. People whose jobs provided fringe benefits had longer employment spells than those that jobs did not. Spell durations were typically longer for women whose starting hourly rate was higher than $8.00 per hour.

Differentials in labour markets across countries can explain differing results in job mobility and retention. Countries with highly regulated labour markets and relatively low levels of employment protection (eg, the US and UK) might be expected to have higher levels of wage mobility than countries with less regulated labour markets. In fact this is not so. The US does have relatively high levels of job mobility, and low wage workers most commonly have to change jobs in order to obtain a wage rise. But the US nonetheless has lower levels of wage mobility than do the more regulated European countries. One reason for this is that US firms invest less than their European counterparts in skills development of their workers on the job.

The US and the UK also have relatively high levels of inequality in pay. The ability of employers to pay low wages is probably one reason why US firms find it profitable to employ workers who have continuing low productivity. A number of the European countries place a strong emphasis on the provision of structured pathways from initial low wage jobs into better paying jobs, for youth. They also have more generous welfare arrangements for people who struggle to find adequately paid employment. For these and other reasons, people are less likely to get stuck in continuing low wage employment than they are in the US and UK.

It should be noted that the relatively low levels of upward wage mobility in the US occur in a country that has the highest average levels of formal education in the world. More education is not necessarily the answer to increasing wage mobility. It matters who gets this education (the US does relatively well for the more able, and relatively badly for the less able). The role of firms in providing skills development is also important, as are institutional structures to encourage pathways to better jobs (Richardson and Miller-Lewis, 2002).

The industries in which low waged jobs were identified to cluster were found to be similar across European countries. Richardson and Miller-Lewis (2002) found those employed in retail, hospitality, personal and business services were identified to contain the most amounts of low waged jobs. Firms in recreation, mining and personal services industries were found to provide virtually no increase in wages based on tenure in the firm in the United States. There was evidence found that some firms have a high staff turn over, low wage policy which discourages both firm and worker form investing in skills related to the job. In deed high turnover industries/ firms are likely to provide poor opportunities for upward wage mobility. Reasons identified for this occurrence include, high turnover discourages investment in skills. Small firms in the private sector were found to be systematically linked with low wage propensities for wage gains for their low waged workers.

The conditions that were identified to be conducive to wage growth include employment in large, profitable, low turn over firms that operate in industries other than retail, hospitality or personal services sectors. Public sector employment is in most cases a relatively high wage employer of low skilled people and provides relatively large amounts of on the job training (Richardson, 2002 p.68).

Australian Context

Australian studies on employment and low-paid work dynamics are more limited than international studies due to limitations in the availability of longitudinal data on employment transitions. The studies that have been conducted are either in relation to patterns in the mid 1990s (using the longitudinal Survey of Employment and Unemployment Patterns) or make use of the longitudinal aspect of the ABS's Labour Force Survey, and are thus only observe individuals for short periods of time. The findings of these studies are now discussed further.

In examination of labour market trends in Australia ABS (2004) identified particular characteristics of people who had experienced multiple spells looking for work. Among those who experienced two or more spells of looking for work, proportionately more women than men spent at least half of the year out of the labour force (27% and 12% respectively). In keeping with this, women were generally more likely than men to have been out of the labour force at some time (66% and 41% respectively). Among people who had multiple spells of looking for work, 21% found no employment during the 12 months to February 2001. Proportionately more women than men experienced this with 32% of women remaining unemployed or out of the labour force over the entire period, compared with 13% of men.

However, the study found, 79% of people who had multiple spells of looking for work in the 12 months to February 2001 were employed at some stage during the year. Just over one-third (34%) had one employer, and 46% had two or more employers. The full-time and part-time status of these jobs differed between men and women. Men were more likely than women to have gained work in jobs that were all full-time (38% compared with 15%), while women were more likely than men to have been employed in jobs that were all part-time (36% and 21% respectively).

Despite these differences, men and women were equally likely overall to have experienced multiple spells of looking for work during the 12 months to February 2001 (5% and 4% respectively). However, there were notable differences between people in different age groups. Younger people were more likely than older people to have experienced multiple spells, with the highest proportions being among people aged 15-19 years (8%), and those aged 20-24 years (6%). This partly reflects the higher proportion of 15-24 year olds who take short-term employment while studying, and who tend to experience a variety of jobs before settling on a career path (see Australian Social Trends 2001, Changing employer or business). Many of these jobs tend to be casual (i.e. without leave entitlements), require relatively low skill levels, and do not require previous work experience. The likelihood of having experienced multiple spells of looking for work was progressively lower among older age groups, and was lowest among men and women aged 55-69 years (3% and 2% respectively). This is in keeping with the lower mobility of older workers compared with younger workers. The propensity to experience multiple spells of looking for work also varied according to a person's living arrangements. Partnered people were less likely to have experienced multiple spells of looking for work during the 12 months to February 2001 (3%) than people without partners. This partly relates to people of workforce age with partners generally being in older age groups than those without partners.

In comparison, the likelihood of having had multiple spells of looking for work was highest among lone parents (10%). This may reflect the greater difficulties faced by single parents when balancing work around family responsibilities. Lone parents have a greater tendency to be employed in jobs that are low skilled, and in jobs that do not provide leave entitlements (ABS 2004).

Half of all people aged 15-69 years who experienced multiple spells of looking for work were employed at February 2001. Of these 242,800 people, part-time workers were more likely than full-time workers to have experienced multiple spells of looking for work during the previous 12 months (5% and 2% respectively). Men working in part-time jobs were more likely to experience multiple spells of looking for work than men in full-time jobs (8% and 2% respectively), or women in part-time or full-time jobs (3% and 1% respectively). This may be because on average men who work part-

time tend to be younger than women who work part-time. They are also more likely to be employed on a casual basis. In August 2001, 80% of men who were an employee in their main job were not entitled to paid holiday or sick leave in that job compared with 58% of women.1

In relation to industry characteristics, the ABS (2004) found with the exception of Manufacturing, people employed in industries where comparatively high proportions of employees did not have leave entitlements were more likely to have experienced multiple spells of looking for work during the 12 months to February 2001. Many of these industries employ younger casual workers, or have a seasonal aspect to them. People employed in construction, cultural and recreational services, property and business services, and accommodation, cafes and restaurants were most likely to have experienced multiple spells of looking for work (each over 3%). These industry groups also contained 29% or more of employees without leave entitlements. On the other hand, people working in electricity, gas and water supply, Government administration and defence, finance and insurance, and communication service industries were least likely to have had multiple spells of looking for work (each less than 2%). These industries had relatively low proportions of employees without leave entitlements (each less than 16%), and also comparatively high proportions of people working in occupational groups such as Managers and administrators, and Professionals (ABS, 2004).

Evidence detailed by Dunlop (2000 pp 98- 116, 2002 pp 94-109) in studies examining the occurrence of churning it the Australian labour market found influencing factors such as individual and employment characteristics in determining the probability of churning in low- paid employment. The study also found re-entry jobs taken up by the unemployed ended quickly and those who took up low paid employment were particularly at risk of having a very short job spell. After just 18 months, the estimated percentage of low paid jobs still continuing was only 21 per cent, with the corresponding estimate for those in a higher paid decile reaching at 36 per cent. A high percentage of employment ends at the initiation of the employer, either through redundancy or because of their temporary or seasonal nature. There was a significant positive relationship found between the return to unemployment, involuntary job separations and the short-term nature of the jobs. These trends are particularly pronounced for the lowest paid jobs (Dunlop, 2002 p.116). Dunlop (2000 p. 94) also found the importance of factors such as gender across industry sectors in determining the like hood of receiving a low wage rate in insecure employment circumstances such as casual and part time employment.

In relation to churning, Dunlop (2002 p. 141) identified persons at greater risk of the persistence of low pay and a cycle of low pay and no pay included:
- Women;
- Those with poor English skills;
- Persons living in rural or low socioeconomic areas;
- Persons employed in small workplaces appear to be particularly at risk of poor labour market outcomes;
- Those aged between 20 to 29 years were at greatest risk of leaving employment and of returning to another spell of unemployment;
- Women in particular were found to have more diverse transition patterns, being more likely than men to experience at least one spell out of the labour market due to family and carer roles.

Dunlop (2002, p 141) identified matching the unemployed with jobs that suited their skills and abilities to be important in improving employment stability among the unemployed. Evidence indicated by Dunlop (2002, p121) found that many casual and part time jobs are relatively short-term leaving individuals caught up in a cycle of intermittent work, involuntary job separations and unemployment. Dunlop (2002 p.130) concluded post-unemployment jobs in larger workplaces were less likely to end in another unemployment spell. Suggesting differences in hiring and management strategies and types of jobs available in smaller and larger firms play an integral role in workers employment stability.

Adult women, those with no post secondary education, the young and those who have never been married are disproportionately found among the ranks of the low paid in Australia.
Workers in small workplaces are also estimated to be more likely to remain low paid perhaps reflecting the premise that small firms do not have the same ability as do larger firms to provide earnings ladders and promotion opportunities to staff.

3 Current Australian evidence

To examine more recent patterns of job retention and advancement in Australia, and whether low-paid work provides a sustainable transition into employment, data from the first five waves of the Household Income and Labour Dynamics in Australia (HILDA) survey has been examined.

Data and definitions

Sample

The data used in this analysis come from the first five waves of the HILDA Survey, conducted annually since 2001 (release 5.1). Described in more detail in Goode and Watson (2006), the HILDA Survey began with a large national probability sample of Australian households occupying private dwellings. All members of those responding households in wave 1 form the basis of the panel to be pursued in each subsequent wave. After adjusting for out-of-scope dwellings and households and for multiple households within dwellings, the total number of households identified as in-scope in wave 1 was 11,693. Interviews were completed with all eligible members at 6872 of these households and with at least one eligible member at a further 810 households. Within the 7682 households at which interviews were conducted, there were 19,917 people, 4790 of whom were under 15 years of age on the preceding 30 June and hence ineligible for interview. This left 15,127 persons of whom 13,969 were successfully interviewed. Of this group, 11,993, 11,190, 10,565 and 10,392 were re-interviewed in waves 2, 3, 4 and 5, respectively.

Non-response rates, while not dissimilar to the rates achieved in other household panel surveys, such as the BHPS and the German Socio-Economic Panel (GSOEP), are quite high, raising concerns about the ongoing representativeness of the sample. Rates of sample attrition are, for example, highest among persons who are young, living alone or in de facto relationships, born overseas and from a non-English-speaking background and who, at wave 1, were living in Sydney. Nevertheless, analysis by Watson and Wooden (2004) suggests that the impact of any resultant bias is, at least for the first few waves, likely to be relatively small.

The principal mode of data collection is personal interview, though telephone is used as a last resort where necessary. Some of the more sensitive subjective information, including the information from which the measure of mental health used in this study is constructed, however, is collected via a self-completion questionnaire. This inevitably leads to additional non-response. Over the first five waves, an average of 91% of all persons successfully interviewed each year also returned the self-completion questionnaire.

Measuring joblessness

The key explanatory variable for this analysis is labour force status. The HILDA Survey employs the standard labour force framework to categorise respondents into the three mutually exclusive categories at the time of the survey: employed; unemployed; and not in the labour force. Indeed, the relevant question sequence is largely borrowed from the Labour Force Survey used by the ABS to measure aggregate employment and unemployment. We can thus be extremely confident that the definitions of employment and unemployment employed in this study accord with universally accepted standards and definitions. Certainly the HILDA Survey generates cross-sectional estimates of the major aggregate labour market statistics (e.g., the unemployment and labour force participation rates) that are very similar to those reported by the ABS in its official statistics.

Unlike most previous research, we use this framework to move beyond a focus on the more narrowly defined unemployed (i.e., persons in active job search) to examine the employment transitions of all jobless individuals, including persons not in the labour force. We do this because we want to include groups that previously may not have been expected to be involved in active job search, such as sole parents with children aged 8 years plus and people with a disability that , we expand the focus to include both unemployed and those not in labour force.

We restrict the analysis to adults of working age (15 to 64 years of age) who are not a full-time student.

Defining low-paid work

To avoid complications arising because of the changing nature of working hours over time and a rise in the incidence of part-time employment our analysis focus's on a definition of low pay based on hourly wages. The OECD definition of low pay is used: people are categorised as low paid if their hourly wage is less than two-thirds of the median hourly rate for that year. This ranged from $10.57 per hour (2001) to $12.58 (2005) for the analysis below. [Measurement error will be a problem, as for people on salary we are estimating hourly wage based on self reported usual hours of work and total usual wage and salary income. Don't address measurement error in any way in this analysis].

Dynamics of joblessness and low-paid work and the low-pay, no-pay cycle

Table 2 reports the probabilities of people being in various labour market states (jobless, $Prob(U_t)$, or low paid, $Prob(LP_t)$) at a point in time (t) , given their labour market circumstances observed in the previous year (t-1). The unconditional likelihood of being jobless is much higher for females than for males (0.35 vs 0.18), reflecting lower employment participation rates for women. For those that are in employment, males and females have a similar unconditional likelihood of being in low-paid employment with around 12 per cent of males and females in low-paid employment.

Table 3.1 Raw probability of labour force state, given state in previous year (2002-2005)

	Males		Females	
Status in previous year	$Prob(U_t)$	$Prob(LP_t)$	$Prob(U_t)$	$Prob(LP_t)$
Unconditional	0.183	0.120	0.347	0.124
Not employed in t-1	0.749	0.267	0.812	0.233
Employed in t-1	0.050	0.105	0.091	0.107
Low-paid in t-1	0.091	0.519	0.148	0.436
Higher paid in t-1	0.043	0.046	0.081	0.061
Ratio not emp/employed in t-1	15.1	2.6	8.9	2.2
Ratio low paid/higher paid in t-1	2.1	11.2	1.8	7.2
n	16,593	13,166	18,992	12,065

Note: t = current year, t-1 = previous year
Source: Author's calculations from HILDA data

The remainder of the table presents the (raw) probabilities of joblessness and being in low-paid employment (for those employed) conditional on employment status in the previous year. Joblessness is quite persistent for both males and females, with males unemployed the previous year 15 times more likely to be unemployed a year later and a corresponding ratio of 9 for females. Low-paid employment is also persistent (a probability of 0.5 for males and 0.4 for women), particularly for males in low-paid employment in the previous year who are over 11 times more likely to be in low-paid employment a year later than those who were in higher paid employment.

There also appears to be a positive relationship between joblessness and low-paid employment. Also, those who were in low-paid employment twelve months earlier are twice as likely to be unemployed than those who were in higher paid work. Also, males that were jobless the previous year are 2.6 times as likely to be in low-paid employment one year later than males that were employed. Jobless

females were 2.2 times more likely to be low-paid. These aggregate figures indeed suggest a 'low-pay no-pay' cycle in the Australian labour market.

Second order effects

The previous section examined the likelihood of being in particular employment states conditional on status in the previous year. Now we examine in more detail the second order effects of employment status, i.e. we examine whether employment state 2 years prior seems to have an effect on current employment state. The resulting (raw) probabilities males and females being jobless, $Prob(U_t)$, or low paid, $Prob(LP_t)$, are presented in Table 3.2.

Table 3.2 Raw probability of labour force status, given status in previous 2 years (2003-2005)

	Males		Females	
Status in previous years	$Prob(U_t)$	$Prob(LP_t)$	$Prob(U_t)$	$Prob(LP_t)$
Unemployed in t-1				
& unemployed in t-2	0.834	0.309	0.870	0.278
& low paid in t-2	0.469	0.354	0.587	0.339
& higher paid in t-2	0.471	0.103	0.473	0.102
Low paid in t-1				
& unemployed in t-2	0.250	0.629	0.283	0.424
& low paid in t-2	0.056	0.640	0.112	0.602
& higher paid in t-2	0.056	0.319	0.112	0.233
Higher paid in t-1				
& unemployed in t-2	0.187	0.133	0.217	0.108
& low paid in t-2	0.035	0.176	0.099	0.208
& higher paid in t-2	0.033	0.032	0.062	0.042

Note: t = current year, t-1 = previous year, t-2 = previous 2 years
Source: Author's calculations from HILDA data

These raw figures indicate that there is strong persistence in states, both for men and women. Those that were not working in neither t-1 nor t-2 have the highest chance (more than 80 per cent) of being out of work in the current period. Similarly those that were low paid in both prior years have the highest chance (more than 60 per cent) of being low paid in the current period. Likewise, those that were employed in higher paid employment in both years have the smallest chance of being either jobless or in low-paid employment.

Employment status in previous year tends to have the strongest effect on current employment circumstances. For instance the chance of being jobless is always higher for those that were not working the previous year, regardless of what they were doing the year before that. This is also generally the case for low-paid employment; the likelihood of being low-paid is generally higher for those that were low-paid in the previous period, regardless of what their circumstances were in t-2. The exception is for those that were higher paid in t-2 which are less likely to be low paid in the current period than those jobless in t-1 and low-paid in t-2 and, in the case of women, also unemployed in both t-1 and t-2.

Second order effects do however appear to be important. Males that were jobless in t-1 but had a job the year before that, are about half as likely to be jobless in the current period than if they had been jobless that year. For men, this probability does not appear to differ regardless of whether this employment was in a low-paid job or a higher paid job. It does however for women; for women who were jobless in the previous year, those that were low-paid the year were more likely to be jobless in the current period than those that were higher paid in t-2.

The probability of being jobless for those that were employed, but low-paid the previous year is least 2.5 times more than for those that were also jobless in t-2 than for those that were working then. This ratio is higher for men. For those that were employed in t-2 it makes no difference whether they were

in low-paid work or higher paid work in t-2. Joblessness in t-2 also has an affect on current joblessness for those that were employed in higher paid employment in the previous year, with those in higher paid employment in t-1 but experiencing a jobless spell in t-2 at least two times more likely than those employed at that time to experience a current spell of joblessness. Whether this employment was low or higher paid does not make a difference for men, but women in low paid employment in t-2 are more likely to be currently not working than for those in higher paid employment.

For males, unemployment and low paid work in t-2 seems to have a similar effect on current low paid status, making men twice as likely to currently be in low-paid employment than those that were employed in higher paid employment in that year. For women, low-paid employment in t-2 has a stronger positive relationship than a jobless spell. Also, for those in low-paid employment at t-2, the probability of currently being in low-paid employment for those that became jobless is quite high at just under half that of those that remained in low paid employment. This is twice that of those that moved into higher paid employment.

An important thing to note from the results is that for men who had a jobless spell at t-2, the probability of current joblessness is substantially higher for those that moved into low-paid employment than for those that moved into higher paid employment (0.250 vs 0.187). So entering low-wage jobs does seem to make a repeat jobless spell much more likely. This difference is smaller for women.

In summary these raw figures show that both joblessness and low-paid employment are persistent states. It is also clear that there are inter-related dynamics between jobless and low-paid employment, supporting the notion of churning between low-paid employment and joblessness.

Controlling for observed heterogeneity

The characteristics of the jobless tend to be very different to the remainder of the population; they are typically females, often sole parents, tend to be either quite young or old, and have low levels of education. The combination of these characteristics may help explain differences in the likelihood of being jobless or low paid and thus need to be controlled for. In selecting control variables we use the typical variables used in labour supply models. We include controls for: age (specified as a quadratic); marital status; family characteristics (the presence and number of dependent children in the household under 15 years of age, the number of adults in the household, and a separate control for lone parents); whether of indigenous origin (i.e., an Aboriginal or Torres Strait Islander); whether born overseas, with immigrants born in one of the main English-speaking countries distinguished from those born elsewhere (as well as interactions with length of residence in Australia, given the extensive evidence indicating that poorer socio-economic outcomes for immigrants diminish with time); English language speaking ability; whether suffering from a long-term health condition or disability, differentiated by degree of severity; educational attainment; location (region and State) of residence; household disposable income; and family history (whether not living with both parents at age 14, whether father was jobless at age 14, whether father was unemployed for at least six months, and whether mother was not employed at age 14). We also include year dummies to capture any aggregate year effects.

We use a Probit model to estimate the likelihood of being in the dichotomous labour force states of non-employed vs employed and low paid vs higher paid at time t; restricting the latter to those that are employed at time t. In addition to the explanatory variables outlined above, we also include dummy dichotomous variables capturing employment status and low-paid work status in the previous year. The results from these Probit estimations are presented in the Appendix. Predicted probabilities of being jobless/low paid in the current period are then calculated for each labour force state in the previous year at average levels of all other observed characteristics. The resulting predicted probabilities for the first order and second order effects are presented in Tables 3.3 and 3.4 respectively.

Table 3.3 Probability of labour force status controlling for observed heterogeneity, given status in previous year (2002-2005)

Status in previous year	Males		Females	
	Prob(U_t)	Prob(LP_t)	Prob(U_t)	Prob(LP_t)
Unconditional	0.094	0.066	0.288	0.081
Unemployed in t-1	0.573	0.206	0.757	0.194
Employed in t-1	0.047	0.061	0.101	0.072
Low-paid in t-1	0.054	0.400	0.107	0.307
Higher paid in t-1	0.030	0.042	0.069	0.056
Ratio unemployed/employed in t-1	12.3	3.4	7.5	2.7
Ratio low paid/higher paid in t-1	1.8	9.5	1.5	5.5
n	14,930	11,909	17,547	11,135

Note: t = current year, t-1 = previous year
Source: Author's calculations from HILDA data

Differences in observed characteristics between the employed and unemployed and low-paid and higher-paid populations do explain some of the dynamic relationships discussed earlier. Controlling for them however does not change the story substantially. Even after controlling for the different characteristics of the jobless and the low-paid, males that were jobless in the previous year are more than 12 times more likely of being jobless in the current period than those that were employed. They were also twice as likely to be jobless if they were low paid compared to men that were higher paid. For women the corresponding ratios are smaller, but still high at 7.5 and 1.5 respectively. Those either jobless or low paid the previous period are also much more likely to be low paid in the current period. Again this difference appears greater for men than for women.

Table 3.4 Probability of labour force status controlling for observed heterogeneity, given status in previous 2 years (2003-2005)

Status in previous years	Males		Females	
	Prob(U_t)	Prob(LP_t)	Prob(U_t)	Prob(LP_t)
Unemployed in t-1				
& unemployed in t-2	0.684	0.263	0.828	0.254
& low paid in t-2	0.415	0.452	0.590	0.412
& higher paid in t-2	0.416	0.198	0.549	0.164
Low paid in t-1				
& unemployed in t-2	0.173	0.338	0.309	0.295
& low paid in t-2	0.051	0.538	0.111	0.460
& higher paid in t-2	0.051	0.263	0.093	0.196
Higher paid in t-1				
& unemployed in t-2	0.128	0.049	0.277	0.078
& low paid in t-2	0.034	0.128	0.095	0.163
& higher paid in t-2	0.034	0.031	0.078	0.041

Note: t = current year, t-1 = previous year, t-2 = previous 2 years
Source: Author's calculations from HILDA data

Likewise when examining the second order effects, controlling for characteristics does generally bring the probabilities of joblessness and low paid employment down slightly. However, it also increases some probabilities. The general result that for men experiencing a jobless spell, low-wage jobs makes a repeat jobless spell more likely has not disappeared. This result does however now seem much weaker for women. Another effect the controls have are that for those low paid in t-2, staying in low-paid work now has a much more similar effect on the likelihood of currently being in low-paid work that a period of joblessness in t-1 has.

'True' relationship between joblessness and low-paid work

Despite the richness of the HILDA data, there are many unobserved factors potentially determining people's likelihood to be in a particular labour force state, such as ability or motivation. If this heterogeneity exhibits persistence over time, not accounting for it will lead to an over estimation of state dependence. In future research we will attempt to control for unobserved heterogeneity using dynamic panel data estimation techniques following the approaches of Woodridge (2005) and Heckman (1981). The approach accounts for the initial conditions problem that stems from the inclusion of a lagged dependent variable as a regressor.

Recognising that further research is needed estimating the relationship between joblessness and low-paid work, we believe that our initial quantitative and qualitative analysis does strongly suggest that there is strong evidence of a low-pay no pay cycle and persistence in low-paid work. The evidence therefore suggests that low-paid work is in itself not necessarily a good stepping stone into sustained workforce re-entry. In the next section we turn to examining some of the programmes implemented internationally that aim to improve employment retention and advancement for their more vulnerable low-skilled workers.

4 Measures of improving retention and advancement of low skilled: ERA programmes

Many factors impact on employment retention and advancement both on the supply and demand side. Improving overall retention and advancement therefore requires a range of initiatives. Yeo 2006, focusing particularly on lone parents, suggests that the issue of retention requires a four fold strategy which includes:

– financial incentives and supports;
– case management strategies;
– skill development;
– employer focused strategies.

In this paper we focus on programmes that use case management strategies. Where the other elements are used as part of these strategies we discuss them but we do not discuss broader strategies around these. We do not for instance discuss financial incentive issues relating to the structure of the wider tax and transfer system or on employer focused strategies that attempt to increase labour demand. More specifically we focus on the ERA programmes centred on case management strategies trialled in the US and more recently the UK. These programmes provide ongoing pre and post-employment case management for disadvantaged people re-entering the labour force and/or groups of the working poor. The aim of these programmes is to promote employment retention and/or to promote career advancement. We now discuss some of these programmes further, highlighting features of the more effective programmes.

The Post Employment Services Demonstration (PESD)

The first large scale evaluation of retention and advancement strategies was the PESD in the US, conducted over the years 1994-1999. In an aim to improve employment retention, the PESD provided post-employment case management on welfare recipients' re-entry into the labour force. The case management services provided four key services: counselling and support; job search assistance; help for resolving benefit issues; and temporary support services payments.

The evaluation of the programme found that 'overall, the programmes had little effect on increasing earnings, reducing welfare, or promoting the move toward self-sufficiency.' (Novak and Rangarajan 1999, p.3) However, there were lessons learned about how to deliver better case management services to improve job retention and advancement, which were used to inform a more recent large scale

policy trial in the US, the ERA program. An important lesson was that post-employment support be seen as a continuum, and one that begins prior to job entry (Ranjaran, 2002).

The ERA programme in the US

The ERA project in the US is testing 15 programmes using case management services to address problems of employment retention and advancement nationwide. The project began in 1999 and is scheduled to end in 2009. The programme trial and evaluation is being conducted by MDRC with funding from the U.S. Department of Health and Human Services and U.S. Department of Labour. Each ERA programme is being evaluated using a random assignment research design. The focus of the programme was broadened from just providing case management services as that of the PESD to include a wider range of approaches, including job matching, training opportunities and financial incentives. Almost all the programmes target lone parents in receipt of TANF but other features of the programmes vary across the sites. One group of programmes targets the working poor and focuses on advancement. Another group targets the 'hard to employ' and focuses primarily on job placement and retainment. The remaining programmes target a range of population groups and have mixed goals. Some programmes focus on pre-employment assistance, whereas others focus on post-employment support, others provide a combination of both pre and post-employment support. Details of the project are provided by Bloom et al (2002)

Outcomes of the evaluation of each of the programmes are published on the MDRC web site (http://www.mdrc.org/project_25_9.html) as they become available. At present only early findings from a subset of the programmes are available and the results are mixed. Some of these initial findings are now discussed.

Chicago ERA program

The Chicago programme operated for just over 2 years from early 2002 to mid 2004. The programme focused on promoting career advancement for recipients of TANF that appeared to be stuck in low-wage jobs. Further details of the programme can be found in Bloom et al (2002) and Bloom et al (2006). The programme provided a service tailored to individual needs. The ERA service provider had strong relationships with many local employers and advised participants on jobs to transfer to higher wages. The programme provided the upfront costs associated with starting new jobs. In a smaller number of cases, ERA staff coached participants to ask for a raise or more hours in their current job or contacted the participant's employer directly to discuss advancement opportunities. The programme also paid for some participants to attend short-term training programmes.

Bloom et al (2006) in an evaluation of the programme found that staff struggled to keep people engaged in the programme as their employment and family responsibilities took up a lot of their time. That said however, the programme did have a moderate positive effect on employment and earnings large reductions in welfare receipt of the programme group during the first two years of the study period; with a somewhat larger effect in the second year. Results of the three year follow up will be available in 2008.

South Carolina program

South Carolina's ERA program, Moving Up, operated between September 2001 and April 2005. The programme attempted to contact and assist individuals who had left welfare for any reason between in the three years prior to December 2000. The South Carolina ERA programme centred on one-on-one case management services with additional services varying according to the participants' needs. Modest financial incentives were also used. Scrivener et al {, 2005 #223} document the first year effects of the programme trial. The conclusions were:
- Recruiting participants and keeping them engaged was challenging;
- Overall, the programme had little effect on employment rates, earnings, employment retention, or advancement;
- Overall, Moving Up also did not affect welfare or food stamp receipt or income;

- Positive effects were found for three groups of participants
  - those who had become unemployed shortly before entering the study,
  - those who had left welfare less than two and a half years before entering the study, and
  - those who had left welfare because of a sanction or the state's time limit on benefit receipt.

Scrivener et al {, 2005 #223} highlight that the results are preliminary and that MDRC will continue to track employment outcomes for the study's participants. They also highlight the challenge in encouraging participation in post-employment services and making a difference in labour market outcomes for welfare leavers

Minnesota Tier 2 program

The Minnesota Tier 2 programme operated from January 2002 to June 2004 in Hennepin County (for more information on the programme and initial findings of the evaluation see LeBlanc et al {, 2007 #292}). The programme targeted TANF recipients that had received cash assistance for a relatively long period and were considered a 'hard to employ' group. The programme provided a range of services designed to address these individuals' barriers to employment, which typically included mental health problems, and to help them find and keep jobs.

The Tier 2 programme built on previous case management assistance by providing:
1) smaller caseloads for programme staff which allowed for a more in-depth assessment of new cases; and
2) a greater emphasis on assigning and referring individuals to a broader range of services, including supported employment positions and more specialised services, such as those available from programmes that help people with mental health or substance-related problems.

The findings of a one and a half year follow up of participants were disappointing, with the programme having little effect on participants' employment or earnings or even their use of services to address employment barriers.

ERA demonstration in UK

The ERA policy demonstration was implemented in 6 districts of the UK over the period 2003-2007 (for more information see Hall et al 2005). It is expected that the demonstration will be extended to 2010. Volunteers from one of three groups: unemployed lone parents; the very long term unemployed 25 years plus; or low-paid lone parents working between 16-29 hours a week and eligible for the Working Tax Credit were recruited to participate in the study and then randomly assigned into either a programme or control group. The programme group receives the ERA services, while the control group continues to receive what former assistance they were entitled to.

The programme group was eligible for individual support from an Advancement Support Adviser (ASA) for up to 3 years to assist them:
- into suitable work;
- in remaining in work and avoiding some of the early pitfalls that sometimes cause new jobs to be short-lived; and
- in getting on in their jobs by advancing to positions of greater job security, better pay and conditions, and so on.

Financial incentives to stay in employment were also offered to the programme group, including:
- a Retention Bonus if they stay in full-time work of at least 30 hours a week for 13 out of 17 weeks;
- additional cash payments for training;
- access to an emergency payment to overcome short-term barriers to retaining work.

Results of the implementation and first year effects of the demonstration are reported in Dorsett et al {, 2007 #291}. The authors find that building on existing employment assistance by adding in-work

support and financial incentives is a feasible goal, and one that has been much welcomed. They also highlight the challenges that the project has faced in building staff capacity to take on the more complex role of an ASA, engaging customers whose lives get busier once they enter work, and to contend with an employment assistance culture that mainly rewards job placement.

Although there were some implementation difficulties the early findings of the evaluation are much more promising than the US trials, particularly for the group of lone parents that were initially unemployed. For this group there were significant positive impacts on various employment and earnings outcomes in the first 12 months of the study, for instance they earned 29 per cent more during this period than the control group. Employment outcomes for the group of long-term unemployed singles were generally positive but not as large as for the group of lone parents. Due to these employment and earnings effects the ERA programme caused small reductions in the receipt of income support payments for these two jobless groups.

The project had difficulties recruiting lone-parents in low-paid work, but in areas that did manage to recruit a significant number of this group there was no significant impact on earnings outcomes, although a larger proportion of this programme group were working full-time after 12 months. The evaluators are still unsure why this did not translate into increased earnings.

Results of the two year follow up of participants will be available early in 2008. Also part of the evaluation will be a cost-benefit analysis of the program.

Lessons for Australia

Although its too early to have conclusive evidence on the most effective features of ERA programmes it does appear that programmes centred on case management strategies that also provide some training, a range of services and supports, financial incentives and access to better employers appear to be the most effective retention and advancement programmes (Holzer & Martinson 2005). Features of the most effective programmes include a combination of:
- Pre and post-employment support provided as a continuum;
- In addition to job search assistance, career placement assistance is provided where the focus moves from job entry to employment retention and advancement;
- Staff training to assist staff to develop skills relevant to new retention and advancement role;
- Support tailored to personal circumstances and needs and that individuals feel a sense of ownership of their work plans;
- Jobseekers are placed in the best jobs possible;
- Intensive personal support is provided in the first few months of a job to deal with crises and the transition to work;
- Participants are encouraged to move on to a better job as soon as possible if opportunities within that job are limited;
- To keep people engaged post-employment it is crucial that ongoing contact is seen as 'support' and not 'monitoring'
- Offer financial incentives to stay in work and to take-up training;
- Provide advise on training and skill development opportunities while in work and that this matches employer and local labour market needs; and
- Involve employers.

5 Preliminary conclusions

Evidence suggests for many jobseekers entering employment job retention is a problem and that low-paid work is in itself not necessarily a good stepping stone into sustained workforce re-entry. In Australia there needs to be more focus on employment retention and advancement strategies rather than solely on job entry.

The international evidence shows that effective retention and advancement policy needs to incorporate case management strategies, financial incentives and supports, skill development, and employer-focused strategies. ERA programmes centred on case management strategies that also provide some training, a range of services and supports, financial incentives and access to better employers appear to be the most effective retention and advancement programmes (Holzer and Martinson 2005).

These ERA programmes provide on going post-employment support and training for the jobless re-entering the labour force and the low-paid. By providing the support and encouragement to stay in employment and advise on opportunities for skill development and advancement, these programmes have the potential to improve further labour market prospects of the low-skilled reducing the risk of longer term poverty and social exclusion.

There is currently no such support available for vulnerable jobseekers or low-paid workers in Australia. The primary labour market assistance mechanism, the Job Network, focuses instead on shorter-term outcomes and emphasises rapid movement into any job, without ongoing support to facilitate skill development and career advancement.

We believe that Australia should be using the learnings of the US and UK ERA policy trials to implement a more effective employment assistance system that focuses on employment retention and advancement rather than simply job entry. We feel that done well, these case management strategies could be used in Australia to improve the longer term employment prospects of many disadvantaged jobseekers. This is becoming particularly important post welfare-to-work where more long term unemployed lone parents and people with a disability are expected to enter the workforce.

References

Australian Bureau of Statistics 2004, *Australian Social Trends 2003*, Catalogue No. 4102.0, ABS, Canberra.

Bloom, D, Anderson, J, Wavelet, M, Gardiner, K N & Fishman, M E (2002), *New Strategies to Promote Stable Employment and Career Progression: An Introduction to the Employment Retention and Advancement Project*, MDRC, viewed 7 June 2007 <http://www.mdrc.org/publications/36/full.pdf>

Bloom, D, Hendra, R & Page, J (2006), *The Employment Retention and Advancement Project: Results from the Chicago ERA Site*, MDRC, viewed 22 June 2007 <http://www.mdrc.org/publications/441/full.pdf>

Dorsett, R, Campbell-Barr, V, Hamilton, G, Hoggart, L, Marsh, A, Miller, C, Phillips, J, Ray, K, Riccio, J A, Rich, S & Vegeris, S (2007), *Implementation and first year impacts of the UK Employment Retention and Advancement (ERA) demonstration*, Department for Work and Pensions, Research Report No 412, Leeds.

Dunlop, Y (2002), 'Low paid employment in Australia', PhD Dissertation, Centre for Strategic Economic Studies, Victoria University, Melbourne.

Dunlop, Y 2000, *Labour Market Outcomes of Low Paid Adult Workers: An Application Using the Survey of Employment and Unemployment Patterns*, Australian Bureau of Statistics Occasional Paper, Catalogue No. 6293, Canberra.

Haisken-DeNew, John P. and Markus Hahn (2006) *PanelWhiz: A Flexible Modularized Stata Interface for Accessing Large Scale Panel Data Set* , mimeo, http://www.panelwhiz.eu

Holzer, H & Martinson, K (2005), *Can we improve job retention and advancement among low-income working parents?* . The Urban Institute, Washington

LeBlanc, A, Miller, C, Martinson, K & Azurdia, G (2007), *Results from Minnesota's Tier 2 Program, The Employment Retention and Advancement Project*, MDRC, New York.

Novak and Rangarajan (1999) *The struggle to sustain employment: the effectiveness of the Post Employment Services Demonstration*. Mathematica. USA.

Richardson, S & Miller-Lewis, L (2002), *Low Wage Jobs and Pathways to Better Outcomes*, Treasury Working Paper Series, New Zealand Treasury, viewed 11 October 2006 <http://ideas.repec.org/p/nzt/nztwps/02-29.html>.

Saunders, R (2005), *Does a Rising Tide Lift All Boats? Low-Paid Workers in Canada*, Vulnerable Workers Series No. 4, Canadian Policy Research Networks, Ottawa.

Stewart, M 2007, 'The Inter-related Dynamics of Unemployment and Low Pay', *Journal of Applied Econometrics*, vol.22, no. 3, pp.511-531.

Stewart, M. and Swaffield, J. K. (1999), 'Low pay dynamics and transition probabilities', *Economica*, vol. 66, no. 261, pp. 23-42.

Stewart, M. and Swaffield, J. (1997), 'The dynamics of low pay in Britain' in P. Gregg (ed.) *Jobs, Wages and Poverty: Patterns of Persistence and Mobility in the New FlexibleLabour Market*, Centre for Economic Performance, London.

Watson, N. (ed) (2005) HILDA User Manual – Release 3.0, Melbourne Institute of Applied Economic and Social Research, University of Melbourne.

Yeo, A. (2007) *Experience of work and job retention among lone parents: An evidence review*, Department for Work and Pensions, Working Paper No 37.

.

Appendix

Table A.1 Probit estimates for joblessness in current period (2001-2005)

| | MALES | | | | FEMALES | | | |
| | First-order | | Second-order | | First-order | | Second-order | |
	β	s.e.	β	s.e.	β	s.e.	β	s.e.
constant	-0.515	0.263	-0.741	0.351	0.231	0.235	-0.138	0.296
age/10	-0.629	0.091	-0.568	0.119	-0.930	0.082	-0.779	0.105
(age/10)2	0.106	0.011	0.100	0.014	0.133	0.010	0.115	0.013
married	-0.416	0.060	-0.325	0.077	0.308	0.052	0.294	0.068
defacto	-0.192	0.062	-0.142	0.083	0.259	0.056	0.293	0.072
separated	-0.098	0.098	-0.046	0.130	0.072	0.073	0.102	0.091
divorced	-0.229	0.081	-0.169	0.100	-0.026	0.063	-0.001	0.081
widowed	-0.239	0.216	-0.456	0.227	0.108	0.093	0.123	0.111
presence of children	-0.144	0.080	-0.211	0.105	0.308	0.051	0.307	0.066
number of children	0.100	0.035	0.141	0.046	0.082	0.022	0.061	0.028
Lone parent	-0.002	0.067	-0.045	0.089	0.116	0.050	0.120	0.064
cob-english speaking	-0.131	0.122	-0.194	0.163	0.035	0.094	0.011	0.135
cob-non English speaking	0.151	0.094	-0.090	0.132	0.174	0.071	0.132	0.094
English speaking immigrant*years in Australia	0.006	0.004	0.005	0.005	0.000	0.003	0.001	0.004
Non-English speaking immigrant*years in Australia	0.000	0.003	0.006	0.004	-0.003	0.002	-0.002	0.003
Aboriginal or Torres Strait Islander	0.088	0.113	-0.126	0.153	0.273	0.074	0.247	0.092
English speaking ability poor	0.414	0.161	0.572	0.219	0.512	0.107	0.489	0.142
Severe illness or disability	1.994	0.222	2.099	0.287	1.698	0.280	1.429	0.306
Moderate illness or disability	0.819	0.042	0.732	0.053	0.553	0.038	0.496	0.047
Minor illness or disability	0.115	0.062	0.148	0.079	0.060	0.053	0.001	0.064
postgraduate	-0.403	0.159	-0.595	0.185	-0.721	0.161	-0.769	0.178
undergraduate	-0.289	0.151	-0.480	0.172	-0.644	0.156	-0.732	0.170
certificate	-0.315	0.160	-0.489	0.189	-0.600	0.163	-0.727	0.182
yr 12	-0.321	0.151	-0.483	0.174	-0.522	0.156	-0.585	0.170
yr 10/11	-0.213	0.145	-0.445	0.164	-0.481	0.153	-0.606	0.166
secondary under yr 10	-0.060	0.147	-0.251	0.167	-0.292	0.156	-0.441	0.169
inner regional	0.062	0.042	0.040	0.056	-0.013	0.033	0.029	0.040
outer regional	0.065	0.056	0.084	0.078	0.042	0.044	0.066	0.056
remote	-0.120	0.138	-0.104	0.172	-0.104	0.105	0.045	0.134
New South Wales	0.006	0.134	0.029	0.186	0.027	0.100	0.086	0.146
Victoria	-0.025	0.135	-0.068	0.187	0.015	0.101	-0.026	0.147
Queensland	-0.010	0.137	-0.062	0.189	0.053	0.102	0.059	0.149
South Australia	0.036	0.141	-0.048	0.194	0.060	0.106	0.150	0.152
Western Australia	-0.064	0.142	-0.069	0.195	0.140	0.105	0.180	0.152
Tasmania	0.169	0.164	0.285	0.215	-0.045	0.126	-0.070	0.175
Northern Territory	-0.299	0.232	-0.757	0.406	-0.359	0.203	-0.357	0.246
Not living with both parents at age 14	0.061	0.042	0.020	0.058	0.019	0.032	0.050	0.042
father not emp at age 14	-0.091	0.104	-0.093	0.152	0.063	0.064	0.042	0.081
father unemp for > 6 mths	0.081	0.057	0.109	0.075	0.039	0.040	0.040	0.052
mother not emp at age 14	-0.019	0.035	0.003	0.046	0.044	0.026	0.013	0.033

	MALES				FEMALES			
	First-order		*Second-order*		*First-order*		*Second-order*	
	β	*s.e.*	*β*	*s.e.*	*β*	*s.e.*	*β*	*s.e.*
Disposable annual household income/10000	-0.032	0.006	-0.019	0.007	-0.031	0.005	-0.020	0.006
2003	-0.107	0.049			-0.029	0.037		
2004	-0.059	0.046	0.013	0.055	-0.058	0.035	-0.043	0.040
2005	-0.051	0.046	0.035	0.054	-0.130	0.036	-0.154	0.041
Not employed in previous year	1.863	0.046	1.601	0.068	1.972	0.034	1.533	0.053
Low paid in previous year	0.266	0.061	0.197	0.108	0.238	0.052	0.091	0.084
Not employed two years prior			0.690	0.070			0.817	0.051
Low paid two years prior			-0.004	0.108			0.104	0.079
n	14,930		9,785		17,547		11,691	
Pseudo R sq	0.536		0.5945		0.485		0.5336	

Table A.2 Probit estimates for low-paid employment in current period (2001-2005)

| | MALES | | | | FEMALES | | | |
| | First-order | | Second-order | | First-order | | Second-order | |
	β	s.e.	β	s.e.	β	s.e.	β	s.e.
constant	0.336	0.325	-0.086	0.431	1.043	0.380	0.196	0.495
age/10	-1.105	0.109	-0.854	0.146	-1.113	0.112	-0.856	0.142
(age/10)2	0.134	0.014	0.106	0.018	0.134	0.014	0.106	0.018
married	-0.155	0.064	-0.165	0.085	-0.117	0.062	-0.043	0.078
defacto	-0.136	0.063	-0.181	0.085	-0.125	0.061	-0.100	0.082
separated	-0.189	0.150	-0.168	0.169	-0.355	0.109	-0.204	0.131
divorced	-0.029	0.103	-0.035	0.122	-0.333	0.089	-0.167	0.106
widowed	-0.863	0.404	-0.898	0.414	-0.140	0.130	0.016	0.173
presence of children	-0.016	0.082	0.148	0.104	0.100	0.074	0.025	0.098
number of children	0.071	0.036	-0.011	0.047	0.033	0.035	0.028	0.047
Lone parent	0.199	0.075	0.276	0.101	0.018	0.066	0.010	0.081
cob-english speaking	-0.058	0.125	-0.109	0.194	0.160	0.126	0.181	0.177
cob-non English speaking	0.105	0.125	0.153	0.161	0.182	0.110	0.187	0.146
English speaking immigrant*years in Australia	0.003	0.005	0.006	0.007	-0.006	0.004	-0.007	0.006
Non-English speaking immigrant*years in Australia	-0.002	0.005	-0.006	0.006	-0.007	0.004	-0.006	0.005
Aboriginal or Torres Strait Islander	-0.200	0.121	-0.545	0.188	-0.128	0.145	-0.138	0.211
English speaking ability poor	0.353	0.193	0.307	0.322	0.762	0.187	0.819	0.234
Severe illness or disability	0.794	0.511	0.601	0.684	0.690	0.680	0.789	0.776
Moderate illness or disability	0.211	0.061	0.202	0.076	0.193	0.060	0.189	0.072
Minor illness or disability	0.021	0.070	0.107	0.085	0.077	0.071	0.075	0.089
postgraduate	-0.334	0.234	-0.668	0.312	-0.785	0.298	-0.722	0.395
undergraduate	-0.224	0.222	-0.538	0.294	-0.745	0.292	-0.578	0.385
certificate	-0.171	0.227	-0.528	0.300	-0.447	0.297	-0.289	0.391
yr 12	0.042	0.220	-0.284	0.292	-0.359	0.291	-0.299	0.385
yr 10/11	0.004	0.216	-0.339	0.286	-0.281	0.289	-0.235	0.381
secondary under yr 10	0.014	0.220	-0.403	0.292	-0.124	0.293	-0.123	0.387
inner regional	0.146	0.047	0.054	0.059	0.163	0.046	0.101	0.057
outer regional	0.351	0.061	0.355	0.077	0.270	0.058	0.321	0.072
remote	0.431	0.129	0.381	0.162	0.282	0.141	0.388	0.161
New South Wales	0.106	0.137	0.231	0.173	-0.005	0.143	0.035	0.173
Victoria	0.181	0.138	0.294	0.173	0.039	0.143	0.051	0.174
Queensland	0.070	0.140	0.134	0.176	0.101	0.146	0.056	0.176
South Australia	0.235	0.145	0.306	0.185	0.067	0.149	0.045	0.184
Western Australia	0.062	0.145	0.202	0.184	0.101	0.149	0.066	0.184
Tasmania	0.089	0.165	0.230	0.210	-0.105	0.174	-0.187	0.218
Northern Territory	-0.178	0.231	-0.101	0.310	-0.121	0.280	-0.111	0.298
Not living with both parents at age 14	0.106	0.045	0.072	0.058	-0.006	0.045	0.041	0.056
father not emp at age 14	-0.138	0.118	-0.028	0.150	0.141	0.090	0.221	0.110
father unemp for > 6 mths	0.090	0.063	0.148	0.081	-0.165	0.061	-0.160	0.077
mother not emp at age 14	0.019	0.039	0.005	0.050	0.002	0.037	-0.007	0.047

	MALES				FEMALES			
	First-order		Second-order		First-order		Second-order	
	β	s.e.	β	s.e.	β	s.e.	β	s.e.
Disposable annual household income/10000	-0.018	0.006	-0.014	0.007	-0.015	0.006	-0.012	0.007
Employed part-time	0.032	0.059	-0.035	0.079	-0.005	0.040	0.028	0.051
2003	0.029	0.053			-0.008	0.051		
2004	0.022	0.051	0.045	0.059	-0.025	0.048	-0.025	0.056
2005	0.121	0.050	0.118	0.057	0.042	0.048	0.041	0.054
Not employed in t-1	0.730	0.063	0.907	0.092	0.595	0.052	0.684	0.079
Low paid in t-1	1.476	0.053	1.233	0.069	1.090	0.056	0.883	0.067
Not employed in t-2			0.137	0.121			0.236	0.095
Low paid in t-2			0.731	0.070			0.755	0.067
n	11,909		7,793		11,135		7,257	
Pseudo R sq	0.285		0.3127		0.2037		0.2336	