Low Wage Jobs and Pathways to Better Outcomes

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Low Wage Jobs and Pathways to Better Outcomes

A Literature Review for the New Zealand Treasury

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Abstract

Many people find their first employment in a low wage job. Others accept low wage jobs after a period out of the workforce or unemployed. An issue of vital social interest is the speed with which low wage workers move on to better jobs. This review of the international literature finds that the extent of mobility depends on the definition of low wage, and that the least upwardly mobile are older, less educated workers, including middle aged women, sole mothers and men who have been retrenched. Young, educated, urban workers quickly move to better paid jobs. Everywhere, women are more likely to be low paid than men, and have lower mobility. Higher education reduces the risk of low pay, but not to zero.

The paper goes on to examine the extent and sources of wage mobility, and looks carefully at the question of whether a low wage job can be assumed to be preferable to no job (and finds that it cannot). It finds that countries with high levels of wage inequality have lower levels of wage mobility. It concludes with a discussion of possible policy steps that could reduce the risk of people being stuck in low wage jobs for long periods. These should be targeted at both the demand side (the structure of jobs) and the supply side (the capacity of workers).

JEL CLASSIFICATION J3
J6

KEYWORDS Low wages; mobility; work and welfare; low wage workers.

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1 Introduction

This paper reviews the current state knowledge on the role played by low wage jobs in providing access to and progression in employment for low skill workers. In particular, it addresses a number of questions:

- the extent to which low pay jobs provide the first step on the ladder to reasonably paid and reasonably secure jobs for low skill workers;
- conversely, the extent to which low skill workers become stuck in low paid and insecure work;
- what are the characteristics of people who are employed in low wage jobs;
- which types of low paid jobs provide the best/worst chances of upward mobility;
- whether a low paid, insecure job is better than no job;
- whether low skill/low pay jobs can coexist with high skill/high pay jobs for similar work;
- the extent to which the costs of geographical mobility and broken employment histories inhibit wage mobility and why;
- whether the supply of low skilled/high skilled workers affects the demand for low skilled/high skilled workers;
- Whether different causes of low skill (low education, poor schooling or parenting, history on welfare, crime, drug dependence etc) affect future labour market outcomes.

Most attention has been paid to research based on the US, the UK and other parts of the English-speaking world. However, conclusions from the experience of continental Europe are also referred to, particularly because they differ in some respects from the Anglo experience.

1.1 Are low wage jobs a problem?

In the English-speaking world, the general growth in prosperity that has occurred over the last two decades has benefited some groups much more than others. Indeed for some, the decades did not look prosperous at all. Two groups that have not done well are youth and low wage workers.

At the beginning of the 21st Century, it is a daunting task for many young people to negotiate the essential step for the transition to adult independence, namely to find adequately paid and adequately secure employment. Recent decades have seen a collapse in the number of full-time jobs available for teenagers and even those in their early 20s. Unemployment remains particularly high for this age group. Young people are expected to have levels of formal education that are much higher than the historical norm, and it is clear that for some the formal education system does not work very well. For those not in full-time education or employment, the norm is bits and pieces of part-time work, paid at low wages, unemployment or non-employment. It is an important social issue to know whether young people who start their adult work lives in this way have good prospects of subsequently moving on to full-time and reasonably paid and secure employment. Or are they likely to be trapped in a future marred by low earnings, unemployment and periodic reliance on the welfare system?

The role played by low wage jobs in the pathway to work for low education youth has particular social significance. But low wage jobs are also taken by other people in the labour force. The two main such groups are women re-entering paid employment after an absence to care for children, and higher wage workers who lose their jobs. There is much more written about the first of these than about the second two, but we will report what we can find on the latter groups.

English-speaking countries more broadly have seen a substantial growth in the proportion of jobs that are some combination of low paid, casual and part-time. There is understandable interest in whether this growth should be a cause of concern for policy-makers and the community. The growth of such jobs will be of most concern if they are dead-end, such that the people who occupy them stay in the same sorts of jobs for lengthy periods of time, and leave them largely because they leave the workforce rather than because they find substantially better jobs. If this is the norm, then there is a real risk that the growth of such jobs will generate an underclass of people and families who have to deal for long periods, possibly a lifetime, with poverty and insecurity.

The growth of low paid, and in other ways unrewarding, jobs is of less concern if they provide the first foot on the employment ladder for people who come to the labour force with few employable skills. In this scenario, low skill new entrants work for some period in low paid jobs and in doing so learn specific job skills and the general attributes of productive workers. The low pay is in effect compensated for by on-the-job learning, and after a period the workers move on to better paid and more secure employment. In another version of this story, people who take low paid and insecure jobs are doing so to earn an income while they study full-time. At the end of their study, they go on to satisfactory employment in better jobs. In either case, we can view the employment as providing a combination of current wage and skills development that will lead to enhanced future wages.

There is clearly immense social and policy interest in which of these two scenarios is closest to the truth. In reality, both experiences occur and the main empirical task is to

identify the relative size of each and who is in each group. A second important task is to understand the scope for policy to improve the outcomes for low wage workers. The outcomes at issue could be the current level of wages and security, or it could be the amount and type of employment skills learned, or some combination.

If all low wage jobs were simply an episode in people's lives, from which they moved to better jobs, would such jobs still be a public policy concern? There are two reasons for thinking that the answer to this question is yes.

The first is that even in the short run, people need an income that is sufficient to meet basic needs. Just what constitutes basic needs is controversial, but this does not mean that the concept is empty. As articulated in *Rerum Novarum,* the papal encyclical of 1891:

> . . .there is a dictate of Nature more imperious and ancient than any bargain between man and man, that the remuneration must be enough to support the wage-earner in reasonable and frugal comfort. If through necessity or fear of a worse evil, the workman accepts harder conditions because an employer or contractor will give him no better, he is the victim of force and injustice.

The concept (and language) of "frugal comfort" was adopted as the foundation of the first basic wage in Australia, in 1907. In adopting "frugal comfort" as its test of a just wage, *Rerum Novarum* most probably had in mind that it was earned by an adult male, with little prospect of significant upward mobility. But even in the short term people must be paid enough to enable them to meet the essential bills. Just what are the essential bills will depend on their circumstances, and it is here that information on who are the low wage workers is relevant. The necessary minimum will be lower for young people living at home than for an adult who is supporting dependent children, for example.

The second basis for worrying about the level of low wages is also made clear in *Rerum Novarum*, and is equally relevant today. If a worker is paid less than is necessary to provide for a level of frugal comfort, then she or he is the victim of force and injustice. Modern nations have a notion of what is a fair wage and this notion is related to the levels of living of the time and place in which the worker lives.

1.2 Policy issues

As Amartya Sen observed, market outcomes can be both perfectly efficient and perfectly disgusting. In an acknowledgement of the risks that labour market outcomes may be disgusting, all developed economies regulate their labour markets, to a greater or lesser degree. These regulations are mostly directed toward providing some limits to the harshness of the terms on which people may be employed. They include minimum wages, prescribed ordinary hours of work, unfair dismissal rules and other forms of job protection, prohibition of discrimination on the basis of sex, race and regulation of the terms of industrial conflict. Here, we present a set of policy questions in order to provide a context and focus for the literature review that is to come.

1.2.1 Low wages and current material well-being

If people are paid low wages, their capacity to support themselves and any dependents is low. The policy issues are a) is the standard of living of low wage workers acceptable? And b) is the level of the wage in low wage jobs fair?

Clearly, if people are employed in low wage jobs for only a small proportion of their working lives, then the terms of that employment will have only a minor impact on their lifetime material well-being. This does not make those terms irrelevant. But it does reduce their social significance. In judging whether wages are too low to provide a decent standard of living, the household circumstances of low wage workers are relevant. Many workers live with other people, and share income and responsibilities. It is important to know the extent to which low wage workers a) rely solely on their own earnings, b) support dependents from their own earnings, and c) share in the housing and income provided by other family members.

If low wages are judged to be inadequate to support a decent standard of living, several policy responses are possible. These include:

- legislate or arbitrate higher minimum wages
- use the tax/transfer system to increase the disposable incomes of low wage workers in low income families
- provide in-kind support for low income (or for all) low wage workers (eg, subsidised childcare, healthcare, transport)
- force up the market wage, by reducing the supply of low wage labour, eg, by providing an alternative welfare income or by increasing the school leaving age, or by restricting immigration of low skill workers, or by supporting the education of low skill workers, or by mandating forms and quantities of training to be provided by employers
- force up the market wage, by increasing the demand for low wage labour, eg, by directly employing low wage workers in the supply of publicly provided goods and services, or by subsidising the employment of low wage workers by the private sector, or by reducing the non-wage costs of employing low wage labour (such as payroll taxes and workers' compensation premiums).

In the English-speaking world, there is strong evidence that unemployed people are much more likely to be poor than are low wage workers (eg, Harding and Richardson, 1999). It is important for policy makers to know the terms of the trade-off between low wages and jobs for low skilled workers. How elastic is the demand for low wage labour? Does the gain in reducing poverty that would be made by increasing low wages exceed the cost that would be incurred from any increase in unemployment? In thinking about this trade-off, it is essential to know whether low wage employment is a transitory state or likely to be endured over many years. It is this last issue that is the focus of this review. If steps can be taken to increase mobility out of low wage jobs, then the pressure to protect the standard of living of low wage workers, through regulating the wages and conditions of their employment, is reduced.

1.2.2 Low wages and lifetime material well-being

Low wages are clearly much more damaging if people spend a large period of their working lives in such jobs. This is especially true for workers who rely primarily on their own earnings for their standard of living (ie, are not the secondary earner in the household).

The policy issues that surround long term low wage employment are centred on two questions. The first is an empirical one: what proportion of low wage workers stay in such jobs for extended periods of time (and who are they?). Second, what steps can

governments take to increase mobility from low wage jobs to higher paid jobs? The first of these we will report on in some detail. The steps available to policy can be grouped as a) skills development and b) job matching.

Theory and evidence both suggest that a common pathway from low to higher wages is through the acquisition of improved workforce skills. These may be acquired in formal educational settings, or on the job. Governments can influence the acquisition of additional skills through:

- the infrastructure of formal education (school, vocational, higher), with an emphasis on the requirements and outcomes of the least skilled
- the encouragement of comprehensive structured training that integrates off-the-job and on-the-job learning
- the provision of tailored assistance for the transition from school to work for those at risk of long term labour market disadvantage
- the provision of second chance education and skills development, for older workers, with attention given to different learning styles and to the needs of people who have found formal education a bad experience
- active encouragement of a culture of training among firms, perhaps supported by tax incentives
- ensuring that there is a reasonable payoff to the acquisition of skills, in terms of the probability of getting a job and the rewards for doing so.

Theory and evidence also suggest that a second important source of upward wage mobility is through workers finding a job that provides a better match for the abilities that they have to offer. It is costly to both firm and worker to search for the best match of job requirements and worker abilities. Governments can take active steps to assist the matching process. The provision of information to both sides of the market is key. Information on housing as well as job prospects will assist geographical mobility, while more active assistance is likely to be valuable for some low wage workers.

1.3 Outline of what is to follow

In the rest of this review, we commence with a brief summary of the major developments in the international economy that have been affecting low wage jobs and workers. We then define low wages, and describe who occupies low wage jobs and where they work. In order to understand this pattern of low wage employment, we examine first why firms would want to pay low wages, and second, why people would accept employment in low wage jobs. This includes the question of whether a low wage job is better than no job, for low skilled workers. We then turn to the big question: What is the extent, nature and change in wage mobility, and who are the mobile/immobile? This is followed by a discussion of strategies by which to exit low wage jobs into higher paid jobs. We provide a brief discussion of the important topic of whether the supply of low skilled people has an identifiable impact on the demand for low wage workers. We conclude with an overview of the evidence and a discussion of its implications for policy in the New Zealand context.

2 The context of low wage work

2.1 The economic environment

There have been major social and economic changes over recent decades, a number of which have had adverse effects on the economic prospects of low wage workers and of youth. These changes include technological innovation, that evidence now strongly suggests has enhanced the productivity of high skill workers substantially more than the productivity of low skill workers. They include also greater integration of world financial and product markets. This has favoured internationally mobile factors of production, including highly skilled workers and capital, at the expense of immobile factors of production, including low skill workers. It has also, in effect, increased the supply of low skilled labour for the production of traded goods and services, thus depressing the relative price of such labour in the developed countries. Government policies to deregulate labour markets, to reduce the role of government in the economy and to increase the role of market-based competition in the delivery of services have amplified the effects of technological change and globalisation on the changes in the labour market. Acemoglu (2002) provides a comprehensive examination of the relative contributions of technological change, international trade and institutional change in causing the rise in wage inequality in the US. He (and many others) gives the greatest weight to skill-biased technological change.

In a parallel movement, both demand and supply forces have combined to reduce the size of the manufacturing sector and expand the size of the services sector in the developed economies. Different skills and attributes are in general required to produce services compared with manufactured goods, and this has changed the composition of demand for skills. The demand for technical and manual skills has fallen while the demand for interactive, cognitive and customer skills has risen.

Each of the developments described above has made it harder for low skill people to find and keep decent jobs. The combined impact of these developments has amplified the effects of each one taken on its own. Two of the hardest hit groups are low skill people generally (especially men) and workers who are outside the “prime age” band—both young and older.

2.2 Developments in the wage structure and low wage work

English-speaking countries have had similar developments in their wage structures over the past 25 years. While the trends have been the same, the degree of change has been different. The changes have generally been most marked in the United States, followed by the UK. They have been more muted in Canada, and particularly in Australia. The European OECD countries have had a more varied experience. For ease of exposition (and because they have been the most extensively examined), we here summarise the main developments in the US.

- Wage inequality has risen substantially since the early 1970s for both men and women full-time employees, with particularly fast growth in wages occurring at the very top.

- Real wages for men *fell* over the two decade period to the mid-1990s, with the lowest wage earners losing the most (up to 30% of the value of the real wage).
- Increased cross-section wage inequality has not been offset by a rise in wage mobility over time or a compression in non-wage benefits, so that longer term inequalities have also risen.
- Wage differentials by education, occupation and age have all increased, but the gender differential has decreased. At the same time, wage inequality within age, education, sex and occupation groups has risen.
- Since the mid-1990s, real wages have increased their rate of growth and all points on the wage distribution have benefited.

The rise in inequality in the wage structure in the US has been dramatic and has translated into a substantial rise in the inequality of household incomes and in consumption. For lower skill men, there has also been a fall in employment and in the value of the real wage. This has occurred while the overall levels of education have risen considerably. Bernstein and Hartmann (1999), for example, report that men who had not completed secondary school had real hourly wages that were on average 30% lower in 1997 than in 1973. The comparable figure for women was 3% lower. Both men and women who had completed secondary school but not done post school education had falls in their real hourly wage of 16%. Over the 32 year period ending in 1995, the real weekly wage for men in the bottom 30% of the wage distribution fell up to 5%. The higher the wage, the faster the wage growth. The ratio of the wages of fully employed men at the 90th percentile to that of men at the 10th percentile of the wage distribution rose from 3.3 in 1963 to 4.7 in 1995. (Katz and Autor, 1999:1468,1471,1475).

Table 1 shows the considerable difference in the course of male wage inequality across the OECD. The big increases for the US and UK stand out (followed by the increase for New Zealand). Austria, France, Norway, Sweden, Finland, Germany and the Netherlands by contrast have had only small rises in inequality, or even a fall in the case of Norway and Germany.

> These patterns are suggestive of an important role of differences and changes in labor market institutions and regulations in explaining the cross-country divergence of wage structure changes in 1980s and 1990s – And the existence of either a decline in the relative wages of the less skilled, a sharp rise in the unemployment of the less skilled, or both in almost all OECD countries over the past two decades despite expanding relative supplies of highly educated workers is strongly suggestive of a common shift in labor demand against the less skilled.
>
> Katz and Autor, 1999:1503-4.

There is widespread agreement among labour economists that one aspect of "labor market institutions and regulations" that has an impact on wage inequality is the level and enforcement of a minimum wage. There is clear evidence for the US, UK, Australia, New Zealand and several European countries that changes in the level of minimum wages are directly inversely correlated with the level of wage inequality. Where the real value of minimum wages has been allowed to fall, overall wage inequality has risen: the more minimum wages have fallen, the more inequality has risen. (Blau and Kahn, 1999:1434; Keese, Puymoyen and Swain, 1998:235).

Table 1 - Trends in wage inequality for men employed full-time, selected OECD countries, 1979-94

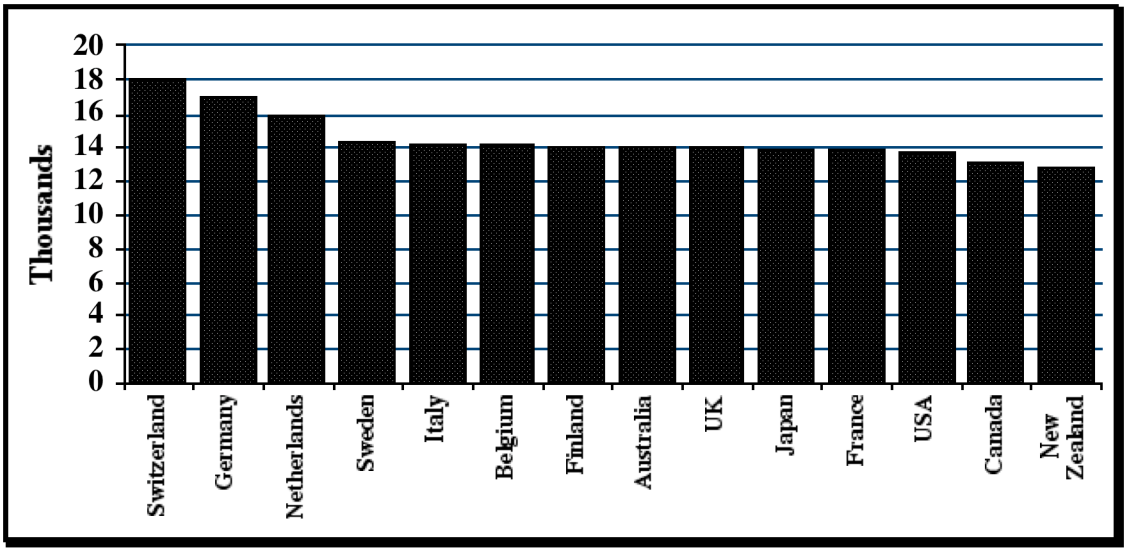
	1979	1989	1994	Change from earliest to latest year
Australia	2.7	2.8	2.9	0.20
Austria	2.6	2.7		0.08
Canada	3.5	4.0	3.8	0.33
Finland	2.4	2.6	2.5	0.10
France	3.4	3.5	3.4	0.03
Germany	2.3	2.2	2.2	-0.10
Italy	2.3	2.2	2.6	0.34
Japan	2.6	2.9	2.8	0.19
Netherlands	na	2.6	2.6	-0.03
New Zealand	na	3.1	3.2	0.09
Norway	2.1	2.2	2.0	-0.08
Sweden	2.1	2.2	2.2	0.09
UK	2.5	3.1	3.2	0.76
US	3.2	4.0	4.3	1.07

Note: Ratio of wage of 90th percentile earner to 10th percentile earner
Source: Katz and Autor, 1999:1503

As Figure 1 shows, the upper earnings limit (expressed in PPP $US) of full-time workers in the 10th and 20th percentiles of the wage distribution do not vary a great deal across a range of OECD countries. Low wage workers are paid particularly well in Switzerland, Germany and the Netherlands, but there are only small differences among the remaining countries. New Zealand low wage workers have the lowest wages of those reported.

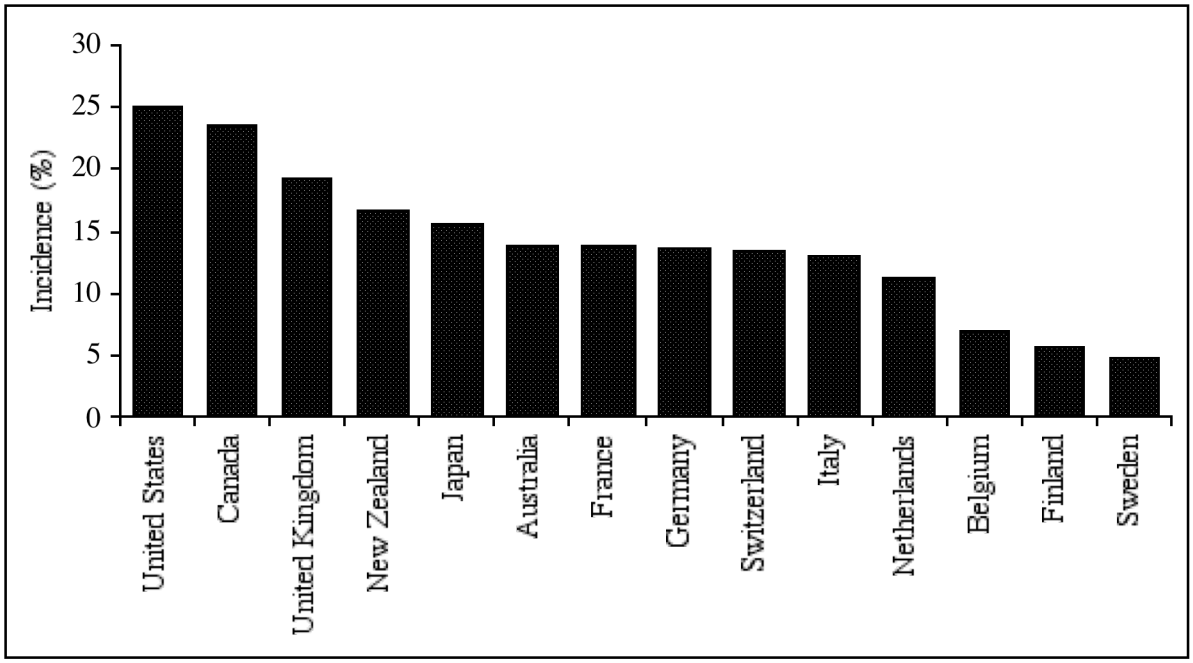
There is much greater variety in the extent of low wage employment among the OECD countries than in the level of wages of low paid workers. Figure 2 shows the proportion of full-time workers in a range of OECD countries who were, in the mid-1990s, receiving less than two-thirds of median earnings. The proportion varies from a high of 25% for the US to a low of 5% for Sweden. It is notable that it is English-speaking countries (and Japan) that have a high incidence of low pay. This includes New Zealand, with 16% of its full time workers earning less than two thirds of median earnings

Figure 1 - Low earnings of full-time workers 1994: annual gross earnings, expressed in US$ using purchasing power parities for private consumption



Source: Keese, Puymoyen and Swaim, 1998:225

Figure 2 - Incidence of low pay in selected OECD countries: 1994/5



Source: OECD 1997:48. Low earnings are defined as less than two thirds of median full-time earnings. Data are for full-time workers.

2.3 Implications for upward wage mobility

There is a growing literature on the phenomenon of a so-called "skills-biased" technological change. This bias in technological growth in favour of high skills has widened the wage gap between the low-skilled/low-paid and the highly-skilled/well-paid employees. That is, low wage jobs pay less than they used to in real terms and relative to the average. This real decline in the low skills wage could be due to changes in the characteristics of the low skills jobs and workers, or to a fall in the returns to low-skills jobs. If the latter, it suggests that the proportion of non-training jobs has risen. Gregg and Wadsworth (2000) argue that there has been a widening gap between the pay levels of

entry level jobs and other jobs in Britain. Further, this is attributable to the characteristics of, and not the rewards to, low-skills jobs and low skilled workers. They conclude that there has been "---a simple decline of [the pay of] entry jobs in the distribution of all jobs unrelated to observable characteristics and returns to those characteristics." (p 516).

It is important to appreciate that, in the English-speaking world and especially in the US, the rise in the gap between the wages of low skilled workers and high skilled (educated) workers has arisen in large part because of the *fall* in the wages of the less skilled/educated. One reason for this is, as Gregg and Wadsworth identify, that the average ability of young people with low levels of education is most likely falling. As the average levels of education of a cohort rise, those who are left behind (drop out of school) are not a random sample of the group. They are those who for a variety of reasons do not find formal education beneficial.

While technological change might have been increasing the productivity of high skill workers more than that of low skill workers, demand for each has grown at a comparable pace. That is, technological and other changes have not seen low wage jobs disappear: to the contrary, they have grown in proportion to the high paying jobs, at the expense of middle-paying jobs. This phenomenon has been referred to as the "disappearing middle".

Freeman (1998), among others, gives evidence of what he called a "bifurcated growth" of employment in the US. This uneven growth is evident in both occupations and industries, with both high-wage services and low-wage services growing faster than any other industry group in the US. The US Bureau of Labor Statistics forecasts that of the ten jobs expected to provide the largest jobs growth to 2006, seven of them require only "short-term on-the-job training" as the required skill. They include retail salespersons, truck drivers, home health, teaching and nursing aides, and receptionists and information clerks. The other three jobs with expected fast employment growth are at the high skills end, requiring at least a college degree. The seven low skilled jobs (and there are many others like them also forecast to expand their share of employment) do not require much skill to perform and do not provide promotion ladders. It is most unlikely that workers who stay in these jobs would benefit from much skills development or wage mobility. Furthermore, this phenomenon seems to be generalised among OECD countries. If this trend continues, the fears of a low-wage/low-skills trap for individuals may prove both well founded and worsening over time, as it would be harder to cross the ever-widening hollow middle to make it to the high-wage end.

3 What are low wages?

Berstein and Hartman (1999:28) provide a very useful summary of what constitutes the low wage labour market. They observe that there are two approaches to characterising this market.

> Job-based definitions identify a set of jobs characterised by low wages, few benefits, and little upward mobility. Worker-based definitions are typically based on a worker's absolute or relative hourly wage, earnings (wages times hours worked), or educational level. Job-based definitions provide the theoretical foundation and worker-based definitions, the empirical basis for study of the low-wage labor market.

The job-based approach is strongly associated with the concept of segmented labour markets. Segmented labour market theory argues that there is not a single market where people are smoothly allocated to whatever job best matches their abilities, and paid accordingly. Rather, there are two distinct markets. The primary market has well paid jobs, with reasonable levels of security and opportunities for skill development and advancement. The secondary market, in contrast, comprises low paid jobs that are often insecure, have few fringe benefits or promotion possibilities and little opportunity for workers to improve their skills and wages. A key element of the concept of segmented labour markets is that it is difficult for workers to move from the secondary market to the primary market: there is much more job mobility within each of the segments than there is between them.[1]

The extent to which the concept of a segmented labour market is illuminating remains controversial in economics. It is difficult to find good empirical data on the features that are distinctive to this view of the labour market. In this review, we focus on the worker-based definition of the low wage labour market. We discuss later the extent to which low wage workers are indeed stuck in low wage jobs. But we do not consider, as does segmented labour market theory, the roles of discrimination and other systemic features in trapping people into low wage jobs.

The definition of what constitutes a low wage is arbitrary. The choice made is important because it substantially affects both the numbers and characteristics of low wage workers.

There are three broad approaches to defining a low wage. The first enquires into the minimum earnings needed to ensure that an individual or family of defined composition is able to live at an acceptable standard of living. This was the approach adopted by Justice HB Higgins when he determined the first basic, or minimum, wage in Australia in 1907. The difficulty with this approach is in determining an acceptable standard of living for a full-time worker and his/her family. Of course, a given wage will deliver a different material living standard to families of different size and composition, so a wage that is adequate for a single young person may not provide an acceptable income for a family of five. These are some of the compelling difficulties that have caused the Australian Industrial Relations

[1] Berstein and Hartman (1999) believe that the notion of segmented labour markets (along with the idea of wage contours) is illuminating and important to a richer understanding of low wage labour markets. These two concepts "provide a compelling conceptual structure within which to understand the low-wage labor market. They offer a rich model of the determinants of wages and employment, which, unlike traditional labor market theory, can incorporate the role of labor market institutions (such as unions, minimum wage legislation, and international trading regimes), along with established power dynamics (such as race- and gender-based discrimination)." p 30.

Commission to abandon the attempt to identify a “living wage” in recent decisions that set minimum wages.

A second approach to defining a low wage is to relate it to administratively-set expressions of what constitutes a low but acceptable income. This might be a legislated minimum wage, or some multiple of a selected social welfare payment, such as an old age pension. Such an approach enables the researcher to avoid imposing his or her own interpretation of what is a low income, and to substitute instead that determined by the parliament or some agent of government. The drawbacks with this approach are twofold. If the minimum wage is used, it will often be the case that only a small number of people (especially adults) are actually receiving this rate. If some multiple of a social welfare benefit is used, then the choice of multiple (to reflect the disutility of work) becomes as arbitrary as selecting a minimum acceptable standard of living.

The third approach defines a low wage as some fraction of the median wage. Again, the choice of fraction is arbitrary. Two-thirds of the median full-time wage is a frequently used figure. This makes low wages a relative concept – there is no direct relation with the ability to purchase some minimum basket of goods and services. A related, even more relative, approach is to take the wage that defines the bottom quintile or decile of wage earners. If a given percentile is used to define low wages then it follows that the proportion of the workforce that is employed on a low wage cannot change.

When choosing among these options, it is useful to select a measure that is widely used, in order to facilitate comparisons across countries and studies. Two-thirds of the median wage of a full-time worker is probably the most widely used measure, but the empirical work to be reported below is not uniform in the definition adopted. The two-thirds median was adopted by the European Commission Working Group on Equitable Wages. It has the advantage of being somewhat above the minimum wage of most countries, which means that a non-trivial number of workers will be encompassed within the definition. It should be noted that the conclusions about who is a low paid worker, and the degree of mobility in and out of this state, are somewhat sensitive to the choice of low wage. Specifically, levels of mobility are higher, the lower is the value of the wage chosen. So is the proportion who are youth.

People can have low earnings because they are not employed full-time - working for only a fraction of the normal working week or only a fraction of the normal number of weeks in the year. There is also quite a deal of short term volatility in the level of wages earned, especially among new entrants to the labour force. It is preferable to include as low wage workers only those who have persistently low weekly earnings, arising from a low hourly wage. People with low wages have low earnings, but people with low earnings do not necessarily have low wages. They may be receiving quite reasonable wages, but voluntarily or involuntarily, be working less than a normal working week or year. We therefore mostly exclude from consideration the issue of low earnings, as distinct from low wages.

The links between low wages, low earnings and low standard of living are set out in Figure 3, below.

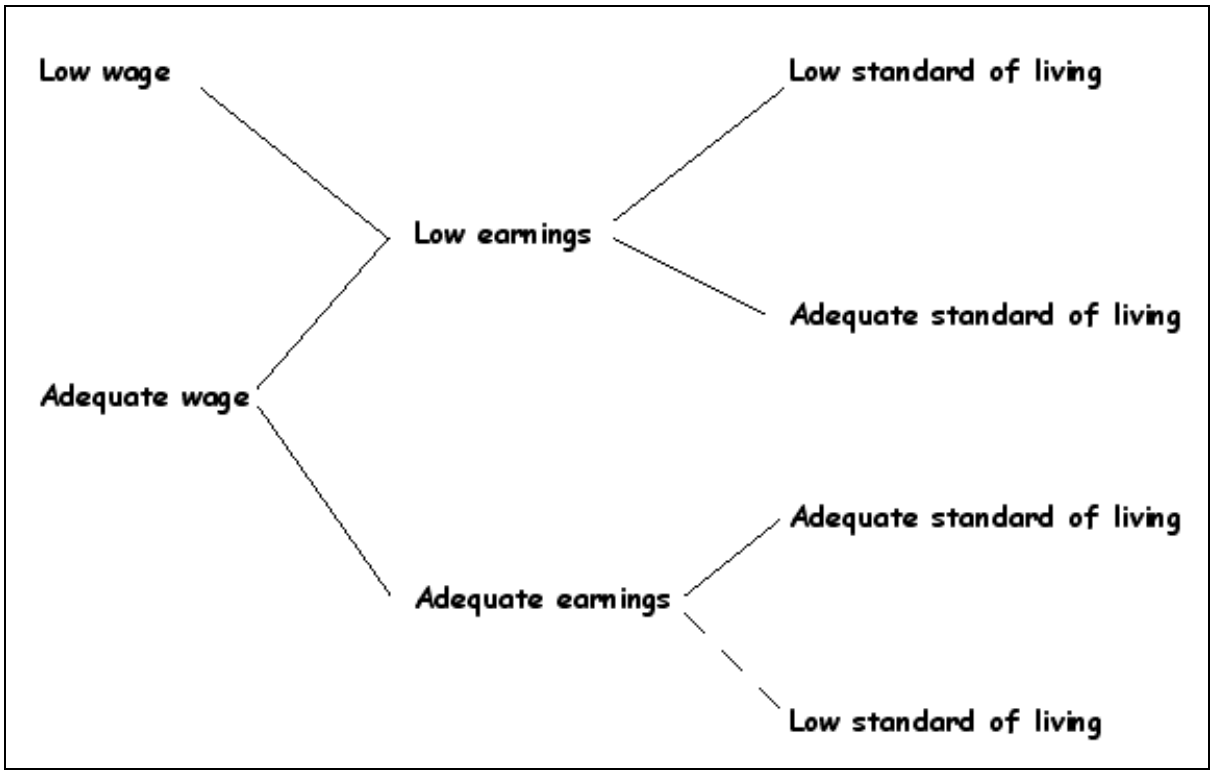
Low wages will lead to low earnings. But people who have adequate wages may also have low earnings, if they work a sufficiently small number of hours per week or per year. People with low earnings may in turn have a low standard of living. But it is quite possible, and indeed common, that they do not. The link between the level of earnings and the standard of living is indirect, because people mostly live in families where resources are

shared. If the low wage/low earnings worker lives with one or more others who have adequate earnings, then his or her standard of living is likely to be quite adequate. We show a dotted link between adequate earnings and low standard of living. People who have adequate (or not-low) earnings *may* have a low standard of living, if they or their family have particularly high expenditure needs (such as a large number of dependent children, or family members with a disability).

The relationships illustrated in Figure 3 may hold at the current time (eg, for a week, month or year) or they may hold over a more extended period. The major policy concern with low wages is that people can have a low standard of living for many years, caused by low earnings, that are in turn caused by low wages. This is a sub-set of the people who at any moment of time have low wages, and is not the whole cause of a low standard of living.

There is some empirical work that examines the link between the relationships set out in Figure 3.

Figure 3 - The relation between low wages, low earnings and low standard of living



Savage (1999) quotes a study by Dixon for New Zealand that finds that about one quarter of low wage earners live in households that are in the bottom third of the household income distribution. (p 8) Richardson (1998) and Richardson and Harding (1999) conclude that, for Australia, while the majority of low wage workers do not live in low income households, a sizeable minority does. Again, the experience is not homogeneous. “There are indeed people who earn low wages who also live in comfortable middle and upper income households. There are also low-wage workers who support dependent children and who struggle on low incomes.” (Richardson, 1998:576-7). For Ireland, Nolan (1998) finds that while 24% of full-time employees are low-paid (earn less than two-thirds of the Irish median gross weekly earnings), as few as 6 and 13% of them live in households below half and 60% of average equivalent income, respectively. These proportions of equivalent incomes are commonly used as poverty lines. However, the overwhelming

majority of full-time employees in poor households (as many as 90% in the UK) are low paid. So while the experience of poverty implies being low paid for people who are full-time workers, the reverse is often not true. Similar outcomes are found in the United States (eg, see Burkhauser and Finegan, 1993).

In exploring the link between low wages and low standard of living, the OECD (1997:12) observes that there is a high positive correlation, across countries, between the incidence of low paid employment and the proportion of people living in low income households. They report that while in most European countries, 10% or fewer of full-time low wage workers live in poor households (ie, with an income of less than half the average adjusted household income), in the US the comparable figure is about 25%.

4 Who are the low wage workers?

Most research in this area concentrates on new entrants who are young. Youth comprise only a portion of low skill workers. In brief, people move into low wage jobs from the education system, from being outside the labour force for other reasons, from unemployment and from higher wage jobs. People move out of low wage jobs into unemployment, out of the labour force, and into higher wage jobs. We define upward mobility only as movement into a higher wage job. "Stability" obviously includes staying in a low wage job. But it also will be defined to include moving to unemployment or out of the labour force.

The OECD (1997:7) observes that "While the overall incidence of low pay varies substantially across OECD countries, it tends to be concentrated among the same workers and in the same jobs." Low wage jobs are disproportionately found among those with relatively little education, among women and among youth and older workers. The types of people who do low wage work comprise four main groups. These are:

- school leavers (or current students) with no prior work experience
- sole mothers
- people previously unemployed or out of the labour force, such as mothers returning to the workforce
- displaced workers made redundant by business closures or restructuring who cannot find employment in their field of specialisation (such as men who lose jobs in manufacturing).

In countries with a sizeable migrant population, recent migrants and migrants who are not fluent in the language of their new country are frequently found among the low wage workers, even if they have quite high levels of formal education.

In the UK, the wages of people who are in entry jobs (ie, in the previous period were not employed, for whatever reason) are typically in the 20th percentile of the overall wage distribution: people in entry jobs get paid significantly less, given their observable and unobserved characteristics, than do other employed people (Gregg and Wadsworth, 2000).

In the US, there is also a strong race dimension to the low wage group, with blacks and Hispanics over-represented. France and Japan have a relatively high proportion of women in their low wage population.

Most research on low wage employment focuses on the first group because of the availability of longitudinal data on the employment dynamics of youth, which are rarely available for the other three groups.

Tables 2 and 3 give an excellent overview of who are the low wage workers. Table 2 shows what the typical low paid worker looks like in terms of age, sex and education. The comparisons focus on the main English-speaking countries, with Germany included to give the different European picture. Low wage workers are more likely to be women than men, except in Australia and New Zealand. Note that women make up fewer than half of the full-time workforce in all these countries, so that they are disproportionately likely to be low paid.

Table 2 - Distribution of Low-Paid Employment by Sex, Age and Education (%)*

	Aust.	Canada	Germany	NZ	UK	USA
Total	100.0	100.0	100.0	100.0	100.0	100.0
By sex						
Men	55.7	40.0	38.9	52.5	41.7	45.4
Women	44.3	60.0	61.1	47.5	58.3	54.6
By age						
Under 25 yrs	46.6	22.9	58.6	41.0	28.5	21.6
25-54 yrs	47.1	69.9	37.9	51.9	59.8	68.7
55+ yrs	6.2	7.2	3.7	7.1	11.7	9.8
By education						
Basic	na	7.7	75.4	56.5	na	21.3
Upper sec.	na	56.5	11.	21.9	na	43.7
Higher	na	35.8	6.8	20.8	na	34.9

Note: The data refer only to full-time workers. Low wage is defined as less than two thirds of the median earnings of full-time workers.
Source: Keese, Puymoyen and Swain, 1998:230

Table 3 - Incidence of Low-Paid Employment by Sex, Age and Education (%)

	Aust.	Canada	Germany	NZ	UK	U.SA
Total	13.8	23.7	13.3	16.9	19.6	25.0
By sex						
Men	11.8	16.1	7.6	14.4	12.8	19.6
Women	17.7	34.3	25.4	20.7	31.2	32.5
By age						
Under 25 yrs	34.5	57.1	50.4	41.3	45.8	63.0
25-54 yrs	8.8	20.1	6.7	11.6	15.0	21.2
55+ yrs	12.5	20.8	5.4	15.6	22.9	23.7
By education						
Basic	n.a.	36.3	15.9	23.5	n.a.	54.5
Upper sec.	n.a.	28.5	26.3	10.7	n.a.	32.4
Higher	n.a.	17.6	4.2	14.2	n.a.	15.5

Note: *The data refer only to full-time workers. Low wage is defined as less than two-thirds of the median earnings for full-time workers.
Source: Keese, Puymoyen and Swain, 1998:230

With the exception of Australia and Germany, a clear majority of low wage workers are prime age (25-54). This is a very important statistic, because it makes it clear that low wages are not just a temporary event that young people experience in their transition from school to adult employment. It is also important because adults have adult responsibilities, including for the support and care of their children. Other evidence shows that many low wage adults live in families with an employed partner, which means that the family income is not necessarily low. But many others do not, in particular the women in mother-headed households.

It is surprising that, with the exception of Germany, many of the low wage earners have quite high levels of education, between a fifth and a third having post-school education. De Gripp and Nekkers (2001) report that in 1998, about 15% of high education workers in

the Netherlands, Germany, France and the UK had low wages.[2] This compares with between 40% (UK) and 55% (Netherlands and Germany) of the lowest education group.

Table 3 shows the same information as Table 2, but presented in a different way. Rather than identify the low wage workers, Table 3 shows which groups have the highest likelihood of being in low wage work. As with Table 2, the data are confined to people who work full-time. While in most of the countries considered there are more men than women receiving low wages, in all the countries the chances of being in a low wage job are higher for women than for men. This is most strongly the case in Germany and the UK and least apparent for Australia and New Zealand. In Germany, women working full-time are 3.3 times more likely to be in a low wage job than are men. In New Zealand, they are 1.4 times more likely. In Canada, the UK and the US, over one fifth of full-time workers aged over 54 receive low wages. In New Zealand the figure is 16%. Germany, with only 5% of older workers and 7% of prime age workers working in low wage jobs, presents the strongest case for the view that low wage jobs are a temporary stepping stone for youth as they move into higher paid jobs. This characterisation is more true for Australia than it is for New Zealand, and is least true for the UK, Canada and the US. In the US and Canada, over 20% of full-time workers in the prime ages of 26-54 receive low wages.

Those with more education clearly face lower risks of low wage employment in each of the countries for which there are data. In the US and Germany, it is higher education that makes the difference: in New Zealand it is upper secondary education. But more education is not fully protective. In Canada, New Zealand and the US, around 15% of full-time workers with higher education worked in low wage jobs.

The information presented in Tables 2 and 3 makes it plain that low wage workers are not homogeneous. While the risk of being low paid is everywhere higher for people under age 25, in most of the OECD countries the majority of low wage workers are older than 25. In New Zealand, over half of the low paid are in the prime age group of 25-54. Similarly, while everywhere the risk of having a low wage is higher for women than for men, in Australia, New Zealand and the Netherlands the majority of (full-time) low wage earners are men. If we ask what the typical low wage earner looks like, the answer will vary across the OECD. For the main English-speaking countries, the answer is that they are fairly evenly divided between the sexes, of prime age and have a basic or (in the case of Canada and the US), upper secondary education. Clearly, low wage employment is not confined to young people who have little formal education and who are using low paid jobs as a means to acquiring the skills to move on to better paid jobs.

The picture presented above is based on people who work full-time. In the English-speaking world, there has been a substantial growth in part-time employment over the past two decades. Many of these part-time jobs pay low wages. In studies of low wage workers in Australia, Richardson (1998) and Richardson and Harding (1999) examine all workers. This work concludes that:

- the profile of low wage workers is sensitive to the level at which the low wage is set (the higher the level, the more the low wage group looks like the general workforce)
- the risks of being in low wage work are higher for people who are female, employed part-time, aged 21-24, with low education, married if a woman and single if a man, and for non-student children living at home

[2] High education is defined as being in category 5-7 of the International Standard Classification of Education. Low wage is defined as the bottom three deciles of the wage distribution.

- the typical low wage worker is female, employed full-time, of prime working age, married and with little formal education: about one third have dependent children
- nearly all low wage men work full-time and 30% have dependent children
- one-quarter have a post-school certificate or diploma and over half are married
- they are most likely found in sales, personal service or labouring jobs, employed in wholesale and retail industry
- 27% lived at home with a parent
- the lower the wage, the more likely were the workers to be female, of prime age, employed part-time and married with dependent children.

Richardson and Harding (1999: 153) conclude as follows.

> Low-wage workers are not predominantly the sons and daughters of the affluent middle class, working a few hours each week to finance their holiday in Bali while studying law and business. Nor are they predominantly hard-pressed heads of families struggling to put food on the table to feed their families. There are some each of these groups, but they are relatively small in number. The typical low-wage worker works full-time, is of prime age, with no formal education qualifications, probably married and equally likely to be male as to be female. One-third have dependent children. The men are more likely than the women to be found in low income families.

Bernstein and Hartman (1999:29, 39) provide a very useful summary not only of the current picture for the US, but also how it has been changing. They conclude:

- Low-wage workers are disproportionately female, minority, non-college-educated, nonunion, and concentrated in retail trade.
- These characteristics notwithstanding, the low-wage workforce is becoming more male and more highly educated, which is to be expected given widespread educational upgrading and the long-term wage decline among non–college graduates.
- The likelihood of being a low-wage worker has increased, even when the wage impacts of changes in education, experience, occupation, and industry are taken into account.
- Rising education and experience levels and occupational upgrading have combined to prevent the share of female workers in low-wage jobs from rising. This has not been the case for men, even though their total share of the low-wage workforce is still below that of women.
- Like the rest of the workforce, the low-wage sector included more minorities and became older, more highly educated, and less likely to work in the manufacturing industry.
- Unlike the rest of the workforce, however, the low-wage sector included less women.
- Women made up an additional 4.3 percentage points of the total workforce, while their share in the low-wage group fell 9 percentage points.
- The “high school or less education” category declined by 13.5%.

The profiles contained in both summaries confirm that not all people who are employed in low wage jobs are young, single and have low education.

Young people are, however, more likely to be in low wage jobs than are older workers. This is entirely to be expected, as young people are making the transition from

student/child to independent working adult. Indeed, if all low wage workers were young (say, under the age of 25), then there would be little reason to worry about low wage jobs and every reason to believe that they represented a widely used means into higher paying jobs. By necessity, if all low wage workers are young, then duration in a low wage job is temporary.

Of course, the proportion of low wage workers who are young will vary depending on the definition of low wage and of young. Thus the picture given by different studies varies in ways that do not necessarily reflect real differences. Using US data for the first half of the 1990s, Long (1999) finds that as many as 46% of the workers earning the federal minimum wage are teenagers (aged 15-19), with only 6% aged 55 or more years. Similar percentages are reported by Card and Krueger (1995) and by Smith and Vavricheck (1992). When a more generous measure of low wage is used (two thirds of the median) and only full-time workers are considered, Table 2 shows that only 22% of US low wage workers are aged under 25.

To illustrate the sensitivity of the characteristics of low wage workers to the level of low wage selected, Table 4 compares the profile of US workers who are low wage according to the OECD definition (and work full-time) with the profile of minimum wage workers.

Table 4 - Comparison of the characteristics of US low wage workers: (1) earning the minimum wage and (2) full-time earning less than two thirds of median earnings

	Minimum wage	Two thirds median
Total	100.0	100.0
By sex:		
Men	40.7	45.4
Women	59.3	54.6
By age		
Under 25 yrs	64.6	21.6
25-54 yrs	29.8	68.7
55+ yrs	5.6	9.8
By education		
Basic	na	21.3
Upper sec.	na	43.7
Higher	19.5.	34.9
Family status		
Married woman	16.5	na
Married man	6.5	na
Live with other adult relatives	66.8	na
Live alone or with children only	10.2	na

Source: For minimum wages, Long 1999:496. For two-thirds earnings, Keese, Puymoyen and Swain, 1998:230

Compared with other OECD countries, the value of the US minimum wage is quite low. With this in mind, Table 4 provides a clear account of how the characteristics of low wage workers vary, depending on how low wage is defined. When the wage is set very low – as for the US minimum – then the low wage population is more female, much younger and considerably less educated than when a higher value of low wage is used. This US picture is consistent with that found for Australia (Richardson, 1998), where sensitivity of the low wage population to various levels of the low wage was explicitly examined The idea that low wage workers are mostly teenagers who live at home, and who rapidly move to higher paying jobs (and therefore whose low wages are unproblematic) has come mainly from US research that is based on the minimum wage population.

As with the Australian and US data reported above, a number of publications provide a more nuanced picture of the characteristics of low wage workers.

Entry jobs for people without higher education are typically low paid. In addition to youth, such jobs are taken by a) people who are unemployed, and b) mothers returning to the workforce.

Gregg and Wadsworth (1998), using British evidence, find that a high proportion of people in entry jobs were previously unemployed: a quarter had had an unemployment spell of more than two years, and another quarter had been less than three months out of work. Gosling *et al* (1997) found that, in the UK during the early 1990s, 56% of people who moved from unemployment to a job had entry wages that were in the bottom fifth of the wage distribution. We will look later at interesting new evidence on the cycling between unemployment and low wage employment.

Mothers returning to the workforce have similar characteristics to displaced workers, with the added difficulties that their time out of the labour force is often longer and they often return to work in part-time jobs with little or no chances for promotion. The obstacles facing mothers of young children, especially sole mothers, tend to make upward mobility especially difficult. Perhaps for this reason, Kim (2000) finds that in the US low wage women tend to be never married (almost half of the women who have never married are low-paid), and have children: having three or more children under the age of six makes the risk of low pay very high. The recent changes to the US social welfare system, that prevent people remaining on social welfare payments for more than two continuous years, are likely to magnify the results reported by Kim. The sole mothers being pushed into employment are overwhelmingly going into low wage jobs. It will be of great interest to monitor what proportion are able to move on to better paid jobs after a spell. Initial indications are that there is some upward mobility in earnings, but it is modest. Savner *et al* (2002) report that "--in most states, earnings in the fourth quarter after exit [from the welfare system] grew by only a few hundred dollars when compared to earnings in the first quarter." (p 3). A longer term study of welfare leavers in Wisconsin found that over three years earnings on average rose from $8,608 to $10,924, " – still well below the US poverty line." (p3)

In addition to new entrants to the labour force, some people end up in low wage jobs as a result of losing a higher paying job. There is consistent evidence that workers who lose their jobs suffer both an immediate and a longer term loss in pay, even when re-employed soon after they lose their jobs. (Kletzer 1998, Gregory and Jukes 1998, Fallick 1996). Furthermore, their wage rate remains well below that of the previous job for a number of years, if not permanently. Jacobson, LaLonde and Sullivan (1993) estimate that for their sample of US displaced workers, total long-term wage losses were on average 25% of initial earnings per year and persisted even six years after separation. Jacobson *et al* argue that these earnings losses are not due to any individual characteristics of displaced workers, since their original median age, skills, tenure and earnings growth were similar to those of staying workers. They find no indication that displaced workers" earnings ever return to their prior expected levels. Thus displaced workers' earnings losses may be permanent.

While the evidence of wage decline for displaced workers is strong, the research appears to be silent on what proportion of displaced workers end up in low-wage jobs as defined for this paper. This is a relatively new area of research and more is yet to be known about displaced workers. More longitudinal data are needed to further our understanding of the employment dynamics of displaced workers. Theory, with some empirical support, leads us to expect that workers suffering the greatest wage fall on displacement would be those who had a high level of human capital that was specific to their employer and/or to an occupation or industry that is in decline; had a high quality job match with their last employer; had a high-paying last employer; and had a seniority component in their pay.

The characteristics of low paid workers reported above have focussed on one feature at a time. It may well be, however, that sole mothers are likely to have low wages not because they are sole mothers, but because they are female and have low levels of education, for example. Some studies have sought to identify the impact on the probability of having a low wage of a specific attribute, holding other attributes constant.

One consistent finding of such studies is that women are significantly more at risk of low wage work than are men, other things equal (Dunlop, 2000; Eardley, 1998; Asplund and Persson, 2000). So too are youth. If young people are excluded, Dunlop (2000:16) finds no relation between age and the probability of being in a low paid job. Multivariate

analysis supports the earlier conclusion, that never married people are more likely to be low paid than are those who are or have been married (Dunlop, 2000; Stewart and Swaffield, 1997). For migrant countries such as Australia, the US and Canada, there is strong evidence from the migration literature that limited capacity in English is associated with low wages (and unemployment). Geography matters too. Dunlop estimates that Australians living outside the metropolitan areas were 6 percentage points more likely to be low paid than their metropolitan counterparts (though this comparison makes no allowance for differences in the cost of living).

5 What are the low wage jobs?

We turn now to the demand-side of the low pay literature, in a brief look at which jobs or industries are the most likely to pay low wages.

We would expect low wage jobs to be found in places where workers are likely to have a relatively low productivity. These include jobs where workers are equipped with little physical capital and which require little scarce human capital. Such jobs are found relatively frequently in the services sector, especially in personal services and in retailing. Large numbers of earnings regressions run in many countries find that employment in small firms and in the private sector, other things equal, is associated with lower wages. This suggests that small private sector firms will be responsible for a disproportionate share of low wage jobs. The empirical evidence supports these suppositions.

Long (1999) and Smith and Vavricheck (1992) found that about 55% of minimum wage earners in the US in the first half of the 1990s worked in the retail trade industry—a large proportion being in hospitality. This is consistent with the Australian evidence cited earlier (although there, for men, labouring jobs were also important) and with other American evidence (Kim 2000). It is also consistent with the conclusion drawn by the OECD, that "A high proportion of all jobs in the wholesale, retail and catering sector are low paid, whereas such jobs are scarce in transportation and communications, and public administration." (OECD, 1997:8).

In a detailed description of entry jobs, using data from 1997-98 Labour Force Survey in Britain, Gregg and Wadsworth (2000) find that low paid entry level jobs are often located in expanding or high-turnover sectors. These are mostly in *retail* (27% of entry jobs), *"other" services*- ie, other than retail, transport or finance - (27%) and manufacturing (18%) industries. They are most likely to be *less-skilled manual* (40%) and non-manual (30%) jobs. Eighty seven% of entry jobs are in the private sector. According to Gregg and Wadsworth, while three-quarters of all jobs are permanent full-time, the ratio is only one-third in entry jobs. While only 7% of all jobs are temporary contract jobs, the figure is one-third for entry jobs. Entry jobs are thus relatively insecure, as well as being low paid.

The above-cited literature on low-paid workers highlights the fact that certain industries and occupations pay low wages. These occupations are mostly in low-skills services such as retail, personal services, and are more likely to be in small private sector establishments. Also, the low-paid workers are often in part-time casual or contract jobs.

Many low wage jobs are part-time and/or casual. The extent of part-time work and its relation with low pay varies considerably around the OECD (ILO 1997). Australia and the UK, with about one quarter of their workers employed part-time, are at the high end of OECD countries (OECD, 1999). In most countries, part-time jobs are relatively low paid and have fewer fringe benefits than equivalent full-time jobs and are disproportionately taken by female workers. The main reason for the low pay is the type of job done: it is not usual to pay less per hour to a part-time worker than is paid to a full-time worker doing the same job (ILO, 1997). Indeed, the European *Directive on Part-time Employment* now requires countries to act to ensure that workers who are employed part-time are not thereby made worse off on a pro-rata basis. Part-time work tends to be in industries and occupations that have low pay. For example, it is unusual to have people in supervisory positions working part-time. In the European Union, in the mid-1990s only about 3% of men aged 24-49 were employed part-time (OECD, 1999). While part-time work and

casual work are different categories, in practice they often overlap. In Australia, people who are employed on a casual basis are required to be paid about an additional 20% in order to compensate for the absence of benefits such as paid leave. This arrangement is unusual.

In a study of part-time work in the UK, Tam (1997: 243) concludes that, compared with full-time work, it has a number of disadvantages for future employment prospects.

> Because of the low-skill nature of part-time work, it has a channelling effect on women's lifetime employment prospects. This study shows that while part-time work is not associated with job insecurity and unemployment, it constitutes a trap which lowers women's lifetime employment prospects and earnings.

The link between part-time work and low wages is complex. On the one hand, part-time work is frequently used by mothers as a way of reconciling the demands of home and paid employment. In Australia, most are happy to work part-time. Such jobs are often also taken by full-time students as a way of supplementing their incomes while studying. In many of these cases, part-time work is not problematic. On the other hand, increasing numbers of young people not in full-time education, and adult males, are accepting part-time work because they can find no better. In evidence given below, sole mothers in the US are quite unable to earn enough to provide an adequate standard of living if they work part-time: the combination of short hours and low pay leads to very low earnings.

Harley and Whitehouse (2001) use UK and Australian data to examine whether women employed part-time earn less and have poorer conditions of employment than their sisters in full-time jobs. They conclude that part-time workers in the UK are worse off than those in Australia. In both countries, part-time workers have some disadvantage in terms of relative earnings, autonomy on the job, and feelings of job insecurity. But the extent of the disadvantage, especially in Australia, is generally quite small.

To this point we have defined low wages and described who occupies low wage jobs and where these jobs are found. Before we go on to consider the central question of this review – the extent to which low wage workers are able to move on to better jobs – we consider briefly why firms pay low wages, and why workers accept them.

6 Why pay low wages?

It is almost tautological to say that firms pay low wages because the marginal productivity to them of the worker is low. There is a vast amount of empirical work done by economists to understand why some workers have low productivity (ie, are paid low wages) while other people have high productivity (ie, are paid high wages). It is clear from this work that the number of years of experience in paid work and levels of formal education are important factors in causing higher wages. Generally, people who have been in the paid labour force longer and/or have more education have higher wages. It is also often true that people who have been with the same employer longer are paid higher wages, although more recent work finds that voluntary movers often have wages higher than stayers. This worker-based perspective does not explain on what basis firms choose to employ a greater or fewer number of low productivity workers.

The positive link between experience and wages is interpreted by labour economists to mean that people learn important skills on the job, formally or informally (see Acemoglou and Pischke, 1998, for a summary). These skills enhance their productivity, and it is this additional productivity that is rewarded with higher wages. Some of the skills learned will only be of value to the current employer, eg, unique work processes, culture or customer details and whether the job is a good match for worker and firm. It is these firm-specific skills that are rewarded by wages that rise with tenure. This standard interpretation is not without its critics. But it describes the empirical regularities well enough and has a coherent, human capital, theoretical base. It embeds the idea that low wage jobs provide the first foot on the ladder. People who start employment without substantial skills learned in the formal education system must learn on the job the skills needed to be a productive worker. Low wages facilitate this learning in two ways. One is that it can be profitable to employ people without particular skills if it is not necessary to pay them very much. The other is that the payment of low wages means that the costs of acquiring skills on the job are borne at least in part by the worker. It is also implicit in this standard human capital formulation that some jobs will not facilitate much upward wage mobility. These are jobs in which the skills required are low level and quickly learned and are not the foundation for further skills development in the firm or the occupation. The fact of being employed is not sufficient to ensure that more than the most basic skills (such as turning up on time and being reasonably reliable) are learned. For early employment to be the beginning of wage progression with experience, some processes must be in place to develop the productive skills of the worker. These may be formal or informal. But the repetition of relatively simple tasks, such as cleaning, will not of itself provide the foundation for upward wage mobility.

The issue to be briefly discussed in this section is what motivates firms to seek to employ workers whom they believe have a low productivity. Which firms, and why, employ new entrants to the labour force who have relatively low levels of education, and employ people who have been out of a job because of unemployment or for family and other reasons?

We know that employers of low skill labour tend to be in the private sector, to be small, and to be in service industries, particularly retailing, personal services and low skill clerical and cleaning services provided to business. But we also know that within quite narrowly defined industries and even occupations, there is a wide variation in the level of wages paid by different firms (Mortensen and Pissarides, 1999).

6.1 Intrinsic to the work

It is fully consistent with standard human capital theory and the assumption of a competitive labour market that some jobs will require low levels of skill to perform, and that the workers who do them will in consequence be paid a low wage. Examples are cleaning, collecting tickets and picking fruit. At a macro level, the number of such jobs offered by firms will be influenced by the pattern of consumer demand, technological change, the technical and regulatory capacity to import low skill-intensive products and services, and the costs of employing low skill labour. It is clear from the diversity among the OECD countries in the proportion of workers who are low paid, that the skill intensity of overall production is not simply determined by technological possibilities. But available technology is relevant. In all OECD countries, low wage jobs are found in similar industries and occupations and this is best understood as being the consequence of shared methods of production.

If parts of a firm's production process can be performed using low levels of skill, and if the institutions of the economy permit commensurately low wages to be paid, then profit-maximising firms are likely to choose a low productivity/low wage production technology. The interesting empirical question is to understand the extent to which firms have choices about using low skill/low pay technologies as distinct from higher skill/paying alternatives. What proportion of the work performed by low wage jobs is capable of being performed in ways that are higher productivity, and thus would be consistent with paying a higher wage? This is a complex question on which recent work is shedding considerable light. We touch only lightly on this topic because we interpret the questions that motivated this paper to be ones that center on the experience of workers.

6.2 Choice of skill levels in production

While some low wage jobs may intrinsically involve low productivity, others are low wage as a matter of choice by the firm. Technology will determine some of the options available—is there a high productivity technique available? If so, what determines whether or not a firm chooses that path? One set of factors that is relevant is the capital requirements of the alternative technologies. Higher labour productivity is usually the result of the application of more capital (physical and/or human) to the production process. Thus one reason for firms to choose different skill strategies for their labour force is that they face different costs of capital. In particular, small businesses often face greater costs of borrowing than do larger firms, because they are more risky. We can understand part of the observed variation in the use of low wage labour in terms of differences in the costs of complementary factors of production.

But it is likely that in some cases there is simply more than one profit-maximising combination of skill levels and capital that is available to the firm. Some firms choose the higher skill/wage route while others choose the lower skill/wage route. The profitability of these choices will be influenced by how low the costs of employing low wage labour can fall. Lane and Stevens (2001:3) cite a number of studies that lead them to conclude that "—firms, even within quite narrowly defined industries have quite different, and persistent, workforce composition, productivity and turnover patterns." This important work makes clear that there is not a single profit maximising technology and production strategy that will be adopted by each firm that is in the same product market. (Nor can we rule out that at any moment of time there will be a number of firms that, through incompetence, are employing strategies that are not profit maximising). The conclusion is important because

the choices made by firms have substantial impacts on the opportunities that are available to workers.

There is strong empirical evidence that low wage jobs are subject to significantly higher turnover than are higher wage jobs. A firm deciding to use a low wage/skill production strategy must take into account not just the relative costs of capital, skilled and unskilled labour, but also the costs of turnover. Turnover is expensive to a firm because of the costs of hiring and firing and because workers accumulate knowledge on the job that is specific to the firm. A number of studies have noted that the US has relatively low levels of firm-provided training and relatively efficient job matching services and high levels of turnover (Brunello and Medio (2001); Freeman (1995); Blinder and Krueger (1991). The two are believed to be related. That is, firms do not train because they do not expect workers to stay long enough to enable them to obtain an adequate return on the costs of training. It is cheaper to acquire the skills they need from the market, or to use low skill methods of production. The lack of investment in training of workers, and the payment of low wages, in turn encourage workers to quit, which reinforces the low training, high turnover equilibrium.

7 Why accept low wages?

The simple answer to the question of why accept a low wage job is that people cannot do any better. But within this overall response are hidden a number of reasons that are worth distinguishing.

7.1 Low productivity

A whole book could be written on why people have low productivity. Here we summarise the sources of low productivity without providing a full explanation of any of them. The purpose of this section is to make clear that there is a variety of reasons why people have low productivity.

In the simple model of the labour market, people are paid low wages because they have a low marginal product. In practice, low marginal product is interpreted to mean that they have low skills. A human capital perspective dominates our understanding of what comprises skills, and how to obtain them. Thus people have low wages because they have low human capital. The major components of human capital are formal education and skills learned on the job. This line of reasoning concludes that people have low productivity, and hence low wages, because they have not put the effort into learning productive skills through the formal education system, or have not found a job, and stuck at it, in which they can learn skills in a less formal manner.

Why do people not learn the skills necessary to obtain a job that pays a reasonable wage? Part of the reason may be choice. Learning skills is an investment, in which the costs are incurred early and the payoffs are received over time. As in any investment, the present value of the return on the investment depends on the discount rate, or emphasis given to the present over the future. For a number of reasons (including inability to borrow or to otherwise finance their time out for education) some people have higher discount rates than others. People with high discount rates will be discouraged from investing in education. We do not here go into the reasons for high discount rates. We note, however, that there is a systematic relation between high discount rates and low socio-economic status.

The expected returns to formal education will also be low for people (women) who do not expect to spend the major portion of their working age years in full-time employment.

But low levels of human capital are not always a matter of choice. We need to remind ourselves that earnings equations that seek to explain differences in levels of earnings, and emphasise returns to human capital, leave a great deal of the variance unexplained. Some people do not proceed with formal education because they fail. They may be poorly taught or not have the intellect required to comprehend the material, or not have access to a range of educational opportunities, or be bullied and humiliated at school. People who come from difficult family backgrounds, for example where there is abuse, or addiction or criminal behaviour or mental illness, are not likely to find the ordinary classroom a very productive place.

On-the-job learning is possible, of course, only if the work requires more than elementary skills, and the employer is willing to provide support for that learning.

People who have acquired some level of skills may lose them through job loss. Job loss can lead to loss of human capital because skills were specific to the employer or the occupation. If the job loss results in unemployment, there can be a general loss of skills and motivation, especially if the unemployment is long term.

Le and Miller (2001) study marginal workers in Australia (ie, people who obtained jobs from unemployment or under-employment). They conclude that the overwhelming reason for the low socio-economic status of the jobs these people are able to find is their low levels of human capital (formal education, general work experience, tenure on the job, and the negative effects of a long elapsed time between leaving education and finding their first job). The fact that they were less likely to work in the public sector and more likely to work for small employers also contributed to their poorer outcomes.

7.2 Other causes of low wages

While most attention in the economics literature is directed to low human capital as the source of low wages, there are other causes which we draw attention to here.

People may be paid a low wage because the skills that they have do not match what the employer wants. There is now a considerable literature on job search and the importance of a good match and we will say more about this later. A mismatch may occur because of ignorance on either side of the match. Or it may occur because the worker does not live within reach of a job that suits her or his skills. Geographical mobility is an important source of reduced unemployment, and has identifiable positive impacts on wages as well.

The job offers available to workers may be poor because of discrimination. There is a large literature on discrimination against women that identifies the wage penalty that they face on account of their sex. In the US, discrimination on the grounds of race is also well documented. People with criminal backgrounds (up to 60% of young black men in the US, Rangarajan, forthcoming) face even greater obstacles. Discrimination does not necessarily mean that the only job available is a low wage job. But its effect is to lower the quality of the job offers received, and thereby will lead to a larger proportion of the relevant group having to accept a low wage job.

Wages are not the only attribute of a job. People may accept low wages because they are compensated for by other characteristics. The work to be done may be especially attractive (in the arts, or as a park ranger). There may be excellent opportunities for further skills development, as is formally structured into apprenticeships. There may be high levels of job security (although in the main low wage jobs are less attractive in non-wage benefits, including security). Finally, some people are constrained by other dimensions of their lives to limit their search to jobs that are geographically proximate or have hours of work that fit with their other obligations.

7.3 Jobs as stepping stones

The whole notion of on-the-job training as investment in human capital implies that the return to employment in a job (including a low wage job) can include the expectation of a greater level of future earnings. A job with initial low earnings that leads to a future job with higher earnings can be called a stepping stone job. In an important paper, Connolly and Gottschalk (2001) analyse such jobs both theoretically and empirically.

In brief, they model jobs as having three dimensions. One is the current wage. The second is the expected rate of growth of that wage with tenure. The third is the access that the job will give to a better set of wage offers in future. This neatly represents the difference between a dead-end job and a stepping stone job. The former is one where there is little or no prospect of real wage growth in that job *and* the job does not improve future wage offers. We report their empirical findings in a later section which discusses how to exit low wage jobs.

7.4 Is a low wage job better than no job?

It is tautological to say that people accept low wage jobs because they are better than the alternative. In the short run, the alternative to a low wage job is no job. There are a number of dimensions to the comparison between no job and a low wage job, and we here set them out briefly.

A job provides:

- a current wage
- an expected future wage in that job
- an expected future probability of being employed
- an expected future wage in a different job
- an imposed structure to the use of time
- an obligation to undertake tasks at the direction of someone else
- an impact on self-esteem and psychological well-being.

The current policy movement to emphasise employment rather than the receipt of social welfare is justified in large part by the belief that, whatever the individual at the time thinks, he or she is better off in the longer run by taking any sort of job than by being on a welfare benefit. In signing the US Personal Responsibility and Work Opportunity Reconciliation Act, President Clinton said “Today, we are ending welfare as we know it. But I hope that this day will be remembered not for what it ended, but for what it began—a new day that offers hope, honors responsibility, rewards work---” (cited in Rangarajan, forthcoming). In fact what Clinton was signing was an Act that severely limited the alternative to a low wage job that many Americans relied on. Whether or not it is in the interests of potential low wage workers (as distinct from the taxpayers) to require them to work in a low wage job, rather than to receive a welfare payment, is a question that we explore empirically later on. It is clear from their choices that many of the people affected by the welfare changes in the US did not anticipate being better off from working in a low wage job. Were they wrong?

8 How much mobility is there?

8.1 Measuring mobility

To obtain a sound understanding of the degree of mobility from low wage jobs to better jobs, or to unemployment or out of the labour force, it is necessary to have longitudinal data, that follow the same individuals over time. These data are more difficult and expensive to obtain than normal survey data. In consequence, they are less comprehensive across time, countries and questions than are data based on cross section surveys. Nonetheless, there are now sufficient longitudinal surveys (or administrative data that enable individuals to be tracked) that reasonable conclusions can be drawn. Sound empirical data are crucial, since the question is not "is there upward mobility?", but how much mobility is there and what causes it. In reporting on the degree of labour market mobility, it is sensible to confine attention to people who are not also full-time students.

We have defined as upwardly mobile, people who move from a low wage job in period 1 to a higher paying job in period 2. The emphasis is on movement to a higher hourly wage, rather than to a higher weekly or annual earnings (which is affected by the number of hours worked). People are immobile if in period 2 they are still in a low wage job, have withdrawn from the workforce, or are unemployed.

Mobility is usually expressed in terms of transition probabilities. These describe what proportion of the low wage group in period 1 has moved to a higher wage in the next period (or has dropped out of employment). In most cases the empirical evidence for the US and the UK concludes that *there is strong persistence in low pay status*. A person who is currently low paid has a much higher chance of being low paid in the next period, than an otherwise similar person who initially had higher pay. (Stewart and Swaffield, 1999;Stewart, 2002; Connolly and Gottschalk, 2001).

We expect that mobility will be higher the longer is the time interval that distinguishes period 1 from period 2, and empirical evidence confirms that this is the case.

8.2 Mobility in the UK

Evidence from Great Britain (Dickens, 2000) shows that hourly wage mobility measured from year to year is low, but increases when measured over longer periods of time. For example, Dickens finds that, for males in the bottom decile of the wage distribution, only between 20 and 34% move up (with 35 to 45% of these only moving as far as the next decile) after one year (1993 to 1994). Between 43 and 48% remain in the tenth decile and the rest fall out of employment. Females' mobility patterns after one year are similar to those of males. Measured over three years (1991 - 1994), mobility is greater than for just one year, but Dickens' evidence shows that movement to a higher wage decile is still the minority experience for those who started in the bottom decile. Between 26 and 31% of males in the bottom decile remain there after three years; 25 to 32% move out of employment (about 10% were unemployed), while only 26 to 40% move up: only half of the upward-movers go beyond the second wage decile. Again, females' wage mobility is similar to that of males, although low wage women are more likely than men to leave the labour force. The evidence on wage mobility over five years shows that it is a little higher

than over three years, but many are lost from the sample. Of those who could be traced, fewer than one third of men and women in the bottom decile of the wage distribution at the beginning of the period moved to a higher decile job over five years. Stewart and Swaffield (1999) produce similar findings: they find a high degree of persistence in the earnings distribution, with low wage earners moving frequently between low wage jobs and unemployment.

The mobility estimates of Stewart and Swaffield (1999) illustrate the point that the lower the threshold for the definition of low wage, the greater the mobility. They use three measures of low wage—half the median, half the mean and two thirds of the median full-time gross hourly adult wages. These define between 8 to 22% of men and 24 to 49% of women as low paid (using the 1991 panel of the British Household Panel Survey). They find that for women, 75%, 83% and 87% respectively do not move above each of the low wage thresholds. The comparable figures for men are 60%, 65% and 75%. People who move out of wage jobs (into unemployment, non-employment or self-employment) are included in the percentage who do not move up. (p 27).

The movement between low wage employment and unemployment is examined in detail, for the UK, by Stewart (2002). Stewart seeks to explain why a large proportion of people who move from unemployment to a job then fall back into unemployment again. He describes the experience of unemployment, and of low wage employment, as exhibiting state dependence. That is, the probability of being unemployed, or employed in a low wage job, in period 2 is strongly positively influenced by having been in that same state in period 1. An innovation in Stewart's work is that he is able empirically to control for a range of observed and unobserved characteristics that of themselves predict unemployment/low wage, such as age and education. He chooses a measure of low pay that classifies about 10% of employees as low paid (quite a low value—which should bias his results towards relatively high mobility). He concludes that those who were low paid in period 1 were about 17 times more likely to be low paid in period 2 than were workers who were paid higher wages in period 1. (p 4). For people who were the same in terms of years of education, possessing a qualification, years of experience, gender, marital status, health status and whether resident in London or the South East, the ratio was reduced, but only to 14. Not only are low paid workers much more likely than higher paid workers to be low paid in the next period, they are also almost three times as likely to be unemployed. He interprets this and other evidence to show that there is a "low pay-no pay cycle" (p 5).

Dickens finds that short-term wage mobility in the UK fell between 1975 and 1994. This fall in mobility mainly occurred in the middle income deciles, while the wage mobility at the top and the bottom of the wage distribution has remained low throughout the period. Nevertheless, Dickens also finds evidence that low-wage earners, the group we are focussing on, are more likely to get stuck between states of unemployment or non-employment and low-paying jobs than they were in the 1970s (see also Stewart and Swaffield, 1999). Dickens concludes that "the low paid are worse off both in terms of the relative wage they receive and in terms of their opportunity to progress out of the low-pay trap." (p 496)

8.3 Mobility in the US

British workers are not alone in their experience of reduced wage mobility. Buckinsky and Hunt (1999) report similar patterns of declining wage mobility in the US, especially at the bottom end of the wage ladder. They use data from the US National Longitudinal Survey

of Youth (NLSY) for the period 1979-91, for young civilian wage earners who have ceased formal schooling. Their sample was aged from 14 to 24 in 1979. They find that wage mobility over a four-year period reduced wage inequality by 12 to 26%. This mobility predominantly occurs within groups of people with the same observable characteristics (ie, the same age, sex, education, race and level of experience at the start of the time horizon). In addition, they calculate the probability of moving or staying in the same wage quintile. Here they find, for all education and experience groups, that the probability of staying within the same quintile is high for all quintiles, but much higher for the low quintiles. Furthermore, this staying probability has sharply increased over time, meaning a rising inequality and a rapidly falling mobility. For example, the unconditional probability of staying in the first *earnings* quintile has increased from 33% in 1980 to 56% in 1990. Similarly, the probability of staying in the first *wages* quintile has risen from about 27% to 55% during the same period. Increases by about 20 - 30% in the staying probabilities are common for the first to the fourth quintiles of both the earnings and wages distribution, indicating a general rise in inequality. Overall, for the years 1990-91, wage inequality over the two years was 7% lower than the average of inequality for each of the two years.

Buckinsky and Hunt (1999) draw the important conclusion that the rise in cross-section wage inequality in the US, between 1979 and 1990 in their data, "reflects a severe widening of gaps between the same individuals." (p 361). The rising cross-section inequality has been accompanied by a sharp fall in mobility, across all skill groups but especially for the less skilled. There is no comfort here from the hope that high levels of wage mobility mean that cross-section inequality does not translate into worrying levels of lifetime inequality.

As expected, the upward wage mobility of youth is relatively high. In the US, it is mainly teenagers who are paid at or very close to the minimum rate. Of course, people do not stay teenagers for long, so there is considerable upward wage mobility for youth. Even so, Carrington and Fallick (2001) find that "more than 8% of workers spend at least 50% of their first 10 post-school years working in jobs paying less than the minimum wage plus $1." These are predominantly black and women and less educated.

In contrast, Long (1999) finds evidence of substantial wage mobility among the low-paid US workers. Using data from the 1991 and 1992 Survey of Income and Program Participation (SIPP), Long analyses the earnings and labour force status of respondents one and two years after they were in jobs paying the minimum wage. He finds that after one year of employment, seven in ten minimum wage workers stay employed on an hourly wage, just under 6% are either in a salaried job or self-employed, 5% are unemployed, and 20% have left the labour force. Long estimates that about 64% of minimum wage workers had a real wage increase, averaging 30% in one year. After two years, two-thirds of minimum wage workers were still in hourly paid jobs (down from seven in ten), with 68% of them reporting real wage increases (up from 64%). Minimum wage workers who moved to salaried positions reported earnings growth of more than double. These figures suggest mixed outcomes in term of employment status, and significant (given the short period of two years) upward wage mobility for US minimum wage workers who stay employed. However, Long's sample has a high proportion of youth: About 46% of the respondents were aged between 15 and 19. Again, Long's findings reinforce the expectation that youth have higher upward wage mobility than other low-wage earners. Recall also that the US minimum wage is low compared with the more common measure of low wage, namely two thirds of the median wage.

Table 5, from Carrington and Fallick (2001), shows the movement into and out of minimum wage jobs in the US, for young people who had been in the full-time labour force

for up to 10 years (ending in 1995). The data come from the National Longitudinal Study of Youth, 1979 panel. The measure of low wages is the minimum wage plus $0.25. This is a very severe measure of low wage. But the transition probabilities show exactly the sort of information that is needed to obtain a good understanding of the extent to which people get stuck in low wage (in this case, minimum wage) jobs. For this reason, it is worth reporting, as an upper bound to mobility.

Table 5 - Transition rates into and out of minimum wage jobs, by years into career (%)

Transition	Year (t-1) – year (t)								
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10
Worker holds non-minimum wage job in first year									
1. Probability of minimum wage job in second year	10.5	8.4	6.7	5.3	4.7	4.6	4.3	3.8	3.7
2. Probability of non-minimum wage job in second year	89.5	91.6	93.3	94.7	95.3	95.4	95.7	96.2	97.3
Worker holds minimum wage job in first year									
3. Probability of minimum wage job in second year	53.6	44.9	42.9	38.4	37.2	44.7	33.7	44.6	46.1
4. Probability of non-minimum wage job in second year	46.4	55.1	57.1	61.6	62.8	55.3	56.3	55.4	53.9

Notes: A job in year t is a minimum wage job if it pays less than the minimum wage plus $.25 in year t, where years are indexed by their position within a person's career.
Source: Carrington and Fallick (2001), from the US National Longitudinal Survey of Youth 1979.

The table refers to people who are no more than 10 years out of full-time education. It shows the proportion who make the transition into or out of a minimum wage job in year 2, contingent on having been/not been in a minimum wage job in year 1. This is shown for people with varying levels of workforce experience. It shows that once a person leaves a minimum wage job for a higher paying one, she/he rarely falls back into a minimum wage job. People who start the year in a minimum wage job have about a 50:50 chance of moving to a higher paying job by the next year, independent of how long they have been in the labour force. As Buckinsky and Hunt (1999) show, for many the move is not very far up the wage scale. Indeed, Carrington and Fallick themselves conclude that "- a substantial proportion of most workers early careers is spent on minimum or near minimum wage jobs" (p 23). Specifically, the average worker spent 29% of his/her first 6 years of employment in jobs paying no more than the minimum wage plus $2.00.

In an important study, Gottschalk (2001) examines the dispersion of wage outcomes for people who stay in the one job, for people who move straight from one job to another, and for people who experience a period of non-employment before finding their next job. He uses US data from the Survey of Income and Program Participation (SIPP, 1986-93). Each person (aged 18-55) in the data set is followed for a period of 24-40 months. Job changes and wages can be tracked. While on average, real wages grow from one year to the next, there is a wide dispersion of wage changes around this average. For many people, real wages fall, both for those who stay in the one job and even for some of those who move direct from one job to another. Specifically, for people who stayed with the one employer, on average real wages grew by 3.2% (female) or 2.1% (male). This growth rose to 3.7% and 4.0% respectively if people moved directly to a new job. However, if there was a spell of non-employment before obtaining a new job, real wages on average fell, by 2.6 and 2.9% respectively.

These averages conceal considerable diversity. Seventy% of people with less than high school education experienced a *fall* in their real wage if they stayed in the same job, as did 56% of those with college degrees. These percentages were less for people with longer tenure. The comparable figures for those who moved directly to a new job are 52 and 47%. For those who went to a new job via a spell of non-employment, the comparable

figures are 58 and 54%. In each case, gender did not make a difference. For all levels of education, both average and median wage growth for those who moved via a spell of non-employment was negative. For job stayers, the median, if not the average, was also negative. (p 19-21).

The results produced by Gottshalk imply that individuals face considerable instability in their real wages, even if they stay in the same job. For the majority of employees over the period examined, the movement in their real wage was down rather than up. The least skilled were the ones most likely to have a fall in their real wage, whether they stayed in the same job or moved. There was clearly a large range of wage movements experienced by US workers in the late 1980s and early 1990s. While the majority suffered a fall in their real wage, a minority had increases that were large enough to ensure that average wages rose. This combination of outcomes reminds us how important it is to look behind the averages when seeking to understand mobility and wage movements. It also shows how difficult it was for low wage US workers in the late 1980s and early 1990s to gain rises in their real wages: it clearly is wrong to assume that work experience and willingness to stick with a job routinely lead to rising real wages. We note that over the last 5 years low wage workers in the US have on average begun to obtain some rise in their real wages: conclusions based on the earlier period may have less force in the contemporary environment.

The evidence of limited mobility for low wage workers is reinforced by the evidence presented by Connolly and Gottschalk (2001). Their sample includes people aged 18-55 who had no more than secondary school education. It is taken from the Survey of Income and Program Participation 1986-88 and 1990-93 panels. They formally model the possibility that workers will quit their current job for one that may even pay less, if it is expected to improve future wage offers. They draw several relevant conclusions. First, people employed in jobs that have low wages and low prospects of wage growth are much more likely to have short tenure in the job than people in high wage/high wage growth jobs (only around 12% of such jobs lasted more than 28 months, compared with about 55% for the better jobs: p20). Second, “People in jobs with low starting wages or low wage growth are most likely to obtain offers of similar jobs. Thus, even forward looking agents are likely to remain in jobs with poor prospects.” (p 31). They were unable to measure with sufficient precision whether the role played by stepping stone jobs was quantitatively substantial, so they remain agnostic on this point.

8.4 Mobility in the OECD

The evidence reported so far is derived largely from the two main English-speaking countries, the US and the UK. We know that these two countries are unusual among the OECD for the degree to which they have a hands-off approach to the labour market, and for the level of wage inequality that they experience. It is thus useful to look more broadly. To do this, I draw on recent work by the OECD.

The OECD (1997) uses comparable longitudinal data from up to six countries to compare various measures of wage mobility. They define low wage to be a wage of less than two thirds of the median. They find evidence of large disparities in wage mobility for low-wage workers among the six countries (Denmark, Italy, UK, US, Germany and France). For example, of the low-paid workers in 1986 in Denmark, only 8% were still low paid in 1991, compared to over one-half in the US. However, when the reference is broadened to include all those who were in low-paid jobs in 1986 regardless of what they were doing in 1991, the report finds that seven out of ten US low-paid workers in 1986 were either still

low paid in 1991 or no longer working full-time. For Danish workers, the proportion was one-third.

This, the report comments, suggests that the larger the share of employment in low-paid jobs, the higher the persistence of low pay status and the wider the earning distribution, the harder it is for low wage workers to move up the ladder.

Evidence for Germany, Denmark, France, Italy Sweden, UK and US, indicates that earnings mobility for the *entire set* of full-time workers is similar and substantial; viz about half of workers changed quintiles between 1986 and 1991, and between 11 and 17% moved two quintiles. Nonetheless, the earnings inequality across the whole 5 years was about 80% of the earnings inequality of one year. (Keese *et al*, 1998). These conclusions apply only to people who were continuously employed full-time workers. Wages fall as well as rise. The share of workers with falling real wages (despite increasing experience) ranged from 6% in Germany to 29% in US.

Over the five years, there is considerable movement out of the low wage category, and considerable differences in this between countries. On every measure, the US (followed by the UK) has the highest inequality and the lowest mobility. For example, if we look only at people employed full-time over the 5 years, 75% of US and 61% of UK workers who were low paid (ie, paid below two thirds of the median) in 1991 were also low paid in 1986. Looked at the other way, 58/40% of US/UK workers who were low paid in 1986 were also low paid in 1991. In the low inequality countries of Denmark and Sweden, very few workers (6-10%) stay low paid.

If we include moving out of full-time employment with staying in the low wage category as a no-upward-mobility state, then 71% of US low wage workers in 1986 were not mobile by 1991. Of those who did move up, only 11% had moved above 95% of the median, compared with about one quarter for Sweden and Denmark. A large majority of those who left full-time employment moved out of the labour force rather than into part-time or self-employment. Low paid workers were much more likely to exit than were higher paid workers. “Averaging over the countries in our sample, first-quintile workers were about twice as likely to leave full-time employment as were third-quintile workers.” (Keese *et al*, 1998: 250). If we look only at full-time workers in both years, 16% of US low paid workers in 1986 had moved above 95% of the median, compared with about 20% for the UK, Italy, Germany and France and 34% for Denmark. US low wage workers are noticeably more likely to stay low paid than are those in the other countries in the sample.

Table 6 and Table 7 show the extent of earnings mobility for the selected countries, for the period 1986-91. Low wages are measured as being less than two thirds of median wages for full-time employees. The original data are derived from the OECD. Table 6 shows the extent of mobility for people who were employed full-time in both 1986 and 1991 and in 1986 were in a low wage job. Table 7 includes all people who were employed in a low wage job in 1986.

Table 6 shows how different are the mobility outcomes across the six countries for which there are data. The proportion of low paid full-time employees who stayed low paid varied from 8% in Denmark to 58% in the US. In Denmark, one third of workers moved from below 65% of the median to above 95%, within five years. In the US, only half as many did so. The other countries displayed degrees of mobility that lay between these extremes.

Table 6 - Transition rates into and out of minimum wage jobs, by years into career (%)

	Low paid defined as below 0.65 median earnings		
	Below 0.65 median	0.65 to 0.95 median	Above 0.95 median
Denmark	8.1	58.1	33.9
France	31.6	48.2	20.2
Germany	26.0	50.0	24.0
Italy	21.8	58.3	19.9
UK	39.0	39.9	21.1
USA	58.1	25.6	16.3

Source: Keese *et al*, 1998

Table 7 - Five-year earnings mobility of low-paid workers: 1991 earnings status of 1986 low-paid workers, including moves out of full-time employment (%)

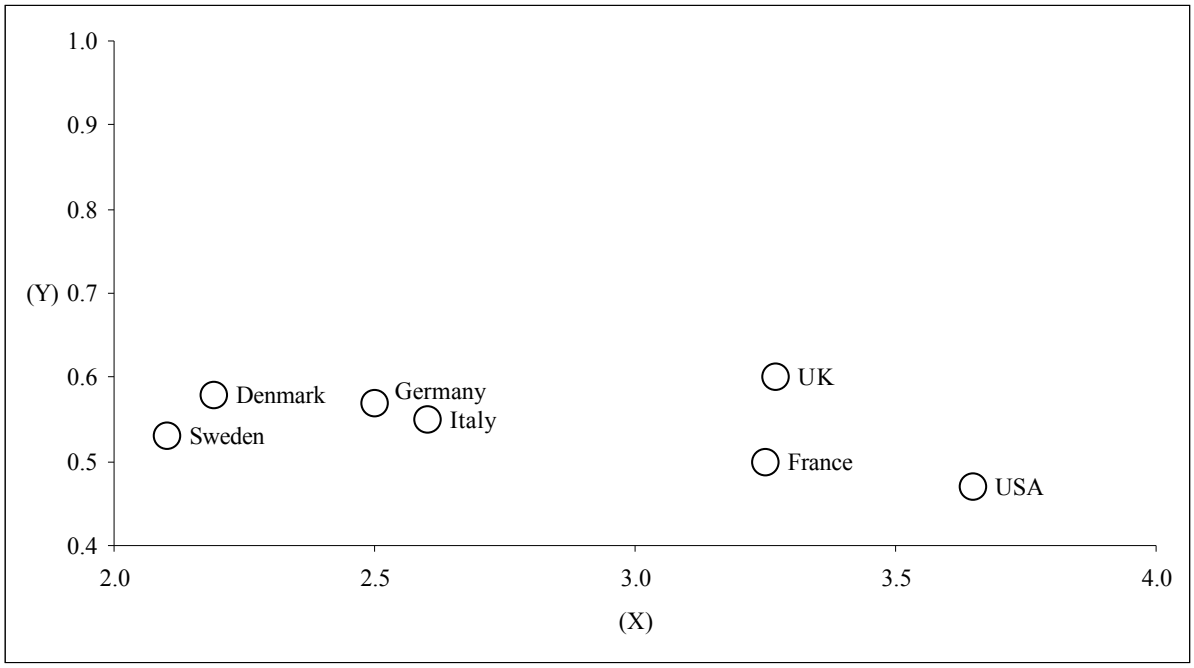
	Low paid defined as below 0.65 median earnings			
	Not emp. full-time	Below 0.65 median	0.65 to 0.95 median	Above 0.95 median
Denmark	25.7	6.0	43.1	25.2
Germany	40.5	15.5	19.7	14.3
Sweden	31.6	10.5	34.2	23.7
USA	30.4	40.5	17.8	11.3

Source: Keese *et al*, 1998

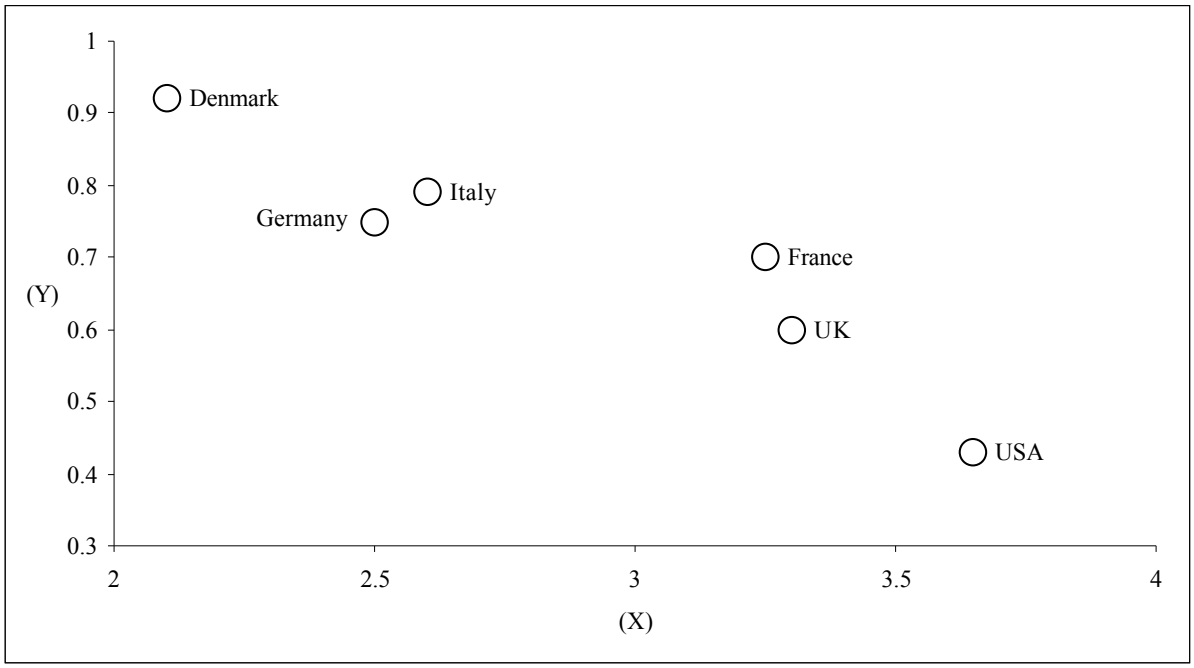
Table 7 shows more broadly what happened to low paid full-time workers. It is striking that between a quarter (Denmark) and 40% (Germany) were not in full-time employment five years later. For the US, fully 70% of people employed full-time on low wages in 1986 were either not in full-time employment or were still in low wage jobs five years later. Upward mobility was a minority experience in the US and Germany, in clear contrast to Denmark and Sweden.

Tables 6 and 7 raise the obvious question of whether there is a systematic link between the extent of cross-section inequality in pay and the extent of upward mobility of low paid workers. This question cannot be answered with confidence, since the number of countries for which there are comparable longitudinal mobility data is small. However, Figure 4 suggests that mobility is higher in countries with less cross-section inequality in pay, or at least no less. Where low pay is defined as below two thirds of the median, " – a higher share of low-paid workers become trapped in countries where the pool of low-paid workers, in any single year, is larger." (Keese *et al* :251). Note the first panel, where low wage is defined as having a wage in the bottom quintile, suggests that there is no clear relation between overall inequality and mobility. This measure of low pay is not affected by the degree of absolute inequality.

Figure 4 - Upward mobility of low-paid workers and overall earnings inequality



Notes: (Y) Probability a first quintile worker in 1986 had moved into a higher quintile in 1991.
(X) Ratio of 90th to 10th percentile earnings, 1991.
(a) The mobility of low-paid workers refers only to those workers employed full-time in 1986 and 1991.
Source: OECD (1996, Chapter 3).



Notes: (Y) Probability a worker earning below 0.65 of the median in 1986 was earning above 0.65 of the median in 1991.
(X) Ratio of 90th to 10th percentile earnings 1991.
(a) The mobility of low-paid workers refers only to those workers employed full-time in 1986 and 1991.
Source: OECD (1996, Chapter 3).

A more detailed look at mobility in France is presented in Bazen (2001). He uses labour force survey data to examine wage mobility for the whole French labour force. He finds that:

- Earnings mobility is higher for younger workers.
- There has been some fall in mobility between 1990 and 1997.
- Between 1995 and 1996, for workers aged under 30, 43% of first decile workers and 35% of second decile workers moved to a higher decile.
- Over the two year period 1995-7, the comparable figures were 50 and 40%.
- Workers over 30 had a little less mobility than did the younger workers.
- Despite their higher mobility, in the mid-1990s nearly half of young people in the first decile of wages were still there two years later.

8.5 Welfare to low wage jobs

Lane and Stevens (2001) report a detailed look at the prospects for economic independence provided to welfare recipients by low wage jobs. About half of welfare recipients (aged 18-65) in Baltimore found a job of any sort between July 1990 and September 1996. Only 18% of the total were able to obtain and hold jobs that paid sufficient to enable them to leave welfare benefits for any period between 1990-96. Those who did get work generally had short tenure, averaging 3 jobs in the period. Only 2,432 of the 24,631 jobs offered to (and taken by) welfare recipients, enabled the recipients to leave welfare, and only 4,662 lasted more than four quarters. Jobs that enabled recipients to leave welfare were more likely to be in public administration, health services and social services, and to be in growing rather than shrinking firms. If anything, large firms were less likely to provide longer lasting jobs and those that permit an exit from welfare. Firms that have recent experience of hiring welfare recipients have better matches, in terms of duration.

Overall, the conclusions from this important work are pessimistic about the capacity of low wage jobs to provide good exits from reliance on welfare, among American workers. This supports later evidence that shows the difficulty that sole mothers have in obtaining employment that is more satisfactory than even the very basic benefits available to them under the US welfare system.

8.6 Summary of evidence on mobility

We conclude from this review of the evidence on wage/earnings mobility that:

- There is considerable variation in the degree of wage mobility across selected OECD countries: policy probably matters.
- Countries with higher levels of cross-section earnings inequality have lower levels of upward wage mobility.
- The level of wage mobility among low wage workers is quite low in the UK and the US.
- Measures of mobility are sensitive to how low wage is defined and whether movement into non-employment or part-time employment is included:
  - The stricter is the definition of low wage, the greater the mobility.

  - The inclusion of movement into non or part-time employment substantially reduces the degree of upward mobility.

- Quite a large fraction of low wage workers cycle between low wage jobs and no jobs.
- Mobility is higher, the longer the time interval considered.
- Youth have higher levels of upward mobility than do older workers.
- Upward mobility is higher for men than for women, and for more educated workers.
- Thus, for older, less educated and female workers, low wages are likely to be a trap rather than the first step on the ladder.
- At least in the US, UK and France, and probably more widely, earnings/wage mobility has fallen substantially over the 1980s and 90s.

Note that the evidence on wage mobility that is cited above is derived from data which end, at the latest, in the mid-1990s. It is clear that mobility fell while (among English-speaking countries at least) inequality of wages rose, in the period from the early 1980s until the early to mid 1990s. We do not know what has happened to mobility in the last few years. The strong labour market in the US in the second half of the 1990s may, for example, have reversed the trend to reducing mobility in that country.

9 Sole mothers

An important group that is particularly prone to low wages is mothers of young children, and sole mothers in particular. In this section, I set out what is known about the labour market experience of sole mothers, and their prospects for upward wage mobility. The questions are "What is the role of low-wage jobs as a pathway into paid employment for sole mothers? Do sole mothers get stuck in low-wage jobs indefinitely, or do low-wage jobs provide a ladder to work up to higher-wage jobs? Most of the information is taken from the US literature, with some also from Australia and Canada.

There is a special social significance to the wage experience of sole mothers. First, they are responsible not just for themselves, but also for their children. Prospects for the mother affect prospects for the children. Evidence emerging from the US experiment with pushing sole mothers off welfare and into work is suggesting that the substitution of work for welfare, of itself, does little for children's welfare. Only when mothers' incomes rise do discernible benefits to children become evident (Savener *et al*, 2002:4). Second, the alternative to wage work for most sole mothers is social welfare support (though there is some financial support for the children provided by some fathers). The taxpayer therefore has an interest in the ability of sole mothers to find adequate employment, that enables them to become financially independent. The evidence of Lane and Stevens (2001) is that finding employment that provides financial independence is much harder than finding any employment.

The number of sole mothers has grown dramatically in many OECD countries over the last 20 to 30 years. By 1998, 21% of all Australian families (with 18% of the children) were headed by a sole parent, and the vast majority (90%) of these sole parents are women (ABS, 1999). A similar growth in sole mothers has occurred in North America, to 23% in 1998 (Horwitz & Scheid, 1999). Generally sole mothers comprise two main groups - older, divorced or separated women with two or three children of school age, and younger, never-married women who usually have just one child, often of pre-school age (McHugh and Millar, 1996).

9.1 The labour force participation of sole mothers

One possible way for sole mothers to improve their poor financial circumstances is to have higher wage income. In 1994, the split between economically active and inactive sole mothers was about 50:50 in Australia, whereas for married mothers the split is closer to 60:40 (McHugh and Millar, 1996). Similarly, in the US, married mothers have had a higher employment level than sole mothers since the early 1990's. In Germany however, married mothers exhibit consistently lower employment rates than lone mothers (Drobnic, 2000). Despite about half of sole mothers not working, numerous studies have found that the vast majority of sole mothers would much prefer to work than receive welfare (Edin and Lein, 1997; McHugh and Millar, 1996; Youngblut, Brady, Thomas and Brooten, 2000). There are a number of reasons why sole mothers who want to work do not do so. They include the level and availability of income support payments; the care needs of young children, access to jobs, attainable wage rates and the availability and affordability of child care (Ross and Saunders, 1990).

Unemployment is generally more of a problem for sole mothers than for married mothers. In 1995, 20% of never-married American mothers with pre-school children were

unemployed, compared to 5% of married mothers with pre-school children (Drobnic, 2000). Despite this, the inability to get a job is not the major problem of labour force participation for sole mothers (Harris, 1993, 1996; McHugh and Millar, 1996; Spalter-Roth *et al* 1995). Rather, the potential wage that a sole mother can earn is the major determinant of whether she will participate in the labour force or not. If a sole mother cannot find a job with wages, benefits and working conditions that outweigh the difference between welfare benefits and the costs of childcare, she has little economic incentive to enter the labour market. Jencks (1994) argues that sole mothers do not turn to welfare because they are unusually reluctant to work or prefer hand-outs, rather they turn to welfare because they cannot get jobs that pay better than welfare. The general belief of researchers throughout the late 20th century was that employment provided no exit from poverty for most sole mothers because the jobs available to them were predominantly and persistently low wage positions (eg, Mann and Albelda, 1989).

A considerable body of research appears to confirm these expectations about the role of low wage work for sole mothers. First, the types of occupations which are available to sole mothers are predominantly characterised by low wages. Sole mothers, (even those who participate in schemes designed to help sole mothers find work, such as Jobs, Education and Training (JET) in Australia), end up employed in traditional women's occupations, such as hospitality, retail, factory work, secretarial work, cleaning, and child-minding, (Edin and Lein, 1997; Leung, 1998; Mulroy, 1995). Spalter-Roth, Burr, Hartmann and Shaw (1995) found in a two year longitudinal study of welfare-reliant mothers in the US that 7 in 10 single welfare-recipients reported some participation in the labour force during the 2-year period, but that these jobs were concentrated in the lowest rungs of the occupational ladder (39% worked as maids, cashiers, nurse's aides, child care workers or waitresses). Among working sole mothers in Brooks and Buckner's (1996) study, cashier and food service were the most common jobs (75%), with only 3.2% working in management positions. Furthermore, 57% of the working sole mothers worked in part-time jobs.

Thus the types of unskilled occupations typically held by sole mothers tend to be part-time, offer low wages, few if any benefits like health coverage, no paid leave, have unpredictable and limited hours, low status, and be insecure, temporary and casual (Avison, 1997; Brown and Moran, 1997; DeBord *et al* 2000; Department of Social Security, 1992; Edin and Lein, 1997; Leung, 1998; Lipman, Offord & Boyle, 1997; Mulroy, 1995; Spalter-Roth *et al*, 1995). These jobs held by sole mothers have also been found to offer few rewards for education or years on the job, short duration (averaging only about 1.8 years) and few opportunities for advancement (Brooks and Buckner, 1996; DeBord *et al* 2000; Mulroy, 1995).

Research suggests that many sole mothers cease working because the low-wage jobs they obtain often make them worse off financially than they would be if they remained on welfare. The most prominent study conducted in this area was by Edin and Lein (1997). In the early, 1990s, Edin and Lein interviewed 214 poor sole mothers who were welfare recipients and 165 poor sole mothers who worked mostly in unskilled jobs, all from the US. They found that these sole mothers had to choose between a welfare system that paid far too little to provide for their basic needs, and a labour market that offered them little more than they could have received by staying home. Wage-reliant mothers faced the largest gap between their income and expenses. Their material hardship rates reflected this large gap: wage-reliant mothers reported experiencing more material hardship than those who relied primarily on welfare. Those who worked usually fared worse than those on welfare because the government took so much back from workers and because no matter how hard life was on welfare, it was more stable than the low-

wage, unskilled employment that characterised these sole mothers. Many of the wage-reliant sole mothers in Edin and Lein's study said that they were no better off financially than they would have been on welfare, that there was little prospect of promotion in their jobs, there were few rewards for job experience, their employers rarely offered any training or education, that they worked in industries characterised by unstable employment, and that working full-time placed substantial strains on their ability to be a good parent.

Edin and Lein (1997) concluded that there were a number of sound reasons why welfare-reliant sole mothers were better off not looking for work. One of them was that, no matter how long they stayed at a job and no matter how diligently they worked, jobs in what some called “the five-dollar-an-hour ghetto” rarely led to better jobs over time.

Other researchers have obtained findings corresponding to those of Edin and Lein (1997). Using both national data and qualitative data from a sample of diverse sole mothers (not just poor sole mothers like Edin and Lein sampled), Mulroy (1995) found that about 60% of all employed sole mothers were poor, because the types of jobs available to them were generally low-wage, part-time and temporary. In their analysis of unemployment and earnings data for sole mothers in Vermont, USA, McCrate and Smith (1998) also found that the major cause of sole mother's predicament was scarce job opportunities and low wage jobs that do not provide economic security. Further, an Australian study of sole mothers by Shaver King, McHugh and Payne (1994) examined older Jobs, Education and Training participants whose youngest child was about to turn 16 and who were thus about to lose the sole parent pension. They found that a year after the pension ceased, almost a third of the sample still had no paid work and more than half of the women in the study reported lower incomes after the transition off the pension than before, because their jobs were predominantly low-wage, casual and temporary.

The welfare reform in the US during the late 1990's (Temporary Assistance for Needy Families) was implemented due to the belief that this change would eliminate the “welfare trap”, where sole mothers were better off on welfare. In line with this belief, a recent study conducted after the implementation of welfare reform in the US found results contrasting with those of Edin and Lein (1997). Danziger, Heflin and Corcoran (200) found in a sample of sole mothers who received welfare in 1997, those who left welfare to work or who combined work with welfare were financially better off, on average, than those who remained on the welfare caseload. Those who worked had higher household incomes and experienced less material hardship than did non-working welfare recipients. They concluded the raised income gain now associated with moving from welfare to work was partially due to the economic boom of the 1990's producing a higher minimum wage, and the increases in benefits that supplement the earnings and subsidise the work expenses of the low wage workers. Nonetheless, Danziger *et al* (2000) had some findings that were consistent with Edin and Lien (1997). Many working mothers could not make ends meet on their wage alone; they continued to rely on government assistance (eg, food stamps), and contributions from family and friends.

9.2 Is there upward mobility for sole mothers in low-wage work?

Kalil, Corcoran, Danziger, Tolman, Seefert, Rosen and Nam (1998) state that virtually all participants in the (US) welfare debate agree that in the first period after leaving welfare, recipients will work at low-wage jobs ($5 to $6 an hour). But the hope is that as welfare

recipients gain work experience, their wages will grow and they will eventually earn enough to support their families.

Burtless (1995) examined longitudinal data spanning 12 years and found that earnings growth is very slow both for welfare mothers and for mothers who do not receive welfare but are high school dropouts. Wages grew less than 1% per year for welfare mothers whereas wages grew 4.8% for women who did not receive welfare during 1979-1991. Burtless (1995) also found that 50% of all sole mothers on welfare had fewer than 12 years of education. Among these poorly educated women who have received welfare payments at some point during the 12 years, their wages grew by only 6 cents per hour per year. This seems to suggest that low-wage jobs did not provide a ladder to work up to higher-wage jobs for these sole mothers. Kalil *et al* (1998) conclude from their literature review that getting welfare recipients a job is only the first step in moving them to self-sufficiency, because welfare recipients have a hard time keeping jobs, and their wages grow slowly, if at all, over time.

The lack of advancement provided by the low-wage jobs that sole mothers typically have is also demonstrated by the cycling between welfare and work which characterises many sole mothers. Handler (1995) claims that low-wage work with limited benefits accounts for numerous exits from and returns to welfare. Indeed, research has shown that over the last few decades, many unskilled and semi-skilled sole mothers have cycled between welfare and work (Harris, 1993). Many welfare recipients in the US attempt to exit welfare dependency via work. However for a variety of reasons, such as a lack of health care, the cost of child care, low wages, and jobs that do not last, many of these sole mothers who make the transition from welfare to work end up returning to welfare (Greenberg, 1993). Harris (1993) found by analysing longitudinal data that more than half of welfare recipients leave welfare for work during the first year of receiving benefits. The problem however was that many also return, and then they try again and again. There was significant movement between welfare and work. Harris (1993) estimated that nearly one-quarter of all sole mothers who exit welfare for work return to welfare within one year, 35% within 2 years and 54% within 6 years. Subsequent exits from welfare are also rapid: half leave welfare again within 12 months of their return. Some of them then return to welfare yet again. Harris' (1996) later research concluded that the problem for sole mothers is not usually finding a job, the problem is keeping that job and staying off welfare - in this study about 25 to 40% of all sole mothers who leave welfare via work return to welfare within 1 year, and up to 70% return within 5 years (Harris, 1996). However, sole mothers with more than 12 years of schooling, with prior work experience, and with fewer children are less likely to return to welfare.

For the majority of sole mothers, low-wage work provides the only entry point into paid employment, because (at least in the US, where most of this research has been conducted) most sole mothers lack the education necessary for higher-wage jobs. Thus, low-wage work plays a major role in the labour force participation of sole mothers. But these low-wage jobs do not provide a pathway into higher-wage jobs. Instead, sole mothers appear to become stuck in low-wage jobs indefinitely, because these jobs do not provide opportunities for skill development. As a result of this lack of opportunity for on-the-job learning, and because low wage jobs involve considerable insecurity, many sole mothers give up and return to government benefits, if they are able to.

10 Sources of upward wage mobility

The studies of wage mobility reported above include some evidence on the attributes of workers that contribute to an increased likelihood of upward mobility.

The evidence cited so far gives a reasonable idea about the extent of upward wage mobility among low wage workers. While there clearly is mobility, especially for younger workers, there is also a deal of stability. Older, less educated, female, rural and displaced workers have the lowest prospects of upward mobility. Mobility to a higher paying job is much less if movement out of a job (or a full-time job) is included. It is interesting, then, to ask what is known about the conditions that increase upward mobility.

Dunlop (2000) examines the rates of transition from a low wage job to a higher paying job across a range of personal and work attributes. She reports (for Australia) that those with the lowest prospects of upward mobility are women with dependent children, older workers, rural workers, part-time and casual workers and non-union members who work in a small private sector firm. A logit estimate of the determinants of moving above the low wage threshold for Australian workers concluded that young male urban low wage workers were the most likely to be upwardly mobile. However, workers employed by small firms were significantly less likely to move to a higher wage in the next period. This is most sensibly interpreted to mean that such firms do not provide systematic on-the-job training or do not have promotion ladders that provide wage growth within the firm. This finding is consistent with that for the UK (Stewart and Swaffield, 1997; Sloane and Theodossious, 1994). It should also be noted that having undertaken training in the previous year was not significantly associated with the probability of moving to a higher wage (Dunlop,2000: 38).

10.1 The economic environment

There is tentative evidence that the state of the macro-economy has some impact on wage mobility. The form this takes is not so much immediate wage changes (at least in the US, over recent decades wages have not moved much in response to macro-economic conditions). Rather, the evidence suggests that to a modest extent a strong labour market encourages the growth of jobs in industries and occupations that have promotion possibilities. The existence of promotion ladders is indicated by the evidence that people with longer tenure in the occupation or industry have higher wages, other things equal. The return to tenure varies considerably across industries. For example, Hoynes and Krueger *et al* (2001) calculate a return to tenure in the US of virtually zero for Entertainment, Recreation, Mining and Personal Services industries, while the return was as high as 2.8% per year for Finance, Insurance and Real Estate. Similarly, the returns to tenure varied from zero for farmers to 2.2% per year for professional and technical workers. The question is, do people shift into occupations or industries with higher returns to tenure as the labour market moves in favour of workers? Hines *et al* conclude that as the macro-economy tightens, there is some evidence that workers, especially the lower paid, do shift into industries with career paths. A tight labour market is beneficial for low skilled workers primarily because it increases the probability of them getting a job, and of being able to work longer hours. But it seems that it is also of some benefit in increasing the chances of low skilled workers finding jobs that offer opportunities for advancement.

We note, however, that a strong macro-economy may not by itself be able to overcome serious labour market disadvantage. The 1990s boom in the US has indeed resulted in a fall in the level of unemployment among young black men (from 43 to 30% during 1985-98). However, their level of *employment* actually fell from 34 to 30% during the same period. (Ryan 2001:41). Indeed, by 2000, more young black men were in gaol than in full-time work.

The value of a tight labour market is also supported by the evidence (eg, De Grip and Nekkers, 2001; Gottschalk, 2001) that voluntary job changes on average result in a gain in wages whereas involuntary ones typically cause a loss in wages. Since it is low wage workers who are most at risk of losing their jobs in a recession, they face a double jeopardy: of both job loss and of wage loss if they are able to find another job.

10.2 Job matching

The theoretical framework for analysing job mobility lies partially within models of job-search and job matching.

Several authors have developed variations of such models, which we will not review here. But as an example, Pissarides's (1994) model distinguishes between good jobs and bad jobs, and depicts a situation where firm's output and employees' wages are a positive function of firm-specific human capital. In this model, firms invest in employees' training in skills specific to the business of the firms, and reward the acquired skills by higher wages. Good jobs are those that offer such training and advancement opportunities, while bad jobs do not. Low paid jobs are initially a combination of good and bad jobs. Connolly and Gottschalk (2001) extend the idea of a good job that is low paid to include one which improves the range of job offers that the employee will face in the future.

Mortenson and Pissarides (1999: 2619) conclude that current state of the art of modeling of job matching produces the conclusion that

> . . .wage dispersion can induce endogenous differentials in labor productivity rather than simply reflect exogenous differences--an employer offering a higher wage has an [sic] greater incentive to make match specific productivity enhancing investments because the future return on the investment is subject to a less quit risk.

One implication of Pissarides's and other such models is that good entry jobs are more competitive because they are sought after, not only by unemployed people, but also by employed people already in bad jobs or in good jobs to which they are mismatched (on-the-job search). This "sorting" is confirmed by Blanchard and Diamond (1994). Where there is structural unemployment (ie, the number of applicants is higher than the number of vacancies), other things equal, the already employed will generally be preferred to the unemployed applicant. Blanchard and Diamond (1994) speculate that this may be caused by the fact that many firms believe that unemployment duration either signals or causes "below average skills or work ethic". If we adopt the interpretation of Blanchard and Diamond, then the most likely upward mobility path of a previously unemployed and unskilled person is:

(0) Unemployment

(1) Bad entry job

(2) (Non-matching good entry job)

(3) Matching good entry job

(4) High wage/skills job after training

Starting from unemployment, an unskilled job seeker has little chance of finding a “good entry job”. This is because these jobs are sought after by people in other “good jobs”, which do not match their interest, as well as those in “bad entry jobs”. Because these two groups have more experience and do not carry the negative signal of being unemployed, their chances of getting the job, other things equal, are higher. So, the unskilled job seeker would start with a “bad job”. From the “bad job”, the worker has better chances than an unemployed job seeker, of shifting to a “good entry job” and growing from there. There is a possibility that the worker may not find a good job match at first. In this case, the worker engages in on-the-job search until a match is found. Subsequent wage growth would then occur through obtaining a better match, and through training and promotion. This is the optimistic scenario. The pessimistic scenario can be either no job or getting stuck in a bad entry job, or some combination of the two (moving between bad jobs and unemployment/non-employment). This general process is supported by the work of Gregg and Wadsworth (2000). They find that for UK workers, people who enter a new job from previous employment earn substantially more, other things equal, than people who enter a new job from non-employment.

Note that even the skilled unemployed might find it rational to go through this pathway, if there is structural unemployment. This might happen to previously employed parents after a period out of the labour force to care for children, or to displaced workers.

Job mobility and wage mobility are two intrinsically different phenomena, although they are related. An employee can move up or down the wage ladder without changing employer. And a worker can change employer without changing wage. Gottschalk (2001) provides evidence that both of these things happen: indeed, real wages rise, fall and stay the same for workers who stay in their job and for those who move. The relation between job change and wage change is quite complex, and the average relation between job mobility and wage mobility conceals as much as it reveals. Despite this complexity, there is consistent evidence that people who change jobs voluntarily (and go straight to a new job) on average experience a rise in pay. For low skilled workers, there is some evidence that a job change that also involves a move to a different industry is the most beneficial strategy (they have little specific capital to lose by such a move). Staying in one’s current job is on average not the best strategy for obtaining a wage rise for low skilled people. (De Gripp and Nekkers, 2001).

On average a voluntary move to a new employer is associated with the higher wage gain than staying with the same employer. For women in the US the gain from staying was typically 3.2% (2.0% for men). On shifting voluntarily (ie, obtaining a better match), women gained an immediate 1.7% average wage increase and men an immediate 3.1% increase. (Gottschalk, 2001:11). These, however, are average figures. For low education (the nearest we can get to low wage) workers, the gain from a better job match (and the gain from staying with the current employer) was substantially less for men who had not completed secondary school than for college graduates. However, the relative gain of

moving voluntarily compared with staying was similar for the two education groups. For women, it is a different story. Low education women gain almost as much (in percentage terms) from a voluntary job shift as do high education women (about a 4% wage gain). In contrast, low education women face very low (1%) wage gains on the job compared with 7.5% for college educated women. This suggests that for low wage women, searching for a better job match is a superior strategy for obtaining a wage rise than staying with their current employer. The advantage of searching for a better job match is much less apparent for low education men.

Gottschalk, 2001, emphasises that the average experience conceals a great deal of diversity. While on average a move direct to a new job increases the wage, for many it does not. About half of both men and women who had not completed secondary school experienced a drop in their wage on moving direct from one job to another. If the job move was involuntary for low education workers (as indicated by a spell of unemployment in between), then the new job on average had a lower wage than the initial job and almost 60% experienced a fall in their wage.

Efficient job matching requires that there is no discrimination. The evidence for state dependence provided in, eg, Stewart and Swaffield (1999) and Stewart (2002) suggests that employers use employment in a low paid job as a signal—perhaps of low productivity, perhaps of a propensity to high turnover. Other things being equal, (eg, education, experience, gender) they are therefore reluctant to employ a person who has been in a low wage job for reasons that may not truly reflect the worker's potential productivity in the job.

10.2.1 Choosing the right employer

Employers do matter. If the structure of employment is such that a high proportion of jobs is low wage/low skill, then upward mobility will be the more difficult. Davis (2001) argues that a competitive market with decentralised search for job matches between firms and workers will lead to a proportion of low skill jobs that is inefficiently high. This in turn is highly likely to reduce overall wage mobility.

Lane and Stevens (2001), show that the characteristics of the employer do affect the likelihood of a worker of given characteristics having low wages. Workers with poor characteristics tend to be employed a) with other like workers and b) by firms that, *ceteris paribus*, pay relatively low wages. There are low paying firms within industries, and low paying industries (especially food and drink, retail, business services, personal services).

Firms that run a high turnover policy particularly harm low wage/skill workers, because the damage to them in terms of getting another job, wage loss and hours loss from losing their job is greater than for more skilled workers.

Some recent formal search models incorporate heterogeneity among both workers and employers in identifying the rational maximising equilibrium. Bowlus Keifer and Neuman (1995, 1997) allow productivity among otherwise similar employers to vary across a small number of employer types. One conclusion from their simulations (based on US parameters) is that the reason that the earnings distribution of young whites entering the labour market from school is higher than for blacks is not because whites get more or different job offers, but because the jobs that blacks get are twice as likely to disappear from under them. The empirical evidence is strong that involuntary job change is linked with (probably causes) reduced wages.

Bontemps Robin and Van deu Berg (1997), using French data, also permit the productivity of different employers to vary. They conclude that the most productive employers have substantial monopsony power and use it to pay wages well below marginal product. The least productive employers have little monopsony power and only normal profit and are forced to pay approximately marginal product. The former result implies that wage regulation that increases wages above that set by the monopsonists, but not above marginal product, would both raise wages and raise employment (using the well-known result of the monopsony model of labour demand, in which mandated (but not market-determined) increases in the wage can have the effect of both increasing the wage and increasing employment).

There is an important conclusion from this body of research for the role of low wage jobs. Low wage jobs mostly provide relatively little training and are offered by low productivity firms. The greatest chance of upward mobility for a relatively low skill worker is to get a job with a high productivity firm that is paying relatively high wages (hence faces relatively low quit rates). As a result of the low quit rates, this firm will be prepared to pay for skills development of its workers, and hence provide the conditions for upward wage mobility. But this works only if there are also lower wage jobs out there, since it is the higher *relative* wage of the high productivity firm that induces the lower quit rate. If higher wages at the bottom were mandated, then they may reduce quits to leave the labour force, but not quits to go to a better job. Hence there would be some expectation of greater employer investment in skills development, but not as great as for the same wage seen as part of a distribution, with sizeable numbers of jobs offering less.

10.2.2 On-the-job training

It seems clear that there are two main ways in which people can move from low paid to higher paid jobs. One is to obtain a better job match, through moving to a new job, which we have discussed in the previous section. The other is to gain additional skills There is good evidence that skills learned on the job are a large part of most people's stock of human capital (eg, see OECD, 1991, Lynch, 1994, Brunello and Medio, 2001). These skills can be acquired through formal, off-the-job courses, or they can be acquired through learning on-the-job. The latter requires that the employer has an interest in the skills development of their workers, and that the job being done has scope for learning.

Traditionally, economists have estimated the value of skills learned on the job by estimating the returns to general labour market experience and to tenure with the firm. Measured thus, there is a great deal of skills development acquired on the job, though the amount varies systematically across firms, industries and occupations and by firm size.

While the positive empirical link between wages and experience/tenure is clear, it is difficult to know the real causal link between training and wage outcomes. Empirical work in this area is beset with problems of selection bias. And

> . . . the complexity of the causal process is such that simple statistical analyses can give misleading results. The associated problems of simultaneity and heterogeneity for the estimation of statistical models of the causal process are severe.
>
> Elias, 1998:3

While there is a positive correlation between training and earnings and a negative correlation between training and mobility, it is hard to identify the direction of causation. It may be that the people who get the training are those who any way have higher ability

(hence a greater capacity to learn). What is seen as a return to training is in part then a return to ability. While the training and the associated rise in pay may cause the observed reduced mobility, it may also be that training decreases job mobility, thereby increasing earnings. This same identification problem besets efforts to estimate the returns to formal education.

A further hypothesis is that worker quality may be difficult to observe, *ex ante*, so that firms that need high-quality workers want to retain workers who they learn are high quality in order to avoid the risk of hiring a series of low-quality workers before finding another high-quality worker. Or it may be that many workers prefer long-term stable employment relationships and are more willing to supply effort in such situations (Farber, 1999:2479).

Longitudinal studies are an important tool for unraveling cause and effect. There are as yet not many such studies that have been applied to sorting out the causal contribution of on-the-job training to wage mobility.

Elias (1998) is one such study, though it has limitations. To unravel these relations, he draws on data recording month by month training, earnings, and labour force status of British young people (aged 19 and 20) who had finished full-time education and not gone to university. He concludes:

- Formal training has strong positive effects on tenure and negative effects on earnings (as youth pay for part of their general skills?).
- Informal training was widespread, but not systematically associated with earnings or tenure, except “having someone responsible for seeing that one’s training needs are met tends to decrease the likelihood of a job terminating.” (p 20).

Lynch (1991) followed 5 waves of US school leavers who left school in the years 1979-83 and obtained a job in the first year after permanently leaving school. These young people were followed for four years, to assess the impact of training on the probability of leaving their first job. Three quarters left their first job within four years, and the average duration of each job was about one and a half years. College graduates were much more likely to receive on the job training than were school leavers. School leavers and women were more likely to get some off the job training. Neither on nor off the job training had a significant effect on job duration for men. For women, on the job training decreased and off the job training increased turnover.

> Company training in the United States is firm-specific, even for young workers in their first job. Young workers entering the labor market can receive both good and bad draws from the labor market. There are some workers who get a bad draw who appear to move to better employment by investing in off-the-job training. Those in good jobs are more likely to obtain on-the-job training that results in higher wages and a lower probability of leaving the firm. These effects are particularly strong for women.
>
> Lynch,1991:155

Firms are likely to have some discretion in whether to choose a low turnover, high training policy as compared with a high turnover, low training policy. Society is not indifferent to this choice, as it has considerable consequences for the level of skills, the profile of earnings and the extent of wage mobility of the workers employed by those firms.

> An important direction for future research will be to investigate variation in the tenure earnings profile and relate it to the underlying economic forces that cause firms to make different decisions regarding their compensation structure.
>
> Farber,1999: 2474

Several empirical studies show a negative correlation between average wages, on-the-job training and turnover rates. That is, people who earn lower wages are likely to have higher rates of job change and lower levels of on-the-job training. Not all of this will be voluntary. The result holds across industries and across occupations (see Neal,1997, for a review of relevant literature, and Parent,1999). To explain this, Neal (1997) uses data from the US National Longitudinal Survey of Youth (NLSY), to show that expected returns from job specific training fall with declines in worker ability. This is true for both the worker and the firm. Thus, firms screen the workers to determine those with the highest ability for training in specific skills because they have a comparative advantage in specialised jobs and firms expect higher return on training investment from them. In turn, workers with higher ability face high mobility costs and therefore stay longer in their jobs. Conversely, workers with lower ability receive less on-the-job training, hence lower mobility costs and more rapid turnover. This turnover reinforces the reluctance of the employer to invest in their skills.

Within this broad understanding, it is clear that national variation in culture and institutions affects the nature and amount of on the job learning that occurs, especially for new entrants. In the US, it is expected that people manage their own transition to work, and their subsequent careers. Some private firms are now emerging that tailor work placement and related instruction for individuals to assist them in this transition (as do Job Network providers in Australia). Zemsky, Shapiro, Iannozzi, Capelli and Bailey (1998) describe the US approach as follows: “There remains an almost dizzying reliance on the *ad hoc* and experimental - on political and educational arrangements that depend on temporary networks and convenient alliances as much as formal authority”. (p 3).

At the other end of the scale sit Germany and Japan. These countries have highly structured links between schools, employers and vocational education that provide clear pathways from school into employment. Ryan (2001) concludes that in Germany apprenticeship “opens up to young Germans skilled occupations and high wage employers that remain closed off in countries that lack mass work-based vocational preparation.” (p 58).The OECD (1993) reports that in Japan about 80% of workers with less than one year of tenure received formal job training whereas the comparable figure for the US was 10%. When informal training is included, the differences are smaller, but still substantial (90% for large Japanese firms compared to 50% for large US firms).

Compared to Germany and Japan, the US has a higher inflow rate both into and out of unemployment, and relatively efficient job matching processes. Brunello and Medio (2001) argue that this helps to explain why firm-provided training in the US is relatively low: it is more efficient for firms to recruit the skills they need than to develop them among their existing workers. Freeman (1995:7), after a careful comparison of Germany, Japan and the US, concludes that “considerable institutional structure is needed to induce firms to provide training to workers.” Germany places a deal of emphasis (and resources) on the provision of formal apprenticeship in a wide range of occupations. One result is that young German men who leave school early have about 4.4 years of employment in their first 5 years after school, compared with 3.3 years for young men in the US (see Durand-Drouhin *et al*, 1998). This early employment is a key to future success. Quoting earlier work done by the OECD, Durand-Drouhin, McKenzie, and Sweet conclude that “How quickly young people find their first job after leaving school has a powerful effect on their

employment and career prospects and a poor start in the labour market can be difficult to overcome."

This powerful effect of early experience is especially important in the light of the conclusion of Zemsky *et al* (1998), that in the US there has been "a dramatic decline in entry-level jobs offering steady advancement and stability. Employers are dismantling internal career ladders and are beginning to withdraw offers to employees of long-term jobs and substantial investments in employee education and training." (p 27). This suggests that, if firms are to be induced to provide on-the-job training to low skill workers, they will need some incentive from government or some moral suasion.

While rationality and perfect markets imply that firms only invest in firm-specific training, it has been shown that, in the reality of imperfect labour markets, firms are willing to bear some of the general training costs. For example, Acemoglu and Pischke (1999) present a model where firms provide and pay for general training. The presence of market frictions make it possible for firms to make what would be general skills *de facto* specific skills.

Again, however, the extent of and/or return to skills learned on the job are less for people with lower levels of formal education ((1995); Bazen (2001); De Gripp and Nekkers (2001)). Van Opstal, Waaijers and Wiggers (1998) conclude that in the Netherlands, tenure is relatively more important than general experience for the wages of low skilled workers.

The opportunity to move up the wage ladder through on-the-job training or job mobility differs systematically among low wage workers. Young people with more education are the ones most likely to be able to take advantage of these escape routes, especially if they are male. Older workers, adult women and the least educated have much poorer prospects. Older workers who have lost reasonably well paid jobs face substantial wages losses that last for a long time—indicating that training and mobility are not effective pathways for them (Podgursky and Swaim 1987, OECD, 1997).

10.3 Personal characteristics and mobility

The personal characteristics that economists focus on when explaining wage mobility are overwhelmingly those that may be characterised as dimensions of human capital. Indeed, the theoretical and empirical traction that can be obtained from the notion of human capital has overpowered other lines of thinking about the sources of advantage and disadvantage. Thus there is not much literature on the link between, say, family background and wage mobility. Earnings equations routinely include human capital measures such as formal education, years of employment experience (and tenure) and sex as explanators of differences in wages, if not of wage mobility directly. In some countries, notably the US, race is also included. The outcomes of such estimations systematically find that, in addition to the human capital variables, sex and race have significant effects on wages. Specifically, women earn less than men, and minorities earn less than whites, in Western countries (with the occasional exception of Asians). In the US, the group that fares worst in the labour market, and by inference in wage mobility, is young black men with little formal education. In France, the group with the worst wage and employment prospects is young unqualified women. Ryan (2001:44) concludes that

> . . . while disadvantage runs along similar lines in all countries, the distance that it travels, particularly along the tracks of ethnicity and scholastic achievement, is greater in the United States and the United Kingdom.

There is strong evidence that recent rising wage inequality is predominantly to be found within groups of workers who have the same observable characteristics (of education, sex, experience etc). This has caused economists at least to acknowledge that personal attributes of motivation, ability, personality, character and appearance are probably important in affecting wages and employment. But they have yet to delve deeply into what is still largely a black box.

There is, however, an interesting literature on the role of physical appearance in affecting wages. Again, this is not directly linked to wage mobility, but the literature concludes that more beautiful and physically attractive people have higher earnings, other things equal. Harper (2000:771), for example, using longitudinal data from the UK Household Panel Survey, finds that

> . . . physical appearance has a substantial effect on earnings and employment patterns for both men and women. Irrespective of gender, those who are assessed as unattractive or short, experience a significant earnings penalty. Tall men receive a pay premium while obese women experience a pay penalty. The bulk of the pay differential for appearance arises from employer discrimination, although we find evidence for productivity differences among occupations.

Pfann, Bosman, Biddle and Hamermesh (2000) conclude that Dutch firms that have more beautiful executives are thereby more profitable and pay their executives more. It might be reasonable to infer that attractive low wage workers are more likely to be upwardly mobile than unattractive ones.

Psychologists conclude that there are strong interconnections between what happens within the individual on a psychological level and what happens in the social environment within which they grow up and develop throughout their life-course (Weiten, 1995). Both environmental and social factors are expected to be predictors of subsequent employment status. These factors include demographic background variables (such as gender, geographical location, ethnicity, type of school attended, and socio-economic-status [SES]), and family background and peer variables (such as family dysfunction, family structure, parent's educational and occupational status, and peer relationships). Personal psychological factors that are expected to affect subsequent employment status include personality variables (such as self-esteem, locus of control, vocational identity, achievement motivation, attitudes to work, and optimism); mental health and behavioural variables (such as depression, delinquency, drug use and abuse); and intellectual/cognitive variables (such as cognitive ability, IQ scores, school performance, educational attainment and job-seeking skills).

These social and psychological factors are expected to influence the level of educational attainment obtained and the amount of job seeking activities, which in turn will determine the subsequent employment status. (Kokko, Pulkkinen and Puustinen, 2000; Lynd-Stevenson, 1999; Lynn, Hampson and Magee, 1984; Winefield, Tiggerman, Winefield and Goldney 1993). This suggests a mediating effect of educational attainment and job-seeking behaviour. The suggested links are highly plausible. The main contribution that careful empirical research can make is to quantify the size of the expected effects. As in most areas of policy, the key question is whether the factor in question has a large or a small effect on outcomes. The psychology literature is much better at identifying statistically significant causal relations than it is at identifying the magnitude of the effects in question.

We could find no psychological literature that tried to explain what caused some people to end up in low wage jobs. The nearest equivalent is the literature on what causes some people to be unemployed. We only report findings from longitudinal studies because causal conclusions about the relation between psychological variables and employment status can not be drawn from lesser studies. With a few exceptions (Leana and Feldman, 1995, Lynd-Stevenson, 1999), much of this research has investigated youth during their transition between school and employment, where the aim has been to predict, on the basis of information gathered at school age, who will subsequently end up unemployed and who will succeed in finding employment (Kokko *et al* 2000).

Demographic factors that have been found to predict subsequent employment status include type of school attended (Sanford, Offord, McLeod and Boyle 1994; Winefield *et al* 1993; Woodward & Fergusson, 2000); and ethnicity (Winefield *et al* 1993). Minority ethnicity youth from lower SES backgrounds who attended public schools are at higher risk for subsequent unemployment.

Family factors that have been found to predict subsequent unemployment include family dysfunction; growing up in a single parent family; lower status occupation and qualifications of parents; and unemployment in the family. Peer relationship problems stemming back into childhood are also predictors of youth unemployment (Caspi, Wright, Moffit and Silva 1998, De-Goede, Spruijt, Mass and Duindam 2000; Winefield *et al* 1993, Woodward & Fergusson, 2000).

Personality factors that have been found to predict subsequent employment status include lower achievement motivation and aspirations (Capsi *et al* 1998; Winefield *et al* 1993); poor conscientiousness (De Fruyt and Mervielde, 1999); and how important having a job is to the individual ("work ethic") (Feather, 1986; Lynd-Stevenson, 1999). Other personality precursors to unemployment generally involve certain ways of thinking which characterise personalities. These predictors include hopelessness about job prospects; lower self-efficacy or sense of competence; lower level of optimism; higher level of self-blame; poorer coping skills, external locus of control; poor control of emotions; passivity and; lower levels of extraversion; and poor identity development.[3]

Mental health factors that have been found to predict subsequent employment status include diagnosis of a major psychiatric disorder before the age of 16; psychoticism; greater perceptions of stress; neuroticism, anxiety and nervousness problems; more depressive affect; lower life satisfaction; antisocial, aggressive, and deviant behaviour; drug (ab)use; and attentional deficits[4].

Intellectual/cognitive factors that have been found to predict subsequent employment status include the level of intelligence; level of academic potential; reading skills; high school grades; and cognitive development [5]. Individuals with lower IQs, poor reading skills, lower school performance and academic potential, and slower cognitive development thus tend to be at greater risk for subsequent unemployment. The quality of previous work experience has also been found to be an important predictor of future work status (Schneider, 2000).

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[3] See Feather, 1986; Lynd-Stevenson, 1999; Daniels, 1986; O'Brien and Feather, 1999;Leana and Feldman, 1995;Winefield and Tiggemann, 1985; Winefield *et al* 1993; Kokko *et al* 2000; De Fruyt and Mervielde, 1999; Bynner, 1998.

[4] See Jayakody, Danziger and Kessler, 1998; Layton and Eysenck, 1985; Lynn, *et al* 1984; Feather and O'Brien, 1986; De Fruyt and Mervielde, 1999; Hammarstroem and Janlert, 1997; Kokko *et al* 2000; Winefield and Tiggemann, 1985; Daniels, 1986; Feather and O'Brien, 1986; Capsi *et al* 1998; Kokko *et al* 2000; Laub and Sampson, 1994; Kandel and Yamaguchi, 1987; Sanford *et al* 1994; Woodward and Fergusson, 2000.

[5] See Caspi *et al* 1998; Lynn *et al* 1984; Woodward and Fergusson, 2000; Winefield *et al* 1993; Daniels, 1986; Bynner, 1998.

From this research, the picture painted of the youth who is likely to end up unemployed is not a happy one. These adolescents are likely to have suffered lives filled with adversities such as family problems and a lack of resources, and they are likely to have mental health problems, a low opinion of themselves, and poor intellectual ability.

Fewer studies have investigated the paths of interrelationships between psycho-social factors and educational attainment on employment status. Kokko and colleagues (2000) found that passive and anxious behaviour measured at age 8 lead to poor educational achievement, which then lead to long term unemployment in adulthood. Capsi *et al* (1998) found that a number of social and personal factors affected employment status indirectly through the duration of education, but they also had direct effects on employment status. Woodward and Fergusson (2000)—in a study especially relevant to New Zealand found that childhood peer relationship problems lead to school related difficulties such as early school leaving, which then in turn increased the risk of youth unemployment. Thus it appears that psycho-social factors may influence future employment status through their effect on educational attainment, but that these psycho-social factors can have a direct influence on future employment as well. Some research findings have also supported the life-course perspective, in that social factors influence personal psychological factors, which in turn influence education and employment status. Bynner (1998) found that SES influenced the quality of identity development, which in turn predicted future employment status. Lynd-Stevenson (1999) found that background factors influenced hopelessness about job seeking and attitudes towards working, which in turn predicted future employment status. Lynn and colleagues (1984) also found that home background influenced a number of psychological variables such as psychoticism, work ethic, and intelligence, which in turn all influenced educational attainment, which then predicted employment status. However, many of the variables in this study had direct as well as indirect effects on employment status.

Most of the conclusions from this literature are to be expected. Employment prospects are better if you come from a high socio-economic status, well-adjusted two-parent family and are confident, motivated, intelligent and have good relationships with your peers when you are young. Perhaps only the last of these would not readily have been guessed at. These factors work on employment prospects both directly and indirectly via achievement in the education system.

The psychological literature reported above focuses on the personality and social characteristics that predict unemployment. In the absence of direct research on their links with low wages, and with wage mobility, it seems reasonable to suppose that the characteristics that predict unemployment will play a role in causing other poor labour market outcomes, including low wages.

Economists have also sought to understand the influence of personal attributes and family background on labour market outcomes. The need for comprehensive longitudinal data to enable causal relations to be identified has limited the number of studies that have been done. An important recent piece of research, Burgess, Garduiner and Propper (2001) draw on the US National Longitudinal Survey of youth (specifically, people who were aged between 14 and 19 in 1979). They are able to trace their subset for 17 years, to 1996. Their objective is to identify the link between family, school and neighbourhood characteristics of young people and their subsequent earnings capacity and risk of being poor. This is not the same as wage mobility, but, as with the psychological literature, it has sufficient family resemblance to be worth reporting (in the absence of more direct evidence). The biggest influence on future earnings came from the family, with area having little separate effect. The family variables that were significantly positively

associated with higher earnings were mother and father's levels of education. For women, fewer siblings lead to higher earnings. For neither sex did coming from a sole parent family have a significant impact on future earnings. We note though, that the total explanatory power of family variables was low—about 12% of variance for men and about 9% for women. These findings support the general conclusion of empirical research in economics, that low levels of parental education (and in some cases, poverty in childhood) have a negative impact on adult earnings (for a review of this evidence, see Haveman and Wolfe, 1995). Family background appears to do its work both directly and through its impact on educational outcomes. The low explanatory power of the empirical estimations suggest that many other factors are at work (or economists have not yet been able to capture the impact of family in a fully effective way).

11 Is a low wage job better than no job?

11.1 The impact of no job on the prospects of getting a job

There is a widespread belief, which underlies much of the design of social welfare policy in English-speaking countries, that any job is better than no job in terms of future prospects for employment and for psychological well-being. For example, the US Department of Health and Human Services explains that "Work First programs share a common philosophy regarding work: any job is viewed as a good job and program efforts should be geared toward helping recipients enter the paid labor force as quickly as possible." (Holcomb, LaDonna Pavetti and Ricdinger 1998:4, quoted by Gottschalk, 2001:6). The reality is more complex.

A distinction is often made between unemployment and being not in the labour force (inactivity). While the distinction is clear in principle, in practice the line between the two states is blurred. Dropping out of the labour force is one response to unemployment, especially for young people and for mothers. In 1997, there were as many young males who were neither in the labour force nor in education as there were unemployed, in the Netherlands, Sweden and the US (Ryan, 2001).

Non-employment can reduce the probability of getting a job in the next period, or reduce the wage of any job offered, if employers believe that it is signaling lack of motivation or lack of skills. It might signal the latter if those in the un/non-employment pool are the ones that have been rejected by other employers. Unemployment may also have a scarring effect, whereby a person's work productivity is actually damaged by the experience of unemployment (through psychological damage and the depreciation of work skills). Empirically, it is very difficult to distinguish whether unemployment *causes* poor labour market prospects, or whether people become and stay unemployed because they have unobserved low-productivity characteristics. What is clear is that having been unemployed reduces the prospects of a young person obtaining subsequent steady work, and most probably reduces pay when employment is found. Job loss for the least educated leads to lower probabilities of re-employment, higher chances of part-time work and lower earnings (Farber, 1999). There is more tentative evidence that unemployment does damage that can last a number of years in terms of lower wages and greater employment instability.

In a careful theoretical and empirical analysis, Stewart (2002) looks directly at the comparison between being unemployed and holding a low wage job, on both wages and employment one and two years later. He uses UK data from the BHPS, and includes people aged 18-65. An interesting dimension of this paper is that Stewart is able to identify the impact of each of unemployment and a low wage job, while holding constant a range of personal attributes. Two of his conclusions are especially pertinent here. The first is that the impact of being unemployed in period 1 on the probability of being unemployed in period 2 is not statistically different from the impact of being in a low wage job. In coming to this conclusion, he excludes from the analysis people who were continuously unemployed over the whole period. The second is that being in a low pay job in period 1 has a similar impact as being unemployed on the probability of being in a low pay job in period 2. Low paid work and unemployment have almost an equally large (negative) impact on the probability of moving to a higher paid job, compared to higher paid employment. Furthermore, being in a low paid job significantly increases the prospect of

being unemployed in the next period, compared with being in a higher paying job. “Low paid jobs act as the main conduit for repeat unemployment.” (p 19) On Stewart’s evidence, there is little support for the view that any job is better than no job in improving prospects for future employment or escape from low wage jobs. The negative effects of unemployment on future prospects have been well established (we give some examples below). What is new in Stewart’s work is the direct comparison between a spell of unemployment and a spell of low wage employment.

Evidence of the negative effects of unemployment is abundant. However, analyses that carefully distinguish the independent effect of a spell of unemployment (state dependence) from other causes of unemployment are much less common. Knights, Harris and Loundes (2000) is an example for Australia of separate identification of the effects of past unemployment on future employment prospects. They use data from the late 1980s, drawn from the Australian Longitudinal Survey. They conclude that there is genuine state dependence in unemployment. Unlike the work of Stewart, however, they do not compare this with the state dependence that arises from employment in a low wage job.

Less sophisticated studies of the effects of unemployment on future unemployment and on low wages are available for a number of European countries. For France,

> . . . the probability that a young worker gains (or holds) regular employment is significantly reduced by prior unemployment. At the same time, no further damage attaches to employment under fixed-term contracts or participation in labor market programs. Similarly, previous unemployment has been found to increase for German youth the probability of being unemployed---. For British youth, it increases both the probability of entering unemployment and reduces occupational upgrading in early working life. For Swedish youth, it reduces pay when employed.---among (British) males who leave school early, unemployment reduces occupational status, seven years later, only if the relevant spell lasted at least three months. Do the scars fade over time? The durability of adverse effects is uncertain.
>
> Ryan, 2001:48

Outflows from inactivity are lower than from unemployment. “In some countries, many young people shuttle between labor market programs, inactivity, and unemployment, accumulating long spells of joblessness but not of unemployment as they go.” (Ryan, 2001:41).

From a regression estimate of the causes of variance in the hourly wages earned by French youth, Balsan, Hanchane and Werquin (1998: 160-161 conclude that labour market history has more impact on women’s than men’s wages.

> Being unemployed or in a market sector youth programme corresponds to the lowest wages. ---participation in private sector youth programmes leads to higher wages than a spell of unemployment. However, for a given unemployment duration, having several spells rather than one results in a lower wage. Apparently, queuing on the labour market and searching for a permanent position in the primary sector is more efficient from the wage point of view, rather than going through a series of short duration jobs. . . . School-to-work employment schemes help young people get into wage earning, “But they might subsequently stay quite a long time in marginal jobs which are often characterised by low wages.

Youth schemes seem to permit better access to jobs, but not to higher wages.

11.2 Unemployment, low wage jobs and mental well-being

The experience of being unemployed and its consequences for future success in the labour market will be affected by its psychological impact, as well as by the signal that it gives employers. We here report what the psychology (and some economics) literature has to say about the consequences of unemployment for mental health, and whether it is worse for mental health to be unemployed as compared with being in a low wage, low skill job.

Within the field of psychology, the vast majority of research into employment and unemployment has focussed on the psychological consequences of unemployment, rather than on the psychological predictors of subsequent employment status (Winefield *et al* 1993). Psychologists face the same problem as economists in finding it difficult to distinguish causation from selection, when they observe that unemployed people exhibit signs of psychological distress: does unemployment cause the distress, or do the distressed become unemployed?

11.2.1 The psychological impact of employment status

The relationship between employment status and psychological well-being is two-way. O'Brien (1986:239) states that "the majority of studies show that unemployment produces, in most people, a state of dissatisfaction and distress". It is widely found that people who become unemployed, compared to those who are employed, tend to suffer from damaged identity formation, lower self-competence, self-esteem, happiness and life-satisfaction, and have higher symptoms of stress and depression.

In an interesting recent study, Flatau, Galea and Petridis (2000) use large scale Australian health surveys to explore the empirical link between unemployment (distinguished by duration), part-time employment, non-employment and mental health. Compared with men who are in full-time employment, men not in the labour force (and not studying) have the worst mental health—worse than those who are unemployed of any duration. The negative effect of being out of the labour force is much more muted for women, though still apparent. The relation between mental health and unemployment varies by duration of unemployment, in a similar way for women and men. Mental health is worst for those unemployed for 13-26 weeks and over 52 weeks, by a substantial amount. This suggests that there may be adaptations occurring as the duration of unemployment extends. Flatau *et al* show that, controlling for a wide range of socio-demographic attributes and for levels of physical health, unemployed men and men employed part-time have lower levels of mental health than men employed full-time (aged 18-64). The impact of unemployment is diminished, but still statistically significant, if the level of equivalent income of the household is controlled for. This suggests that each of the loss of income and the direct experience of unemployment have deleterious effects on the mental wellbeing of men. The unemployment result, but not the negative effects of part-time employment, applies also to women.

Flatau *et al* rely on cross-section data, so we cannot be sure that unemployment/part-time employment cause rather than are caused by mental illbeing. And they contrast unemployment with all full-time employment, not with employment in a low wage job.

Within the psychological literature, some important comparisons have been made between the psychological impact of unemployment and "good" and "bad" employment. There are also three psychological theories of employment which implicitly state within them the expected psychological impact of employment of different levels of quality.

Firstly, Jahoda's (1981, 1982). “Deprivation theory” states that, in addition to its obvious function of providing income, employment (even bad employment) has five latent functions that are psychologically beneficial and keep us in touch with reality.

> First, it imposes a time structure on the waking day; second, it provides regular social contacts with people outside the nuclear family; third, it imposes goals and purposes that transcend those of the individual (shared goals); fourth, it defines status and identity: and finally, it enforces activity
>
> Jahoda, 1981:188

Additionally, Jahoda (1981:189) implies that even bad jobs are preferable to unemployment by stating "even unpleasant ties to reality are preferable to their absence".

In contrast to Jahoda's deprivation theory, Fryer (1986) proposed an “Agency theory”, in which the five supposed benefits of employment stated by Jahoda are claimed to often be costs of employment rather than benefits. If Fryer is right, bad employment may be detrimental to the individual's life satisfaction, perhaps to the point that no job would be better than the bad job. Agency theory stresses the proactive and independent aspects of humans, in which people wish to plan for themselves, whereas deprivation theory assumes that people are reactive and dependent (Winefield *et al* 1993).

The third psychological theory of employment is Warr's (1987) “Vitamin model”, which is concerned with the effects of certain environmental features on mental health. Warr suggests that nine features of the environment have a curvilinear effect on mental health, in an analogous manner to the way vitamins influence physical health. These nine features of the environment are: 1) opportunity for control; 2) opportunity for skill use; 3) externally generated goals; 4) variety; 5) environmental clarity; 6) money; 7) physical security; 8) opportunity for interpersonal contact; and 9) valued social position.

According to Warr, some of these environmental features act like vitamins A and D, in that very high levels of them may not only stop being beneficial, but can be harmful. Others resemble vitamins C and E, in that at very high levels they stop being beneficial but are not harmful. Warr suggests that three of the environmental features, money, physical security and valued social position, are like vitamins C and E, but that the rest are like vitamins A and D, and thus can be harmful in high doses. Warr's model does not explicitly distinguish between work and non-work environments. Rather, the extent to which any environment is beneficial to mental health depends on the extent to which it provides these nine environmental features. Therefore, there can be good and bad work environments, and good and bad non-work environments. Without suggesting that employment is necessarily better than unemployment in terms of these nine features, most good jobs provide them at the beneficial levels (Winefield *et al* 1993). But the vitamin model makes it possible in theory for bad employment to be worse for mental health than unemployment.

We note here that social welfare systems clearly and strongly embed the view that substantial numbers of people would prefer unemployment to some forms of employment. This is implicit in the steps that are taken to ensure that people who receive unemployment benefits are “genuinely looking for work”. Active steps are taken by most (all?) welfare states to prevent people from choosing unemployment over employment. The most dramatic recent example of policy directed to preventing a choice of welfare over employment is to be seen in the two-year limits on access to welfare implemented in the United States in 1996. Welfare economics, of course, is predicated on the assumption

that people know their best interests. Social welfare policy implies that governments believe that many people, given the choice, would opt for unemployment over employment in the sort of jobs that they may reasonably expect to obtain. If we accept these two propositions, it leads us to conclude that for a sizeable proportion of people at the low end of the skill distribution, no job (with some welfare income) is better than a poor job.

A more explicitly stated, stronger opinion on bad employment is that of Leim (1992), who suggests that, by taking an unsatisfactory job, the worker gives up a sense of personal control and incurs damage to his or her sense of self. He claims that the psychological costs of accepting an unsatisfactory job are often greater than those incurred by remaining unemployed.

The psychological literature that has investigated this difference between “good” jobs, “bad” jobs, and unemployment, has predominantly supported the propositions of Fryer's (1986) agency theory and Warr's (1987) vitamin model, in that people in bad employment are usually no better off psychologically than those who are unemployed.

One method of operationalising “good” and “bad” jobs has been to measure the level of job satisfaction they provide a worker with. The sources of job satisfaction are challenging and interesting work, having pleasant co-workers, adequate pay and opportunities for advancement (Weiten, 1995). These studies have found that dissatisfying work environments can lead to subsequent psychological damage (Borgen, Amundson and Harder, 1988; Burris, 1983; Landy, Quick and Kasl, 1994). O'Brien and Feather (1990) found in a longitudinal study of school leavers that the positive benefits of employment for these young people depended upon the quality of employment they had. The quality of employment (defined as good or poor) was based on the degree to which their job allowed them to utilise their skills and education. School-leavers who obtained good quality employment had lower depressive affect, higher life satisfaction, higher internal control and higher personal competence than those who were unemployed. However, there was little difference on these variables between the unemployed and the poorly employed. School leavers who took poor jobs suffered negative effects to their psychological functioning, just as those who ended up unemployed. The only—but important-- difference was that the poorly employed reported feeling significantly more positive about their lives, even though they were similar on the other variables.

Kaufman (1982) and Leana and Feldman (1995) obtained similar findings in longitudinal studies of the quality of re-employment after being laid-off. Kaufman (1982) found that unemployed professionals who became re-employed in jobs that did not require a high degree of utilisation of the person's ability, knowledge or skills (termed “underemployed”), were no better adjusted than those who remained unemployed. Further, underemployment was found to be a highly stressful experience that was comparable to unemployment. Leana and Feldman (1995) found those who ended up with unsatisfactory employment or underemployment had higher levels of psychological distress and anxiety, and lower levels of life satisfaction than those satisfactorily employed, but there was a lack of differences between the unsatisfactorily employed and the unemployed. In fact, the unsatisfactorily employed reported significantly lower levels of life satisfaction than the unemployed, which suggests that a bad job can be worse in one way than unemployment.

Winefield *et al* (1993) have found in all the analyses they have conducted since 1984 on a sample of school leavers, that those who ended up with jobs that they regarded as unsatisfactory, were no better off psychologically than the unemployed. Whereas there were no differences between the unsatisfactorily employed and the unemployed on levels

of self-esteem, locus of control, depression, negative mood, psychiatric symptoms, psychological distress, hopelessness and social alienation, the satisfactorily employed (and full-time tertiary students) displayed superior well-being on all of these psychological measures.

It can be concluded that all of these studies consistently suggest that "bad" or unsatisfactory employment is no better for a person's psychological well-being than having no job at all, which is in line with propositions of Fryer's (1986) and Warr's (1987) psychological theories of employment. These findings have important implications for government policy and practice. However, the four major longitudinal studies comparing "good" and "bad" jobs with unemployment (Kaufman, 1982; Leana and Feldman, 1995; O'Brien & Feather, 1990; Winefield *et al*., 1993), are not able to throw light on the long-term consequences for psychological well-being of bad jobs in comparison to good jobs and unemployment. Winefield *et al's* (1993) longitudinal study suggests that people in unsatisfactory employment are more likely to enter satisfying employment after one year than to remain dissatisfied employed or to end up unemployed. In this study, Winefield *et al* (1993) examined how much stability there was in employment status from one data collection point to the next. They found that on average, 55% of those who were dissatisfied employed became satisfied employed one year later, and that the satisfied employed were the most stable group as 90% remained satisfactorily employed after one year. However, about 32% of the dissatisfied employed remained dissatisfied one year later, and another 7.4% found themselves unemployed one year later. Thus it appears that for about half of the dissatisfied employed, this dissatisfaction is not a long-term, stable employment status, which suggests that for these people the negative psychological consequences of dissatisfactory employment may be short lived. The psychological consequences for the 32% who remain in dissatisfactory employment over long periods of time is yet to be determined.

12 Does the supply of skills create its own demand?

From a policy perspective, it is crucial to know whether the skills structure of jobs on offer from employers is responsive to the availability of skills. If it is not, then it is the structure of demand for skills (as it emerges from industry structure and choices of production methods) that determines the quantity of high, middle and low paid jobs: it is not the quantity of skilled/educated workers. Should this be the case, an increase in the average levels of education will merely lead to more educated workers doing the same jobs as were previously done by less educated workers.

The single most compelling reason for not believing that the supply of skills creates its own demand is the juxtaposition of changes in levels of education (equated with skills) with changes in inequality of the distribution of earnings. 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. Table 2 shows that education, especially in the US and Canada, does not protect people against low wages. 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 credentialism. This is allied to the concept of signaling. Both imply that workers' levels of education are used by employers to rank job applicants. The formal qualification may not contain any content that is relevant to the job, but it is valued by the employer as a simple and inexpensive way of deciding whom to interview among a number of job applicants. On this view, formal education signals attributes that the worker already has, such as intelligence and persistence, rather than creating new skills. Education then reduces the costs of hiring and probably improves the quality of job matches, but it does not fundamentally alter the structure of skills available to or demanded by employers. In a world of signaling, more education will be profitable for the individual worker. But its contribution to the social good will only be through its role in improving the quality of the job match. One fact in the US experience that credentialism cannot reconcile, however, is that there has been a sharp rise in earnings differences *within* each educational group (eg, Gottschalk, 1997:33). This is commonly interpreted to mean that some attributes of workers that are not easily observed, such as customer skills, motivation and flexibility, have become more highly valued by employers. It can also partly be explained by a rise in short term fluctuations in people's earnings. "Jobs were becoming less stable as well as less equal." (Gottschalk, 1997:33).

In support of the demand-determined view, Blau (1999) argues that "an abundance of labor has never spurred employment: the unemployment rate is consistent proof of that." Yet the illusion persists

> . . .if only the unemployed consisted more rather than less skilled workers, unemployment would disappear. This view romanticises why workers get hired. They are not hired because they are available; they are hired because employers in the private sector believe that the value of their contribution to the business exceeds their cost. Nothing in the history of economics suggests that a change in the skills workers possess is sufficient to alter this equation.
>
> Blau, 1999:132

Prior and Schaffer (1999) show convincingly that in the US the growth of average levels of education has caused people with a given level of education to take increasingly lower skilled/paid jobs. This has caused a considerable downward occupational mobility at each education level. “In brief, university graduates are taking high-school jobs.” (p 3) This has been accompanied by a rising joblessness of prime-age males, particularly among the less educated, which has persisted even with the strong growth in employment in the 1990s. The labour market is increasingly sorting workers by their cognitive skills (not just education, which is why there is an increasing dispersion of pay within educational categories). “Workers experiencing downward occupational mobility generally have lower cognitive skills than others with the same educational credentials.” (p 4).

Prior and Schaffer argue that credentialism is a very important phenomenon, and increasing the formal education of some people will not increase total employment, just change who has the jobs, making it even harder for those with little formal education. They believe bumping down the educational ladder has been a major explanation for the fall in wages for those with low education, and the lowest educated (especially men) have fallen off the bottom rung into non-employment. Their views are supported by Pigeon and Wray (1998), who report that over the course of the 1990s, fewer than 500,000 extra jobs in the US were taken by people on the bottom *half* of the education ladder (ie, no more than high school). The 11.3 million other new jobs went to people with at least some college education. Many of these jobs were low skilled and could have been done by those with only high school education. They also report an interesting survey of employers of production labour, asking what they look for when recruiting. The answer is, in order of importance, attitude, communication skills, previous work experience, views of co-workers and previous employer, industry-based credentials, years of schooling. (p 207). Thus, adding to schooling may not do much, if does not affect attitudes and communication skills. This is hard to do if home and neighbourhood are against it.

The explanation of the rise in inequality of earnings that is based around the idea of credentialism is strongly challenged by an alternative school of thought that argues instead for the role of skill-biased technological change. In brief, this perspective argues that the simultaneous rise in the number of more highly educated workers and the return to education (strongly apparent in the US since the mid-1970s) can only be explained by a large increase in the demand for highly educated workers. Greater integration of the world economy and reduced protections for the working conditions of low wage workers are judged to explain part but by no means all of the rise in inequality (or return to education and experience). This leaves skill-biased technological change as the remaining major candidate to explain the observed facts. In an impressive review of the evidence and arguments for the role of skill-biased technological change, Acemoglou (2002) argues that it was the dominant influence over the preceding three decades in the US. This view is widely shared among American economists (eg, Katz and Autor (1999), Autor, Katz and Kreuger (1998)). He goes further to argue that the rise in the rate of skill-biased technological change was caused by a sudden expansion of college enrolments in the late 1960s, mainly as a way of deferring conscription for the Vietnam war. This view is directly

contrary to that of Prior and Schaeffer. It argues that the rapid expansion in college level education made it more profitable to develop and introduce technologies that required college level skills to utilise them. That is, the expansion of skills did call forth demand for those skills.

While the skill-biased technological change story has much empirical and theoretical support, there remain several puzzles. One is that over the relevant period, wages of low skill workers fell substantially and the rate of productivity growth was low in the US. Another is that other parts of the developed world did not experience the same rise in inequality and often had faster rates of growth in productivity, yet faced broadly comparable technological frontiers. The final story is yet to be told on the links between education, inequality in wages, technological change, globalisation and institutional and regulatory changes. In the context on concern about the role of low wage jobs, the key question is whether a strategy to increase average levels of education, or the levels of education of lower skilled workers, is likely to be effective in improving the employment outcomes for those at the bottom of the skill ladder. While there can be no doubt that improvement in the level of education of any particular person with low skills will improve their job prospects, it is more controversial to assert that the same is true for an increase in education for the whole class of low skill workers.

13 Conclusions

To conclude, we provide a brief summary of what has been learned, in terms of each of the questions set out in the introduction.

13.1 The extent to which low pay jobs provide the first step on the ladder to reasonably paid and reasonably secure jobs for low skill workers

This is the topic on which the literature provided the most information. It is clear that there is indeed substantial upward wage mobility for people who are in low wage jobs. It is also clear that the probability of low wage workers moving to higher paid jobs varies over time, by country, by age, education, experience, occupation and industry. It also varies according to the definition of low wage: the lower the wage, the greater the mobility. This is because there is downward as well as upward mobility (many people who lose their jobs have to accept lower wages in their next job) and many upward moves are only to a slightly higher wage.

Teenagers employed on or near the minimum wage have high rates of upward wage mobility. In contrast, sole mothers and low education adults have quite low levels of mobility. For this second group, there is considerable cycling between low wage work, unemployment and non-employment. Where there is some wage mobility, it is frequently inadequate to lift workers out of poverty. The combination of low wages and part-time or part-year employment produces very low annual earnings.

Countries with lightly 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 more 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. The reader should be aware that the evidence of relative wage mobility mostly does not extend beyond the mid-1990s. A strong macro-economy, as experienced in the US and UK in the latter 1990s, is some

help to upward wage mobility. Offsetting this, the literature identifies a substantial trend towards declining mobility as inequality in the cross-section wage distribution has risen.

We conclude from this review of the literature that low wage jobs are an important entry point for young people as they first become established in the labour market. For the large majority of these young people, the low wage jobs are temporary, and can indeed be seen as the first foot on the ladder. For a minority of young people, the size of which varies across countries, initial low wage jobs do not lead on to better things, but rather to a cycling between low wage employment, unemployment and non-employment. The social and economic institutions for assisting the transition from school to work are important for this minority.

This generally sanguine view of the role of low wage jobs does not apply to older workers. For older workers who are sole mothers, have lost their previous job, or who have lower levels of education, low wage jobs often do not lead anywhere. Many are inherently low skilled and are not associated with promotional ladders (truck drivers, cashiers, nurse, child care and teachers aides, cleaners etc). Note that, although the pattern varies a little across countries, the typical full-time low wage worker is a woman aged 25-55 who has basic or upper secondary education. Only in Germany were a majority of low wage workers aged under 25 (in the US, 80% are over 24). Thus the high wage mobility observed for low wage youth is of little comfort to the majority of low wage workers. In Australia and New Zealand, a majority of full-time low wage workers are men. And in the US, more than one third have post-school qualifications.

13.2 Which types of low paid jobs provide the best / worst chances of upward mobility?

Low wage jobs are concentrated in particular occupations and industries. They are prevalent in service industry jobs that broadly replicate in the market the sort of activities that were once done by women in the home. These include child care, elder care, non-qualified nursing care, cleaning, food preparation and serving. These types of jobs are not part of any sort of career path and workers in them can expect a pay rise only if they move to some different job/industry. Truck driving and labouring are comparable jobs for men.

The industries in which the low wage jobs are predominantly found are similar across countries. They include retail, hospitality, personal services and business services. Firms in the entertainment, recreation, mining and personal services industries were found to provide virtually no increase in wages based on tenure in the firm, in the US. There is evidence that some firms operate a high turnover, low wage policy, which discourages both firm and worker from investing in skills related to the job. Indeed, high turnover industries/firms are likely to provide poor opportunities for upward wage mobility. First, high turnover discourages investment in skills. Second, workers who lose their jobs systematically are forced to accept lower wages in their replacement job. Indeed, the wage loss from involuntary job change often lasts for many years, if not the rest of the working life.

Small firms in the private sector were found to by systematically linked with low propensities for wage gains for their low wage workers.

The conditions that are conducive to wage growth for a low wage worker, in their current job, are employment in a large, profitable, low turnover firm that operates in industries other than retail, hospitality or personal services. Public sector employment is in most

cases a relatively high wage employer of low skill people and provides relatively large amounts of on the job training.

The circumstances facing low skill workers, especially in the main English-speaking countries, has become increasingly challenging in the past three decades. The best evidence to date concludes that technological change, which has probably accelerated, has particularly favoured high skill workers (ie, those with high levels of formal education and workforce experience). It has also favoured particular personal attributes, such as cognitive ability and interpersonal skills, that are not readily acquired. These impacts of technological change on the shape of the demand for skills has been reinforced by increased international integration of the economy and changes in the pattern of demand away from manufactured goods towards services. The protections provided to lower paid workers through unions, regulated conditions of employment and high levels of public sector employment have been diminished by sustained public policy actions, especially in the English-speaking world. The shift towards services (which cannot be stored) and the increased levels of competition in product markets have caused firms to move more towards part-time, casual and contract (just-in-time) labour. Workers employed on such terms systematically receive less on the job training than do full-time permanent workers, for easily understood reasons.

People have responded to the increased premium for skills by acquiring ever-increasing levels of formal education. One likely consequence is that the group who do not follow this path is increasingly perceived to be of low quality. The absence of much education is easily taken to indicate poor employability. Why would a person “choose” not to go on with their education unless there was something seriously wrong with them?

Changes in the structure of industry in the turbulent decades since the early 1970s have led to the obsolescence of skills for workers in the declining industries. One clear example is men working in manufacturing. Strong evidence was cited that showed that job loss in these circumstances results in large losses in wages that endure for many years, if it is possible to find a job at all. The rising withdrawal of adult men from the labour force suggests that many do not find another job. The industries that have been growing in this structural change (retail, hospitality, personal services) are ones that offer relatively little on the job training and career paths.

Overall, the economic dynamics of recent decades have provided exciting opportunities for able, well-educated workers from favourable family backgrounds. But they have made it harder for less able, low-education workers from unfavourable family backgrounds to identify and follow pathways to satisfactory employment. Many face insecure, part-time, low paid employment in small firms that offer little skills development.

13.3 Is a low paid, insecure job better than no job?

This interesting and policy-relevant question has several answers, which depend on the meaning given to “better”.

If “better” means that a person has a higher chance of being employed in the next period, then the answer is that a bad job is probably better than no job, but only modestly so. A number of studies show that movement from unemployment into a job is difficult, the more so the longer the duration of the unemployment. Indeed, theory, with some empirical support, concludes that the chances of a low skilled person moving straight from non-employment into a reasonably good job (especially one with prospects for wage growth)

are small. The best prospects for a low skilled person to find a reasonable job come from securing a good match – that is, a job that makes the most of their abilities. It often takes a willingness to move from job to job before a good match is found.

The direct evidence that a bad job is better than no job in terms of securing higher pay is weak. A complete investigation of this question would require careful specification of the alternative to employment. For relatively low skill youth, evidence was cited that job programs do increase the chances of getting a regular job, but do little for wages. The most sophisticated examination of this question concluded that employment in a low wage job provides no statistically significant advantage over an episode of unemployment in the search for a higher paying job.

If “better” means better for mental well-being, then the evidence does not support the view that any job is better than no job. The low income associated with being unemployed is a major source of the distress caused by unemployment. But the overwhelming evidence from a number of longitudinal studies by psychologists is that being employed in a poor job does not lead to better mental well-being than being unemployed, once the effects of any income difference are accounted for.

13.4 Do the costs of geographical mobility and broken employment histories inhibit wage mobility and why?

We do not report any direct evidence on the impact of the costs of within country geographical mobility on wage profiles. There is a considerable literature on both international and internal migration. This literature makes the obvious point that people who migrate for economic reasons must believe that the expected earnings in the new destination will exceed the expected earnings in the current location by an amount sufficient to cover the costs of migrating (including the psychological costs). The expected earnings in each case will be a product of the probability of finding a job and the expected wage in that job (plus any welfare available to cover periods of non-employment). An increase in the costs of moving will increase the degree of self-selection among potential migrants, in favour of those with larger expected gains. The costs of moving will be higher for risk averse people if there is uncertainty about potential wage offers in the labour market to which the migrant might move. One policy response that encourages migration among people who should benefit, is to provide high quality information about the destination labour market. Good job-matching services would play a similar role. Home ownership in declining regions has a well-documented negative effect on the propensity to shift to find a better, or any, job. The obvious reason is the capital loss involved in selling the home into a depressed housing market.

13.5 Does the supply of low skilled/high skilled workers affect the demand for low skilled/high skilled workers?

The link between the supply of and demand for different types of skills and skill structure is complex, two-way and likely to differ over the long-term as compared with the short term. There is a clear interaction between the supply of and demand for skills via the price mechanism. The wages for specific types of skills (geologists, IT specialists, accountants, bricklayers, for example) clearly are responsive to shifts in the state of excess demand or supply for those skills. Changes in relative wages in turn induce a response in the supply and/or demand. But this is not the issue that underlies the bigger question. Rather, the

issue is, if low skilled people generally were given more education or other forms of skill development, would this call forth a greater demand for their new skills? Or would it merely mean that they would be over qualified for whatever jobs they were able to get? And would it mean that those who did not get the extra skills would have virtually no chance of employment, being displaced by those higher up the education ladder than themselves?

The reality is likely to be somewhere between these extremes of full response of demand and no response. But on the US evidence, the balance appears closer to no response. The very high levels of average education, and the large proportion of the US workforce that has completed secondary school and that has tertiary qualifications has not prevented the large scale growth of low wage, low skill jobs. It has had two rather disturbing outcomes. One is that people who do not have substantial levels of formal education have little hope of finding satisfactory employment. The absence of completed secondary school education is taken as a strong signal of poor employability. The other is that many people are over qualified for the work that they do. That this over qualification does not translate into greater prospects for upward wage mobility, is suggested by the relatively low levels of mobility in the US compared with a number of European countries.

13.6 Do different causes of low skill (low education, poor schooling or parenting, history on welfare, crime, drug dependence etc) affect future labour market outcomes?

Psychologists have the best evidence on this question. Numerous studies have identified the personal and background characteristics of people who have poor labour market outcomes (mostly in the form of unemployment, rather than low wage jobs).

Economists have observed that the rising inequality of wages in the English-speaking world has occurred within demographic and education groups. That is, people with the same sex, experience, education, race and even occupation are increasingly being paid different levels of wages. This has been interpreted to mean that non-observable personal characteristics, such as motivation and general ability, are being increasingly rewarded in the market place. It must be admitted that the direct evidence for this proposition is modest: it is more an inference than an observation.

The psychological literature is able to identify a range of personal and environmental factors that are detrimental to good employment outcomes. While there is no direct link between these factors and wage mobility, it is a reasonable supposition that the factors that are associated with unemployment, intermittent employment and low wages also contribute to low prospects of obtaining good wages in the future. These factors have direct effects and also effects through their impact on levels of education attained.

Minority ethnicity youth from lower socio-economic status backgrounds who attended public schools are at higher risk for subsequent unemployment. So too are those growing up in a single parent family; with parents who have lower status occupation and qualifications; and with unemployment in the family. Peer relationship problems stemming back into childhood are also predictors of youth unemployment. Young people with the worst labour market prospects not only have family problems and a lack of resources, they are likely also to have mental health problems, a low opinion of themselves, and poor intellectual ability.

Among adults, sole mothers have particular difficulty in moving upward into satisfactory jobs. While for some a low education may be part of the dynamic, no doubt also the need to find time and energy to care for their young children, and an alternative of even modest welfare support, also contribute. There is strong evidence from the US, and some from other English-speaking countries, including Australia, that sole mothers cycle between low paid insecure jobs, having a partner who will support them, and reliance on welfare payments.

14 Policies for wage mobility

The following picture of wage mobility for low wage workers has emerged from this review of the literature.

Low wage workers are a heterogeneous group, though they are likely to have relatively low levels of formal education. Their best chance of getting a higher wage is to move from a low paid job to a better job. Better jobs are most frequently found in expanding industries, in the public sector and with large employers. They may do this directly by moving to a job that is a better match with their abilities and interests. Or they could, if their current job/employer makes this possible, learn new skills in their current job. If their current job does not provide an opportunity for skills development (and many low wage jobs do not), then their only prospect for improvement is through taking formal courses off the job.

There are several policies that could improve the prospects for wage mobility of low wage workers.

First, young, reasonably educated workers are very likely to be able to manage their own path upward, using a combination of formal job search, personal networks and on and off the job skills development. The more educated they are, the more employers are likely to invest in their further skills development. Therefore, scarce policy and revenue resources should probably be focussed on other groups within the low wage workforce. The two main ones are youth with low levels of formal education, and older workers, especially sole mothers and displaced workers.

There is a dilemma, or perhaps an opportunity, for policy, that arises from the link between job mobility and firm-provided training. On the one hand, the empirical evidence is that low wage workers are most likely to obtain a wage increase by moving voluntarily to another job-indeed, to another industry. On the other hand, high levels of quits inhibit firms from providing on-the-job training.

Policy to facilitate high levels of job mobility will benefit those low wage workers able to move to higher paying jobs. However, it will reduce the opportunities for low wage workers to acquire higher skills from their current employer. In brief, a high mobility policy will encourage wage mobility through more efficient job matching. But it will discourage wage mobility through increased skills learned on the job. This suggests that if a high mobility policy strategy is pursued, careful attention should be paid to the provision of financial or other incentives to firms to provide training for their lower skilled workers. Alternatively, if firm-provided training is encouraged by policies that diminish worker turnover, then ways to obtain the benefits of effective job matching must be devised.

Firms left to themselves are unlikely to provide satisfactory levels of training for low education youth (recall (a) Freeman's conclusion that "considerable institutional structure is needed to induce firms to provide training to workers." (1995: 7)) and (b) that 70% of people in the US with less than high school education experienced a fall in their real wage if they stayed in the same job (Gottschalk (2001)). Further, such youth are not very likely to benefit from off-the-job classroom instruction, since they have already signaled that formal classroom education is not a good environment for them. Unemployment and non-employment for this group is clearly damaging to their future prospects. This suggests that low education young people need to be provided with jobs that contain real skills

development. This could be achieved through inducements to firms to provide employment in jobs that have scope for learning, and supervision and encouragement to learn. Larger firms are probably better in this regard than smaller ones, especially if they are in growing industries. Policy must confront the fact that most low wage jobs are with small employers, and small employers systematically provide less on the job training than do large employers. Learning could usefully be complemented with related off-the-job instruction. One advantage of some instruction off the job is that it will be less firm-specific and hence will contribute to wage mobility through facilitating movement to another job. There is an argument for some apprentice type arrangement, whereby both the firm and the employee have obligations and contribute to the cost of the skills development—the employee via accepting a lower wage. The main drawback of relying on firms for skills development is that both the employment side and the learning side of the arrangement must be satisfactory to both parties in order to obtain the desired outcome. It is likely to be beneficial to have mediators who assist in keeping both sides of the relationship running smoothly. In the US there are signs of the emergence of private “career managers” who take on the role of mediator and put together job and training packages for individuals (for a fee): (see Zemsky, 1998). Off-the-job components of the training package could be privately supplied, but this may make them beyond the reach of low wage workers who are already accepting a training wage. There is a strong case for public subsidy, and perhaps provision, of such training. There could be scope for an income-contingent fee, if the costs of the training are large enough to justify the administrative costs. It may also be necessary to work through many channels to develop a culture within firms of training and support for low education youth.

The strategy for young people may be suitable also for older low wage workers. With the older workers, however, the disenchantment with the formal education system may be more muted. This would make the conventional route to higher wages, via formal education qualifications, a complementary strategy. The policy issue is how to finance the time out necessary for study. Adult time is more expensive than youth time, in part because adults are likely to have obligations to children and perhaps to a mortgage. Flexible delivery of courses provides an opportunity for adults to learn at times of the week where their time has least alternative value.

In the end, training and learning is beneficial only if there are jobs available that will use the newly acquired skills. The decisions that firms make about the skill mix and turnover properties they look for in their workforces has immense social significance. It is clear from theory and from the US and UK experiences, that left to themselves many firms will adopt the low wage, low training, high turnover strategy. Recall that about 15% of high education workers in the Netherlands, Germany, France and the UK had low wages: further evidence that supply does not necessarily generate its own demand. The outcome is high levels of wage inequality and of poverty, and low prospects for upward wage mobility among many, especially older, low wage workers. A skills development strategy on the supply side needs to be matched with policies to induce firms to recognise the social interest in the quality and character of jobs on offer. This may need to be complemented by some form of job creation subsidies and job destruction taxes.

The evidence from the psychologists that identifiable groups of people are most at risk of being stuck in a pattern of low wage/no wage jobs provides an opportunity for positive public policy. Clearly, governments cannot ensure that all people reach adulthood confident, motivated, intelligent, highly educated and with good peer relationships. But it can recognise that the prospects of being able to carve out an adequate adult worklife for oneself vary a great deal and that some at least of that variation is not reasonably seen as self-inflicted. One response could be to offer intensive assistance to people who come

from the most unpropitious backgrounds. This is in contrast to a welfare system that treats everyone equally. The Jobs Network in Australia provides an example of how such a mechanism for intensive assistance might work. There, private employment agencies are paid a capitation fee by the Government for each unemployed person for whom they find a job. The capitation fee is varied, depending on the assessed difficulty of finding a job for such a person. People who are assessed to be particularly difficult to employ (such as the long-term unemployed) carry the greatest capitation fee, and a requirement that they be given intensive assistance before the fee will be paid.

A second response could be to provide particular support for the transition from school to work for young people who face unpromising prospects. The transition from school to work is reasonably smooth for the majority of young people. But in an increasingly complex world, it is a difficult and sometimes unsuccessful project for some. Tailored assistance in finding and keeping work, and finding and completing relevant training, could be targeted to those whom the research shows are likely to have the greatest difficulty in managing the transition on their own.

References

Acemoglu, D (2002) "Technical change, inequality and the labour market." *Journal of Economic Literature* 40(1): 7-72.

Acemoglu, D and J Pischke (1999) "The structure of wages and investment in general training." *Journal of Political Economy* 107(3): 539-572.

Asplund, R and I Persson (2000) "Low pay: A special affliction of women." in M Gregory, S Bazen and W Salverda eds *Low wage employment: A European perspective* (Cheltenham: Elgar).

Australian Bureau of Statistics (1999) *Children, Australia: A Social Report*, catalogue number 4119.0, Canberra.

Autor, D, L Katz and A Kreuger (1998) "Computing inequality: Have computers changed the labor market?" *Quarterly Journal of Economics* 113(4): 1169-1213.

Avison, WR (1997) "Family structure and mental health." in AC Maney ed *The social contexts of stress and health* (Washington DC: National Institute of Mental Health).

Avison, WR (1999) "Family structure and processes." in AV Horwitz and TL Scheid eds *A handbook for the study of mental health: Social contexts, theories and systems* (Cambridge: Cambridge University Press): 228-240.

Balsan D, S Hanchane and P Warquin (1998) Sub-Minimum-Wage Employment, Earnings Profiles and Wage Mobility in the Low-Skill Youth Labour Market: Evidence from French Panel Data 1989-95 in S Bazen , M Gregory and W Salverda, eds. *Low-wage employment in Europe*. Cheltenham, U.K. and Northampton, Mass.: Elgar.

Bazen, S (2001) "Youth and earnings mobility." Amsterdam, European Low-Wage Employment Research Network (LoWER), Working Paper No 3, April. <http://www.uva-aias.net/files/lower/03Bazen.pdf>

Bernstein, J and H Hartmann (1999) "Defining and characterising the low-wage labor market." in Kelleen Kaye and Demetra Smith Nightingale eds *The low wage labor market* (Washington DC: Urban Institute). <http://aspe.hhs.gov/hsp/lwlm99/overview.htm.>

Bertola, G, F Blau and L Kahn (2001) "Comparative analysis of labor market outcomes: Lessons for the US from international long-run evidence." Cambridge MA, National Bureau of Economic Research, Working Paper No 8526.

Bianchi, S (1995) "Changing economic roles of women and men." in R Farley ed *State of the union* (New York: Russell Sage Foundation).

Blau, F and L Kahn (1999) "Institutions and laws in the labor market." in O Ashenfelter and D Card eds *Handbook of labor economics* (Amsterdam: Elsevier): Chapter 25.

Blau, J (1999) *Illusions of prosperity*. (New York: Oxford University Press).

Blinder, A and A Krueger (1991) *International differences in turnover: A comparative study with emphasis on the US and Japan*. (Princeton: Princeton University Press).

Bontemps, C, J-M Robin and G van den Berg (1997) "Equilibrium search with productivity dispersion: Theory and estimation." Paper presented at the 1997 meeting of the Society for Economic Dynamics, Oxford.

Borgen, W, N Amundson and H Harder (1988) "The experience of underemployment." *Journal of Employment Counselling* 25: 149-159.

Bowlus, A, N Kiefer and G Neuman (1995) "Estimation of equilibrium wage distributions with heterogeneity." *Journal of Applied Econometrics* 10: S119-S131.

Bowlus, AJ, NM Kiefer and GR Neumann (1997) "Equilibrium search models and the transition from school to work." Iowa City, Department of Economics, University of Iowa, Working Paper, June

Brooks, MG and JC Buckner (1996) "Work and welfare: Job histories, barriers to employment, and predictors of work among low-income sole mothers." *American Journal of Orthopsychiatry* 66: 526-537.

Brown, GW and PW Moran (1997) "Sole mothers, poverty and depression." *Psychological Medicine* 27: 21-24.

Brunello, G and A Medio (2001) "An explanation of international differences in education and workplace training." *European Economic Review* 45: 307-322.

Buchinsky M and J Hunt (1999) “Wage mobility in the United States”. *Review of Economics and Statistics* 81 (3) 351-368.

Burgess, S, K Gardiner and C Propper (2001) "Growing up: School, family and area influences on adolescents' later life chances." London, Centre for Analysis of Social Exclusion, London School of Economics, Working Paper No 49, September. http://sticerd.lse.ac.uk/dps/case/cp/CASEpaper49.pdf

Burkhauser, R and A Finegan (1993) "The minimum wage and the poor: The end of a relationship." *Journal of Policy Analysis and Management* 8(Winter): 53-71.

Burris, B (1983) "The human effects of underemployment." *Social Problems* 31: 96-110.

Burtless, G (1995) "Employment prospects of welfare recipients." in DS Nightingale and RH Haveman eds *The work alternative* (Washington DC: The Urban Institute Press).

Bynner, J (1998) "Education and family components of identity in the transition from school to work." *International Journal of Behavioral Development* 22(1): 29-53.

Card, D and AB Krueger (1995) *Myth and measurement: The new economics of the minimum wage*. (Princeton: Princeton University Press).

Carrington, WJ and BC Fallick (2001) "Do some workers have minimum wage careers?" *Monthly Labor Review* 124(5): 17-27. <http://www.bls.gov/opub/mlr/2001/05/art2full.pdf>

Caspi, A, BRE Wright, TE Moffitt and PA Silva (1998) "Early failure in the labor market: Childhood and adolescent predictors of unemployment in the transition to adulthood." *American Sociological Review* 63(3): 424-451.

Connolly, H and P Gottschalk (2001) "Stepping stone jobs: Theory and evidence." Boston MA, Economics Department, Boston College, Working Paper 427, December. <http://fmwww.bc.edu/ec-p/wp427.pdf>

Daniels, S (1986) "Relationship of employment status to mental health and family variables in black men for single-parent families." *Journal of Applied Psychology* 71(3): 386-391.

Danziger, S, CM Heflin and ME Corcoran (2000) "Does it pay to move from welfare to work?" Ann Arbor MI, University of Michigan, Working Paper.

Davis, S (2001) "The quality distribution of jobs and the structure of wages in search equlibrium." Cambridge MA, National Bureau of Economic Research, Working Paper No 8434, August. <http://papers.nber.org/papers/W8434.pdf>

DeBord, K, R Fanning-Canu and J Kerpelman (2000) "Understanding a work-family fit for single parents moving from welfare to work." *Social Work* 45(4): 313-324.

De-Goede, M, E Spruijt, C Maas and V Duindam (2000) "Family problems and youth unemployment." *Adolescence* 35(139): 587-601.

De Grip, A and G Nekkers (2001) "Skills, wage dispersion and wage mobility in the 1990's: The case of the Netherlands, Germany, France and the United Kingdom." Amsterdam, European Low Wage Employment Research Network (LoWER), Working Paper No. 02, April. <http://www.uva-aias.net/files/lower/02DeGripNekkers.pdf>

Dickens, R (2000) "The evolution of individual male earnings in Great Britain: 1975-95." *Economic Journal* 110(460): 27-49.

Drobnic, S (2000) "The effects of children on married and lone mothers' employment in the United States and (West) Germany", *European Sociological Review*, 16 (2): 137-157.

Dunlop, Y (2000) "Labour market outcomes of low paid adult workers: An application using the survey of employment and unemployment patterns." Canberra, Australian Bureau of Statistics, Occasional Paper 6293.0.00.005. <http://www.ausstats.abs.gov.au/ausstats/free.nsf/Lookup/C7F4C97D8F0380B2CA256AD9001E6D63/$File/6293000005_1997.pdf>

Durand-Drouhin, M, P McKenzie, and R Sweet (1998) "Opening pathways from education to work." *OECD Observer* 214. <http://www1.oecd.org/publications/observer/214/article1_eng.htm>

Eardley, T (1998) "Working but poor? Low pay and poverty in Australia." Sydney, Social Policy Research Centre, University of New South Wales, Discussion Paper No 91.

Edin, K and L Lein (1997) *Making ends meet: How sole mothers survive welfare and low-wage work*. (New York: Russell Sage Foundation).

Elias, P (1998) "Learning to work: The role of formal and informal training." Coventry University of Warwick, Mimco.

Elliott, M and JF Packham (1998) "When do sole mothers work? An anlysis of the 1990 census data." *Journal of Sociology and Social Welfare* 25(1): 39-60.

Fallick, B (1996) "A review of the recent empirical literature on displaced workers." *Industrial and Labor Relations Review* 50(1): 5-16.

Farber, HS (1999) "Mobility and stability: The dynamics of job change in labor markets." in O Ashenfelter and D Card eds *Handbook of Labor economics* (Amsterdam: Elsevier): Chapter 37.

Feather, NT (1986) "Employment importance and helplessness about potential unemployment among students in secondary schools." *Australian Journal of Psychology* 38: 33-44.

Feather, NT (1990) *The psychological impact of unemployment*. (New York: Springer-Verlag).

Feather, NT and GE O'Brien (1986) "A longitudinal study of the effects of employment and unemployment on school-leavers." *Journal of Occupational Psychology* 77: 459-479.

Flatau, P, J Galea and R Petridis (2000) "Mental health and wellbeing and unemployment." *Australian Economic Review* 33(2): 161-181.

Freeman, R (1995) "Does it fit? Drawing lessons from differing labor practices." London, London School of Economics, CEP Discussion Paper No 230.

Freeman, R (1998) "Work sharing to full employment: serious option of populist fallacy?", ch 6 in R Freeman and P Gottschalk, eds, *Generating Jobs: How to Increase Demand for Less-Skilled Workers, (NY: Russell Sage Foundation Press).*

Fryer, D (1986) "Employment deprivation and personal agency during unemployment: A critical discussion of Jahodas' explanation of the psychological effects of unemployment." *Social Behavior* 1: 3-23.

Gregrory, M and R Jukes (1998), "Unemployment and Subsequent Earnings: A Longitudinal Study for British Men, 1984--94 , mimeo, Economics Department, Oxford University.

Gosling, A, S Machin, & C Meghir (1994.) "**What Has Happened to Men's Wages since the Mid-1960s?**," *Fiscal Studies*, 15 (4): 63-87.

Gottschalk, P (1997) "Inequality, income growth, and mobility." *Journal of Economic Perspectives* 11(2)21-40.

Gottschalk, P (2001) "Wage mobility within and between jobs." Amsterdam, European Low-Wage Employment Research Network, Working Paper No 1, April. <http://www.uva-aias.net/files/lower/01Gottschalk.pdf>

Greenberg, M (1993) "Beyond stereotypes: What state FIFDC studies on length of stay tell us about welfare as a 'way of life." Washington DC, Center for Law and Social Policy.

Gregg, P and J Wadsworth (1998) "Unemployment and non-employment: Unpacking economic inactivity." London, Employment Policy Institute, Economic Report 12.

Gregg, P and J Wadsworth (2000) "Mind the gap please: The changing nature of entry jobs in Britain." *Economica* 67(268): 499-524.

Hammarstroem, A and U Janlert (1997) "Nervous and depressive symptoms in a longitudinal study of youth unemployment- selection or exposure?" *Journal of Adolescence* 20(3): 293-305.

Handler, JF (1995) *The poverty of welfare reform.* (New Haven: Yale University Press).

Harding, A and S Richardson (1999) "The lowly paid, the unemployed and family incomes." *Australian Journal of Labour Economics* 3(1): 23-46.

Harley, B and G Whitehouse (2001) "Women in part-time work: A comparative study of Australia and the United Kingdom." *Labour and Industry* 12(2): 33-60.

Harper, B (2000) "Beauty, stature and the labour market: A British cohort study'." *Oxford Bulletin of Economics and Statistics* 62(0): 771-800.

Harris, KM (1993) "Work and welfare among sole mothers in poverty." *American Journal of Sociology* 99: 317-352.

Harris, KM (1996) "Life after welfare: Women, work and repeat dependency." *American Sociological Review* 61: 407-426.

Haveman, R and B Wolfe (1995) "The determinants of children's attainments: A review of methods and findings." *Journal of Economic Literature* 33(4): 1829-1878.

Hines Jr, JR, H Hoynes and AB Kreuger (2001) "Another look at whether a rising tide lifts all boats." Princeton NJ, Industrial Relations section, Princeton University, Working Paper No 454. <http://www.irs.princeton.edu/pubs/pdfs/454revised2.pdf>

Holcomb, P, C LaDonna Pavetti and S Riedinger (1998) "Building an employment focused welfare system: Work first and other work-oriented strategies in five states." The Urban Institute, Prepared for the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. http://www.urban.org/welfare/workfst.pdf

Horwitz A and T Scheid eds *A Handbook for the Study of Mental Health: Social contexts: Theories and Systems* (Cambridge: Cambridge University Press).

ILO (1997) "Part-time work: Solution or trap?" *International Labour Review* 136(4.).

Jacobson L, R Lalonde and D Sullivan (1993) "Earnings loss of displaced workers". *American Economic Review*, 83:685-709.

Jahoda, M (1981) "Work, employment and unemployment: Values, theories and approaches in social research." *American Psychologist* 36: 184-191.

Jahoda, M (1982) *Employment and unemployment: A social-psychological analysis*. (Cambridge: Cambridge University Press).

Jayakody, R, S Danziger and RC Kessler (1998) "Early-onset psychiatric disorders and male socioeconomic status." *Social Science Research* 27(4): 371-387.

Jencks, C (1994) *The homeless*. (Cambridge MA: Harvard University Press).

Kalil, A, ME. Corcoran, SK. Danziger, R Tolman, KS. Seefeldt, D Rosen and Y Nam (1998) "Getting jobs, keeping jobs, and earning a living wage: Can welfare reform work?" Ann

Arbor MI, Institute for Research on Poverty, University of Michigan, Discussion Paper No 1170-98, August. <http://www.ssc.wisc.edu/irp/pubs/dp117098.pdf>

Kandel, DB and K Yamaguchi (1987) "Job mobility and drug use: An event history analysis." *American Journal of Sociology* 92: 836-878.

Katz, L and D Autor (1999) "Changes in the wage structure and earnings inequality." in O Ashenfelter and D Card eds *Handbook of labor economics* (Amsterdam: Elsevier): Chapter 26.

Kaufman, HG (1982) *Professionals in search of work: Coping with the stress of job loss and underemployment*. (New York: John Wiley & Sons).

Keese, M, Puymoyen, A and P Swaim (1998) "The incidence and dynamics of low-paid employment in OECD countries." in R Asplund, P Sloane and I Theodossiou eds *Low pay and earnings mobility in Europe* (Cheltenham: Edward Elgar).

Kim, M (2000) "Women paid low wages: who they are and where they work". *Monthly Labor Review,* 123(9): 26-30.

Kletzer, L (1998) "Job Displacement," *Journal of Economic Perspectives*, 12(1):115-136, winter 1998.

Knights, S, M Harris and J Loundes (2000) "Dynamic relationships in the Australian labour market: heterogeneity and state dependence", Melbourne Institute Working Paper no. 6/00, www.ecom.unimelb.edu.au/iaesrwww/home.html.

Kokko, K, L Pulkkinen and M Puustinen (2000) "Selection into long-term unemployment and its psychological consequences." *International Journal of Behavioural Development* 24(3): 310-320.

Landy, JC, F Quick, and S Kasl (1994) "Work, stress and well-being." *International Journal of Stress Management* 1(1): 33-73.

Lane, J and D Stevens (2001) "Welfare to work outcomes: The role of the employer." Washington DC, The Urban Institute, mimeo.

Laub, JH and RJ Sampson (1994) "Unemployment, marital discord, and deviant behavior: The long-term correlates of childhood misbehavior." in T Hirschi and MR Gottfredson eds *The generaltiy of deviance* (New Jersey: Transaction Publishers): 235-252.

Layton, C and S Eysenck (1985) "Psychoticism and unemployment." *Personality and Individual Differences* 6: 387-390.

Le, A and P Miller (2001), "Is a risk index approach to unemployment possible?", *Economic Record* 77: 51-70.

Leana, CR and DC Feldman (1995) "Finding new jobs after a plant closing: Antecedents and outcomes of the occurrence and quality of reemployment." *Human Relations* 48(12): 1381-1401.

Leung, LC (1998) *Lone mothers. Social security and the family in Hong Kong*. (Aldershot: Ashgate Publishing).

Liem, R (1992) "Unemployed workers and their families: Social victims or social critics?" in Voydanoff and C Majka Linda eds *Families and economic distress: Coping strategies and economic policy* (Thousand Oaks: Sage Publications): 135-151.

Lipman, EL, DR Offord and MH Boyle (1997) "Sociodemographic, physical and mental health characteristics of sole mothers in Ontario: Results from the Ontario health supplement." *Canadian Medical Association Journal* 156: 639-645.

Long, J (1999) "Updated estimates of the wage mobility of minimum wage workers", *Journal of Labor Research,* 20 (4): 493-503.

Lynch, L (1991) "The role of off-the-job vs on-the-job training for the mobility of women workers." *American Economic Review* May: 151-156.

Lynch, L (1994) *Training and the private sector*. (Chicago: University of Chicago Press).

Lynd-Stevenson, RM (1999) "Expectancy-value theory and predicting future employment status in the young unemployed." *Journal of Occupational and Organisational Psychology*.

Lynn, R, S Hampson and M Magee (1984) "Home background, intelligence, personality and education as predictors of unemployment in young people." *Personality and Individual Differences* 5(5): 549-557.

Mann, C and R Albelda (1989) "Eroding entitlements: Welfare's long downhill slide." *Dollars and Sense* 146: 16-18.

Mauldin, T and CB Meeks (1990) "Time allocation of one- and two-parent mothers." *Lifestyles: Family and Economic Issues* 11: 53-69.

McCrate, E and J Smith (1998) "When work doesn't work: The failure of current welfare reform." *Gender and Society* 12(1): 61-80.

McHugh, M and Jane M (1996) "Sole mothers in Australia: Supporting mothers to seek work." Sydney, Social Policy Research Centre, University of New South Wales, Discussion Paper No 71. <http://www.sprc.unsw.edu.au/dp/dp071_2up.pdf>

McLanahan, SS (1983) "Family structure and stress: A longitudinal comparison of two-parent and female-headed families." *Journal of Marriage and the Family* 45: 347-357.

Mortenson, D and C Pissarides (1999) "New developments in models of search in the labor market." in O Ashenfelter and D Card eds *Handbook of labor economics* (Amsterdam: Elsevier): Chapter 39.

Mortimer, JT (1994) "Individual differences as precursors of youth unemployment." in AC Peterson and JT Mortimer eds *Youth unemployment and society* (New York: Cambridge University Press).

Mulroy, EA (1995) *The new uprooted: Sole mothers in urban life*. (Connecticut: Auburn House).

Murray, J (1997) "The labour supply behaviour of Australian lone mothers." Sydney, School of Economics, University of New South Wales, Discussion Paper 2.

Neal, D (1999) “The complexity of job mobility among young men”, *Journal of Labor Economcs*, 17 (2): 237-261.

Nolan, Brian (1998) "Low pay in Ireland." Dublin, Department of Enterprise, Trade and Employment, Report for the National Minimum Wage Commission, Volume 2 of the Report of the National Wage Commission, ESRI Monograph No 127.

O'Brien, GE (1986) *Psychology of work and unemployment*. (Chichester: John Wiley and Sons).

O'Brien, GE and NT Feather (1990) "The relative effects of unemployment and the quality of employment on the affect, work values and personal control of adolescents." *Journal of Occupational Psychology* 63: 151-165.

OECD (1993) *Employment Outlook*, (Paris: Organisation for Economic Co-operation and Development).

OECD (1997) *Labour market policies: New challenges: Policies for low-paid workers and unskilled job seekers*. (Paris: Organisation for Economic Co-operation and Development).

OECD (1999) "Recent labour market developments and prospects." *Employment outlook* (Paris: Organisation for Economic Co-operation and Development).

Oi, W and T Idson (1999) "Firm size and wages." in O Ashenfelter and D Card eds *Handbook of labor economics* (Amsterdam: Elsevier): Chapter 33.

O'Reilly, J and C Fagan eds (1998) *Part-time prospects: An international comparison of part-time work in Europe, North America and the Pacific rim*. (London: Routledge).

Parent, D (1999) "Wages and mobility: the impact of employer-provided training", *Journal of Labor Economics*, 17 (2): 298-317.

Pfann, Gerard, Ciska M Bosman, Jeff E Biddle and Daniel S Hamermesh (2000) "Business success and businesses' beauty capital." *Economics Letters* 67(2): 201-207.

Pigeon, M-A and LR Wray (1998) "Did the clinton rising tide raise all boats?" Annandale-on-Hudson, NY, The Jerome Levy Economics Institute, Bard College, Public Policy Brief No 45. http://www.levy.org/docs/ppb/ppb45.pdf

Pissarides, C (1994) "Search unemployment with on-the-job search", *Review of Economic Studies*, 61: 457-475.

Prior, F and D Schaffer (1999) *Who's not working and why*. (New York: Cambridge University Press).

Rangarajan, A (forthcoming) "The road to sustained employment: Lessons from a US job retention initiative." *Benefits*.

Redding, S (1996) "The low skill, low quality trap: Strategic complementarities between human capital and r and d." *Economic Journal* 106(435): 458-470.

Richardson, S (1998) "Who gets minimum wages?" *Journal of Industrial Relations* 40(4): 554-579.

Richardson, S and A Harding (1999) "Poor workers?" in S Richardson ed *Reshaping the labour market* (Melbourne: Cambridge University Press).

Ryan, P (2001) "The school to work transition'." *Journal of Economic Literature* 39(1): 34-92.

Sanford, M, DR Offord, KE McLeod and M Boyle (1994) "Pathways into the work force: Antecedents of school and work force status." *Journal of the American Academy of Child and Adolescent Psychiatry* 33(7): 1036-1046.

Savage, J (1999) "Evidence on labour market disadvantage in New Zealand", Report prepared for The Treasury, Wellington, New Zealand.

Savner, S, J Strawn and M Greenberg (2002) "TANF reauthorisation: Opportunities to reduce poverty by improving employment outcomes." Washington DC, Center for Law and Social Policy. <http://www.clasp.org/DMS/Documents/1012240597.57/tanf%20reauthorisation%20opportunities%20to%20reduce.pdf>

Schneider, JA (2000) "Pathways to opportunity: The role of race, social networks, institutions, and neighbourhood in career and educational paths for people on welfare." *Human Organisation* 59(1): 72-85.

Shaver, S, A King, M McHugh and T Payne (1994) "At the end of eligibility: Female sole parents whose youngest child turns 16." Sydney, Social Policy Research Centre, University of New South Wales, Reports and Proceedings No 117.

Sloane, P and I Theodossiou (1994) "The economics of low pay in Britain: A logistic regression approach." *International Journal of Manpower* 15(2/3): 130-149.

Smith, R and B Vavrichek (1992) "The wage mobility of minimum wage workers." *Industrial and Labor Relations Review* October: 82-88.

Spalter-Roth, R, B Burr, H Hartmann and L Shaw (1995) "Welfare that works: The working lives of AFDC recipients." Washington DC, Institute for Women's Policy Research. A Report to the Ford Foundation.

Stewart, M (2002) "The inter-related dynamics of unemployment and low pay." Coventry, University of Warwick, mimeo. <http://www.warwick.ac.uk/fac/soc/Economics/stewart/ulppaper.pdf>

Stewart, M and J Swaffield (1997) "The dynamics of low pay in Britain." in P Gregg ed *Jobs, wages and poverty: Patterns of persistence in the new flexible labour market* (London: LSE Centre for Economic Performance).

Stewart, M and J Swaffield (1999) "Low pay dynamics and transition probabilities." *Economica* 66: 23-42.

Tam, (1997) *Part-time employment: A bridge or a trap?* (Aldershot: Avebury).

Upchurch, DM (1993) "Early schooling and childbearing experiences: Implications for postsecondary school attendance." *Journal of Research on Adolescence* 3: 423-443.

US Census Bureau (1999) *Statistical abstract of the United States: The national data book, 119th edition*. (Washington DC: US Census Bureau).

Van Opstal, R, R Waaijers and G Wiggers (1998) "Wage growth of low-and high-skilled workers in the Netherlands." in R Asplund, P Sloane and I Theodossiou eds *Low pay and earnings mobility in Europe* (Cheltenham: Edward Elgar).

Waldfogel, J (1997) "The effect of children on women's wages." *American Sociological Review* 62(April): 209-271.

Warr, PB (1987) *Work, unemployment and mental health*. (Oxford: Clarendon Press).

Warr, PB (1994) "A conceptual framework for the study of work and mental health." *Work and Stress* 8(2): 84-97.

Weiten, W (1995) *Psychology: Themes and variations.* 5th edition. (Pacific Grove: Brooks-Cole).

Winefield, AH and M Tiggemann (1985) "Psychological correlates of employment and unemployment: Effects, predisposing factors, and sex differences." *Journal of Occupational Psychology* 58: 229-242.

Winefield, AH, M Tiggemann, HR Winefield and RD Goldney (1993) *Growing up with unemployment: A longitudinal study of its psychological impact*. (London: Routledge).

Woodward, LJ and DM Fergusson (2000) "Childhood peer relationship problems and later risks of educational under-achievement and unemployment." *Journal of Child Psychology and Psychiatry and Allied Disciplines* 41(2): 191-201.

Youngblut, JM, Singer LT, Madigan, EA, LA Swegart and WL Rodgers (1997) "Mother, child and family factors related to the employment of sole mothers with lbw preschoolers." *Psychology of Women Quarterly* 21: 247-263.

Zemsky, R, D Shapiro, M Iannozzi, P Cappelli and T Bailey (1998) "The transition from initial education to working life in the United States of America." Stanford CA, National Centre for Postsecondary Improvement, Stanford University, A Report to the Organisation for Economic Co-operation and Development (OECD) as part of a Comparative Study of Transitions from Initial Education to Working Life in 14 Member Countries, Project Paper No 1, October. <http://www.irhe.upenn.edu/ls-pubs/OECDReport.pdf>