



WORKFORCE 2020

AGEING WORKFORCE

Understanding the Job Mobility and Employability of Older Workers



ACKNOWLEDGEMENT

Department of Labour

Disclaimer: The Department of Labour has made every effort to ensure that the information contained in this report is reliable, but makes no guarantee of its accuracy or completeness and does not accept any liability for any errors. The Department may change the contents of this report at any time without notice.

ISBN: 978-0-478-33352-7

© Crown copyright 2009

This material is Crown copyright unless otherwise stated and may be reproduced free of charge without requiring specific permission. This is subject to it being reproduced accurately and not being used in a derogatory manner or in a misleading context. The source and copyright status should be acknowledged. The permission to reproduce Crown copyright protected material does not extend to any material in this report that is identified as being the copyright of a third party.

Department of Labour
PO Box 3705
Wellington
New Zealand

www.dol.govt.nz

For Department of Labour research,
visit www.dol.govt.nz/browse-dol.asp

For the Workforce 2020 web page, visit
www.dol.govt.nz/services/LMI/workforce2020/index.asp

CONTENTS

LIST OF FIGURES	4
SUMMARY OF KEY POINTS	5
1. PURPOSE	6
2. BACKGROUND	7
3. METHODOLOGIES	8
4. OLDER WORKERS' INCREASING IMPORTANCE IN THE LABOUR FORCE .	9
5. OLDER WORKERS IN THE RECESSION	11
6. COMPLEXITIES FACED BY OLDER WORKERS MOVING IN OR OUT OF WORK – SOME KEY FINDINGS	12
6.1 Specialised skill and knowledge (human capital)	12
6.2 Forms of employer discrimination.....	13
6.3 Firms' reward systems and individual wage expectations	14
6.4 Difficulties in training and upskilling	15
6.5 Lower formal education qualifications and job signalling.....	16
6.6 A preference for work over retraining	16
7. MOVING FORWARD	18
7.1 Supporting older workers through the recession and beyond	18
7.2 Next Steps	19

LIST OF FIGURES

Figure 1: Projected New Zealand labour force by age group, 2006–20509

SUMMARY OF KEY POINTS

Older workers (aged 55+) are increasingly important in the New Zealand labour market both in numbers and in terms of their skills and knowledge. They now comprise one sixth of the New Zealand labour force and are expected to represent nearly one in four of the workforce by 2020.

Collectively, older workers are productive and valued, but their knowledge may be specific to their current jobs. This may hinder their job mobility, making it difficult for them to change jobs and transfer their skills to other work areas.

Older workers have experienced good employment and pay levels over the past few years. However, because of the specialised nature of their skills and knowledge, the current downturn presents challenges to mature-aged workers.

Due to their skills being harder to transfer, older workers are more at risk of being long-term unemployed or of leaving the job market altogether if they lose their jobs.

Increased unemployment, early exit from the labour force and poor job matches among this group will weaken the strength of an economic recovery in future. It will also impose increasing economic costs in the longer term as the supply of newer, younger workers tapers off.

There is increasing value in ongoing training for older workers as working lives lengthen, and as the demand for constantly updated skills grows. However, there are some barriers to training that need to be overcome.

To promote discussion, the final section of this paper considers what may help the job mobility of older workers in a changing job market, including:

- adapting employment, training and careers services
- promoting positive messages
- identifying information about capabilities and transferable skills

1. PURPOSE

This report provides information and an evidence base to help prepare New Zealand for the labour market challenges and opportunities presented by an older workforce (defined in this study as people aged 55 plus).

Older workers currently comprise one sixth of the New Zealand labour force and are expected to represent nearly one in four of the workforce by 2020.

We focus on issues associated with the ability of older workers to move between jobs, especially in an environment where jobs may be at risk.

Our aim is to start a discussion about what older workers, employers and government could do to support the employability of older workers in the current downturn and subsequent recovery.

2. BACKGROUND

Population ageing in New Zealand is a key driver of change in the labour market. Industries and employers need to fully harness the skills of the older workforce to maintain productivity levels and performance as the worker profile changes.

Proactive responses to workforce ageing at a firm and industry level are needed to create and enhance overall economic growth. For example, employers will increasingly need to consider employing older workers for a wide range of jobs traditionally associated with younger workers.

For their part, older job seekers need to consider ways to adapt and harness their valuable store of skills for jobs in areas where they may not have worked in the past.

While those over 55 currently enjoy a strong position in the labour market, we suggest that we can't be complacent, particularly in the current weakening job market. It is especially challenging as this is the first time we have entered a downturn with such a high proportion of mature-aged workers. They, along with young workers and lower skilled workers, may be particularly at risk in an environment of increasing unemployment.

3. METHODOLOGIES

The paper focuses on economic theories to determine why older workers may differ from younger and prime-age workers in terms of their employability and job mobility. It also identifies how firms may view older workers as relatively expensive compared with younger workers and as lacking up-to-date skills. We discuss the possible implications of this for the recruitment, retention and productivity of older workers.

The paper discusses and expands on a field of economic literature that has rarely been explored in a New Zealand context and adds a New Zealand dimension to the findings.

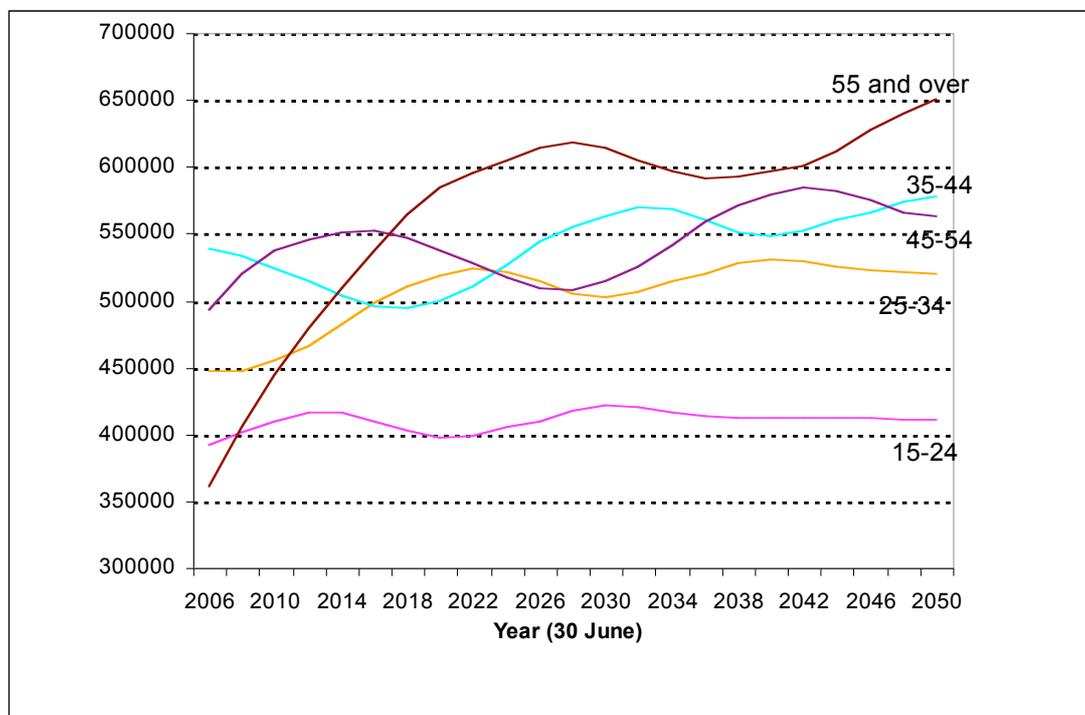
Some issues particularly associated with older workers are not covered, including the increased likelihood of disability and health limitations that employers may need to accommodate.

The theories covered are arguably narrow in their focus, but provide a framework for describing labour market issues that are going to increase in importance as the workforce ages.¹

¹ Such theories tend to give less consideration to gender effects, environmental influences and social norms in the development of capabilities, for example. This is because a number of initial assumptions surrounding economic behaviour are required.

4. OLDER WORKERS' INCREASING IMPORTANCE IN THE LABOUR FORCE

Figure 1: Projected New Zealand labour force by age group, 2006–2050



Source: Statistics New Zealand (2008a), National Labour Force Projections, 2006-base, Series 5M.

Due mainly to population ageing, New Zealand is experiencing a slowing in labour force growth. The labour force grew by about half a million in the period 1991 to 2006, whereas, going forward from 2006 to 2020, there is likely to be growth of only about 320,000.

In contrast to slow or no growth in most age groups, the older workforce is projected to grow strongly over this period (see Figure 1). Based on these projections, older workers will contribute disproportionately to overall job growth, and by 2020, around one in four of the workforce will be aged 55 and over, compared with about one in six today. Because of their sheer numbers, if older workers are not able to contribute productively in the workplace and if workplaces are not able to use older peoples' skills, the performance of the labour market as a whole will suffer.

Older workers have an abundance of human capital (in other words, skills and experience). Furthermore, the group now entering mature working life probably have a higher education, a wider range of work experience and enjoy better health than previous generations of mature workers. Considerable evidence also suggests that older workers, as an age group, tend to have higher levels of the interpersonal or so-called 'soft' skills that are in growing demand in a service-oriented, knowledge-based economy. These include aptitudes such as

communication, problem-solving, teamwork, motivation, maturity, initiative and adaptability².

However, recent New Zealand evidence from literacy surveys shows older workers have some disadvantages, including the fact that the 55–64 age group has lower literacy and numeracy skill levels than younger people.³

There are also specific labour market issues for older workers. In particular, they are likely to have accumulated a lot of highly job-specific knowledge that is not moved as easily from one job environment to another as is the case for younger workers.⁴

If these and other barriers to finding new jobs encourage older people to retire early, or work below their skill levels in industries that will easily employ them, this could substantially reduce the pool of available labour in the future.

The ability of the labour market to adapt to an ageing workforce (and population in general) has broader implications for New Zealand as a whole. Productivity growth requires good matching of skills with available jobs, and poor matching between the valuable skills of older workers and available jobs therefore restricts productivity growth needed to improve living standards in New Zealand.

² for example, see McGregor and Gray 2001

³ Ministry of Education 2008.

⁴ For example, see Farber 1999.

5. OLDER WORKERS IN THE RECESSION

The current weakening job market presents some immediate challenges to the New Zealand workforce given the high proportion of mature aged workers.

While they currently enjoy a strong position in the labour market, international research indicates that mature/older workers (along with other vulnerable groups of workers) are more likely to become long-term unemployed or leave the job market altogether if they are made redundant.⁵ In an economic downturn, older workers tend to be buffered from layoffs due to their experience. However, if they do leave the workforce, older workers are less likely to return.

It is still too early to gauge the employment effects of the current downturn in New Zealand, but there is a risk that older workers who lose their jobs have difficulty in matching their skills to new work areas, leading to possible early retirement from the labour market. Any large scale losses of the accumulated skills and experience of older workers will exacerbate future skill shortages and leave businesses less able to take full advantage of the recovery.

The next section details some of the unique features of older workers, such as their specialised skills and experience, and why this presents a particular risk to their job prospects if they are displaced.

⁵ OECD 2006.

6. COMPLEXITIES FACED BY OLDER WORKERS MOVING IN OR OUT OF WORK – SOME KEY FINDINGS

This section summarises some of the complexities that can arise for older workers in adapting and harnessing their skills in today's fast-changing work environment. This discussion is informed by three technical Department of Labour papers that view the issues mainly through the lens of economic theory:

- *A concentration of experience: implications for the job mobility of older workers.*
- *A literature review of the forms of age discrimination: an economic perspective.*
- *Seniority pay, promotions and older job seekers.*

We must stress that this paper does not cover all the numerous employment issues relevant to the New Zealand setting – many have been dealt with in depth elsewhere⁶. For instance, older workers (particularly those who are nearing retirement) are more likely than prime-age workers to want to work shorter and more flexible hours. Nevertheless, a number of unique challenges have been identified in this paper that may hinder the future mobility of older workers and the use of their skills and knowledge (human capital). These include:

- specialised and job specific skills and knowledge
- forms of employer discrimination
- firms' reward systems and individual wage expectations
- difficulties in training and upskilling
- lower formal education qualifications
- a preference for work over retraining.

The following sections describe each of these complexities in more depth.

6.1 Specialised skill and knowledge (human capital)

The term 'human capital' broadly explains how a person's knowledge and skills can be viewed as individual capital that accumulates through deliberate investment⁷. It includes investment choices in experience, training, education and even health and medical care⁸.

A key observation, according to human capital theory, is that many older workers have acquired very specific human capital – knowledge and experience that may be invaluable in a particular job, but is not easily transferred to a new job. Younger workers, by contrast, are seen as having a higher proportion of general capital, for example, knowledge from recently undertaken tertiary study, which is more widely recognisable and readily transferable from job to job.

Because they have accumulated human capital in very specific areas, older workers tend to remain in the same job for a relatively long period of time, and

⁶ see McGregor 2001

⁷ Schultz 1961

⁸ Becker 1971

New Zealand evidence supports this finding⁹. Older workers have taken the time to find the best possible job match for their capabilities. Relatively more of their skills are based on job experience rather than recent education and training. This combination of finely honed, job-specific skills and lengthy tenure helps them and their employers as it makes them relatively productive and (on average) well paid in their current jobs.

One key issue is that the value of an older person's skills (and therefore their productivity) is harder to determine when they work elsewhere, meaning they are less able to easily and quickly move to another job or industry. This is because employers have more difficulty anticipating older workers' capabilities when they seek new jobs because it is difficult to match jobs with skills that (on paper at least) are highly specific to a previous job. It is also likely (though difficult to prove) that there is considerably more diversity in the skills and productivity of older workers than younger workers.

As a result, older workers who are laid off tend to take longer to find another job that suits their unique background. They may need to take time to identify (and to promote) the value of their skills in the external labour market and develop realistic wage expectations.

International research noted earlier suggests that older workers are more likely to face difficulty finding new jobs if laid off and are also more likely to experience higher wage losses if or when they find new work.

Evidence in New Zealand is less clear,¹⁰ although it also indicates that older workers in general have considerably more difficulty in gaining re-employment than younger workers. In 2007, while 16% of all unemployed were classed as long-term (unemployed for 26 weeks or longer), for those unemployed aged 55 and over, 27% were long-term unemployed (Statistics New Zealand 2008b).

6.2 Forms of employer discrimination

New Zealand legislation (the *Human Rights Act 1993* and *Employment Relations Act 2000*) makes it unlawful to discriminate on the grounds of age in employment, except in jobs affected by age limits that apply to occupational qualifications, for example, pilot licences.

Nevertheless, many researchers in New Zealand and overseas,¹¹ have identified evidence of age discrimination in hiring.

⁹ Linked employer-employee data in New Zealand confirms that, from 35 onwards, the proportion of workers staying with the same employer for over 10 years increases rapidly.

¹⁰ Dixon and Stillman (2008) found that employment and wage losses among older workers following firm closure (admittedly under favourable recent labour market conditions) were similar to those of prime age workers.

¹¹ See OECD (2006), McGregor and Gray (2001), McGregor (2001), Davey and Cornwall (2007), Wilson and Kan (2006), Neumark and Stock (1999).

For instance, in an experimental situation, employers showed a tendency to reject the curricula vitae (CVs) of older applicants and accept younger applicants with similar qualifications¹².

Some of this may be due to outright prejudice, but a complicating issue faced by older job candidates is that they are harder to assess due to their more concentrated and complex forms of human capital, greater range of skills and greater reliance of skills learned on the job. In cases where information costs are high, some employers may be more likely to screen out older job candidates. In economic literature, this is called statistical discrimination, which is discrimination based on the average characteristics of the group.¹³

It could be argued, from an individual employer's point of view, that it may be economical to statistically discriminate against older workers as a group by making age-based generalisations, possibly eliminating some high-performing older workers from their hiring pool, but saving the costs of extra interviews and testing procedures that identify the best candidates more fairly. While increased competition (and an ageing workforce) can reduce the likelihood of prejudice-based discrimination, it will not necessarily eliminate discrimination based on information costs.

On balance, it is not easy to identify different forms of discrimination, whether based on prejudice or statistical, based on variability of job experience, but the end result is the same for the individual – reduced job choices and lower income. This, in turn, leads to economy-wide costs through longer spells of unemployment, poorer job matching and increased likelihood of premature exit from the workforce.

It could be argued that the increasing age of the workforce itself (along with highlighting our human rights laws) will lower the barriers older workers may generally face through discrimination. However, if the presentation of employment skills and experience can be tailored to reduce the cost of employer selection processes, this may reduce the risk that statistical discrimination will be applied to older workers.

6.3 Firms' reward systems and individual wage expectations

Individual wage expectations and their interaction with the remuneration systems operated by some firms may also restrict the employment opportunities for older workers.

Older workers tend to earn above average wages¹⁴ and often have relatively high wage expectations because they want recognition for specific skills, seniority and length of service. A desire for higher wages means older workers who lose their jobs may be more likely to keep searching rather than accept lower pay. Older

¹² Wilson and Kan 2006

¹³ Phelps 1972.

¹⁴ Department of Labour 2007.

workers will tend to expect high remuneration that matches their former wage and benefits.

For their part, some firms and organisations will operate wage structures involving deferred compensation. Put simply, this means elevated pay late in a career to encourage long tenure and to give an incentive for younger workers to increase efforts earlier in their careers so that they can earn higher wages at more senior levels.

Newly hired older workers with higher wage expectations and a shorter payback time will understandably have more difficulty entering such a system. They are unlikely to see their former conditions as part of a total compensation package that rewards human capital specific to that job or one that reflects incentive wage structures such as seniority pay.

Firms that operate career-based remuneration systems may see less value in recruiting new staff who are already at an advanced stage of their careers. Employees who are close to the end of their working lives are likely to be less motivated by a career-based incentive and reward system.

Therefore, seniority and deferred pay reward systems are likely to make it more difficult for older workers looking for new jobs. Bringing in an older outsider might undermine the incentives operating within a firm.

The key point here is that allowing for some disparity between pay rates and productivity levels may make sense from a firm's point of view, but if widely practised when many people are flowing between jobs, it may weaken the job prospects of redundant older workers and weaken the firms' prospects of hiring skilled and experienced staff.

6.4 Difficulties in training and upskilling

The need for productivity growth in a continually changing technological environment, combined with strong global competition, is increasing the demand for regularly updated skills. While further study at higher ages has become more common, New Zealand is approaching the situation where a substantial proportion of its workforce finished formal studies 30 years ago or more.

Economic logic, however, suggests that both employers and employees may be reluctant to invest in the ongoing training required for their older workforce, depending on the specificity of training and length of payback periods.

Reaching a higher wage plateau combined with a shorter remaining payback period may make the employee more reluctant to consider updating their job-specific skills at higher ages.

On the employer side, firms may not want to pay to train older employees, also because of the shorter payback period, or they may believe that, on average, they do not want to engage in training.

Given that New Zealand has no formal retirement age and that the average length of working lives is increasing, these disincentives for further training should weaken over time.

Another barrier to training older workers identified by researchers in New Zealand is the persistent stereotyping among some employers about capabilities of older workers (i.e., that they are inflexible and harder to train).¹⁵ This suggests better education and information flows may be needed.

A point that needs reinforcing is that, as the length of working lives increase and the demand for constantly updated skills grows, the value of continued training should be increasing for older workers.

6.5 Lower formal education qualifications and job signalling

When employers lack information about the productivity of potential employees, one readily available piece of information is years of education¹⁶. Employers pay educated workers more because these workers should have higher abilities. This rests on the assumption that talented workers can acquire further education at lower cost, because talented workers move more quickly through training than lower ability workers (Spence 1973).

Older workers are less likely to have formal post-school education because they left school in a different social and economic environment.

In New Zealand, despite (or, perhaps, because of) rapid growth in tertiary education participation, the difference in the size of the stock of post-school qualifications between older and prime age workers remains considerable. The gap amounted to about 10 percentage points in 2006, according to Statistics New Zealand.¹⁷

For many older workers, a relatively low level of education is not a barrier in a strong labour market. However, as job displacement occurs, there is a risk that a relatively low education level sends a negative signal to potential new employers who are used to assessing education levels as a proxy for work performance. The accumulated knowledge, experience and soft skills developed in a previous career may be harder to show in a CV.

6.6 A preference for work over retraining

On balance, research suggests that, given a choice, displaced older workers tend to prefer immediate employment over retraining.¹⁸ Even those workers who are laid off due to a technological change often prefer to make do with their remaining skills and take lower paying jobs rather than develop new skills and training. This strategy can offer better pay-off than retraining if the latter means

¹⁵ McGregor 2007.

¹⁶ Spence 1973

¹⁷ Population Census datasets 2006 and 2001.

¹⁸ For example, see Jacobson, LaLonde and Sullivan (2005).

giving up wages. Making do with the skills and knowledge they already possess often seems the best option later in working lives.

However, this has implications for their productive engagement in the New Zealand labour market. It may not be immediately apparent to this group that enrolment in training courses may improve their job prospects by signalling their continued motivation and retention of skills to new employers¹⁹. In New Zealand, recruitment agencies have recently noted the importance of further training for older job seekers²⁰. The development of strategies geared towards retraining becomes especially important in an economic downturn as the number of new job opportunities starts to wane.

¹⁹ Heckman, LaLonde and Smith 1999

²⁰ EEO Trust 2008

7. MOVING FORWARD

Older workers comprise a large and growing segment of the workforce and face a variety of specific issues that limit their job mobility and constrain job choices.

A number of factors that may limit job mobility among older workers have been noted, including issues such as specialised knowledge, discrimination and training difficulties. Individually or in combination, these may influence the retention of older workers in more productive work now and in the future.

There is a risk that a downturn leading to increased job losses may unduly impact on older workers if some of their unique labour market features lead to poor job matching or early retirement. This makes it particularly important to ensure that existing systems to support older people's employability are adequate and positioned to deal with the potential scenario of many older workers losing their jobs. Otherwise, the loss of valuable skills and productive capacity will impose increasing economic and social costs in the longer term as the supply of newer, younger workers tapers off.

7.1 Supporting older workers through the recession and beyond

The current recession will lead to a short-term increase in job losses and more job churning, and there is a risk that this may expose the relative lack of job mobility among older workers. As we have seen, many of them are likely to have acquired considerable job-specific skills and long service with a single employer. Transferring their skills and knowledge into new jobs under increased competition from younger workers is likely to pose a considerable challenge to them.

While the government is doing what it can to keep New Zealanders in jobs, it is important to recognise the role that individuals themselves, as well as employers and training and job matching services, will have in mitigating the effects of a downturn on older workers. Given a scenario of growth in numbers of older workers seeking jobs in an increasingly competitive job market, this report shows the importance of considering these questions from diverse perspectives:

- How well are employment, training and careers services adapting to become more effective in helping older workers to identify, develop and retain their productive skills?
- Are ageist attitudes, identified as a hindrance to older workers even in an expanding economy, at risk of hardening in an economic downturn?
- Alternatively, are attitudes likely to improve given the ongoing expansion in the size of the older workforce?
- How well do employer and employment agency "filtering" systems recognise job candidates' previous experience and undocumented on-the-job skills?
- Similarly, how well can recruiters identify the soft "interactive" skills that many older workers possess?

- What measures could older workers themselves take to identify and highlight their more transferable forms of knowledge and skills? And what role could assistive organisations (such as employment and careers services) play in this skill identification process?
- How well are employment, training and information services generally placed to deal with different age groupings, given a scenario where a large pool of older people may be seeking jobs alongside their younger counterparts?

While the recession poses some immediate challenges, in the longer term, population ageing will continue to intensify the challenge for New Zealand to become more adept at harnessing the skills of an older workforce. Achieving this will bring about important gains in overall productivity levels and workplace performance.

7.2 Next Steps

This paper acknowledges that many parties (employers, trainers, employment services, government, as well as individuals themselves) have a role in supporting the employability of older workers.

To explore the questions posed in section 7.1 above and investigate possible responses, the Department intends to use this report to support consultation with stakeholders to develop an improved understanding of the specific issues addressed in this paper.

Bibliography

Alpass, F. and Mortimer, R. (2007). *Ageing Workforces and Ageing Occupations: A Discussion Paper*. Wellington, Department of Labour.

Auer, P. and Fortuny, M. (2000). *Ageing of the Labour Force in OECD Countries: Economic and Social Consequences*. Employment Paper 2000/2. Geneva, International Labour Office.

Becker, G. (1971). *The Economics of Discrimination* (2nd ed.) Chicago, University of Chicago Press.

Centre for Research into the Older Workforce. (2007). Why Do People Retire When They Do? Centre for Research into the Older Workforce, University of Surrey. Retrieved from www.surrey.ac.uk/education/crow.htm.

Davey, J. (2003). 'Human capital issues in an ageing workforce. *Social Policy Journal of New Zealand*, 20: 156–172. Retrieved 25 June 2008 from www.msd.govt.nz/about-msd-and-our-work/publications-resources/journals-and-magazines/social-policy-journal/spj20/human-capital-issues-20-pages156-172.html.

Davey, J. and Cornwall, J. (2007). *Maximising the Potential of Older Workers*. Retrieved from http://www.victoria.ac.nz/nzira/publications/recent_publications.aspx.

Department of Labour. (2007). *Older People in Work: Key Trends and Patterns 1991–2005*. Wellington, Department of Labour.

Department of Labour (2009) technical papers. *A concentration of experience: implications for the job mobility of older workers. A literature review of the forms of age discrimination: an economic perspective. Seniority pay, promotions and older job seekers.*

Dixon, S. and Hyslop, D. (2008). *The Employment and Retirement Transitions of New Zealanders Aged in their 60s: Evidence from LEED*. Wellington, Statistics New Zealand. Retrieved from www.stats.govt.nz/leed/reports/the-employment-and-retirement-transitions-of-new-zealanders-aged-in-their-60s.htm.

Dixon, S. and Stillman, S. (2008). *The Impact of Firm Closure on Workers' Future Employment and Earnings*. LEED Reports. Wellington, Statistics New Zealand. Retrieved from www.stats.govt.nz/leed/reports/impact-on-firm-closure.htm.

EEO Trust. (2006). *Work and Age Survey Report*. Retrieved from <http://www.eeotrust.org.nz/research/index.cfm>.

EEO Trust. (2008). *Boomers and Beyond: Recruiters Tell Their Story*. Retrieved from www.eeotrust.org.nz/research/index.cfm.

Farber, H. (1999). 'Mobility and stability: the dynamics of job change in labor markets.' In O. Ashenfelter and D. Card (Eds.), *The Handbook of Labor Economics* (pp. 2439–2483). Elsevier Science. Retrieved 25 June 2008 from www.irs.princeton.edu/pubs/pdfs/400.pdf.

Heckman, J., LaLonde, R. and Smith, J. (1999). 'The economics and econometrics of active labor market programs'. In O. Ashenfelter and D. Card (Eds.). *Handbook of Labor Economics*, 4(31).

Jacobson, L., LaLonde, R. and Sullivan, D. (2005). 'The impact of community college retraining on older displaced workers: should we teach old dogs new tricks?' *Industrial and Labor Relations Review*, 58(3): 398–415.

Johnson, R.W. (2007). *Managerial Attitudes Toward Older Workers: A Review Of the Evidence*. Discussion Paper 07-05. Washington, The Urban Institute.

Johnson, R.W., Mermin, G. and Resseger, M. (2007). *Employment at Older Ages and the Changing Nature of Work*. Washington, The Urban Institute

Khawaja, M. (2001). *Population Ageing: Myth or Reality?* Wellington, Statistics New Zealand. Retrieved from www.stats.govt.nz.

McGregor, J. (2000). *Employment of the Older Worker Survey*. Palmerston North, Massey University. Retrieved from http://masseynews.massey.ac.nz/2000/publications/massey_news/august/aug_14/stories/discrimination_against.htm.

McGregor, J. (2001). *Employment of the Older Worker*. A project from Massey University funded by the Public Good Science Fund. Palmerston North, Massey University. Retrieved 25 June 2008 from www.neon.org.nz/documents/Employment%20of%20the%20Older%20Worker.pdf.

McGregor, J. (2007). *Employment of Older Workers, Retirement Commissioner's 2007 Review of Retirement Income Policy*. Wellington, Retirement Commission. Retrieved 25 June 2008 from www.retirement.org.nz/files/Employment_of_older_workers.pdf.

McGregor, J. and Gray, L. (2001). *Mature job-seekers in New Zealand*. Palmerston North, Massey University. Retrieved from http://masseynews.massey.ac.nz/2001/news_releases/17_12_01.html.

McNair, S. (2006). *How Different is the Older Labour Market? Attitudes to Work and Retirement among Older People in Britain*. Centre for Research into the Older Workforce, University of Surrey.

Ministry of Education. (2008). *The Adult Literacy and Life Skills (ALL) Survey: Age and Literacy*. Wellington, Ministry of Education.

Neumark, D. and Stock, W. 'Age discrimination laws and labor market efficiency'. *Journal of Political Economy*, 107(5): 1081–1125.

OECD. (2006). *Live longer, work longer: a synthesis report*. Paris, OECD. Retrieved 25 June 2008 from www.oecdwash.org/PDFFILES/live_longer_work_longer.pdf.

Phelps, E. (1972). 'The statistical theory of racism and sexism'. *American Economic Review*, 62(4): 659–661. Retrieved 25 June 2008 from www.jstor.org/stable/1806107.

Preston, D. (1999). *Retirement Income in New Zealand: The Historical Context*. Wellington, Office of the Retirement Commissioner. Updated January 2001.

Samorodov, A. (1999). *Ageing and Labour Markets for Older Workers*. ILO Employment and Training Department.

Schultz, T.W. (1961). 'Investment in human capital'. *American Economic Review*, 51(March): 1–17.

Spence, A.M. (1973). 'Job market signalling'. *Quarterly Journal of Economics*, 87(3).

Statistics New Zealand. (2008a). *New Zealand Labour Force Projections*. Wellington, Statistics New Zealand.

Statistics New Zealand. (2008b). *Labour Market Statistics 2007*, Wellington. www.stats.govt.nz/analytical-reports/Labour+Market+Statistics+2007.htm.

Stephenson, J. and Scobie, S. (2002). *The Economics of Population Ageing*. Working Paper 02/05. Wellington, New Zealand Treasury.

Top Drawer Consultants. (2008). *Valuing Experience: A practical guide to recruiting and retaining older workers*. Retrieved from www.neon.org.nz/documents/Valuing%20Experience.pdf.

Wilson, M. and Kan, J. (2006). *Barriers to Entry for the Older Worker*. The University of Auckland Business School. Retrieved from www.neon.org.nz/eoissues/age.

