Workforce participation of older workers as an element of New Zealand’s Retirement Income Framework: A Review of Existing Knowledge and Data

Natalie Jackson
Bill Cochrane
Rachael McMillan

March 2013

A Report Commissioned by the Commission for Financial Literacy and Retirement Income, Wellington
Disclaimer

The findings of this report are those of the authors and do not reflect any official position on the part of NIDEA or the University of Waikato.
# Table of Contents

TERMS OF REFERENCE 3

EXECUTIVE SUMMARY 4

1.0 INTRODUCTION 7

2.0 TRENDS IN EMPLOYMENT FOR OLDER WORKERS 9

3.0 IMPLICATIONS FOR INCOME AND SAVINGS 16

4.0 BARRIERS AND ENABLERS TO LONGER WORKFORCE PARTICIPATION 20

Health 20

Financial issues and interaction with income policy 21

Attachment to work, conditions of work, workplace flexibility and policies 23

Other (non-work) needs and interests 27

Discrimination 27

5.0 OPTIONS FOR INCREASING RATES AND QUALITY OF OLDER WORKFORCE PARTICIPATION 29

6.0 CONCLUSION 32

7.0 REFERENCES 34

GLOSSARY 40

APPENDIX A 41

APPENDIX B 42
Terms of Reference

Objectives

In the context of population ageing, the overall objectives of the required research are to draw on existing data and knowledge to provide:

1. A description of current rates of and trends in employment among various cohorts of New Zealanders aged 55+, and likely implications for income and savings;

2. Commentary on factors which:
   a. encourage and enable workforce participation among older people; and
   b. act as barriers to workforce participation.

3. Options for removing barriers or otherwise increasing rates and quality of workforce participation by older New Zealanders.

Scope and Style

The final public report on this research is to be written in a high quality, accessible style, with all sources fully referenced.

Authors’ Comments

In responding to the Terms of Reference we note the following:

1. The work is primarily a review of existing literature and data, not a stand-alone empirical analysis.
2. The primary population of interest is New Zealanders aged 55+ years.
3. The time period is limited to ‘current’ rates and trends.

While we have gone outside these terms insofar as it has also been necessary to review a selection of international literature, and to provide an empirical overview of labour force trends at the time of writing, we have specifically resisted reporting on projected labour force and income/savings trends. These are subject to a broad range of assumptions which would, in our view, contradict the study’s objectives.

We note also that in reporting on the reviewed literature it has been necessary to shift between the various indices employed in those studies. To assist with clarification these indices are bolded in the text, and a glossary is provided at Appendix A.
Executive Summary

Overview
As elsewhere, New Zealand faces major challenges in successfully managing the phenomenon known as population ageing. All else remaining equal, population ageing will generate a growing and potentially problematic fiscal gap between government revenue to fund public services such as superannuation and health care, and demand for them.

Labour Market Trends
One important change that would offset much of this gap — a shift to a longer work life — is already occurring in New Zealand. The labour force participation rate for the 65+ year age group almost trebled since 1986; at 55+ years it is 1.6 times higher than it was.

New Zealand is among a handful of OECD countries leading the trend to a longer work life. In 2011 New Zealand recorded the second highest employment rates at both 50-64 and 55-64 years, and 4th highest at 65-69 years, suggesting that further large increases may be more difficult to achieve.

In 2011 the trends resulted in New Zealand having the 6th highest ‘effective retirement age’ (the average age of those withdrawing from the labour force) for males and 7th highest for females of 34 OECD countries.

A slight flattening of the employment rate at 60-64 years for both males and females since 2009 could indicate the approaching of a social saturation point; however it could also reflect the global economic crisis. The trend appears steadily upward at 65+ years.

For those aged 65+ years, growth in part-time work made the largest contribution to overall growth in employment, and the trend is especially pronounced for women.

Implications for Savings
The increase in workforce participation at older ages exposes more people to a longer period of earning but does not necessarily correlate with a greater ability to save for retirement, as a large proportion of the growth is in part-time work and low pay scale occupations. This is especially so for women who remain concentrated in just four industry sectors: healthcare, education, professional and scientific services, and retail.

The gender pay gap has diminished slightly in recent years, in part because of a relative deterioration in income for middle aged males. However there is still no single industry in which women earn more than men. When placed on a full-time equivalent basis, New Zealand females in 2011 earned on average only 83 per cent of the income of males, with the discrepancy greatest for those with Bachelor Degree or Higher qualifications and least for those with no qualifications. The discrepancies are greatest at older ages and least at the younger ages.

Greater longevity and the increase in workforce participation at older ages could also become associated with a greater increase in private superannuation funds which could—as has been shown for Australia—facilitate earlier rather than later withdrawal.

Barriers and Enablers to Participation
A broad range of factors are known to influence the ability of older workers to remain in the workforce, among them health status, financial position, conditions of work including labour demand, the availability of suitable (part-time/flexible) work that matches skills, the presence/absence of discrimination, the centrality of the role of work, and gender.
These factors can serve as both barriers and enablers to longer workforce participation, and many are cross-cutting, for example, while poor health is barrier and good health an enabler, good health may reflect a higher income and greater capacity to retire early.

**Enablers** – Four factors that enable greater participation in the labour force for older people stand out:
- the extent to which labour demand is strong
- the extent to which part-time work is available
- the extent to which there is flexibility in accommodating the needs and interests of, and competing demands on, older workers, and
- key features of New Zealand Superannuation (NZS) which simultaneously discourage early withdrawal and reward those who continue to work beyond the age of access.

**Barriers** – Working against these factors are seven key barriers:
- poor/deteriorating health
- high caring demands
- a mismatch between skills and the demand for those skills
- an apparent lack of timely discussion about retirement intentions
- the financial ability to retire
- discriminatory attitudes and practices, and
- lack of employer knowledge about the implications of population ageing.

**Options**

In the context of already high participation rates at older ages, at least in part facilitated by the enabling features of NZS (including the 1991 increase in age of eligibility), and indications that more older New Zealanders would readily work if suitable work was available, it would seem that policy options should focus less on individual inducements (whether ‘sticks’ or ‘carrots’) or pension reform and more on dismantling the remaining institutional and structural barriers to participation. Certainly the forthcoming wave of Baby Boomer retirement—or at least mass reduction in levels of participation—is a societal level issue that must be responded to at government level; it is not a ‘personal trouble’ that can be dealt with by individual employers or individual employees.

**Age Management Planning**: The international literature identifies that New Zealand lags behind its structurally older European Union (EU) counterparts in one crucially important area: Age Management Planning. Widespread across Europe, Age Management Planning is a ‘whole of government, whole of industry’ attempt to grapple with the common problem of an ageing workforce and its associated skill and labour shortages. Age Management Planning involves comprehensive revision of workplace policies and practices, underpinned by government legislation which supports such innovations as discussion of retirement plans from an early age, age-progressive incentives for older workers such as longer work breaks and increased training opportunities, assistance in matching skills with demand at both individual and institutional level, and identification of employees’ ability to undertake specific tasks.

By definition the Age Management Planning approach simultaneously educates employers and reduces discriminatory attitudes and practices to a minimum. Early understanding of the implications of population ageing by employers is crucial to ensuring that valuable skills and years of experience are not lost—or ‘poached’ by more knowledgeable competitors, including those in other countries.
**Work-Ability**: Closely related to Age Management Planning is the similarly widespread adoption across many EU countries of the use of the ‘Work-Ability Index’, an Occupational Health and Safety (OH&S) tool with ‘stop-light’ principles. Working with OH&S personnel, supervisors and employees identify tasks that they can readily continue to do (green), those which they anticipate having trouble with (amber) in the near future, and those which they do not feel able to perform (red). Position Descriptions are then adjusted to match, rather than dismissing individuals for being unable to fulfil roles they may have taken on many years earlier. In addition to a longer and healthier work life, gains have been shown in a significant reduction in sick days, leading to large increases in collective person-years worked per year, and to increases in productivity. Such gains are important not only to individual businesses and the economy more generally, but also because a longer work life may, for many, be a crucial social determinant of personal health and psychological well-being.

**Targeting**: Given that some occupational groups retire earlier or later than others, targeting interventions to specific occupational groups rather than more broadly would seem to have considerable merit. If there is any need for individual inducements they should be targeted to those most likely to withdraw from the workforce because they ‘do not need to work’; that is, those who have sufficient financial capacity to retire early; and to those most likely to ‘need’ to work longer but facing increasing physical constraints to doing so. In the case of white collar workers this will involve workplace reform as opposed to tweaking access to superannuation. For blue collar workers the reforms also need to encompass occupational health and safety issues at an early age.

**Cautions**

**Caring responsibilities and workforce flexibility**: In encouraging higher participation at older ages it is important to remember that older unpaid carers play a significant role in reducing demand on the formal workforce, and higher participation rates could jeopardise this all-important arrangement. Similarly the role of many grandparents in caring for grandchildren and permitting their parents to work needs to be kept in mind. These circumstances indicate the need for greater acknowledgement by employers of the multi-level family demands on older people, suggesting greater flexibility in work arrangements – again possibly through adoption of Age Management Planning.

**Longer work life and potential health costs**: In encouraging a longer work life it is equally important to avoid the ‘work until you drop’ approach as it could lead to higher long-term health costs, especially for workers in more stressful and/or physically-demanding occupations.

**Pension reform versus workforce reform**: Standard pension reform policies such as increasing the eligibility age may have little effect if country- and region-specific labour market factors are inadequately considered. Incentives for older workers to remain in the labour force may not prove particularly effective if there are no suitable jobs.

**Higher participation rates and greater ability to retire early**: Ironically, higher levels of workforce participation beyond age 55 may be associated with higher rates of saving in private superannuation schemes, resulting in the capacity to withdraw from the workforce ‘earlier’, at the desired age.

**Extending the working life is not cost-neutral**: Active ageing policies need to be adequately funded; they are beyond the capacity of many small businesses.
1.0 Introduction

1.1 As elsewhere, New Zealand faces major challenges in successfully managing the trend known as ‘population ageing’ (Jackson, 2007), illustrated at Figures 1 and 2. Although structurally younger than its OECD counterparts, half a century of declining birth rates and increasing longevity mean that the New Zealand population will soon contain more elderly (65+ years) than children (0-14 years) – a crossover expected to occur in just ten years (Statistics New Zealand, 2012). This ‘medium case’ projection assumes the birth rate remaining close to its current level (declining to 1.96 by 2021 and 1.90 by 2036), longevity continuing to increase but at a slightly slower rate, and a constant average net international migration gain of 12,000 per year from 2015.

1.2 Accompanying these trends are internal shifts in the age structure affecting the prime working age population (15-64 years), where the number of people at and approaching labour market ‘entry age’ (15-24 years) is declining rapidly vis-à-vis the number approaching the retirement zone (55-64 years). It is critical that any discussion relating to older workers pays equal attention to the trends at younger ages. Over the next five years the number of school leavers (15-19 years) will decline by approximately 20,000, and by a further 8,000 in the following five years (Statistics New Zealand, 2012).

1.3 The combined outcome of the trends will see the ratio of people at labour market ‘entry’ to ‘exit’ age fall from its current 1.3 today, to just one for one by 2021. A sizeable but short-term influx of youthful labour market entrants will then arrive at labour market entry age, the legacy of the recently born ‘baby blip’. However by then the largest of the Baby Boom cohorts will be approaching the retirement zone. The prime working age population – defined here as 15-64 years – is expected to shrink from its present 66.0 per cent of the total population, to around 60.0 per cent by 2031 (Jackson, 2011).

1.4 New Zealand’s likely labour and skill shortages (Department of Labour, 2011) will be exacerbated by population ageing being further advanced in counterpart countries, increasing competition for migrants – including New Zealand’s own young (McPherson, 2012, p. 4). A salutary message is that over the next 20 years, the number of people aged 65+ in the 58 More Developed Countries will grow by almost 100 million, while the numbers aged 0-64 years will shrink by 41 million (United States Census Bureau, n.d.).

1.5 All else remaining equal, New Zealand’s structural ageing will generate a growing and potentially problematic fiscal gap between government revenue to fund public services such as superannuation and health care, and demand for them (Bascand, 2012; Ministry of Social Development, 2011). This is especially so given New Zealand’s current universal superannuation, with the age of entitlement at age 65 irrespective of financial or employment situation (Hurnard, 2005). One important change that would offset much of this gap – a shift to a longer work life – is already occurring in New Zealand, as it is elsewhere; albeit it must be noted that New Zealand is among a handful leading the trend (Hurnard, 2005).

1.6 As population ageing unfolds, the relative deficit of younger workers and increased competition for workers of all ages is almost certain to reinforce this trend (McPherson, 2012). However, the situation remains poorly understood, with many older workers continuing to face discrimination and untimely redundancy (Alpass & Mortimer, 2007, pp. 30-31; Wilson & Kan, 2006; McPherson, 2012), and seemingly few appropriate HR policies and practices yet in place (EEO Trust, 2008).

1.7 This report reviews the literature on workforce participation at older ages, as an element of New Zealand’s retirement income framework. It begins with a review of recent trends in older age (55+ years) employment, followed by some implications of these trends for income and savings. Factors that form barriers and enablers to extending the working life are then reviewed. The report concludes with a review of options for increasing the rates and quality of New Zealand’s older workforce participation.
Figure 1: New Zealand Population, Percentage by Age and Sex, 1961, 2011, 2031

Source: Statistics New Zealand, Census Population by Age and Sex

Figure 2: New Zealand Population, Percentage in Each Broad Age Group, 1901-2061

Source: Statistics New Zealand, Census Population by Age and Sex
2.0 Trends in Employment for Older Workers

2.1 Readers should note that the literature reviewed for this paper covers a variety of labour force indices and draws on a number of different data sources, such as the New Zealand Census and the New Zealand Household Labour Force Survey, in addition to international sources. The resulting indices reported here are thus in many cases constructed and defined quite differently, for example the labour force participation rate (typically defined as those employed plus unemployed as a percentage of the working age population aged 15+ years) and the unemployment rate (those unemployed as a percentage of the labour force), and should be read accordingly. A glossary is provided to give an indication of the construction of the key indices.

2.2 A broad range of literature records that New Zealand, along with most OECD countries, has seen a significant increase in older age employment since the early 1990s (Bascand, 2012). The trend is exactly the opposite of the situation in the 1970s and ‘80s, where older workers began retiring at earlier ages – at least in part because of early access to pension schemes (Hurnard, 2005, p. 1; Jackson, et al., 2006).

2.3 Between 1986 and 2006, the labour force participation rate of New Zealanders aged 65+ years almost trebled, from 6.4 to 17.1 per cent (Statistics New Zealand, 2009, p. 9), a trend likely to be associated with the raising of the universal state pension age from 60 to 65 between 1992 and 2001 (Hurnard, 2005; Littlewood, 2012, p. 1).

2.4 By September 2012, the labour force participation rate for those aged 55+ years stood at 46.6 per cent, representing a 1.0 percentage point increase over the previous year and 5.2 percentage points over the previous five years (Department of Labour, 2012a).

2.5 Across OECD countries around 2009, the resulting ‘effective retirement age’ (the average age of those withdrawing from the labour force) placed New Zealand 6th highest for males and 7th highest for females (Littlewood, 2012, p. 7).

2.6 By 2011, of 34 OECD countries, New Zealand recorded the 2nd highest employment rates at both 50-64 and 55-64 years, and 4th highest at 65-69 years (OECD, 2012) (Figure 3 and Appendix A).

Figure 3: Percentage of Selected Age Groups Employed, 34 OECD Countries, 2011

Source: OECD estimations from national labour force surveys and OECD Education database.
Notes: Number employed as percentage of age group.
2.7 Figures 4 and 5 give similar data for New Zealand for the period 1987-2012, disaggregated by age and sex. At 55-59 years, the employment rate for males has remained relatively stable, increasing by just 1.9 per cent over the period, albeit recovering from a low point in 1993 when unemployment in New Zealand was historically high. However the trend pales into insignificance by comparison with that at 60-64 and 65+ years, where male employment has increased overall by 76.0 and 71.0 per cent respectively.

Figure 4: Percentage of Age Group Employed, 1987-2012, New Zealand Males aged 55+ Years

![Graph showing employment rates for New Zealand males aged 55+ years from 1987 to 2012.](image)

(Source: Statistics New Zealand, HLFS, Annual June)

2.8 While female employment rates remain lower, the trends are even more impressive (Figure 5). At 55-59 years, New Zealand women have increased their employment levels by 83 per cent since 1987, while at 60-64 and 65+ years employment rates are 2.9 and 3.6 times greater respectively. By 2012, females had thus greatly increased their employment position vis-à-vis males. In 1987, females aged 55-59 were half as likely as males to be employed; by 2012 they were 0.9 times as likely. The relative improvements are similar at age 60-64 and 65+ years (respectively from 0.5 to 0.8, and 0.3 to 0.6 times as likely).

Figure 5: Percentage of Age Group Employed, 1987-2012, New Zealand Females Aged 55+ Years

![Graph showing employment rates for New Zealand females aged 55+ years from 1987 to 2012.](image)

(Source: Statistics New Zealand, HLFS, Annual June)
2.9 Analysis of labour force participation at 65+ years further broken down by age group identifies that participation rates decline steeply after 65-69 years (Khawaja & Boddington, 2009, p. 80). At the 2006 Census, one in three people aged 65-69 years were working (males 42.9 per cent, females 25.3 per cent), while by 80+ years that had dropped to one in 17 (six per cent), the majority being employers, self-employed, or unpaid family members.

Labour force by birth cohort

2.10 While labour force trends are easier to understand by age group, it is important to discuss them in terms of birth cohorts (people born at the same time). This approach enables us to more readily consider the likely experience of future cohorts as the labour market context in which they will work, changes.

2.11 Figure 6 uses the same data as Figure 4 to show cumulative trends in employment for older New Zealand male birth cohorts as they have aged. Reading the graph downwards for each cohort, we see that the cohort born 1928-32 was aged 55-59 years in 1987, 60-64 years in 1992, and had reached 65+ years in 1997. At these observations the cohort experienced employment rates of 82.0, 34.0 and 11.0 per cent respectively. By comparison, when the cohort born 1943-47 was aged 55-59, 60-64 and 65+ years, its employment rates were respectively 81.0, 74.0 and 25.0 per cent.

2.12 Summing the data for each cohort shows that New Zealand males born 1943-47 have experienced 53 percentage points (41.8 per cent) greater employment after 54 years of age than the cohort born 1928-1932 (Appendix B), despite experiencing lower rates when aged 55-59 years. This increase has also been quite steady, each successively younger cohort increasing its margin over the previous cohort. Because not all cohorts have yet reached 60-64 and 65+ years of age it is not possible to directly compare them; however it is very clear that the more recently born cohorts have experienced a relatively minor drop in employment as they moved from 55-59 to 60-64 years of age by comparison with older cohorts, and are now contributing to the increase at 65+ years.

Figure 6: Percentage of Birth Cohort Employed by Age 1987-2012, New Zealand Males Aged 55+ Years

(Source: Statistics New Zealand, HLFS, Annual June)
2.13 The picture is similar but more pronounced for females (Figure 7 and Appendix B). From a cumulative perspective, females born in 1943-47 and now aged 65+ years have experienced double the post-54 year employment rates of the cohort born 1928-1932, and again the trend has been steadily upwards over the 25 year period 1987-2012.

Figure 7: Percentage of Birth Cohort Employed by Age 1987-2012, New Zealand Females Aged 55+ Years

2.14 The high rates of older age employment right through to 2012 are even more remarkable given the depressed [New Zealand and global] economic climate since 2008, although it is equally plausible that they are also a reflection of that situation, with older workers ‘needing’ to stay on in order to offset increased living costs reducing their ability to save for retirement, and/or investment losses (Coile & Levine, 2011).

2.15 Some flattening of the trend is, however, noticeable at age 60-64 for both males and females born in the late 1940s and early 1950s (also slightly for younger cohorts at 55-59 years), plausibly reflecting the economic downturn (Department of Labour, 2010, p. 38). Alternatively, the flattening could indicate the approaching of a social saturation point (where retirement is chosen over work), despite these cohorts’ greater life expectancy. As noted above, New Zealand has extremely high labour force participation rates at older ages by comparison with other OECD countries, significantly ahead of Australia, Canada, the United Kingdom, the United States, and the OECD average (Temple, et al., 2011, p. 12), suggesting that further increases – or increases of any great magnitude – may be more difficult to achieve. However, the trends at 65+ years do not appear to be affected, thus we may [optimistically] assume they will continue and even increase for younger cohorts, which are expected to have longer life expectancy again. It is also noteworthy that at 3.3 per cent in the year to September 2012, unemployment at older ages is extremely low (compared with 6.8 per cent for all people), albeit this is more than double the level five years ago (Department of Labour, 2012a).

2.16 Ethnicity: Māori aged 65+ years are more likely to be in the workforce than those of European ethnicity (24.0 and 16.6 per cent respectively), and both are more likely than Pacific Peoples, Asian, or ‘Other’ (14.3, 10.5, and 13.0 per cent respectively (Statistics New Zealand, 2009, p. 22; Littlewood, 2012, p. 3)). These findings—which it must be acknowledged are not consistent across all studies (Department of Labour, 2010, p. 18), are likely to reflect socio-economic differences, which translate into vastly different abilities to save for an early retirement. However they may also reflect findings that for many older Māori – and Pacific Peoples – the concept of retirement does not exist. Māori focus group participants in
a study of older people stressed their strong work ethic and relative disinterest in moving from the paid workforce to a more leisurely lifestyle, opting instead for an increase in whanau, marae and church-based volunteer work (Ministry of Social Development, 2009a, pp. 1, 8).

**Employment status**

2.17 One factor that has clearly played a role in increasing participation at older ages is the increasing availability of part-time work, a structural shift that meets favourably with many older workers (Department of Labour, 2009a; Ministry of Social Development, 2011, p. 9; Gorman, et al., 2012, p. 12). In 1986, around 40 per cent of those employed at 65+ years were working part-time, while by 1996 that had increased to 60 per cent (Statistics New Zealand, 2009).

2.18 By 2006 the proportion working part-time had dropped back to 52 per cent, as more older workers worked full-time. Nevertheless between 1986 and 2006, growth in part-time work made the largest contribution (56 per cent) to overall growth in employment for those aged 65+ years, a trend which is especially pronounced for women (Statistics New Zealand, 2009, pp. 13-14). In 1986, just 3,000 women aged 65+ years worked part-time, a figure only slightly above the number working full-time; by 2006 the number working part-time had increased to 20,000, while the number working full-time had increased to just 10,000. At the 2006 Census, two-thirds of women aged 65+ years worked part-time compared with two-fifths of older men.

2.19 Part-time and temporary or seasonal jobs also increase with age, a growing literature attesting to the fact that older workers have a strong preference for such jobs (Department of Labour, 2009a, p. 3). The 2009 study found that work arrangements and hours at 55-59 years in New Zealand are broadly similar to those of prime-aged workers, with around 18 per cent working part-time, while by 65-69 years the part-time rate had increased to around 45 per cent (Department of Labour, 2009a). Rates of temporary work are also particularly high for those aged 65-69 years.

2.20 The same study found that older New Zealand workers have a much higher rate of self-employment than prime-aged workers (29 per cent and 18 per cent respectively), and are somewhat more likely to be self-employed without employing others (Department of Labour, 2009a, p. 3).

**The employment context**

2.21 The increase in employment at older ages has important industrial, occupational, educational and regional dimensions (Alpass & Mortimer, 2007; Borkin, 2011; Jackson, 2011; Ministry of Social Development, 2011; Newell, 2009).

2.21.1 Part-time work is more common in the occupations and industries that women tend to be employed in, such as health care and community services (Department of Labour, 2009a; Newell, 2009, p. 9), and it is worth noting that demand for these services will almost certainly increase as population ageing unfolds. Not only will more people need these services, but it is expected that there will be relatively fewer workers to deliver them (McPherson, 2012; Immigration New Zealand, 2013). As structural ageing unfolds, the pool of available labour will be subject to greater competition from other industries—and countries.

2.21.2 Industrial and occupational change is also increasingly to the advantage of older workers, with growing proportions of both men and women working in less physical, more age-friendly professional occupations, with attendant health benefits enabling a longer work life (Ilmarinen, 2005; Morschhäuser & Sochert, 2006; Newell, 2009, p. 9). In 2012, the most common
occupations for older New Zealanders (55+ years) were professionals and managers, accounting for 43.0 per cent of those employed (Department of Labour, 2012a). The addition of clerical and administrative, community and personnel services workers, and sales workers increased the ‘white collar’ share to 71 per cent.

2.21.3 Reflecting these concentrations, industrial and occupational age structures and rates of workforce ageing also differ, with New Zealand’s oldest and largest sectors being the Health and Public Service sectors (Alpass & Mortimer, 2007, p. 21), a finding similarly noted for Australia (Jackson, et al., 2006).

2.21.4 The older age structure of these sectors may in part reflect a finding that these industries are also more likely to hire older workers (Dixon, 2009, p. 18); however also of note is that, with the exception of industries such as residential care and social assistance services, this New Zealand study found only a low correlation between the disproportionate hiring of older workers and part-time work (Dixon, 2009, p. 20).

2.21.5 Of related importance is that—in Australia—intentions to retire differ markedly by occupation (Jackson & Walter, 2010), information that does not appear to be available for New Zealand.

2.21.6 Common to both men and women, but again particularly for women, has been increasing proportions gaining a post school or tertiary educational qualification (Alpass & Mortimer, 2007, p. 7). Between 2001 and 2006, New Zealand women became more likely to hold a Bachelors Degree or Higher than New Zealand men (Statistics New Zealand, 2010), further enhancing the gaining of employment in the professional workforce and facilitating increasing numbers of women to have careers rather than short-term ‘jobs’ – which are more likely to culminate in a longer work life (Newell, 2009, p. 7).

2.21.7 While the shift is as yet most apparent at the younger ages, the gender gap is closing across all age groups, with New Zealand women aged 55+ years increasing their absolute share of Bachelors Degree and Higher qualifications from 35.0 per cent in 2001 to 41.0 per cent in 2006 (Statistics New Zealand, 2010). The share reduces as age increases, but in 2006 was still 33.0 per cent at 80-84 years, up from 29.0 per cent in 2001.

2.21.8 Regionally, population ageing is also unfolding at markedly different rates, with proportions aged 65+ years in 2011 ranging from 9.0 per cent in Wellington City to 25.0 per cent in Kapiti Coast, and the disparities projected to continue (Jackson, 2012b). At a local level, labour market entry: exit ratios similarly vary by a wide margin, with over one-third of New Zealand’s Territorial Authority Areas already with fewer people at labour market entry than exit age (Jackson, 2011).

2.21.9 When viewed in combination with industrial and occupational workforce ageing, it is clear that the skills and labour shortages implied above are likely to be highly localised (Alpass & Mortimer, 2007; Jackson, 2011). A very strong correlation has been shown between the rate of decline in regional labour market entry: exit ratios (1996-2006), and increasing employment rates at older ages, providing a tantalising insight into the potential for population ageing to both increase employment and depress unemployment (Jackson, 2012a).
Delayed childbearing – a thought for the future

2.22 In combination with these trends, another factor that could affect workforce participation at older ages in future is the shift to older parenting ages that has occurred over the past few decades. Today’s late childbearing cohorts will still have ‘dependent’ children when they are in their ‘50s and ‘60s. On the one hand this situation could generate a decline in participation while children pass through the primary and high school ages (Alpass & Mortimer, 2007, p. 41). On the other it could further increase in labour force participation at older ages, for both sexes, as pressure on the household budget increases. The latter could also potentially see a lessening of the situation where partnered females have tended to retire around the same time as their typically older (male) partner, a little before attaining state pension age themself (Hurnard, 2005, pp. 7, 17; Littlewood, 2012, p. 5).

Summary

2.23 Clearly, the scene points to a longer work life. However the extent to which the recent trends will be sustained or increase further depends on a number of factors, many of which are outside the control of individuals, such as labour demand, industrial and technological change and the changing nature of work. The need to be skilled – and regularly re-skilled – is likely to generate particular challenges for older workers, many of whom face difficulties in accessing the necessary training due to workplace discrimination (Alpass & Mortimer, 2007, p. 19). The issue is central to the ability of older workers to extend their working life (Department of Labour, 2009b). Despite this imperative, a 2009 New Zealand study found that older employees are less likely than prime-age employees to have undertaken employer-funded study or training in the previous 12 months (29.0 and 35.0 per cent respectively) (Department of Labour, 2009a). The lower rate of training was most evident for those aged 65-69 years (where just 19.0 per cent had participated) and for those less-qualified or working part-time. Notably, while New Zealand has very high rates of labour force participation compared to the rest of the OECD, it has low productivity overall, indicating that increased skills are needed (Department of Labour, 2010, p. 5). These issues are returned to further below.
3.0 Implications for income and savings

3.1 No New Zealand studies could be located that have analysed the impact of increased labour force participation at older ages on income or savings. This is perhaps understandable given that the increase is relatively recent, but needs to be addressed. As pointed out by Coleman and McDonald 2010, significantly more attention appears to have been directed at the growing gap between New Zealand and Australian incomes.

3.2 It would, however, seem self-evident that a longer work life provides extended exposure to the opportunity to earn, as does undertaking that work in higher paid employment as the result of higher qualifications, as indicated in the previous sections. The significant additional exposure to employment beyond age 54 for New Zealand male cohorts born 1943-47 compared with those born 15 years earlier (almost 42.0 per cent), and the doubling of exposure for their female counterparts, is a significant change in a relatively short period.

3.3 The trend could be expected to generate an increase in the share of total income attributable to earnings, as was found in a recent USA-based study. The study found that the increases in participation of men and women aged 62-79 years has resulted in a dramatic increase in the share of total money income attributable to earnings (Leonesio, et al., 2012). For those aged 65-69 years, the earnings share of income increased from 28 per cent in 1980 to 42 per cent in 2009, greatly reducing the share from Social Security benefits.

3.4 Some indirect evidence for New Zealand is found in the birth cohort data of Coleman and McDonald (2010), albeit the picture differs somewhat by sex. These census income data show that each successively younger female cohort born 1936-1961 has experienced significantly higher median (real) income than its immediately older counterpart when at the same age. The increased income is dramatically clear for the female cohorts born 1936 and 1951, the latter of which experienced more than double the median (real) income of the former when at 55 years of age—presumably reflecting the increased exposure to employment noted above (along with increased education levels and hours worked). The situation is somewhat less rosy for New Zealand’s older males, for whom relative median income has deteriorated for those recently and presently passing through middle age. In general, males born between 1956 and 1970 did not earn more than their older peers when in their prime working ages; in most cases they earned less (Coleman & McDonald, 2010, p. 10). These differences can be expected to have different cumulative impacts on the relative ability of different cohorts to save.

3.5 It is, however, plausible that a longer worklife and expectation of a longer period of life spent in retirement will see increasing numbers of New Zealanders opt in to KiwiSaver and other private superannuation schemes, at some point in their life cycle. Prior to KiwiSaver, only 611,000 New Zealanders (of all ages) belonged to a private superannuation scheme, with just above 300,000 (14.7 per cent of the workforce) belonging to a workplace (occupational) scheme (Littlewood, 2010, p. 15). This was considered a low rate of investment in non-housing assets by international standards—housing assets being preferred by generations of New Zealanders, although it has recently been argued that non-housing asset saving has been greater than previously perceived (Le, et al., 2012, pp. 112-113).

3.6 Relatedly, income, savings, and net worth (assets minus liabilities) are known to approximately follow a life cycle pattern (Le, et al., 2012). In New Zealand, net worth been found to rise with age, peaking at 55-

---

1 Census income data are subject to a number of limitations, among them self-reporting, differing sized income bands at different censuses, changes in labour force participation, hours worked, and levels of employment and unemployment.
64 years and then declining (Le, et al., 2012, p. 97)². Highest average savings occur at slightly younger ages again, 45-54 years, with negative average savings after age 55 (Le, et al., 2012, p. 102). The highest average rates of saving occur at younger ages yet again (45-54 years), and the highest rates of dissaving, above 55+ and particularly 65+ years. Overarching these findings, however, the study found that savings are highest for those in the top four income deciles, and that while net worth is strongly correlated with both age and savings, the correlation is not as strong as with income (Le, et al., 2012, p. 103). The cohort-related findings referred to above should thus give pause for thought.

3.7 The New Zealand study also found that between 2004 and 2006, net worth increased most significantly for the oldest age groups, while they also experienced the greatest levels of dissaving (Le, et al., 2012). The picture is, however, affected by a broad range of socio-demographic characteristics. Controlling for several of these identified that partnered individuals saved $1,800 more than single individuals; older individuals saved $50-$150 less for each year of age; university degree holders saved nearly $4,000 more than individuals without a qualification; individuals who were out of the labour force saved $1,800 less than those who were employed; and individuals who were in average health saved less than those who were in excellent health (Le, et al., 2012, pp. 102-105). When additional controls were applied it was found that ‘conditional on prior wealth and current income, women saved $3,600 more than men, and [between 2004 and 2006] saving increased by $20-$140 for each year of age’. Under these circumstances, those in the labour force saved less than those who were working, while the self-employed saved somewhat more (Le, et al., 2012, p. 107). These and other cross-cutting findings make it impossible to indirectly assess the likely impact of a longer workforce on individual savings. At an individual variable level it should be assumed that any gains (from longer workforce participation) will be either enhanced or diminished by other personal and household characteristics.

3.8 One factor argued to limit the likelihood of much higher levels of individual saving for females, despite increased participation at most ages, is their continuing concentration in a relatively few and low pay scale occupations, and minimal change in hours worked since the 1980s (Borkin, 2011). According to this paper, in 2011 females of all ages worked an average of 28.1 hours per week compared with 37.3 hours for males, and these levels have scarcely changed since 1986. This was attributed to the continuing influence of part-time work for females, with twice as many working an average of 1-30 hours per week than males; a situation which is reversed for those working 40+ hours per week. The paper records that in 2011, 57 per cent of all female hours worked were worked in just four industry sectors: healthcare, education, professional and scientific services, and retail; and that despite this concentration, there was not a single industry where women earned more than men. When placed on a full-time equivalent basis, New Zealand females in 2011 earned on average only 83 per cent of the income of males (Borkin, 2011, p. 7), a situation that becomes even more inequitable as qualification levels increase, the pay gap being greatest for those with a Bachelors Degree or Higher and least for those with no qualifications (Borkin, 2011, p. 8).

3.9 However Borkin does not simultaneously control for employment status and qualifications. Here we use customised census data to do this for those with a Bachelors Degree or Higher and working full-time, by age¹ - although as indicated above it should be noted that census income data are subject to a number of limitations. The data in Figure 8 do, however, accord with Borkin, indicating a pronounced gender pay gap, with no single age group having higher female than male median incomes, and only minimal change in the situation since 1981. The ratio approaches parity at 20-24 and 25-29 years only, then drops away from 30-34 years. Even in 2006, female incomes are barely above 70 per cent of those for males for any age group 35 years and above, and they are lower again at 66+ years.

³ The data have been run by Statistics New Zealand to reflect full-time as at the 2006 census.
3.10 As Borkin found, the situation differs somewhat for those with no qualifications, albeit the pattern by age is almost identical to those with a Bachelors degree or higher (Figure 9). In 2006, females aged 35+ years with no qualifications working full-time earned on average between 80 and 90 per cent of the median male income. The higher parity with male incomes is notable at 55+ years, and the situation has improved significantly since 1981, for almost all age groups.

3.11 Clearly, other factors not controlled for here such as hours worked, occupational roles and sector-specific characteristics will explain some of the disparity. The gender pay gap (for men and women of all ages) has also diminished slightly in recent years (Ministry of Women's Affairs, 2013, p. i), in part
because of the concentration of women in the health care, teaching and social service industries where they have received higher pay increases than men working in other sectors (Coleman & McDonald, 2010, p. 6). However, while it exists, the pay gap will continue to impact negatively on the relative ability of women to earn and generate retirement savings (Noone, et al., 2010, p. 733).

3.12 Noone et al (2010) view the gender pay gap as particularly problematic for women who may have retired early due to poor health or redundancy, yet are too young to receive government-provided superannuation. Single women are also identified as being of concern, as if they do not have the resources to prepare financially for retirement, they may be particularly vulnerable to shocks such as increasing living and health care costs. Similar comments can be applied to the earnings capacity of Māori and Pacific women (all ages) which has not caught up with that of European women, although it has improved at the same rate (Ministry of Women's Affairs, 2013, p. i).

3.13 On the positive side, New Zealand has one of the smallest pay gaps between males and females in the OECD, placing it well ahead of the OECD average and Australia, the UK, and the USA (Borkin, 2011, p. 10). The industrial sectors that New Zealand females work in, such as healthcare, education, professional and scientific services, are also less affected by economic cycles which see more males experience layoffs (Borkin, 2011, p. 6). Female-dominated industries and occupations have also grown at a greater rate than those in which men dominate (Newell, 2009, p. 7), all contributing to the diminishing pay gap.
4.0 Barriers and enablers to longer workforce participation

4.1 The literature identifies that a broad range of factors influence the decision of older workers to either withdraw from the labour force, or remain in work. These factors can serve as both barriers and enablers to workforce participation; for example, having sufficient savings or assets to retire at the desired age can be a ‘barrier’ to a longer work life, while insufficient savings can be an ‘enabler’. The decision to withdraw from the labour force is also seldom a sudden shift from a state of employment to full retirement. Instead it is a complex and incremental process driven by various push and pull factors, along with the nature, health and personality of the individual (Pinquart & Schindler, 2007; Wang, 2007; Topa, et al., 2009; Robinson, et al., 2010; Gorman, et al., 2012). The following sections should be read with these connections in mind.

4.2 Reflecting the international literature, the influences most commonly referred to in the New Zealand context are listed below. Because most are cross-cutting, they are elaborated below under a reduced number of sub-headings: health, financial issues/interaction with policy, workplace conditions and flexibility, other (non-work) needs and interests such as caring, and discrimination. Also included are some high level policy dimensions not yet present in New Zealand, such as ‘Age Management Planning’ as practiced across the European Union.

- Health, including mental and physical ability to do the job
- Financial issues and interactions with policy initiatives
- Attachment to work and conditions of work
- Job satisfaction, interest, enjoyment, need for mental stimulation
- Labour market demand/redundancy/availability of suitable work
- Skills and education/composition of human capital
- Work/life balance/gender differences
- Caring responsibilities and other personal needs, choices and attitudes
- Other interesting and challenging opportunities
- Partner’s employment circumstances
- Discrimination

Health

4.3 Health is of central importance to the retirement/longer work life decision. This is borne out in numerous studies including the New Zealand Health, Work and Retirement (HWR) survey, where health concerns were ranked first among important influences on the decision by both retired and non-retired older workers (EEO Trust, 2006; Davey, 2007; Gorman, et al., 2012). The EEO Trust Survey found that 75 per cent of those surveyed and were still in work mentioned health as a factor which would significantly affect their retirement decision, women being more likely than men to report this.

4.4 These findings are supported by both objective and subjective evidence. Objective measures of health (mental and physical) from the HWR identify the probability that males in good health will still be in the workforce at 65 years of age as 70 per cent; this falls to 53 per cent for those in ill health (a decline of 17 percentage points) (Gorman, et al., 2012, pp. iv-v). For females the corresponding drop is 15 percentage points.

4.5 Subjective measures show an increased probability of withdrawing from the labour force, with anticipated future participation lower by 28 percentage points for males in poor health compared to
those in excellent health, and 19 percentage points for females. Generally, those who perceive their health as poor are less likely to be employed, with most studies reporting high levels of involuntary withdrawal due to ill health (Ministry of Social Development, 2009b).

4.6 It has also been found that health influences the decision to withdraw from the labour force in at least two other ways (Pond, et al., 2010):

- A desire to maximise life - that is, to retire whilst healthy enough to fulfil other life goals
- A desire to protect existing good health and/or to promote future wellbeing

4.7 Health also exercises an indirect effect on retirement decisions, with the health of others being ranked second only to that of the respondent as a major influence on the decision, especially for women (Davey, 2007, p. 28). The causal pathway is relatively clear, with the requirements of additional care giving conflicting with those of paid employment, and resulting in the (involuntary) retirement of the healthier partner (Szinovacz, et al., 2001).

4.8 By contrast, all studies record that good health is strongly associated with a longer work life. Those who perceive their health as excellent, very good, or good are significantly more likely to be employed than those who perceive their health as fair, poor or very poor (Davey, 2007; Ministry of Social Development, 2009b; Gorman, et al., 2012). Much affirmative literature comes from Europe, where structural ageing is more advanced and efforts to increase the length of the work life have been underway for well over a decade (Ilmarinen & Louhevaara, 1999). Central to the endeavour is the concept of ‘Work Ability’, which seeks to match workplace demands with the ability of workers to respond (Ilmarinen, 2005), and the related practice of ‘Age Management Planning’, a comprehensive and forward-oriented approach to ensuring future workforce supply (Naegele & Walker, 2006).

4.9 However, while good health is strongly associated with a longer work life, and conversely, poor health associated with early retirement, there are some theoretical arguments that poor health can result in increased living costs, thereby increasing the probability of working longer (Gorman, et al., 2012, p. 6). Early withdrawal from the labour force has also been associated with deteriorating health (reverse causality), making a return to the labour force more difficult (Gorman, et al., 2012, p. 13).

4.10 Adopting policies and practices to improve health outcomes of older people will therefore, for the most part, enable greater workforce participation (OECD, 2006). The relationship is, however, mediated by a broad range of factors, among which—but not necessarily determining of—are financial issues (Enright & Scobie, 2010).

Financial issues and interaction with income policy

4.11 Financial considerations are a major factor affecting retirement decisions and workforce patterns at older ages (Hurnard, 2005; EEO Trust, 2006; Davey, 2007, p. 25).

4.12 Uppermost among financial influences in New Zealand is the availability of New Zealand Superannuation (NZS), universally available from age 65. Becoming eligible for New Zealand Superannuation drops the labour force participation rate for males over the age of 65 by around 21 percentage points, and for females by around 7 percentage points; for females there is an additional (typically ‘joint retirement’)

---

4 Subject to a small range of conditions such as residence in New Zealand for a period of ten years after age 20, of which five years must be after age 55 (Littlewood, 2009, p. 1).
effect a few years before that age is reached, which lowers it by a further 11 percentage points (Hurnard, 2005, pp. 18-19), see also (Davey, 2007, p. 25; Gorman, et al., 2012, p. 31; Littlewood, 2012, p. 5).

4.13 However, NZS is also a major enabler of longer participation. In many countries, the rules surrounding the payment and timing of pension entitlements impose strong disincentives to remaining in the labour force once the age of access is reached (Jackson, et al., 2006; Bachelet, et al., 2011). This not so in the case in New Zealand, as the NZS has a number of unique features that promote continued engagement in the labour force (Hurnard, 2005):

- There is no early eligibility option
- Receipt of NZS is not contingent on retirement
- NZS is not subject to any income test or means test

4.14 These features encourage participation both up to and beyond age 65. Reaching eligibility age offers considerable flexibility for people making the transition from work to retirement (Hurnard, 2005, p. 19). The opportunity is likely to be of considerable interest to people with insufficient retirement savings and/or who wish to top up their retirement income. Indeed these features of the NZS may well explain the extent to which New Zealand’s older workers have internationally high participation levels.

4.15 New Zealand’s income replacement rate (the rate at which the NZS ‘replaces’ earnings) also has a bearing on participation levels. The replacement rate is low relative to workforce earnings, especially for higher income earners (Hurnard, 2005, pp. 3, 21). The rate also declines as income increases, more rapidly in New Zealand than in other countries, including Australia (Littlewood, 2010, p. 9). Two possible – and somewhat perverse – outcomes have been proposed (Hurnard, 2005). On the one hand, New Zealand’s low income workers have less to lose than higher income earners by withdrawing from the labour force at an earlier age – thus the low replacement rate may act as a barrier to longer workforce participation for them. The corollary is that high income earners may be more interested in remaining in the workforce than low income earners, the low replacement rate acting as a potential enabler for them. On the other hand, faced with low replacement rates, higher income earners may seek to top up their retirement income with private wealth accumulation while in the prime workforce ages (Hurnard, 2005, pp. 21-22). Such a situation could conceivably facilitate early retirement or periods out of the workforce, resulting in a decline, rather than further increase, in labour force participation at older ages.

4.16 Supporting some of these propositions is that working Māori expect to have higher living standards in retirement, reflecting the fact that moving from a low wage to NZS for many on low incomes constitutes a rise in real income (Enright & Scobie, 2010, p. 65).

4.17 While the NZS has no early eligibility option, it is important to be aware that unemployment and disability pensions can act as ‘de facto’ early-retirement schemes, either voluntarily or involuntary (Jackson & Walter, 2010). The proposition is particularly salient in regions subject to rapid labour market changes where older workers may be administratively sorted onto income support benefits with low or no labour market activity requirements (Beatty, et al., 2000; Beatty & Fothergill, 2005). Certainly unemployment at older ages is associated with high levels of involuntary retirement, with international literature recording numerous examples of older unemployed workers coming to realise that they were ‘retired’ only when they failed to get work (Jackson, et al., 2006).

4.18 Asset Base: The situation is equally mixed in terms of the relationship between housing assets and longer participation in the workforce. On the one hand it is argued that those who rent tend to retire earlier than do home owners and those with mortgages (Ministry of Social Development, 2009b); thus renting may be a barrier to a longer work life, and home ownership / having a mortgage an enabler. More generally, indebtedness at older ages frequently results in delayed retirement (Mann, 2011). On
the other hand, home ownership as a font of retirement funding (Law & Meehan, 2012) is particularly important in New Zealand, where those at working age are considerably less likely than elsewhere to invest in non-housing assets, and to liquidate those assets on retirement. For some, home ownership – or at least high levels of housing-asset wealth – could thus translate to a barrier to longer workforce participation.

4.19 The impact of the global financial crisis on this situation remains an open question, although some commentators argue that those currently approaching retirement are not likely to be greatly or immediately affected by the recent decline in housing prices (Gustman, et al., 2009; Coile & Levine, 2011). However, the ageing of the population itself may induce negative changes in property values in the longer term, particularly in regions where populations are declining (Takáts, 2012). In that case, diminishing house values could plausibly cause people to delay retirement.

4.20 Counter arguments also need to be taken account of. For example, slower labour force growth and competition for workers could lift incomes, leading to higher house prices (Stephenson, 2006).

4.21 Either way, any increase in the age of eligibility for NZS could see wealthier retiring cohorts choosing to use private funds to retire at the age they had planned, rather than wait for the age of eligibility (Hurnard, 2005). This would seem a possibility for those with significant KiwiSaver accounts (Littlewood, 2010), as it is in Australia for those with significant private superannuation assets (Walter, et al., 2008). Certainly higher household net wealth is associated with lower levels of participation for females (Gorman, et al., 2012, p. v).

**Attachment to work, conditions of work, workplace flexibility and policies**

**Flexibility in the workplace**

4.22 Results from the US Health and Retirement Study (HRS) for New Zealand indicate that work-related factors rate relatively lowly in terms of the decision to retire (Davey, 2007, p. 26). However, a 2009 New Zealand study found that older full-time employees were more likely than prime-aged full-time employees to say they would prefer to work fewer hours and earn less (Department of Labour, 2009a). At the same time, only 36 per cent of older employees working 35 hours or more per week thought their employer would let them reduce their hours to part-time. Similarly, more recent studies have found that the lack of suitably flexible or part-time jobs can affect the ability to work at older ages, a New Zealand Treasury study finding that 20 per cent of those retired with no paid work would like to have part-time work (Gorman, et al., 2012, p. 12). These mixed findings, along with those in the section on labour force trends above, suggest that the situation is undergoing change, with older people increasingly seeking part-time employment opportunities.

4.23 However, it is important that jobs for older people do not fall in the category of repetitive work and low pay or they will leave, as would other workers in the same position (Davey & Davies, 2006, p. 34).

4.24 It is also proposed that acknowledgement by employers of the multi-level family demands on older people (not just young mothers) and greater flexibility in work arrangements would serve to enable a longer work life (Davey & Davies, 2006, p. 34; Alpass & Mortimer, 2007, p. 41). Flexible work conditions allow older people to participate in the unpaid caring and volunteering roles that are essential to the functioning of society. There are also many benefits to employers in permitting flexible arrangements,

---

5 The HRS surveys Americans over the age of 50 every two years
such as meeting skills shortages, retaining knowledge and experience, reducing staff turnover and maintaining relationships with increasingly older customers.

4.25 Linked to work force flexibility is the need for people to be able to ‘transition to retirement’, rather than withdraw abruptly as was the situation in the past (Walter, et al., 2008; Cameron & Waldegrave, 2009). Facilitating this desire may, however, be made difficult if the options are not discussed in sufficient time. While no studies could be located that had canvassed the question in New Zealand, a 2005 study of Australia’s Baby Boomer retirement intentions found that only 9 per cent of workers aged 45+ years had had either ‘some’ or ‘a lot’ of discussion about their retirement plans with their supervisor or employer (Jackson & Walter, 2010, p. 54). Consequently, ‘sudden’ departures from the labour force are less likely to be met with encouragement to stay (Sloan, 2011). Failure to discuss retirement transition plans reduces the ability of employers to provide that option.

4.26 The Australian study also found that interests in working longer or retiring differed greatly by occupation. On average, Australia’s Baby Boomers would prefer to retire 4.1 years earlier than they expect to, with the youngest preferred retirement ages and greatest gaps between preferred and expected belonging mainly to blue collar occupations (Jackson & Walter, 2010, pp. 41-45)—indicating that many will be working longer than they would prefer, with possible health and social implications. By comparison, many professional occupations also had relatively low preferred retirement ages, but had somewhat shorter gaps between preferred and expected, indicating that for these groups, ‘early’ retirement is the desired state of affairs.

4.27 Personal situations also change over time (Pinquart & Schindler, 2007; Wang, 2007; Topa, et al., 2009; Robinson, et al., 2010; Gorman, et al., 2012), so that – for example – an individual who has opted to retire at one point may wish to re-join the labour force at a later date. This may be made difficult by certain institutional or HR policies which can act as an impediment to re-entry, such as a ‘no return’ policy for previously departed employees who have received a retirement gratuity. Rehiring will become critical as the ageing progresses (Pearman, 2012, pp. 26-27). Pearman argues that it is time to turn the ‘transition to retirement’ discussion on its head and hold ‘staying on’ discussions – letting people know how much they are valued - a conversation that should also be held with new entrants.

4.28 While New Zealand has high levels of labour force participation at older ages vis-à-vis its OECD counterparts, one area where the country clearly lags is in the macro-societal approaches to workforce planning and ‘active ageing’ which have been in place now for many years across the European Union. Among high level initiatives have been the Lisbon European Council of 2000, the Stockholm European Council of 2001, the 2002 Barcelona European Council, and the European Commission 2005 (Taylor, 2002; European Commission, 2005; Ilmarinen, 2005, pp. 39-97; Villosio, et al., 2008). Their targets, which explicitly promote active ageing to increase labour force participation at older ages and extend the working life, have since been enshrined in the European Employment Strategy (Villosio, et al., 2008, pp. 1, 6-7). Over time these initiatives have become broadly known as ‘Age Management Planning’ (Ilmarinen, 2005; Naegle & Walker, 2006), the essential ingredients of which are:

4.29 Emphasising the prevention of age-related work problems (such as the deskilling of older workers and work-related health problems) rather than reactive problem solving;
4.30 Focussing on the entire working life span and all age groups, not just older workers;
4.31 Ensuring a joined-up approach that brings together all dimensions and actors (such as all tiers of government, social partners, employers and employees) who contribute to effective age management;
4.32 Changing attitudes within organisations and in society as a whole to educate people about the need for age diversity;
4.33 Ensuring, in the short term, catch-up provision for older workers who missed out on specific skills training or whose health was adversely affected by employment;

4.34 Conducting regular strategic evaluations of age management policies and initiatives to assess their effectiveness (Naegele & Walker, 2006, p. 31).

Psycho-social aspects of work

4.35 Less is known about the relationship between the length of the work life and the psycho-social work environment, largely because of a limited evidence base and contradictory findings. Those studies which have examined the situation identify four factors which potentially contribute to an early – or later – retirement decision: job satisfaction, job control (autonomy – also over the decision to retire), job demands, and social cohesion at work (Oakman & Wells, 2013, p. 5).

4.36 Reflecting some of these indicators, New Zealand studies have found some notable differences in older people’s experience of work compared with that of prime-aged workers, in terms of higher job satisfaction and satisfaction with work-life balance, fewer difficulties for those working long hours and at non-standard times, and more positive health and safety outcomes (Department of Labour, 2009a; Cameron & Waldegrave, 2009). Another study based on 230 New Zealand workers aged 50+ years found that work, non-work and retirement context explained retirement intentions above and beyond personal factors (Naude, et al., 2009). Gender differences may also be involved, with a UK study finding that job quality and job satisfaction are more significant factors in the decision to remain in the labour force for women than men (Loretto & Vickerstaff, 2013).

4.37 For many, a longer work life may be a crucial social determinant of health and psychological well-being (Koopman-Boyden, 2012); work may have a centrality that cannot be replaced by leisure, with some fearing the loss of the self-identity that comes with one’s occupational role (Cameron & Waldegrave, 2009, p. 67). According to Koopman-Boyden (2012), this situation could be particularly important for those who are single or have experienced marital dissolution, and or whom workplace relationships may take on a somewhat familial nature.

Labour market demand

4.38 While New Zealand’s workforce participation fell by 0.9 per cent between 2008 and 2009 due to the economic downturn (Department of Labour, 2010, pp. 38-39), this did not affect those aged 60-64 years. The Department of Labour (2010) suggests that the 60-64 year group may be quite resilient to economic changes, although notes that in an economic downturn, older workers may choose to retire rather than compete in the market place against younger workers. An alternative proposition to the resilience argument is that those in the 60-64 age group are likely to have lost significant retirement savings during the collapse of numerous financial companies, and increased their participation to replace their lost savings (Coile & Levine, 2011).

4.39 The retirement decision of older unemployed workers is argued to depend on frictions in the labour-market, whereas that of employed workers does not (Hairault, et al., 2012). A central finding of the Hairault et al. study is that labour market status, particularly working versus searching for a job for those aged between 50 and 70 years, is a very significant factor in the individual retirement decision: to be unemployed increases the probability of retiring by 19 per cent relative to employed workers (Hairault, et al., 2012, p. 25).

Skills and education/composition of human capital
4.40 A broad range of studies record that inadequate skills or a mismatch of skills with industry demand are associated with particular difficulties in remaining in the labour force for older workers. Many face difficulties when attempting to transfer their particular mix of accumulated specific and general human capital to new jobs (Department of Labour, 2009b).

4.41 Not only can an increasing concentration of experience inhibit job mobility but it can also lead to large reductions in future wages and reduced re-employment prospects in the event of layoffs. 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 (Department of Labour, 2009c).

4.42 The impact of education on the decision (or ability) to remain in the labour force may be gender-specific, with one New Zealand study finding no significant relationship between educational level and continued participation for males, but the possession of secondary or tertiary education strongly associated with participation for older females (Gorman, et al., 2012, p. v). However, increasing education levels more generally are associated with increased opportunities for employment, particularly in less physical work, with attendant positive implications for a longer and healthier work life – especially for women (Alpass & Mortimer, 2007).

Marital status and gender differences

4.43 The gender dimension of labour market participation and/or the retirement decision for older workers has been referred to under most of the foregoing sections. Marital status remains a significant influence. Those with a working partner are significantly more likely to be currently employed than those without a partner or who had a partner not in work (Ministry of Social Development, 2009b). However there are some differences by sex. For males, continuation of spousal employment is associated with a longer work life, while for females dissolution of marriage has a similar effect (Davey & Davies, 2006, p. 25; Gorman, et al., 2012, p. v).

4.44 Adding further support are findings from the UK that the decision to withdraw is rarely the choice of an individual alone but depends on the specific domestic context and the social relationships such as partnerships, families and roles within which they are embedded (Loretto & Vickerstaff, 2013). As with most of the influences this section has examined, the decision is also conditioned on the material limitations that older workers, and the collectives to which they belong, face. Reflecting these circumstances, Loretto and Vickerstaff found that men and women typically follow different trajectories into retirement, with partnered women’s decisions to remain in the labour force more likely to be based on social factors, while male decisions were more focused on financial factors. Job quality and job satisfaction also emerged as significant factors in the decision to remain in the labour force, this effect being more pronounced for women.
Other (non-work) needs and interests

Caring responsibilities

4.45 Ranking high among influences that reduce labour force participation at older ages are caring responsibilities, such as caring for a spouse in poor health (Meng, 2012).

4.46 Also negatively affecting the retirement decision/length of the working life is caring for grandchildren, which in many cases enables the labour force participation of the children’s parents, and caring for older family members, which is becoming increasingly significant as the older generation enjoys greater life expectancy, but not necessarily healthier old age (Davey & Davies, 2006, pp. 24, 26).

4.47 No studies were found that associated caring responsibilities with higher levels of labour force participation, thus care giving can generally be seen as a barrier to participation. However, care giving has been shown to have a greater effect on the retirement decision than on labour force status or working hours, particularly for women (Meng, 2012, pp. 309-311). In her study of German Socio-Economic Panel data from 2001 to 2009, Meng found that the odds of retiring were around five times higher for a woman caring for a spouse than for woman not engaged in care giving. If the women provided care for somebody outside her own household, the odds of retirement were about the same as for women not providing care. The effect of caring for more than one person increased the odds of retirement by 50 per cent. In general, men retired later if they provided informal care.

Preference for retirement

4.48 Several surveys of older workers have found that when asked their reasons for retirement, around half of respondents have given ‘felt it was time to retire’ or ‘wanted to do other things’ as their main reason for stopping or reducing work (Cameron & Waldegrave, 2009, p. 75; Gorman, et al., 2012, p. 12).

4.49 ‘Reached the official retirement age’ is similarly common, typically for around one-quarter. This is a common finding across the international literature (Jackson, et al., 2006), with previous compulsory retirement ages culturally embedded and difficult to change (Walter, et al., 2008; Gruber & Wise, 2005) (Gruber & Wise, 2005).

Discrimination

4.50 A considerable body of literature argues that, despite widespread legislation banning age discrimination, discriminatory attitudes and practices continue to affect demand for older workers (Department of Labour, 2009d; Ministry of Social Development, 2009a; D’Addio, et al., 2010; Littlewood, 2012, pp. 9-10).

4.51 A number of studies have found the increase in older workers’ workforce participation to have been accompanied by an increase in age discrimination (Wilson & Kan, 2006; D’Addio, et al., 2010, p. 626). Negative stereotypes pertaining to older workers, such as lack of ‘adaptability’ to new technology, ‘resistance to change’, and ‘they cost too much’ are prevalent amongst employers (McGregor & Gray, 2002; Davey & Davies, 2006, p. 25; Wilson, et al., 2007; D’Addio, et al., 2010). One manifestation of this is the considerable evidence that older workers are less likely to receive job interviews than younger workers with the same objective characteristics (Wilson & Kan, 2006; Riach & Rich, 2007a; Riach & Rich, 2007b), and—some would argue greater— equivalent human capital (Wilson, et al., 2007). Other evidence is found in the lower pay that some older workers receive for what appears to be the same work as younger workmates, while older ‘more experienced/cheaper’ workers are also more likely to be made redundant while younger/cheaper labour is retained (Alpass & Mortimer, 2007, pp. 30-32).
4.52 In New Zealand there also appears to be a widespread unwillingness to up-skill or retrain older workers (Gorman, et al., 2012, p. v). This could be significant for older workers who need—or desire—to remain in the work force, for example those who have experienced marital dissolution and need to work longer to provide for retirement (Davey & Davies, 2006, p. 25).

4.53 Although ageist attitudes persist (McGregor & Gray, 2002; Wilson, et al., 2007), there is some expectation that the power of demographic trends will reduce age discrimination through economic necessity (Department of Labour, 2009d). A 2008 survey of New Zealand recruitment consultants showed some improvement in attitudes towards older workers (McPherson, 2008a), while there are a growing number of examples of positive discrimination where older workers have been specifically sought by entrepreneurial businesses (Davey & Davies, 2006, p. 26; McPherson, 2008b). Related to this is a growing awareness that more consumers are older (Ministry of Social Development, 2011, pp. 15-18) and thus employers are beginning to see benefit in retaining older workers. However it is acknowledged that there is still a considerable way to go (McPherson, 2008a). Wilson et al. (2007) suggests overcoming these barriers through legislative measures, and through educating employers.

4.54 Of some importance, a recent international study found that preferential treatment for older workers of the type implied in Age Management Planning may increase negative perceptions of older workers (Iwens, et al., 2012). This finding supports a long-standing argument that Age Management Planning must be inclusive of all age groups (Ilmarinen, 2005, pp. 48-49). As Ilmarinen argues, “programs for the ageing should be seen as part of the diversity of worklife, their aim being to promote diversity. If they are not seen as such, the programs are in danger of stigmatising senior workers and turning ageing into a problem. ... A better political approach would be that of a ‘life course’ that aims at dissolving the employment obstacles of workers’ careers.” (Ilmarinen, 2005, p. 49)

4.55 It must also be noted that older workers themselves may not seek employment as they believe their employment opportunities are limited; that such opportunities that do exist are not commensurate with their skills; that opportunities are unattractive due to poor working conditions and inflexible working hours; and that they are unlikely to receive appropriate levels of assistance in gaining suitable employment (D’Addio, et al., 2010, p. 625).
5.0 Options for increasing rates and quality of older workforce participation

5.1 The New Zealand Department of Labour argues that increasing the participation rates of older workers will make a much bigger difference to overall participation than increasing net migration (Department of Labour, 2010, p. 25). However the already higher participation of New Zealand’s older workers than in most OECD countries may pose a challenge. Moreover, the identification of unmet need for more part-time and flexible work suggests that it there may be more to be gained by focussing on institutional and structural impediments to increased participation, than on financial inducements (whether ‘sticks’ or carrots’) or pension reform. Reflecting on the findings of this review, the main options for achieving those increased rates would thus appear to be:

5.2 Conditions of work: Numerous studies noted a strong preference by older workers and the now-retired for more part-time and flexible work to accommodate their various needs, whether for caring responsibilities or simply for more leisure; resolving unmet need for part-time and flexible work may go some distance to increasing participation rates (Department of Labour, 2010, p. 43; Gorman, et al., 2012, p. v).

5.3 Closely related to the desire to work is the need to provide more training and re-skilling opportunities for older workers (Department of Labour, 2010, p. 43; Gorman, et al., 2012, p. v). Indeed most central to the issue of employability and job mobility for older job seekers is the composition of their human capital. There is a need to design skills and employment services that work with the training preferences and remaining human capital of older workers and identify the sectors that hire them more (Department of Labour, 2009b). As the Department of Labour notes, ‘this will match older job seekers with employers more disposed towards hiring them. … Empowering a range of options may have advantages over concentrating on a few areas. Such strategies help older workers take advantage of the human capital they already have and increase the incentives of employers and employees to manage that capital wisely’ (Department of Labour, 2009b, p. 37).

5.4 A central platform of any efforts to increase participation at older ages must thus also be employer education about the realities of population ageing for their future labour supply; uppermost among these are the competition they can expect to face in ensuring workforce supply, the potential loss of investment in employees of any age if they are ‘poached’ by competitors, and the likely rise in labour costs in a demographically-tight labour market (Jackson, 2011). Certainly it will be more cost effective to retain knowledgeable workers (Davey & Davies, 2006, p. 26). Employers also need to think about the potential opportunities that more older customers may bring—and thus the value of having more older employees.

5.5 Achieving these objectives will require further reducing discriminatory attitudes and practices by employers (McPherson, 2012). Adopting policies that will promote an attitude change in the workplace to reduce ageism could be beneficial (Davey & Davies, 2006, p. 34). McGregor (2005) suggests using older working New Zealanders as role models (McGregor, 2005).

5.6 Health: Uppermost among personal barriers to longer participation noted by both older employees and the now-retired is that poor health will/did prevent them from working into older age. Working longer may add to this problem. While older workers on average experience health gains from working longer, they are also more likely to be affected by injury, those aged 65+ years having higher rates or work-related claims than any other age group. Older workers can also take longer to recover from injuries. More opportunities for suitable ‘lower risk’ jobs could affect these rates (Ministry of Social Development, 2011, pp. 9-10).
5.7 Within the overall objective of increasing older age participation, it is important that older people do not feel compelled to work longer than they desire (Ministry of Social Development, 2011, p. 11). Not all workers are equally able to continue working longer, and the ‘work until you drop’ approach should be avoided as it could lead to higher health costs, especially for those in more stressful or physically-demanding occupations (Davey & Davies, 2006, p. 27).

5.8 Adoption of Europe’s ‘Work-Ability Index’ - a self-assessment tool developed by the Finnish Institute of Occupational Health could be useful (Ilmarinen & Louhevaara, 1999; Ilmarinen, 2005; Morschhäuser & Sochert, 2006). The index is designed firstly to measure the extent to which participants feel they will be able to continue to undertake key tasks and duties by specified dates (e.g. in the next 2-5 years), and secondly to help identify organisational impediments to facilitating these expectations. The aim is to identify, at the earliest possible stage, perceived health risks, the risk of premature retirement, organisational constraints to a longer and safer work life, and possible actions and strategies to counteract these risks and impediments. A healthier work life with reduced sick days and greater productivity has been shown across a broad range of occupations employing the work-ability index and/or related flexible working time measures (Ilmarinen & Louhevaara, 1999; Ilmarinen, 2005; Naegle & Walker, 2006, p. 15).

5.9 Age Management Planning: Widespread across Europe and enshrined in much government legislation, Age Management Planning is a ‘whole of government, whole of industry’ approach to the problem of ageing workforces and their associated skill and labour shortages (Taylor, 2002; Ilmarinen, 2005; Naegle & Walker, 2006). Age Management Planning involves comprehensive revision of workplace policies and practices, underpinned by legislation which incorporates such innovations as discussion of retirement plans from an early age, incentives for older workers such as additional work breaks and increased training opportunities, assistance in matching skills with demand at both individual and institutional level, and identification of employees’ ability to undertake specific tasks.

5.10 No system of formal Age Management Planning appears to exist in New Zealand. Relatedly, no work could be located on the extent to which transition to retirement discussions are being held. This is of concern because while over half of Australian Baby Boomers surveyed in 2006 desired a transition to retirement rather than an abrupt withdrawal, only nine per cent had had any discussion on the topic with their employer or supervisor (Jackson & Walter, 2010, pp. 54-62). Moreover most such discussions were typically unplanned and materialized only during annual performance interviews. The concern on the part of employees with regard to raising the topic was that they would risk being made redundant if they raised it too early, while at management level the discussion was not initiated for fear of transgressing age discrimination policies, ironically introduced to protect older workers (Jackson & Walter, 2010, p. 65). This is a potential travesty, as thousands of Australia’s – and it would appear New Zealand’s – Baby Boomers appear prepared to work longer. For the expressed interest to become manifest, it is imperative that ‘managing’ Baby Boomer retirement is shifted from an individual (and ad hoc) discussion to a discussion mandated at institutional level.

5.11 Workforce Planning: While not as comprehensive or universally applied as in Europe, a similar approach gaining momentum in Australia is the initiative known as ‘Workforce Planning’. Workforce Planning is a dual strategic and operational approach that assists employers and organisations to proactively identify the workforce realities they are likely to face as population ageing unfolds, and how to engage with them (Sloan, 2011). Central to workforce planning is the notion that retention of older workers, for example through ‘transition to retirement’ approaches, is equally important as recruitment of both younger and older workers. Older workers are not only productive in their own right but they represent a font of corporate knowledge that is in danger of being lost unless careful attention is given to the specific skills that are being lost—some of them potentially ‘mission-critical’. Workforce Planning can
also be critiqued for its enabling aspects, among them the need for a high level of executive commitment, and the importance of not seeking ‘quick fix’ solutions.

5.12 By definition, Age Management and Workforce Planning approaches simultaneously educate employers and have the potential to reduce discriminatory attitudes and practices (Ilmarinen, 2005; Sloan, 2011). Early understanding of the implications of population ageing by employers and younger employees alike is crucial to ensuring that valuable social capital, skills and years of experience are not lost—or ‘poached’ by more well-informed competitors, including those in other countries. It is, however, critical that Age Management Planning is not directed at older workers only: if it is, there is potential for negative attitudes to increase (Ilmarinen, 2005, p. 49).

5.13 Relatedly, gaining an occupational overview of the workforce intentions of older workers is critically important because of the enormous differences in expected retirement age by occupation found for Australia’s Baby Boomers (Jackson & Walter, 2010) – research which does not appear to have been undertaken in New Zealand. Australian workers from 14 of the 35 broad occupational groups surveyed expected to retire earlier than the national average, with white collar workers more likely to be among the early-retiring and blue collar workers among the later. Early-retiring occupations were also the largest, and in 2006 had the potential to cost the Australian economy almost 1.3 million person years of working life. Another significance of the situation is that the white collar occupations contain a disproportion of workers with ‘mission-critical’ skills, that is, those without which organisations and businesses cannot survive (Sloan, 2011). Targeting interventions to specific occupational groups rather than more broadly would seem to have considerable merit.

5.14 Among any pension-related interventions, options to encourage a longer work life must become more attractive. Increasingly better educated and financially secure workers will respond more positively to ‘carrots’ than ‘sticks’. When surveyed on possible policy options to lengthen the work life, a clear majority of Australia’s Baby Boomers rated items which contained incentives as preferable to those which would have the effect of forcing them to work longer (Walter, et al., 2008, pp. 304-307). Those most willing to defer retirement were also those most likely to respond to policy initiatives to work longer. It is also notable that, while the reform of pension schemes can have profound effects on the retirement behaviour of individuals (Hurnard, 2005), labour market conditions and country-specific factors may be more important than pension reform in explaining participation rates, especially of older males (O’Brien, 2010). The implication of this is that a standard pension reform policy of increasing eligibility ages and decreasing implicit taxes on post-retirement income may well have little effect, or even perverse effects, if country-specific labour market factors are inadequately considered. That is, improving older workers incentive to remain in the labour force may not prove particularly effective if there are simply no jobs—or suitable jobs—for those workers (D’Addio, et al., 2010, p. 625).

5.15 Older workers may be unresponsive to policy measures to extend the work life because they do not understand them (Walter, et al., 2008). For individuals, understanding the costs and benefits of a longer work life indicates the need for better financial literacy (Littlewood, 2010, p. 6), which may require the development of more user-friendly language, concepts and advertising.

5.16 Governments and industries embarking on Age Management Planning need to understand that it is not cost-neutral; that active ageing policies need to be adequately funded (Taylor, 2002; Ilmarinen, 2005, p. 49). Many employers are understandably reluctant to invest in training ageing workers, and require government-level financial support to do so.

5.17 Finally it must be remembered that older people have relatively high levels of participation in the voluntary sector, including looking after grandchildren while their parents work, and that unpaid carers particularly play a significant role in reducing demand on the formal workforce. Higher participation
rates in the formal (paid) sector by older workers could jeopardise these all-important arrangements (Davey & Davies, 2006, pp. 26-27).

6.0 Conclusion

6.1 Recent trends in workforce participation by older New Zealanders point to significantly greater levels of engagement, and this shift is supported by several studies which have found that Baby Boomers in both New Zealand and Australia desire to work longer than their predecessors. However the extent to which the trends will be sustained or increase further depends on a number of factors, many of which are outside the control of individuals, such as labour demand, industrial and technological change, the changing nature of work, and the work environment – not least its flexibility to accommodate the mixed needs of older workers.

6.2 It is also important to be aware that New Zealand is among a handful of OECD countries leading the trend to a longer working life, and that there may be a social saturation point beyond which older workers choose not to further increase their participation, opting instead for other activities such as time for family and leisure.

6.3 Barriers and enablers to continued participation at older ages are many, and many are multi-faceted with sometimes perverse interactions. Four enabling factors stand out:

- the extent to which labour demand is strong
- the extent to which part-time work is available
- the extent to which there is flexibility in accommodating the needs and interests of, and competing demands on, older workers, and
- key features of New Zealand Superannuation (NZS) which simultaneously discourage early withdrawal and reward those who continue to work beyond the age of access.

Working against these enabling factors are seven key barriers:

- poor/deteriorating health
- high caring demands
- a mismatch between skills and the demand for those skills
- an apparent lack of timely discussion about retirement intentions
- the financial ability to retire
- discriminatory attitudes and practices, and
- lack of employer knowledge about the implications of population ageing

6.4 Of some importance is that the enabling features of NZS may well explain New Zealand’s higher participation rates at older ages, vis-à-vis New Zealand’s OECD counterparts. This positive situation could experience a reversal if the regime is altered without due consideration of the complex interplay of factors that influence older peoples’ participation.

6.5 Encouraging even higher levels of workforce participation among older New Zealanders may be best achieved by policies and programmes which concentrate on changing attitudes, flexibility and sustainability within the working environment, that is, through workplace reform. Age Management and Workforce Planning innovations across Europe and Australia, which New Zealand has yet to engage with, broaden the decision-making context well beyond individual employees and employers and support the required changes at institutional and governmental level.
7.0 References


Department of Labour, 2009a. The working patterns of older workers, Wellington: Department of Labour.


Immigration New Zealand, 2013. *Essential Skills in Demand List*. [Online] Available at:


Glossary

Baby Boomers: In New Zealand the Baby Boom officially refers to people born between 1946 and 1965, although the definition differs between countries and data sources. Some analysts refer to those born in the first half of the Baby Boom (1946-55) as ‘Leading Edge’ Boomers, and those born in the second half (1956-65) as the ‘Lagging Edge’.

Birth Cohort: People born in the same year. Analytically, cohorts can be either ‘closed’, in that, over time, they can only get smaller due to deaths and emigration, and they do not gain from immigration, or ‘open’ in that over time they both lose numbers to deaths and emigration, and gain them from immigration. It is the latter form that is referred to in this paper.

Effective Age of Retirement: The effective age of retirement (also called the effective exit age) is calculated as a weighted average of the exit ages of each five-year age cohort, starting with the cohort aged 40-44 at the first date, using absolute changes in the labour force participation rate of each cohort as weights.

Employment Rate: The employment rate conventionally refers to the number employed (working 1+ hours per week) as a percentage of the Working Age Population as defined below, either as a whole (total rate) or by age group (age-specific rate). However, some analysts/sources use the labour force as the denominator. The choice of denominator affects the resulting rates.

Labour Force: The labour force refers to those who are both employed (whether part or full time) and unemployed.

Labour Force Participation Rate (LFPR): The labour force participation rate refers to the number of people who are employed plus the number unemployed (the labour force), as a percentage of the working age population. When expressed for a specific age group, it becomes an age-specific labour force participation rate.

Part-Time/Full-Time Employment: New Zealand’s Household labour Force Survey defines part-time employment as those employed for less than 30 hours per week; full-time refers to those employed for 30+ hours. This definition has changed over time in most countries, but most analysts use data that have been re-run to generate internally consistent trends.

Working Age Population (WAP): The working age population is typically defined as the usually resident, civilian, non-institutionalised 15+ year population; i.e., it excludes military personnel and people usually resident in institutions. This is the definition used by New Zealand’s Household Labour Force Survey (HLFS). The working age population is sometimes more narrowly defined as 15-64 years. The way in which the working-age population is defined can affect the various rates that are developed using it as the denominator.

Unemployment Rate: The unemployment rate conventionally refers to the number unemployed as a percentage of the labour force (i.e., the number unemployed as a percentage of those employed plus unemployed). Some analysts/sources use the working age population (or specific age groups) as the denominator. The choice of denominator affects the resulting rates, as does the definition of unemployment, which tends to differ between data collections.
### Percentage of Age Group Employed, 34 OECD Countries, 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>50-54</th>
<th>55-59</th>
<th>60-64</th>
<th>65-69</th>
<th>50-64 yrs</th>
<th>55-64 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>79.3</td>
<td>70.4</td>
<td>51.0</td>
<td>25.2</td>
<td>67.8</td>
<td>61.1</td>
</tr>
<tr>
<td>Austria</td>
<td>81.9</td>
<td>60.9</td>
<td>20.9</td>
<td>9.5</td>
<td>57.1</td>
<td>41.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>74.0</td>
<td>55.1</td>
<td>20.8</td>
<td>3.9</td>
<td>51.6</td>
<td>38.7</td>
</tr>
<tr>
<td>Canada</td>
<td>79.6</td>
<td>68.4</td>
<td>47.4</td>
<td>22.6</td>
<td>66.6</td>
<td>58.7</td>
</tr>
<tr>
<td>Chile</td>
<td>72.3</td>
<td>65.9</td>
<td>52.3</td>
<td>35.9</td>
<td>64.8</td>
<td>59.7</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>84.7</td>
<td>69.3</td>
<td>25.8</td>
<td>9.3</td>
<td>59.0</td>
<td>47.6</td>
</tr>
<tr>
<td>Denmark</td>
<td>81.8</td>
<td>76.4</td>
<td>42.9</td>
<td>13.5</td>
<td>67.2</td>
<td>59.5</td>
</tr>
<tr>
<td>Estonia</td>
<td>77.5</td>
<td>68.8</td>
<td>43.9</td>
<td>19.5</td>
<td>64.5</td>
<td>57.1</td>
</tr>
<tr>
<td>Finland</td>
<td>82.5</td>
<td>72.9</td>
<td>41.6</td>
<td>11.8</td>
<td>65.2</td>
<td>57.0</td>
</tr>
<tr>
<td>France</td>
<td>80.2</td>
<td>63.9</td>
<td>18.8</td>
<td>5.3</td>
<td>54.7</td>
<td>41.4</td>
</tr>
<tr>
<td>Germany</td>
<td>81.9</td>
<td>73.8</td>
<td>44.2</td>
<td>10.1</td>
<td>68.2</td>
<td>59.9</td>
</tr>
<tr>
<td>Greece</td>
<td>64.1</td>
<td>50.7</td>
<td>28.1</td>
<td>8.6</td>
<td>48.6</td>
<td>39.4</td>
</tr>
<tr>
<td>Hungary</td>
<td>70.4</td>
<td>54.1</td>
<td>14.2</td>
<td>5.0</td>
<td>47.2</td>
<td>35.8</td>
</tr>
<tr>
<td>Iceland</td>
<td>86.6</td>
<td>83.0</td>
<td>75.4</td>
<td>46.7</td>
<td>82.2</td>
<td>79.5</td>
</tr>
<tr>
<td>Ireland</td>
<td>67.6</td>
<td>59.3</td>
<td>41.4</td>
<td>16.8</td>
<td>57.1</td>
<td>50.8</td>
</tr>
<tr>
<td>Israel</td>
<td>74.5</td>
<td>67.6</td>
<td>54.4</td>
<td>29.0</td>
<td>66.0</td>
<td>61.2</td>
</tr>
<tr>
<td>Italy</td>
<td>70.7</td>
<td>55.3</td>
<td>20.9</td>
<td>7.5</td>
<td>49.6</td>
<td>37.9</td>
</tr>
<tr>
<td>Japan</td>
<td>81.1</td>
<td>75.1</td>
<td>57.3</td>
<td>36.1</td>
<td>69.7</td>
<td>65.1</td>
</tr>
<tr>
<td>Korea</td>
<td>74.7</td>
<td>67.4</td>
<td>55.1</td>
<td>41.0</td>
<td>67.6</td>
<td>62.1</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>75.7</td>
<td>54.6</td>
<td>20.9</td>
<td>6.5</td>
<td>53.7</td>
<td>39.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>66.0</td>
<td>58.7</td>
<td>46.8</td>
<td>38.3</td>
<td>58.6</td>
<td>53.4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>80.0</td>
<td>72.0</td>
<td>40.0</td>
<td>11.4</td>
<td>64.6</td>
<td>56.1</td>
</tr>
<tr>
<td>New Zealand</td>
<td><strong>83.5</strong></td>
<td><strong>79.6</strong></td>
<td><strong>67.2</strong></td>
<td><strong>38.1</strong></td>
<td><strong>77.4</strong></td>
<td><strong>73.7</strong></td>
</tr>
<tr>
<td>Norway</td>
<td>83.6</td>
<td>79.0</td>
<td>59.8</td>
<td>25.6</td>
<td>74.5</td>
<td>69.6</td>
</tr>
<tr>
<td>Poland</td>
<td>69.8</td>
<td>49.9</td>
<td>21.2</td>
<td>9.4</td>
<td>48.4</td>
<td>36.9</td>
</tr>
<tr>
<td>Portugal</td>
<td>71.1</td>
<td>58.2</td>
<td>36.8</td>
<td>21.9</td>
<td>56.2</td>
<td>47.9</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>78.1</td>
<td>59.9</td>
<td>17.8</td>
<td>4.0</td>
<td>54.7</td>
<td>41.4</td>
</tr>
<tr>
<td>Slovenia</td>
<td>75.7</td>
<td>44.1</td>
<td>15.5</td>
<td>8.9</td>
<td>46.8</td>
<td>31.2</td>
</tr>
<tr>
<td>Spain</td>
<td>65.7</td>
<td>55.3</td>
<td>32.7</td>
<td>5.0</td>
<td>52.5</td>
<td>44.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>87.0</td>
<td>82.1</td>
<td>63.4</td>
<td>15.5</td>
<td>77.3</td>
<td>72.5</td>
</tr>
<tr>
<td>Switzerland</td>
<td>87.0</td>
<td>80.1</td>
<td>58.2</td>
<td>-</td>
<td>76.1</td>
<td>69.5</td>
</tr>
<tr>
<td>Turkey</td>
<td>43.9</td>
<td>34.6</td>
<td>27.2</td>
<td>-</td>
<td>36.5</td>
<td>31.4</td>
</tr>
<tr>
<td>UK</td>
<td>79.7</td>
<td>69.8</td>
<td>44.4</td>
<td>19.6</td>
<td>65.0</td>
<td>56.8</td>
</tr>
<tr>
<td>USA</td>
<td>73.8</td>
<td>68.1</td>
<td>50.8</td>
<td>29.9</td>
<td>65.1</td>
<td>60.0</td>
</tr>
<tr>
<td>OECD</td>
<td>76.1</td>
<td>64.8</td>
<td>40.0</td>
<td>18.5</td>
<td>61.2</td>
<td>52.9</td>
</tr>
</tbody>
</table>

*Source: OECD estimations from national labour force surveys and OECD Education database.*

*Notes: Number employed as percentage of age group*
## Appendix B

### Percentage of Age Group Employed, by Sex and Birth Cohort, New Zealand 1987-2012

<table>
<thead>
<tr>
<th>Males</th>
<th>Cumulative exposure at 55+ years (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort Year of Birth</td>
<td>55-59yrs</td>
</tr>
<tr>
<td>1928-32</td>
<td>83.8</td>
</tr>
<tr>
<td>1929-33</td>
<td>81.8</td>
</tr>
<tr>
<td>1930-34</td>
<td>75.5</td>
</tr>
<tr>
<td>1931-35</td>
<td>74.4</td>
</tr>
<tr>
<td>1932-36</td>
<td>74.0</td>
</tr>
<tr>
<td>1933-37</td>
<td>73.5</td>
</tr>
<tr>
<td>1934-38</td>
<td>72.2</td>
</tr>
<tr>
<td>1935-39</td>
<td>73.4</td>
</tr>
<tr>
<td>1936-40</td>
<td>76.5</td>
</tr>
<tr>
<td>1937-41</td>
<td>77.9</td>
</tr>
<tr>
<td>1938-42</td>
<td>77.7</td>
</tr>
<tr>
<td>1939-43</td>
<td>78.0</td>
</tr>
<tr>
<td>1940-44</td>
<td>77.8</td>
</tr>
<tr>
<td>1941-45</td>
<td>76.7</td>
</tr>
<tr>
<td>1942-46</td>
<td>79.0</td>
</tr>
<tr>
<td>1943-47</td>
<td>80.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Females</th>
<th>Cumulative exposure at 55+ years (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort Year of Birth</td>
<td>55-59yrs</td>
</tr>
<tr>
<td>1928-32</td>
<td>43.3</td>
</tr>
<tr>
<td>1929-33</td>
<td>46.0</td>
</tr>
<tr>
<td>1930-34</td>
<td>46.7</td>
</tr>
<tr>
<td>1931-35</td>
<td>43.1</td>
</tr>
<tr>
<td>1932-36</td>
<td>42.9</td>
</tr>
<tr>
<td>1933-37</td>
<td>45.7</td>
</tr>
<tr>
<td>1934-38</td>
<td>47.2</td>
</tr>
<tr>
<td>1935-39</td>
<td>45.9</td>
</tr>
<tr>
<td>1936-40</td>
<td>49.9</td>
</tr>
<tr>
<td>1937-41</td>
<td>52.7</td>
</tr>
<tr>
<td>1938-42</td>
<td>54.0</td>
</tr>
<tr>
<td>1939-43</td>
<td>53.3</td>
</tr>
<tr>
<td>1940-44</td>
<td>57.0</td>
</tr>
<tr>
<td>1941-45</td>
<td>56.6</td>
</tr>
<tr>
<td>1942-46</td>
<td>58.3</td>
</tr>
<tr>
<td>1943-47</td>
<td>59.0</td>
</tr>
<tr>
<td>1944-48</td>
<td>62.9</td>
</tr>
<tr>
<td>1945-49</td>
<td>66.3</td>
</tr>
<tr>
<td>1946-50</td>
<td>70.0</td>
</tr>
<tr>
<td>1947-51</td>
<td>70.9</td>
</tr>
<tr>
<td>1948-52</td>
<td>70.6</td>
</tr>
<tr>
<td>1949-53</td>
<td>72.4</td>
</tr>
<tr>
<td>1950-54</td>
<td>72.4</td>
</tr>
<tr>
<td>1951-55</td>
<td>73.9</td>
</tr>
<tr>
<td>1952-56</td>
<td>74.5</td>
</tr>
<tr>
<td>1953-57</td>
<td>75.5</td>
</tr>
</tbody>
</table>

Source: Statistics New Zealand, Household Labour Force Survey, Annual June
Notes: 'Employment' refers to 1+ hours