
Ageing, the Demographic Dividend and Work



INTRODUCTION

Older & Bolder is a national alliance of eight non-governmental organisations that aims to champion the rights of older people and to combat ageism. The members of the alliance are : Active Retirement Ireland, Age & Opportunity, The Alzheimer Society of Ireland, Carers Association, The Irish Hospice Foundation, Irish Senior Citizens Parliament, Older Women's Network and the Senior Help Line.

The alliance has invited Professor Desmond O'Neill to prepare a briefing paper on work and ageing in the context of our analysis of the National Pensions Framework (NPF). The NPF, published by the Government in March 2010, plans incremental increases in the qualifying age for the State Pension, commencing in 2014 and anticipates later retirement for Irish citizens.

Older & Bolder favours the principle of choice for workers. We agree that people who wish to work longer, or who wish to work longer but flexibly, should be facilitated to do this. Our position is that mandatory retirement ages, age discrimination in the workplace and gaps in the provision of education and training opportunities for older employees are inherently ageist and militate against the exercise of choice by older people.

In *Ageing, the Demographic Dividend and Work*, Professor O'Neill discusses Late Life Creativity and highlights the potential benefits to economies of developing a successful life-span strategy for work which includes and values older workers. He also highlights the potential threat to older people of extending retirement ages without a due focus on life-long training, the establishment of age-friendly work places and the elimination of prejudice against older workers.

We hope that readers of this paper will also read *Older & Bolder's Baseline Position on the National Pensions Framework* (www.olderandbolder.ie).

“Man comes as a novice to every stage in life”

_____ Chamfort

“if you design for the young, you exclude the old, if you design for the old, you include the young.”

_____ Isaacs

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The Snail by Matisse, is one of the most striking artworks in the Tate Modern in London. Executed on a grand scale – almost 3 metres square - it is vibrant and energetic: up close, touchingly vulnerable in the apparently crudely cut gouache panels. A product of his 83rd year, it is the culminating glory of a series of creations by Matisse which marked a radical departure from previous work. The technique of *découpage* arose in part from his illness, and the array of creative responses inherent in this art work is a potent metaphor for the profundity, and often radical nature, of the gifts we gain from an increased life span. In marked contrast to the often bleak rhetoric on ageing societies which emphasizes loss and burden, Matisse, and the mature work of other great artists, provides a conduit to a more balanced perspective of what is undoubtedly the greatest social advance of the last century (1).

In a society with increasing numbers of older people, demonstrating the equipoise between the growth and loss that occur in later life is critical. Gertrude Stein wrote famously of her native Oakland that there was ‘no there there’. It often seems that society has a similar view of later life. In contrast to the acclaim with which the reduction of child mortality of the last centuries was greeted, the astonishing achievement of lifespan extension has had a muted, and often fearful, reception. Apocalyptic demography, the portrayal of population ageing as a disproportionate burden on society, is all too common: whether relating to pensions or healthcare, the concepts of the demographic timebomb or graying tide are all too freely dispensed (2).

The societal prejudice against ageing has engendered major forms of ageism in the arena of work, pensions and income security that mirror those seen in health and social care (3). One way to combat ageism, and encourage more gerontologically-attuned (and efficient) policies and services is to develop educational and advocacy initiatives to help the public to identify with older people as their future selves, and to appreciate the significance and complexities of later life – in the words of Jung, to understand that the afternoon of life must have a significance of its own, and cannot be merely an appendage of life’s morning. In the face of widespread ageism and the clear evidence of the frailties of later life that many are aware of, this is a tall order, and a complex series of concepts need to be mastered. The key challenge to realizing the Demographic Dividend is to **embrace the complexity of ageing**, which means that growth and loss occur at all ages. This is particularly challenging given the negative, simplistic and reductionist views of ageing which abound.

Late Life Creativity

Metaphors are important conduits for explaining complexity, and Late Life Creativity is a potent metaphor for ageing and the demographic dividend. A humanities approach facilitates the transmission of the concept in a wider context, and provides rich material for understanding not only the narratives of ageing, but also theoretical insights, and the societal benefits of ageing.

On the heels of Matisse, the choice of artists who exemplify late life creativity is wide (4). From the late canvasses of Monet, Rembrandt, Picasso, Miró and Titian, to the final etchings of Hokusai and Goya, all show ongoing growth and development, remarkable achievement, and often radical re-invention. The demographic dividend spreads across all art forms (5):

the compositions of Handel, Haydn, Bach, Schütz, Janáček, Liszt, Wagner, Britten, and Stravinsky, the films of Huston, Kurosawa, Eastwood and Rohmer, the architecture of Lloyd-Wright and IM Pei, the poetry of Yeats, Heaney and Tennyson, the sculptures of Bourgeois, Maillol and Calder. Often contemporaries had difficulty in appreciating their new style, fearing that they had 'lost it'. The late paintings of Picasso are only recently being re-evaluated (6), the austerity and introspection of Fauré's final nocturnes are now seen as the pinnacle of his achievements, and the continuing growth in status of Rossini's late *Petite Messe Solennelle* (neither small, solemn, nor deeply liturgical!) exemplifies the distillation of wit, insight and licence to be radical that characterizes late life creativity.

In Ireland one of the most dramatic demonstrations of late life creativity can be seen in the entrance to the striking Millenium Wing of the National Gallery in Dublin. It is an almost three-storey high tapestry by Louis le Brocquy, created in his 82nd year. This in turn leads to a gallery rich with the fruits of late-life creativity – among others, a sombre and powerful Titian, a minimalist Cezanne, Tiepolo at his most transcendent, and in particular the vibrant riot that is the late work of Jack B Yeats.

The power, energy, light and visceral impact of paintings such as the *Singing Horseman* or *Grief* helps to free us from negative perceptions of ageing and are a potent metaphor that later life means growth as well as loss, and that older people can be as radical as younger people, if not more so.

The first response of some may be that artistic creativity is all very well, but how does that extend to the rest of life, and indeed to the rest of us? The breadth of achievement in later life provides one part of the response to this reasonable riposte: whether in architecture (Frank Lloyd Wright started designing the Guggenheim at the age of 73), politics (the considerable political achievements in later life of Churchill, de Gaulle, Mannerheim and Reagan), business (Warren Buffet) or the commerce of popular music (the considerable success of Leonard Cohen's recent oeuvre, estimated to have raised \$9.5 million in his 2009 tour) there is evidence that the gifts of later life cover much of the territory of human endeavour.

Perhaps more importantly, the late life creativity of great artists provides a parallel to the everyday creativity of older people faced with disability who often react with astonishing aplomb, dignity and resourcefulness to challenges of illness and age-related disability. This is helpful in explaining counterintuitive truths in gerontology¹, such as why older drivers, who have the highest levels of disability and sensory impairment of any demographic group, have the best safety record in terms of annual exposure of any age group as a result of their strategic and compensatory responses to these deficits. This particular example, where public prejudice (that older drivers must be more dangerous and need screening) is widespread (7), and leads to unreasonable restrictions and checks on older drivers (8) despite convincing evidence of no added risk (9, 10), is very relevant to the debate on older workers, and will recur later in this paper.

1. Gerontology, the science of ageing, is classically divided into four subdisciplines: i) social sciences of ageing, ii) psychology of ageing, iii) biology of ageing, and iv) health gerontology (within which are positioned the disciplines of geriatric medicine, old age psychiatry, gerontological nursing, among others). It deals with the globality of normal ageing in the first instance.

Insight into theories of ageing

An added benefit of the late life creativity approach is that the work of great artists in later life also provides insights into theoretical aspects of ageing. For example, Arthur Rubinstein, active as a concert pianist into his nineties, is an embodiment of one of the most significant theories of successful ageing, Baltes' theory of Selection, Optimization and Compensation. As Rubinstein grew older, he reduced his repertoire (Selection), practiced these pieces more intensely (Optimization) and played the slow passages ahead of fast passages more slowly so as to give an impression of speed in the fast movement (Compensation) (11). There is good evidence that older workers compensate for age-related changes very well through mechanisms. There is good evidence that older workers compensate for age-related changes very well through these mechanisms, for example by reducing the physical load (while maintaining productivity), adopting safer practices, and changing prioritization (12-15).

Other important theoretical aspects illuminated by late life creativity include the strengthening of humanitarian and civic impulses in later life. Emil Nolde's *Unpainted Pictures*, extraordinary and luminous watercolours painted in his mid-seventies in response to the Nazi ban on him continuing to paint, are a gentle and miraculous response to tyranny (12). In reflecting on them, we might be reminded of the higher voting rates, strong civic engagement, forgiveness, and altruism that are seen in later life. These features may be a part of the reason why societies with a high proportion of older people maintain and support complexity, and become economically more productive. Despite negative headlines to the contrary, when private and public transfers are factored in, there is accumulating evidence of a major economic demographic dividend for ageing. The economist Kevin Murphy has calculated that gains in longevity after 1970 have added \$3.2 trillion a year to the US economy, a fiscal parallel to the richness of late-life creativity (17).

Demographic Dividend and work

The increased numbers of increasingly healthy older people in Ireland and around the globe is a major social and scientific advance, perhaps the most significant of the last century. One helpful calculation is that we will have the equivalent of an extra 5 hours a day added to our lives. Put another way, we woke up this morning to what is effectively a 29-hour day (14). Twenty-four of those hours, we will use now; the other five will be put by for later. This is an extraordinary rich resource for present and future generations.

This longevity dividend, a lessening of age-related disability, and a reduction in the relative proportion of younger workers has led to an intense debate on issues of work and retirement in an ageing world (19, 20). Late Life Creativity carries a most important message on the older worker, and a number of countries have begun to recognize that older workers represent a major benefit to the workforce, but that short-sighted and ageist policies in areas such as recruitment, training, and failure to develop a life-span approach to employment, have created barriers to greater participation by older people in the work force. The focus of attention on older workers, largely arising out of fears about insufficient numbers of younger workers, is

thus bringing about a relatively unexpected dividend to economies and employers: the benefit of a relatively under-utilized section of the work force who are recognized as having positive attributes, but who have been discriminated against in the past by way of ageist perceptions, inappropriate recruitment and retention policies, lesser access to education and training (particularly after the age of 50) and workplaces that have not factored in adaptation to a broader span of ages.

Although the European Foundation for the Improvement of Living and Working Conditions, one of the European movers in developing strategies for a life-span approach to work and the workplace, is based in Dublin, no initiative exists as yet in Irish society equivalent to the Finnish *Experience - A National Treasure* project whose aim is to maintain the work ability of the population throughout the life-span. This might be a more general reflection of the low profile of ageing policy in Ireland outside of the Department of Health and Children (21), and Ireland remains one of the very few countries in Europe not to have responded to the UN Madrid Action Plan on Ageing (22), which in itself contains relevant guidelines on supporting a workplace for all ages.

Ageing, Health and Occupational Health

Health is an important issue for work and working ability throughout life, and increasing attention is being given to the interaction between health, gender and working in a wider context than that of occupational health (23). For men, where there is more research, work plays a central role in their lives and identity and there is a significant impact on their health, both in and out of work (24). Older women workers, among whom there is less research, face work-specific and more general risks, including stress, discrimination, physical hazards and the 'double burden' of paid work and caring responsibilities (25).

For the older worker, health needs to be considered in a number of contexts: 1) whether significant disability is more likely in older people as populations age, 2) whether the cognitive changes of ageing advantage or disadvantage older workers, 3) the interaction between age-related health status, work and insights from research and practice of Occupational Health, 4) whether interventions to improve and adapt the workplace for an ageing society improve health.

Health in later life

As population ageing became an ever-present reality, the 1950's and 1960's were marked by concerns that this would lead to a big increase in the numbers of people with disability and disease. A perceptive rheumatologist, James Fries, saw that there was another possibility (26). With access to population databases of a big healthcare insurance company, he proposed that people were ageing in a more healthy way and that in fact we would see what he called 'the compression of morbidity'. By this he meant that rather than dying at 70, having suffered from a heart attack at 45 and a subsequent 25 years of ill health, that we would die at 75, but with our major illnesses much nearer the time of death, say at 65, so with just 10 years of ill-health.

The good news is that for the current generation, both life span and health in later life have improved. For example, in the USA, disability among older people has dropped by 1.5% a year over the last decade (27). This pattern seems to be replicated around the developed world so that the amount of later life spent with significant disability is dropping. While due to better health literacy, opportunistic screening and better diagnostics, we will have more diagnostic labels of illness as we age, we are likely to have less significant disability (28). It has already been postulated that these improvements in the general health and well-being of older people may lead to significant opportunities for continued working for older people in the work force (29), and that investment in health provides a bonus in terms of labour force participation by older people (30).

Cognitive changes and ageing

One common misperception of older people as workers is that there is a decline in relevant cognitive skills. In the first instance it is a sign of an ageist society that we nearly always assume that the cognitive changes with ageing are all negative – in fact, Late Life Creativity reminds us that there are positive cognitive changes with ageing – wisdom, strategic thinking, reasoning. Secondly, it is salutary to be reminded that one of the first uses of cognitive testing was to prove that black people were less intelligent than white people (31). This is an indicator as to how much such tests relate to cultural and generational parameters, and how tests developed for one group may not be appropriate for another. The classic study in this regard is that of Salthouse (32), whereby older typists were slower on a standard psychological test - choice reaction time – but no slower in typing than younger typists. This points to compensatory skills that the neuropsychological tests – generally developed in younger age groups – do not measure. Preliminary research suggests a role for Selection, Optimization and Compensation in work adaption for older workers (12). Work studies, for example ranging from older roofers (14) to automobile plant workers (15) to maintenance workers (13), consistently show this pattern of strategic compensation in older workers.

It is now recognized that age is not an issue in acquiring new technological skills (33), but rather the degree to which education is provided (34). Indeed, it is impending retirement rather than age which is the key factor in not attaining computer skills, and acquisition of computer skills was associated with later retirement, an important issue for recruitment/retention in an ageing work-force. Another factor is a failure to adapt workplaces and attention to the work environment (managerial, training and physical environment) to the consideration of life –long employment (35).

This has been recognized by the EU, who published a guide to ensuring age-variety, and reductions of barriers to employment, and training, among older workers, on the basis that a work force with a balance of youth and maturity (and diversity in other characteristics such as gender and ethnicity) is regarded as being best able to respond to the rapidly changing circumstances associated with globalisation. By restricting recruitment to so-called 'prime age' workers, many organisations have prevented themselves from maximising their human resources potential (36).

Occupational Health Services

To date, occupational health has been largely restricted to helping those in employment. Supporting working age health, and in particular into older age, requires a further reach. It remains critically important to improve health at work and to enable workers with health problems to stay at work, but occupational health must also become concerned with the self-employed, helping people who have not yet found work, or have become workless, to enter or return to work (23).

Although older people have figured in the traditional occupational health literature since the early 1950's, there was little by way of interchange with gerontology, and the emphasis was on the deficits of ageing (37, 38), rather than a more rounded, analytic approach. In the last two decades, there has been increasing interest in joint work between occupational health and gerontology (39). The picture that emerges is more reassuring (40), but does suggest that the practice of occupational health needs to incorporate new, gerontologically-attuned, knowledge, skills and attitudes. Increased inter-individual variability is the hallmark of ageing, and in itself mandates a more individualized regime for both work and occupational health. Notwithstanding this principle, it would appear that certain patterns can be detected, such as the fact that older workers have less accidents, but are at a higher risk of fatal accidents (although this may relate to proportionately higher numbers in sectors such as farming and fishing) and take longer to recover from an accident when it does occur (41). Although older workers may be more susceptible to certain types of occupational stress (for example, heat (42)) and certain work-relevant illnesses such as musculo-skeletal disorders (43), the largest source of absence in the UK is short-term uncertified absence generally associated with younger workers (44)!

Although there are significant gaps in the research agenda on occupational health and ageing, the increasing interest in the occupational health literature is encouraging. A pioneering range of interventions by Ilmarinen and colleagues in Finland has developed measures such as the Work Ability and Age Management programmes of the Finnish government and its Institute of Occupational Health. The promotion concept is based on four different actions: (i) adjustments needed in the physical work environment, (ii) adjustments needed in the psychosocial work environment, (iii) health and lifestyle promotion, and (iv) updating professional skills. The first two activities are focused on work content and work environment, and the focus of the latter two are on the individual workers (45).

Interventions in the **physical environment** include moderating the physical workload, alteration of work-rest schedules (including micro breaks), and reduction in repetitive work. It is likely that there is a considerable potential for physical and ergonomic development of the workplace (46). Adaptation of the **psychosocial environment** is in effect applying gerontological principles in a technique called age-management: a positive attitude to one's own ageing as well as the ageing of others, team working, individualized adaptation to work, and open minded communication about changes needed because of more diverse work forces. Flexibility about work routines is also important. **Health and lifestyle promotion** centres on regular physical exercise in leisure time which has multiple positive benefits. Updating professional skills is the final critical component, particularly as there is evidence of

reduced access to training for older workers, including in Ireland (20). A successful program can, according to Ilmarinen, lower absence rates and disability costs, increase productivity, improve management, secure better trained personnel, and create a good image for the company. The individual worker gains in health and job satisfaction, and enters retirement in a healthier state.

Ageing, work participation and productivity

Most reviews of the data on older workers do not support any particular decline in work performance (47): and a recent view of productivity concludes that earlier studies were hampered by cross-sectional design, heterogeneity of work and work-places and did not take due account of cohort and secular changes (48). In the newest study, matched worker-firm data in a longitudinal study could not find any decrement in productivity across the ages. Indeed, some authors point to an increase in age-productivity (49). There may be a productivity-wage gap, in part caused by strong seniority effects in many wage settings (50).

One particularly interesting phenomenon is the preservation of work-relevant function and attributes through the act of work: for example, although theoretical decrements can be detected in physical attributes such as physical strength and balance with ageing, those in work generally maintain good levels of function in both as they age (51), and in the area of aerobic exercise adapt to remain functional (52).

Barriers to employment

The barriers to full inclusion of older people in the workforce have been described as ‘Pull Factors’ and ‘Push Factors’ (20). ‘Pull Factors’ include financial incentives to retire early, and lie outside the remit of this report, except to the extent that a policy of extending retirement age, without a due focus on life-long training, age-friendly work places and work policies, and elimination of ageism or prejudice against hiring older workers, represents a double threat to older people.

‘Push Factors’ represent the failure of the workplace to engage with ageing, including limited life-long learning, ageist recruitment policies, negative perceptions by older workers of themselves (53), inflexibility of working practices or times and grade of working. All of these are amenable to change, particularly using the Ilmarinen model, but require a collective buy-in from employers and unions/workers. In an OECD review of ageing and work, Ireland has a relatively high number of those aged 50-64 at work. ‘Pull factors’ do not seem to be particularly pronounced, given the lowest pension replacement rates in the OECD, apart from the fact that those unemployed over 55 were not being referred for job-seeking.

In terms of employment barriers, there is Europe-wide evidence of **employer discrimination against older workers** (although Ireland was in the lower tertile of reported ageism) mandatory retirement is still permitted in the private sector, and there is a mixed score-card on wage seniority, with older Irish workers among the better paid in the OECD relative to 25-29 year-olds, with high retention but low hiring rates. Employee protection is associated

with lower hiring of older workers, although this may also represent a reflection of ageism rather than employee protection per se. A study by the *Irish Expert Group on Future Skills Needs* described many barriers to participation, including absence of suitable jobs, lack of flexible working arrangements, difficulties downshifting, concern about the impact of paid employment on pensions and benefits and the existence of age discrimination (54).

Employer discrimination may also represent a reflection of **wider societal and professional ageism**, and the example of the older driver alluded to above finds an echo in a policy to ban those over 60 from working as commercial pilots in the USA, a policy that had no grounding in science or evidence. It has taken a very long and determined dialogue by informed physicians and advocates to raise the age to 65 recently (55). It has been estimated that the combined effects of ageism cost the United Kingdom £31 billion in 2001 costs (www.efa.org.uk).

There is also evidence of the **importance of training** (where resistance may come from both employer and employee). The incidence of training with age declines in all European countries, with Ireland ranking mid-place, with under 25% of employees over 55 undergoing training in the previous 12 months. The OECD notes specifically ‘Slow progress in introducing lifelong learning measures’. This is unfortunate, as there is a statistically significant correlation between training after 55 and retention in the work place. The UK Foresight Project identified that the mental capital of older people is a massive, and under-utilized resource. Unlocking this could benefit the wellbeing and prosperity of older people and society as a whole. Up to now, education for older people has focused on leisure. The development of life-long education throughout life allows for a number of opportunities. It is a key facilitator of life long employment, empowering and conferring flexibility on workers to engage with rapidly changing workplaces, with introduction of new technologies in service and knowledge economies.

Ageist hiring policies represents a further barrier. Older workers do not necessarily face a higher risk of job loss relative to younger workers, but in most countries they face longer spells of unemployment when they do lose their jobs.

Finally, **poor working conditions** are another important factor that may be pushing older workers into early retirement. A lack of flexibility in working-time arrangements for older workers is also an issue in most countries, including barriers to switching from dependent employment to self-employment. In the European Survey on Working Conditions, 43% of men and 26% of women aged 50-64 are exposed on average across the EU-15 countries to physically unpleasant working conditions at least half the time, with Ireland in the upper tertile for men in the EU15.

Ageing and the Public Service

Some specific groups deserve focus and attention in Ireland, and in particular public servants, especially those serving in the health services. The OECD review on ageing and the public services might be viewed as a somewhat more complex document serving a number of agendas other than ageing workers, as evidenced by the statement in the executive summary: “ageing...inevitably leads to some rethinking of the division of labour between government

and private sectors in terms of social services delivery and the implications for the status of staff working in those sectors, as well as to devising strategies for cost reduction”, and in the Ireland section that ‘Cost containment of pension liabilities is the cornerstone of the ageing strategy.’ (19).

However, it does point out that ageing among public service workforces is in general occurring at a faster rate than in the private sector, and this phenomenon affects health and social services in particular. This has been the subject of a major review in the USA (56), and there are significant concerns about the impact on nursing (57), and in a particular irony, especially affecting services for older people (58). The official Irish response seems to be based on increasing the numbers admitted to training as doctors and nurses, rather than looking at a wider programme of reshaping work and the workplace to encourage retention of these highly skilled staff into later working (59).

Summary

In summary, work into later life represents an important social and personal benefit, and much of the negative popular assumptions about older workers do not hold true. In fact, it is increasingly clear that older workers represent an important resource for industry, public services and the economy, but that the framework for developing work places and policies supportive of working later life in Ireland leaves much room for improvement.

A successful life-span strategy for work, to include, and value, older workers will require joint strategic work between:

- government and its agencies (in particular the Industrial Development Authority, Enterprise Ireland, Fás, and the Office for Older People)
- education and training bodies (in particular universities and Institutes of Technology, the Research Councils, as well as Fás)
- business and entrepreneurs (in particular the Irish Business and Employers Confederation, and strategic partners in technology and the life sciences arena)
- professional bodies, in particular those relating to gerontology, ergonomics, human factors, and occupational health
- unions and social partners
- advocacy groupings for older people

Ideally, it would form a core part of any national ageing strategy, and life-long learning is a particularly important element which is common to other areas of ageing strategy.

A policy of extending retirement age, without a due focus on life-long training, age-friendly work places and work policies, and elimination of ageism and prejudice against hiring older workers, represents a double threat to older people: however, there is now a significant body of research outlining practical and constructive measures to improve Ireland’s ability to support, and benefit from, an ageing work-force. There is some urgency to ensure that we benefit from this new knowledge.

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