The Ageing Population: Implications for The Australian Workforce
The 20:20 Hudson Australia Series

The Hudson 20:20 Australia Series addresses timely, relevant topics and issues surrounding human capital management and workplace performance. Published periodically, these papers are intended to help organisations to evaluate and address these issues and their potential consequences.

About Hudson

Hudson (Global Resources & Human Capital Solutions) is a worldwide leader in the provision of specialised recruitment and human resource consulting services.

Through its recruitment division, Hudson Global Resources, and human resource consulting division, Hudson Human Capital Solutions, Hudson works with a variety of employers to attract, select, engage, develop and retain the people they need to succeed.

Hudson is a division of Hudson Highland Group Inc (NASDAQ: HHGP) one of the world's leading professional recruitment, retained executive search and human capital solution providers. More information about Hudson is available at www.hudson.com

This Paper

This paper, “The Ageing Population: Implications for the Australian Workforce”, has been commissioned by Hudson and authored by Bradley Jorgensen.

August 2004
Population Replacement

Baby Boomers are set to retire from the workforce during the next decade or so and, in their retirement, will take with them, in the medium-term, irreplaceable levels of experience. At the same time low fertility rates will reduce the supply of younger workers joining the workforce. For example, the current Australian fertility rate, of 1.2%, a rate, which is below replacement, is forecast to slip to an even lower rate of 0.85% by 2016. This trend is expected to deliver a pressing workforce shortage over the coming years, resulting in a sharp drop in new entrants joining the workforce. During the decade 2020 - 2030 only 125,000 new entrants are expected to enter the Australian workforce. This forecast contrasts sharply with the current annual rate of 170,000 new entrants. Figure 1 plots Australia's historical fertility rates for the period 1972 - 1997.

As a result, in the coming decades the supply of older workers, relative to the supply of younger workers, will increase sharply. In Australia in 30 years time there will be just two people of working age for every person 65 years of age and over. Figure 2 illustrates forecast population growth in Australia, by age group, for the period 2002 - 2042.
The forecast workforce and skill shortages are expected to generate heightened competition for skilled, experienced and able employees. While strategies to attract prospective employees will form a key element of the employment branding effort, employers will also need to move quickly to capture and protect difficult to replace intellectual capital. Indeed, the decreasing availability of scientific and technical workers is already of particular concern. Organisations must, therefore, look to new ways of retaining existing employees and to make better use of their older workers’ skills and experience. Firms will also need to continue to advance and develop their younger workers. Managing this dyad will present special challenges for all organisations.

Many organisations already emphasise the role of the individual and the importance of partnership and collaboration as new and important organising principles. However, the question of how this emphasis will be realised, largely remains open. Indeed, it would seem that the ageing population, low fertility rates and the looming skills shortage combined with the influences of globalisation and information communication technologies, if not handled well, might constrain the capacity of Australian organisations to achieve their goals and to meet stakeholder obligations. Significantly these trends are also accompanied by concerns regarding the quality of the future workforce. These concerns are now examined.
Quality of the Australian Labour Market

In 2001, only 59% of Australian 17 year olds had a Year 12 or equivalent education\textsuperscript{11}. This standard of attainment, which has remained largely unchanged over the last 40 years, has led to predictions that Australia will have the lowest proportion of upper secondary qualified citizens in the Organisation for Economic Cooperation and Development (OECD) by 2010\textsuperscript{12}. This statistic is complicated by the expectation that nearly half of the Australian workforce, listed as having a postgraduate qualification in 2001, are expected to retire in the next decade or so\textsuperscript{13}.

The looming skills shortage combined with the relatively low standards in educational attainment will present as difficult challenges for all organisations. Government, professional associations and many organisations themselves have taken some early steps to respond to these challenges though much of this remains embryonic. The Commonwealth Government’s recent announcement on superannuation reform continues this trend of adjustment, marking out an important element of the ageing workforce reform agenda\textsuperscript{14}.

Notwithstanding the value of this recent initiative, Australia’s historic educational attainment standards may constrain the capacity of business and government to implement their agendas. Post-secondary achievement standards are also of concern. For example, in 2001 approximately 60% of Year 12 qualified Australian 17 year olds did not go on to tertiary education and of those who did, approximately 60% are expected to achieve a recognised qualification by the age of 24 years\textsuperscript{15}. Indeed, by the decade 2020 - 2030, given current educational attainment data, many older workers may not have the basic skills needed to gain entry into or to secure ongoing paid employment\textsuperscript{16}.

In seeking to manage forecast workforce and skill shortages and to make better use of current employees, change to retirement policies that lengthen working life can be used to partially offset the projected fall in labour force growth and forecast skills shortages\textsuperscript{17}. However, the incentives to retire and the disincentives to late retirement need to be adjusted in tandem with workplace reform\textsuperscript{18}. While the recent Commonwealth Government superannuation policy shift takes positive steps in this direction\textsuperscript{19}, business also has a role to play.
Section Two: Impact of Emerging Population Trends

New Modes of Work, Tenure and Retirement

Given the weight of emerging population trends and forces for change, many organisations may need to reconsider the appropriateness of existing working arrangements for older workers. Older workers could move from full-time work to new forms of part-time work according to the evolving needs of the employer and the individual. Individuals could take up new forms of tenure and contingent employment as internal consultants or as employees working to adjusted schedules. In so doing, these workers could contribute their skills and experience directly to specific projects and, in the process, transfer knowledge to younger workers. Measures such as these are likely to assist organisations to maintain their leadership bench strength at a time of critical vulnerability. There could also be periods of intense work, interrupted by pauses for sabbaticals and the like. Starting at age 50 or so, mature employees could begin a planned transition from full-time work to full retirement. Employees no longer competing for promotion or for ‘sought after jobs’ could move from supervisor or manager to mentor, coach or adviser.

In providing for phased retirement for its able, adaptable and healthy individuals, employers could save some of the costs of hiring and training new employees while also maintaining the institutional memory and technical knowledge of their older workers. Indeed, a positive return on the training and development investment in older employees, due to a higher retention rate of these employees, is likely.

However, the expansion of working time corridors and the intrusion of work into life, a product of the technologically induced collapse of time, space and distance, often associated with ‘low quality work’, has left many feeling disenchanted. The ideas of choice, opting out, seizing control and ‘sea change’ now feature prominently in popular literature. Workplace reform proposals therefore, also need to recognise and respond to the intrinsic and extrinsic value that individuals place on work. This suggests that reform efforts should move away from the ‘generic’, towards individual tailoring and reminds that flexibility in retirement goes hand-in-hand with individual choice and flexible careers.
Learning and Flexible Careers

The modern workforce is characterised by flexible careers where employees work in a number of different organisations and occupations during their working lives. Though, for many public sector employees, where average tenure is around 12 years or more, the mobility that characterises employment in the private sector would be a unique experience. In the general population the wide variety of experiences accrued through the routine of professional and personal development, contributes to the acquisition of expertise across various domains. However, employers and employees in the private sector also face challenges. Many highly qualified employees, over the age of 40, are confronted with a progressively declining degree of re-employability. While this may not have been a problem in the past, in the face of constant organisational change, many older workers may lack the skills to adapt to constant organisational change and are at risk of being left behind.

For public sector employees the lack of mobility is a complicating factor, particularly when judged against evidence that suggests that life-long learning has not been widely adopted in some jurisdictions. Indeed, in the modern era the need for continuous education in adults is especially important among professionals where the limited shelf-life of new degrees has been reduced to less than five years. Equally important, adults will not only have to learn more, continuously, they will also have to 'unlearn' more than ever before. These emerging requirements resonate with the debate surrounding 'The Rise of the Creative Class' postulated by Florida.

‘Creativity ... is now the decisive source of competitive advantage’.

With the shift to an ideas and creativity driven environment, success follows those who can exploit 'intangible' knowledge and information and convert them to tangible benefits - financial, cultural and social. Given forecast workforce and skill shortages, members of the ageing workforce - knowledgeable, skilled and experienced - may have to be relied upon as an important creative force for the future.

Several possibilities follow. Measures that improve the attraction and retention of older workers, deal with the physical decline associated with ageing, maintain trainability, focus on learning, improve work-life balance and deal with ageism are now discussed.
Attracting and Retaining Older Workers

The importance of skilled people to organisational success\textsuperscript{34} and creativity will compel organisations to look to older workers to supplement the skills and knowledge that they need to succeed. In particular, workforce ageing will also mean that many organisations will increasingly rely on mid-to-late-career workers and a greater share of workers aged 45 years and over\textsuperscript{35}. Indeed, at age 55, many employees may prefer to remain in the workforce\textsuperscript{36} and may not have the financial resources, despite recent Commonwealth Government initiatives, to fund their retirement\textsuperscript{37}.

If organisations are to succeed in attracting and retaining older workers, the implementation of policy that seeks to remodel employment practices and processes to better accommodate the needs of older workers while continuing to meet the needs and aspirations of younger workers would seem to be a useful approach. While the task of accommodating the mixed needs of an age diverse workforce to design sustainable work systems\textsuperscript{38} may be complicated by the physical decline associated with ageing, the effective utilisation of the experience, wisdom and motivation of older workers emerges as an important workplace reform success factor.

Physical Decline

After the age of 45-50 years, many workers experience a decline in physical work capacity\textsuperscript{39}. However, research quoted by Access Economics\textsuperscript{40}, shows that work methods and strategies resulting from older persons' experiences may raise their levels of effectiveness to a standard greater than what it was in their earlier years\textsuperscript{41}. Indeed, the functions of information processing change very little with age. Moreover, some cognitive functions, such as language or the ability to process complex problems improve with age\textsuperscript{42} and in most work tasks, speed and precision can be substituted by the high motivation, experience and wisdom of ageing workers\textsuperscript{43}. Research has also shown that in Australia mature workers have good learning capacity and retain information better than their younger counterparts\textsuperscript{44} and as well as offering continuity, contribute to the blending of skills throughout the workforce. A high level of motivation has also been shown to be more important than youthfulness for successful learning\textsuperscript{45}. Similarly,
recent research has shown that the brain maintains its plasticity throughout life. Consequently, learning can, and should be, life-long\textsuperscript{46}. There is also a ‘use-it-or-lose-it’ element to the cognitive capacity of older workers to acquire new skills\textsuperscript{47}. Indeed, the feasibility of change is contingent upon the character of early training and the opportunities provided for retraining\textsuperscript{48}. This underscores the importance of life-long learning\textsuperscript{49} and reminds of the potentially adverse implications for ageing workers who have been isolated from the learning agenda\textsuperscript{50}.

Accordingly, an ageing workforce policy mix that seeks to safeguard health through a combination of quality workplace initiatives\textsuperscript{51} and redesigned workplace practices, matched to individual capabilities, emerge as important workplace reform tools\textsuperscript{52}. The example provided by Lockheed Martin is a useful illustration of an effective ageing workforce policy approach.

### Lockheed Martin: Opportunities, Benefits and Cost Savings

The experience of Lockheed Martin in their approach to their ageing workforce has shown that the costs associated with the redesign of jobs, tools and practice, can be offset through improved performance, lower claims and reduced medical costs\textsuperscript{53}. Given this experience it would appear likely that in implementing an ageing workforce strategy, similar benefits would also flow to Australian organisations. Importantly, such an approach is also likely to assist in the transmission of highly desirable work traits from older to younger workers such as loyalty and a strong work ethic. To assist in this process, older workers would need to be provided with enhanced development opportunities\textsuperscript{54}, to maintain their trainability, new modes of tenure, encouragement to adopt healthy lifestyles and customised working arrangements.

### Learning Environment

If older workers are to acquire the necessary levels of adaptability, the literature suggests they would need to participate in broad training and development programs in new domains, concentrating on expanding their capacity to cope
Individuals seeking to enhance employability should acquire more than one area of expertise with future employment challenges throughout their careers. Importantly, workers employed in a learning environment, are much less susceptible to a decline in trainability. It would seem wise therefore, when seeking to enhance employability, that all individuals acquire more than one area of professional expertise. In this regard regular cross-functional job changes are likely to assist. Opportunities such as project-based and 'stretch' assignments and work shadowing have been shown to be worthwhile. Similarly, secondments and attachments designed to facilitate wider learning or to address the specific needs of individuals would also be appropriate.

Other measures, such as succession planning, talent management, individual development planning for high-performing employees and the like also emerge as positive intervention strategies. Importantly, the value of the learning that would flow from these types of formal and informal activities should be recognised and accredited, ensuring that the application of individual effort is appropriately recognised. More broadly, the increasing prevalence of transdisciplinary studies and approaches to work will assist all workers to grow and learn, through their life.

The drivers for learning are also associated with modern working conditions. The average worker is confronted with new tasks and problems and has to develop new skills and competencies more frequently than before. For individuals then, life-long learning has become an essential for both employability and career progression. At the same time, fewer occupations can now guarantee lifelong employment. Rather, security of employment now resides in the capacity of individuals to build their employability. The 'new' contract therefore, revolves around employee motivation, job enrichment and competency development.

Since the lifecycles of occupations and functions offered by organisations have shortened significantly in the last 20 years, the mastering of learning and coping strategies, through formal and informal means, is relevant to all employees regardless of age. Accordingly, it would seem reasonable for organisations to adjust their professional development models to focus on keeping employees' skills relevant and employees functionally mobile, through a variety of means and by expanding the training time horizon. By investing in
employees throughout their careers, and in utilising formal and informal methodologies, organisations can assist their employees to maintain their trainability and employability.

Managing Age-Specific Risks

While skills learnt ‘on-the-job’ tend to be less portable than formal training and may expose workers to the risks of functional immobility, a balanced, formal and informal development regime is likely to achieve the desired end. More specifically, training for younger and older workers is likely to be more successful when the training regimes seek to capitalise on the qualities and attributes that the different age groups bring to the training experience. Importantly, age-specific risks need to be dealt with early during working life. If older workers can be trained to cope with new technology and work methods, and are provided with a flexible benefits and work package, as well as ‘quality work’, they would be much more likely, and able, to stay longer. Accordingly, in creating conditions that let employees manage and balance their lives, learning and careers, business and government would provide their workers with the capability to learn throughout their working lives. The introduction of measures aimed at improving work-life balance along with other measures such as the provision of individual learning accounts and development plans will assist. Similarly, the introduction of ‘quality employment’ measures will also assist employers to attract, retain and develop an engaged and competent workforce for the future. In particular, measures that seek to accommodate the work-life balance aspirations of individual employees appear to offer an important set of reform strategies.

Learning Accounts and Work-Life Balance

Modern employees now need to be autonomous and self-motivated learners. In the future, knowing how to improve one’s own learning and performance will be especially important. Learning accounts along with development incentives, particularly for high potential and high performing employees, will provide organisations with the means to achieve preferred, organisational and individual, learning and development outcomes. In turn, individuals could shift their development goals to accord with their lifecycle phases, career aspirations and
ambitions, adjusting the pace of their lives to suit their emerging, planned or short notice needs. However, many outside considerations can affect the lives of employees both on and off the job impacting the capacity of individuals to engage in life-long learning. For example, in Australia and the USA elder care is emerging as a growing concern.

Elder Care

Recent evidence in Australia shows that increasing numbers of older people are living alone with the likelihood that care-giving responsibilities are set to expand. Despite the expanding role of women in society, attitudes remain 'strikingly' robust, with women continuing to bear the brunt of the care giving responsibilities. In a recent Harvard Business Review article on women in management, 67% of respondents reported family commitments as a barrier to advancement. While Encel notes a rise in the labour force participation rate among women over the last 20 years, the growth in the number of single parent households and the growing need for elder care may well see the gains of the recent past lost. Accordingly, the introduction of policy to assist women in their care-giving role may well assist to maintain and, perhaps, increase the participation rate of women. Time scarcity will provide an added complication.

Time Scarcity

Increasingly, working adults, sharing the same households, will move towards divergent shift and work schedules, complicating their efforts to build sustainable work-life patterns. Time scarcity will become a dominant factor for individuals seeking to balance their lives, work and study. Equally so, the trend towards an increasing proportion of single-parent households with dependent children will be an added complication. Under the weight of these 'new' living arrangements the predominance of contingent employment practices for women in Australia may expand further. Accordingly, the introduction of policy that assists business and government employees to access a greater range of flexible time off options, including leave packaging and flexible working time, provides ways of generating the necessary flexibilities. Ageism will present as a particular difficulty.
Ageism

An ageing society means that greater numbers of older people may want or need to remain in the workforce for longer periods. However, older people often encounter barriers to full participation in society. This is most marked with respect to employment. For example, a common stereotype of older workers is that they are less productive in the workplace. This type of prejudice exacerbates many of the 'problems of ageing'.

Ageism is a particularly insidious form of discrimination and does not just target the elderly, but deals with a broad category involving negative attitudes about people who are simply older than others. These negative attitudes can extend to a deep-seated uneasiness, revulsion or distaste for growing old and are most commonly covert, '... evasive and easily masked'. Indeed, when self-concept is threatened, individuals tend to respond by seeking ways to bolster their self-image. Often this is done through positive comparison.

Generally, young people tend to associate ageing with disability, dependency, or irrelevancy. Older people, on the other hand, may, through a lack of effective interaction with younger people, adopt self-protection strategies. Combined, these stereotypes can contribute to a break down in communication and collaborative effort. Accordingly, a focused education and policy approach that deals with the full complexity of ageing and ageism would, in principle, appear warranted. Thus, as the workforce ages, it seems reasonable to assert that employers must confront their own prejudices and learn how to manage older employees more effectively. Significantly, a failure to address ageism may lead to the loss of the potential value that older workers can bring to an organisation.

However, policy approaches that deal with ageing and ageism also need to be carefully framed so as not to stigmatise older workers, isolate younger workers or to impose obligations on older workers who simply do not have the health or desire to continue in full time or part time employment. The logic of a well-implemented ageing strategy is that it will improve morale, teamwork, cooperation and productivity across all levels of the organisation, to create a sustainable work system. Key success factors include backing from senior management, supportive human resource structures, the commitment of the ageing workers, flexible and patient implementation and financial backing.
Accordingly, an integrated and balanced policy approach, tailored to meet the needs of work and life in the modern era would provide a feasible policy response to the trends of ageing, low-fertility rates and less than ideal educational attainment standards.

The Socio-Cultural Context of Learning

Expert knowledge is a fusion of knowing, know-how and reflection constructed from social interaction within a specific socio-cultural setting. Yet such (tacit) knowledge is difficult to tap into because it is arcane, complex and elusive. Indeed, 'know-how and know-who' tend to remain tacit, socially embedded and resist codification. In order to surface tacit knowledge and to build new cognitive associations, collaboration based on trust, openness and reciprocity between entities is required.

Difficulties associated with capturing 'lessons', experienced by many organisations, can be attributed, in part, to a reliance not only on the technical aspects of knowledge management but also a dysfunctional socio-cultural context. Tacit knowledge is a key learning element but resists codification and can only be shared through cooperation and interaction. Thus, trust, interpersonal and communication skills, and mutual commitment are now very important. Individuals however, can only communicate and cooperate effectively in a socially cohesive environment. Ageism therefore presents as a potent dis-integrating factor.

These factors remind of the importance of social cohesion to successful learning and organisational performance, and in the context of the change forces discussed above, the need for modes of work and organisation that contribute to the development of social cohesion and which truly value workforce diversity among a community of cooperating individuals are thus re-emphasised.

Knowledge Work

Through community, knowledge can be shared and exchanged, providing the opportunity to apply new knowledge to new contexts, and in so doing, enhance individual learning. Indeed, high-level skills and knowledge in individuals flows
from 'learning' that comes from socialised knowledge\textsuperscript{101}. This underscores the importance of participation, integration and interaction\textsuperscript{102} and reminds that an effective response to the ageing of the workforce may also contribute to improvements in knowledge management. Indeed, the combination of complementary competencies, the alignment of the purposeful parts\textsuperscript{103}, has become the linchpin of the knowledge economy\textsuperscript{104}. 'Learning' has become a form of social calculus, a framework to integrate vertical, horizontal and temporal capabilities\textsuperscript{105}.

Organisational effectiveness now relies on the purposeful association of an organisation’s members, their mutual commitment and their sense of belonging. Accordingly, in seeking to respond to the challenges posed by demographic, social and technological trends, the incorporation of new management processes that recognise the dynamics of knowledge work as well as the development of new ways to build, capture and utilise new ideas through learning set in the social context of the organisation would be feasible initiatives.

The growth in knowledge work, in concert with the technological and societal dynamism of the modern era, also raises the need for structural and procedural reform, tailoring, high job quality and new ways to support and develop key employees. These interventions resonate with the ageing agenda and are now discussed.
Section Three: Solutions to an Ageing Workforce

Structural and Procedural Reform

Notwithstanding the forces for change noted earlier, Lundvall & Borrás[106] argue that efficiencies will only follow if accompanied by organisational flexibility and new forms of managerial control.

Thus, hierarchical and complex modes of organisation with simple jobs are being replaced by decentralised and network-oriented organisations with more complex jobs[107]. The emphasis has shifted to ‘communication, teamwork, reliability, problem solving[108] and includes the incorporation of a positive attitude to learning’[109]. More broadly, in response to ageing and the dynamism of the modern era, an integrated organisational response that seeks to harness the benefits of knowledge work while mitigating the risks associated with the ageing population and emerging skill shortages is likely to facilitate goal achievement. Approaches that provide for tailoring, enhance flexibility and seek to develop a quality workplace emerge as feasible options.

Tailoring, Flexibility and Inclusive Practice

If older workers are to be encouraged to remain in the paid workforce they also need a reason to extend their working lives. Factors such as occupational stress and illnesses, the intensification of work, extended working hours and intimidation and harassment are unlikely to assist in reshaping older workers’ attitudes towards an extended working life[110]. The creation of an organisational reputation of being an ethical, trustworthy and a generally good place to work is likely to deliver additional benefit[111]. For example, the promotion of quality jobs, characterised by the attributes of openness, job-depth, participation, individual autonomy, open communication, learning and growth opportunities, and individual tailoring, has been shown to attract and retain high performing and motivated employees[112]. By adjusting the rhythm of work, investing in tailored training and development and by providing flexible structures, benefits and remuneration, business and government in Australia would have the means to demonstrate their commitment to their employees. These measures would assist in engendering loyalty[113], contribute to the well-being of employees and boost organisational performance[114].
Expanding Job-Depth

For many younger workers the static and functional isolation of their specialty areas might be regarded as 'low quality', through a failure to adequately capture the wide applicability of their bachelors' degrees and professional knowledge. For example, many teachers regard much of the content-based exchange between teacher and student as a low risk low skill arena in which their professional expertise is under-utilised. On the other side of the coin, few recent graduates have the necessary leadership and teamwork skills to effectively engage with others across the organisation. For many, these skills are more likely to be acquired through experience. These factors underscore the importance of action learning, making an increased use of existing talent and the adoption of formal and informal learning approaches that emphasise cooperation, communication, community and project based or cross-functional employment opportunities to name a few. For high performers and high potentials, individual development strategies emerge as key.

In turn, a move away from functionally based careers to team-based practices and improved opportunities to access cross-functional employment and promotion, alongside individual development, mentoring, coaching and career planning, would follow. Initiatives such as these can assist professionals to extend their learning well beyond their 'book knowledge'. Opportunities such as the ones described here have been advocated by Drucker who, in 'The Coming of the New Organization' forecast the rise of work performed by specialists, working together and sharing mutual responsibility in task forces that cut across traditional departments.

Further, senior executives and those with hard to replace expertise and experience, who are approaching retirement, could, as part of their phased retirement program, become mentors imparting their experience, advice and network access to directly assist newly appointed executives, managers and supervisors. In so doing, these newly appointed managers would be given the opportunity to capture corporate learning through engagement with their assigned mentors thus realising and capturing the social capital investment in older workers. The lessons of the past would not have to be re-learned.

This paper now turns to discuss an alternative mode of organisation and the role of the individual. This is done so that the preceding discussion is linked to structural and procedural reform initiatives proposed here.
Eliminating Organisational Rigidity

In many organisations, the model is mechanistic tending towards centrism. The mechanistic form lacks the ability to restructure itself or to take full advantage from the knowledge of staff. As Stiglitz observes, centralisation does not work because it stifles the bottom-up approach and ignores the individual. Indeed, decentralisation as a mode of organisation has been forecast 'to become more critical' to organisational success in the future, while control from the centre is becoming impossible. Drucker adds that emergent structures are too complex, too volatile and changeable for the routine of management that emphasises hierarchy, top-down decision-making and functional 'silos'. Drucker's observation is a rejection of the deterministic hypothesis and points to the adoption of a multi-dimensional organisational design that recognises the interdependence of technology, outputs and the environment as a preferred mode of arrangement.

Distributed Governance

In the future, for change to be enabled it is a prerequisite to have a flexible, adaptive and agile schema that recognises the value of knowledge and learning. The preferred model of organisation for knowledge work is a model that delivers 'power-to-do', multiplied and duplicated across an organisation, rather than 'power-over'.

As Prigogine notes, chaos cannot be solved at the level of individual trajectories but only at the level of 'ensembles'. Under such a construct, the role of the centre is properly one of ensuring that the interface between operating elements, the ensemble, is robust. Indeed, in the model proposed here, and in acknowledging the complexity of modern organisational life, the role of the centre is less the management of structure and the topology of networks, and more the focussing on the complex dynamics that take place along the links.

Under such an arrangement, the centre's role is the management of the architecture, interactions and relationships between entities rather than setting a direction down a linear path. This role involves the adoption of measures that enable collaboration, the flexible provision of resources and infrastructure, facilitating innovative practice and enhancing the flow of information between
interdependent elements. In effect, the centre’s role would move to support learning about learning. Such a scheme of arrangement recognises the multidimensionality of organisational life, that knowledge growth is facilitated through sharing and that through learning a socio-cultural system acquires the capacity to adapt. Issues associated with the ageing of the workforce serve to underscore the importance of adopting a socio-cultural systems approach to learning and flexibility. The role of the individual is central in such an arrangement.

Individuality and Integration

Given the forces for change in the world of work and the growth in complexity, organisational arrangements that emphasise communication, flexibility, fast decision-making, the role of the individual, participation and collaboration are now important. Relationship skills that deliver the capacity for individuals to engage across disciplines in the socio-cultural context of organisational life now need to be emphasised. Higher levels of individual skill, flexibility and adaptability are also needed to accommodate ongoing workforce and workplace developments. Accordingly, it would seem prudent for business and government when reviewing their responses to the ageing workforce to reconsider their organisational forms, to not only embrace the concepts of complexity and organisational flexibility, but also to respond to the needs of individuals and the communal networks that connect them to their daily work.

In this endeavour, programs that emphasise networking and collaboration through professional communities of practice, weaved into the organisational hierarchy will assist. A range of measures that facilitate improved learning opportunities, workforce and workplace flexibility, include structural and procedural reform and deal with the complexities of ageing, workforce shortfalls and skill shortages, will deliver an improved capacity to deal with the dynamism of the modern era in an integrated and coordinated fashion.
To conclude this paper, forecast workforce shortages in Australia combined with ongoing low levels of educational attainment will see the competition for skilled labour increase markedly. Increasingly, success will depend upon being able to attract and retain the best and the brightest\textsuperscript{147}. Significantly, employers and society in general hold inaccurate perceptions about the capability of older workers\textsuperscript{148}.

Consequently, many older people have a wealth of knowledge and skills that are not being fully utilised\textsuperscript{149}. In turn, business and government in Australia can no longer afford to discard the most loyal, committed and experienced element of its workforce\textsuperscript{150}. Indeed, the literature suggests that premature retirement dilutes organisational diversity, narrows the leadership development pool, contributes to higher training costs, reduces organisational flexibility and interferes with the processes of learning and innovation. Accordingly, an employment strategy that recognises the value of its older workers would be a future oriented response to the forces at work in the external environment.

It follows that business and government in Australia also needs to benefit from the knowledge, skills and intelligence of all its workers\textsuperscript{151} rather than bidding them a premature goodbye. More broadly a sustaining structure and culture that supports the ongoing development of core skills\textsuperscript{152}, according to the needs of individuals and those of the organisation are indicated by the literature\textsuperscript{153}. The introduction of flexible employment policies, quality work and flexible benefits will assist in this regard. For older workers, customised working arrangements and higher levels of investment in life-long learning will help to ensure that workers’ skills remain relevant\textsuperscript{154}. In the future, focused initiatives for older workers will provide the means to retain institutional knowledge and specialised skills\textsuperscript{155}.

Organisational flexibility and new forms of management control are also needed. The literature suggests that a broad framework that supports organisational change, workforce mobility, quality of employment, the physical decline associated with ageing, formal and informal training for new skills, a willingness to experiment and a recognition of the needs of the individual, along with flexible work and benefits, will be required to succeed. Business and government also need to shift the organisational focus to work units and sub-
groups, and to expand employee roles. Training to promote networking and transdisciplinarity, to support autonomy and to provide for the fluid exchange of information, is likely to assist in this effort. Similarly, horizontal career moves, assigning individual responsibility for career management and learning, and the use of development incentives are also likely to be beneficial.  

Thus, in seeking to respond to the challenges posed by the ageing of the workforce, a transgressive reform agenda that embraces a multiplicity of approaches rather than single-issue reform proposals would appear to offer a long-term remedy.
Section Five: Summary of Recommendations

Based on the preceding analysis, it is recommended that organisations focus on three key areas as they seek to deal with the ageing population issue:

- Addressing ageism in the workplace
- Restructuring work practices to accommodate emerging population trends
- Providing training to enhance organisational skill set

Address Ageism in the Workplace

- Introduce measures to combat age discrimination.
- Train supervisors in age management strategies and age discrimination.

Restructure Work Practices to Accommodate Emerging Population Trends

- Review jobs design to improve job quality, job depth and accommodate the physical decline associated with ageing.
- Amend workforce policies to emphasise and support health, welfare and work-life balance.
- Investigate and trial options for new modes of tenure and phased retirement.
- Restructure to enhance collaboration and the fluid flow of information across the organisation.
- Use lateral promotion and position changes to broaden individual skill sets.
- Develop policy to provide individuals with the capacity and means to manage their work / life balance.
- Provide quality employment, flexible work and benefits.
- Extend spans of control and provide challenging employment.

Provide Training to Enhance Organisational Skill Set

- Adopt tailored life-long learning approaches matched to the needs of the organisation and the individual.
- Adopt mentoring circles and coaching (using older workers) for key groups and individuals.
- Provide employees with individual learning accounts.
- Introduce 'relationship' training (communication, negotiation, conflict management, collaboration and cooperation).
Endnotes

1 Centre for Strategic and International Studies (2000); Corporate Leadership Council (2002a, 2002b)
2 Access Economics (2001)
3 BIS Shrapnel (2001, p.186)
4 Access Economics (2001, p.22)
5 Sheen (2001)
6 Access Economics (2001); BIS Shrapnel (2001, p.186)
8 Corporate Leadership Council (2002a, 2002b)
9 Clarke (2002); Corporate Leadership Council (2002b)
10 Baltzell (2000); Corporate Leadership Council (2002b)
12 Cosier (2002)
14 Commonwealth of Australia (2004b)
15 Cosier (2002)
16 Australian Bureau of Statistics (2002); OECD (1998a, p.129)
17 OECD (1998a)
18 Carey (1999); McMorrow & Roeger (2000)
19 Commonwealth of Australia (2004b)
20 Office for an Ageing Australia (1999)
21 Baltzell (2000); Office for an Ageing Australia (1999)
22 Office for an Ageing Australia (1999)
23 Kelly (1997); Van Yoder (2002)
24 OECD (1998); Agarwal & De Groote (1998)
25 Docherty, Forslin & Shani (2002); Lowe (2004); Nowotny (2001)
26 Department of Industrial Relations (2001, p.20)
27 Van der Heijden (2002)
28 Van der Heijden (2002) ibid
29 Davenport & Prusak (2000)
30 Grimbeek (2003)
31 OECD (2002b)
32 OECD (2002b) ibid
33 Richard Florida (2002, p.5)
34 Baltzell (2000)
35 OECD (1998a)
36 Senate Employment (Education & Training References Committee (1995)
37 Hume (2002)
38 Docherty et al. (2002)
39 McMahan & Phillips (1999); Ilmarinen (2001)
40 Access Economics (2001)
41 Access Economics (2001); Ilmarinen (2001)
42 Ilmarinen (2001)
43 Ilmarinen (2001)
44 Office for an Ageing Australia (1999)
45 OECD (2002b)
46 OECD (2002b) ibid
47 Van der Heijden (2002)
48 Ryder (1965)
49 Ilmarinen (2001)
50 Schienstock (1999)
51 Docherty et al. (2002)
52 Ilmarinen (2001)
53 Van Yoder (2002)
54 OECD (1998)
Docherty et al. (2002); Lowe (2004); Presidency of the European Union (2001); McDermott & Snyder (2002)

Corporate Leadership Council (2000); Presidency of the European Union (2001)

Presidency of the European Union (2001)

Lowe (2001a)


Lowe (2002)

Baltzell (2000)

Hargreaves et al. (2001); Lowe (2002)

Tiwana (2000)

Quinn, Anderson & Finklestein (1996, p. 188)

Drucker (1988)

Fullan (2003)

Glaeser (2001)

Gharajedaghi (1999)

Stiglitz (1994)

Paquet (2000)

Drucker (1988, p. 16)

Allee (2003)

Drucker (2001)

Laszlo (1996); Prigogine (1997)

Gharajedaghi (1999); Paquet (2000)

Fullan (2001)

Gharajedaghi (1999)

Prigogine (1997)

Prigogine (1997) ibid

Gharajedaghi (1999)

Fullan (2001)

Fullan (2001) ibid

Gharajedaghi (1999)

Davenport & Prusak (2000)

Senate Employment, Education & Training References Committee (1995)

Laszlo (1996)

Allee (2003)

Fullan (2001)

Hasse (2003)

Van Yoder (2002)

Senate Employment, Education & Training References Committee (1995)

Senate Employment, Education & Training References Committee (1995) ibid

Corporate Leadership Council (2002b)

Wells (1998)

Wells (1998) ibid

Wells (1998) ibid

Carey (1999)

Rappaport (2001)

Corporate Leadership Council (2002b)
References


Department of Industrial Relations (2001), Queensland Public Service Workforce Management Report 2001, Division of Public Sector Industrial and Employee Relations, Department of Industrial Relations, Brisbane, Queensland.


Grimbeek, P. (2003), Survey of training, skills and professional development needs for teachers, Education Queensland, Staff College Inclusive Education, Brisbane, QLD.


Hewitt Associates (2000), Best employers to work for in Australia study 2000 - Summary of Findings, Defence Personnel Executive, Directorate of Strategic Personnel Planning and Research, Australian Defence Force, Canberra, ACT.


Krogh, G., Ichijo, K., & Nonaka, I. (2000), Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation, New York, NY, USA, Oxford University Press.


