



# Australian Workforce Futures

A National Workforce Development Strategy





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**Skills Australia** ▶ 2010

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The Hon Julia Gillard MP  
Deputy Prime Minister and Minister for Education  
Parliament House  
Canberra ACT 2600

5 March 2010

Dear Minister

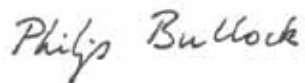
On behalf of Skills Australia, I am pleased to forward Workforce Futures — a National Workforce Development Strategy for Australia. Our vision for this strategy is that Australia has the workforce capability it requires for a productive, sustainable and inclusive future, and that Australian enterprises have the capacity to develop and use the skills of their workforce to maximum advantage for the benefit of industry and the community.

Our objectives are to sustain economic growth, avoid future skills shortages and raise productivity by increasing and deepening the skills of Australia's workforce. Critical to achieving these will be our ability to lift the rate of workforce participation for those groups of people who are not participating to their full potential, including those who are marginalised due to a lack of skills, particularly the foundation skills of language, literacy and numeracy. We also see significant scope to improve the productivity of workplaces through better engagement of employees and more effective use of their skills. We propose that the ambitions to improve productivity, participation and inclusion can be achieved through ensuring we have a tertiary education sector that has the capacity to deliver the skills and through a partnership approach across government, industry and enterprises.

The process of developing this strategy has been one of partnership and collaboration. I am extremely grateful to the many colleagues from Industry, the state training boards, the education and training sector, intermediaries and enterprises who have participated in the development of the scenarios and responded to our initial discussion papers. In total, more than 400 people attended roundtables and industry briefings conducted in each state and territory and Skills Australia received 45 written submissions. This has enabled us to gain valuable insights.

I would like to express my gratitude to the Expert Steering Group whose membership includes Dr Glen Withers, Dr Tom Karmel and Dr John Buchanan, whose guidance has proved invaluable, as well as my fellow board members at Skills Australia for their continued passion and energy throughout the entire process.

Yours sincerely



Philip Bullock  
Chair  
Skills Australia



# Executive summary

## VISION

*Australia has the workforce capability required for a productive, sustainable and inclusive future. Australian enterprises have the capacity to develop and use the skills of their workforce to maximum advantage for industry and community benefit.*

Australia's long-term growth prospects and the future nature of our society depend on the skills of our people and the way those skills are used. Our nation risks missing out on the full benefits of future global growth and the dividends from our investment in education unless we urgently commit to a new national approach to workforce development that maximises people's capabilities, lifts productivity and increases workforce participation.

Australia faces a number of pressing workforce threats and opportunities.

Some, like those associated with environmental change and new technology, are global challenges. Others, like demographic change, our economic performance and social inequality are largely national but are just as serious. To position Australia to meet these challenges requires new ways of thinking about skills and knowledge and their application in the workplace and the community.

Most immediately, as we look towards economic recovery, employers are already raising concerns about the risk that our economic growth will be constrained once again because of skill shortages. Looking further ahead, we will need to deepen our skills and lift productivity to enable us to successfully adapt to change and maintain our competitive advantage and a high standard of living, as the emerging economies in our region further advance and industrialise.

With an ageing population, labour shortages are also a risk in the future. We need to significantly increase our current rate of employment participation. Often those who fail to obtain work lack basic employability skills. It is vital that we improve core adult language, literacy and numeracy skills if we are to achieve higher participation rates. Moreover the best way to improve social inclusion is to ensure that all those who want to work can.

In addition, increased productivity is not just dependent on the availability of skills but rather on how skills in individual workplaces are actually used. Too often both employers and employees report that skills are not being used to their full potential. There is much scope for improvement by employers and employees working together with assistance from trainers and governments, to re-examine how individual workplaces can be organised to make better use of skills. In short, Australia can better prepare itself to meet its future skills needs and improve productivity by taking action to achieve the following:

### **Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages**

Australia requires a highly skilled population to maintain and improve our economic position in the face of increasing global competition, and to have the skills to adapt to the introduction of new technology and rapid change.

International and Australian research indicates we need a deeper level of skills than currently exists in the Australian labour market to lift productivity. We need a workforce in which more people have skills, but also multiple and higher level skills and qualifications. Deepening skills across all occupations is crucial to achieving long-term productivity growth. It also reflects the recent trend for jobs to become more complex and the consequent increased demand for higher level skills. This trend is projected to continue regardless of whether we



experience strong or weak economic growth in the future. Future environmental challenges will also create demand for more sustainability related skills across a range of industries and occupations.

Skills Australia considered three possible scenarios that Australia could plausibly face over the next 15 years. Based on the highest growth scenario—the one closest to Australia's current policy settings—the Australian workforce is projected to grow an average of 2.1 per cent per annum reaching 15.3 million by 2025.

Based on our projections we will have 9.3 million job openings in Australia over the next 15 years. This includes 4.8 million jobs through economic growth and 4.4 million replacement jobs arising due to workers leaving the workforce.

The modelling estimated assumes the effect of projected job openings and skills deepening on the demand for additional qualifications. In the Open Doors scenario, it is projected that around 4.6 million additional qualifications will be required over the next 15 years due to employment growth. Some 3.8 million are expected as a result of the retirement of the existing workforce and around 3.5 million are likely to be required as a result of skills deepening.<sup>1</sup>

Under the Open Doors scenario we will need an additional 2.4 million people in the workforce with qualifications at Certificate III and higher by 2015, increasing to 5.2 million by 2025, to meet projected industry demand. In the short term (to 2015) the projected supply of qualifications based on a two per cent per annum growth in enrolments was estimated to be well short of requirements. The workforce at this stage will be less skilled than is desirable and Australia will continue to depend on a targeted skilled migration program.<sup>2</sup>

Skills Australia has estimated that, to approach the quantitative expansion in qualifications required by the 2020s, enrolments in higher education and VET should expand by three per cent per annum. Public and private funding to support this will be needed.

Governments have recognised this as a critical issue. That is why the Council of Australian Governments (COAG) has agreed to targets which aim to substantially increase the proportion of working age Australians with qualifications at Certificate III and higher.

Skills Australia also recommends a new targeted approach to planning for future skills needs.

Understanding and responding to Australia's wider labour market needs and future training requirements will be supported by a common planning framework and an ongoing collaborative planning effort involving Skills Australia, the Department of Education, Employment and Workplace Relations, the states and territories, industry, and Industry Skills Councils.

As well as sharing information and providing advice, in some specific areas intervention may be needed to address emerging skills issues. We recognise that the labour market is generally quite effective in responding to changing skills needs and economic fluctuations. However, for some occupations there is potential for market failure because the labour market is less able to adjust quickly. This can lead to skills shortages or indeed the oversupply of skills. Skills Australia has established a methodology to identify these occupations and recommends that government efforts are best directed to planning for these 'specialised occupations'. This will help to insure the economy and the community against future skills shortages in areas that are of high value and where skills take a long time to develop and acquire. We propose that governments adopt the 'specialised occupations' list to identify areas where intervention is required. We further recommend that Skills Australia work in consort with industry and professional bodies to prepare skills strategies for these 'specialised occupations'.

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1 Access Economics (2009), *Economic modelling of skills demand*, report prepared for Skills Australia, adapted from Table 8.13, p.59

2 Access Economics (2009), *Economic modelling of skills demand*, [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)





Skills Australia is also aware that the economic downturn has resulted in a decline in apprentice and trainee commencements in recent times, which may result in emerging skills shortages as the Australian economy recovers. This problem has been partially addressed by the Apprentice Kickstart program and Skills Australia recommends initiatives of this type continue.

### **Lift the workforce participation rate to 69 per cent by 2025 to provide the required workforce and improve social inclusion**

Australia faces a significant participation challenge and we need to increase workforce participation to avoid future skills and labour shortages. Lifting the participation rate will also significantly mitigate the impacts of an ageing population.

Based on projections from the 2010 Intergenerational Report, Australia's participation rate will fall from its present level of 65.1 per cent to 63.9 per cent in 2025 largely because of the ageing of the population. Skills Australia recommends that governments should commit to achieving a participation target of 69 per cent by 2025 to provide the required workforce and improve social inclusion.

This target will require a bold new approach to encourage and support more people to enter, re-enter and remain in the workforce. It will need policy reform not just in the areas of workforce development, skills and education but also taxation reform, more flexible working arrangements, more affordable child care as well as other whole of government and industry measures. We recognise that a 69 per cent target is very ambitious and will not be easy to reach, but the international evidence shows that comparable countries to Australia do achieve higher rates of participation, demonstrating that it can be done.

Targeting specific groups in the community who have relatively low participation rates is critical. These include men of prime working age (25 to 64 years), women (25 to 34 years), and older workers (55 to 64 years).

During the last economic boom Australia's economic growth was constrained by a shortage of skilled labour. At the same time however more than 1.1 million people were either looking for work or wanted to work more. People who can't secure work during an economic boom are often excluded because they lack the required foundation and technical skills. And having a job is the single most important factor in achieving greater social inclusion.

Lifting the qualifications levels of the workforce will also make a major contribution to raising our participation rate, as the link between qualifications and workforce participation is clearly evident in labour market statistics. A lift in participation will also require the provision of basic core skills as well as vocational skills to those who want to work but who currently lack the necessary skills to become part of an effective labour supply. Skills deepening is also required, with more workers gaining additional skills and qualifications.

Many Australians experience multiple sources of disadvantage and will typically need a range of supporting services to successfully join the active workforce. We see great value in engaging employers in labour market and training initiatives. Skills Australia supports a stronger partnership between employers and service providers in the design of services for disadvantaged adults, through innovative place-based solutions in communities and regions.

Achieving the 69 per cent participation target will deliver significant fiscal benefits and make a substantial contribution to the nation's economic bottom line. It will also nearly halve the projected increase in the level of dependency of older Australians on those in the workforce by 2025. The consequences of not achieving the target will be an increased reliance on migration. While an effective skills migration program will continue to be critical in meeting Australia's future skills needs, we also need to ensure we build our domestic skills capacity and avoid any further marginalisation of those already most disadvantaged in the labour market.





## **Lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation**

Adult Language, Literacy and Numeracy (LLN) skills are now recognised as being fundamental to improved workforce participation, productivity and social inclusion. However the 2006 Adult Literacy and Life Skills Survey indicates that 40 per cent of employed Australians and 60 per cent of unemployed Australians have a level of literacy below the accepted standard needed to work in the emerging knowledge-based economy.<sup>3</sup> During our consultations, industry groups consistently expressed concern at the level of LLN skills in the workforce.

The evidence for the benefits of improved LLN skills is compelling.

International research finds that a one per cent increase in a country's literacy score leads to a 2.5 per cent increase in labour productivity. There is also evidence that LLN training results in reduced downtime, reduced maintenance costs, and productivity increases.

People with higher LLN skills are more likely to be employed and participate in their community, experience better health, and engage in further training. Significantly for the Australian Government's Closing the Gap agenda, international studies have shown that employment returns to indigenous people from LLN training are even higher than those for non-indigenous people.

The Australian Government runs two recognised best-practice LLN programs: the Workplace English Language and Literacy Program (WELL) and the Language, Literacy and Numeracy Program (LLNP). These programs however service a very small proportion—less than one per cent of the workforce whose LLN skills are inadequate. International comparisons show that countries such as the United Kingdom and New Zealand spend significantly more per capita in this area than Australia. There is a need to radically upscale the national effort in LLN training. We recommend an investment of \$50 million per annum to provide a 50 per cent expansion of both the WELL program and LLNP to increase the reach of these programs.

Skills Australia also recommends that the Australian Government develop and implement a national adult language, literacy and numeracy strategy to decisively lift Australia's adult language, literacy and numeracy levels. In addition to setting clear targets for LLN skill improvements, an important feature of the strategy will be to engage people by addressing the stigma that is often attached to acknowledging adult literacy problems. We also need to ensure education and training providers have the skills and networks to identify and address these core skill needs.

## **Increase productivity, employee engagement and satisfaction by making better use of skills in the workplace**

We need to transform the way enterprises use the skills of their employees so that we can make the most of the nation's human resources. This is a challenging, long-term objective that will require leadership and a concerted effort by individual enterprises.

International evidence reveals that an increased effort and government investment in education and training does not of itself deliver productivity returns.

To ensure potential productivity growth is more fully realised will require a fundamental change and new tools to equip enterprises to more effectively use the skills, expertise and talent of their existing employees.

Skills Australia's analysis has found that many employers and employees consider they are not making adequate use of existing skills. Improved productivity through the better and more strategic use of skills in the workplace benefits both individual enterprises and the entire community. It makes sense therefore that investment in workforce development programs occur simultaneously at the government, industry and enterprise level.

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3 Australian Bureau of Statistics (2008), *2006 Adult literacy and life skills survey*, Australia, Cat no. 4228.0



Improving workplace performance is primarily the responsibility of employers. The role of governments is to support and encourage employers to take the lead and tackle this issue through improvements at the enterprise and industry level.

One way to encourage the more effective use of existing skills is through stronger partnerships between education and training providers and industry. Skills Australia is aware of many excellent examples, especially where firms are innovating or restructuring, and where training providers have worked with enterprises to conduct skills audits of their staff to identify gaps. Together these providers and enterprises have considered how the work could be re-organised and jobs designed—potentially with better career paths—to make the best use of existing and future skills.

Employee satisfaction levels and engagement increases when enterprises make better use of their employees' skills and this contributes to increased productivity and higher retention rates.

The Australian Government's *Skilling Australia for the Future* policy outlined a central role for Industry Skills Councils (ISCs) to work and engage with industry. An example of this is the Enterprise Based Productivity Places Program (EBPPP) in which ISCs play a key role in linking enterprises with training opportunities. Skills Australia believes this is a step in the right direction and should be built on.

We recommend governments leverage their influence to encourage workforce development in enterprises of all sizes, with a focus on small business. Government funding should also be used to link skills development with business innovation and growth. Skills Australia recommends stronger encouragement for tertiary education sector/industry partnerships and the use of publicly funded programs like the EBPPP as leverage to engage enterprises in workforce development. We also recommend the establishment of a national program of industry clusters/networks to address the collective skills and workforce challenges faced by enterprises in an industry sub-sector or region.

While some enterprises have great internal capacity for organisational and workforce development, employees in smaller enterprises are more likely to miss out on skills development and training opportunities. Skills Australia supports an expanded and enhanced Enterprise Connect business improvement program to support small to medium enterprises.

We also propose strategies which give casual and part-time workers greater access to training opportunities through government contracts and incentives which encourage enterprise-based workforce development activities.

Some of the actions proposed can be provided within current resources though provision initially at \$40 million per annum is proposed to extend the Enterprise Connect program and to initiate a program of industry clusters and networks.

### **Position the tertiary education sector to ensure it has the capacity to deliver skills for the new economy**

All governments in Australia recognise the importance of providing more qualified people to insure against future skills shortages. This is reflected in the COAG target which aims to halve the percentage of 20 to 64 year olds with a qualification below Certificate III level.

In 2007, 52 per cent of employed people held qualifications at Certificate III or above. Skills Australia's modelling projects that under the highest future growth scenario, the economic demand for qualifications will require that 62 per cent of employed people hold qualifications at Certificate III or above by 2015, rising to almost 70 per cent in 2025. However even at these higher levels we may not reach the COAG target. If we are to achieve this growth we estimate we'll need an average annual increase in enrolments in tertiary studies in the order of three per cent per annum for at least the next ten years. This is a much faster expansion in domestic enrolments than has occurred over the last decade and



will require additional investment, higher levels of student engagement and demand, and improvements in completion rates.

The total public and private investment in higher education and VET in 2008 for domestic students was approximately \$22 billion. Based on the current funding per student we calculate that an additional \$660 million per annum needs to be added to this base figure to support the expansion in tertiary education sector enrolments outlined in this strategy. Current Commonwealth initiatives such as the Productivity Places Program, the post-Bradley Review programs in higher education, the infrastructure program and improved student assistance means that in the period to 2012 more than this amount is being added to the 2008 base figure, before contributions from the states and territories and other stakeholders. Our estimate is that this annual addition of funds must be maintained by public and private investment in real terms, at least until 2020.

Nearly full indexation of the teaching and learning costs in the higher education sector should ensure that real funds per student are maintained. However public funding per student contact hour in the vocational education and training sector has been falling in recent years. This decline in funding per student contact hour raises concerns about quality and the ability of the sector to innovate and attract an even more diverse body of learners which we will need to achieve to meet the projected requirements of industry and to progress towards the COAG targets.

Raising workforce participation and increasing the number of qualified people will require greater engagement in training and education by people from a range of backgrounds, particularly those who experience multiple disadvantage.

These include learners living in remote and regional Australia, people with disabilities, Indigenous Australians, people from culturally and linguistically diverse backgrounds, mature aged students and single parents. To support the higher cost of supporting the special skills needs of disadvantaged learners, Skills Australia recommends additional funding of \$40 million per annum and cumulating provided at minimum to 2020.

Engaging people in their mid to late careers who need to update their skills and adapt to workplace change will also be required. We recommend strategies to encourage the delivery of further education and training in more flexible and innovative ways to suit the needs and interests of employees at different stages of their working life. One way to achieve this for existing workers would be through a more flexible approach to using employer incentives to support training for those who are not apprentices or trainees. For job seekers we recommend extending the highly successful flexible outreach programs which have successfully encouraged and equipped many women to rejoin the workforce.

There are looming workforce replacement issues for the tertiary education sector, which, like several other industries, has an ageing workforce requiring a major initiative in workforce development. We recommend an investment of \$40 million per annum over the next six years to develop and implement a workforce development strategy for the tertiary education sector.

The tertiary education workforce also needs to work through more effective partnerships with industry, to deliver skills for the new economy and meet the needs of an increasingly diverse group of learners. This will ensure it has the capability and capacity to deliver education and skills in a constantly changing world.

In purely fiscal terms the investment and funding we recommend in this strategy will more than pay for itself.

Preliminary estimates based on work by the Productivity Commission suggest that our recommendations could increase employment and output by six per cent by 2025, and raise the operating balances of Australian governments by as much as \$24 billion (2005-06 dollars) each year.



## Lead a new partnership approach to workforce development at government, industry and enterprise level

A unifying theme that underpins all our recommendations is the need for a new partnership approach and a shared agenda between all of the players responsible for workforce development.

Skills Australia has defined workforce development as:

*Those policies and practices which support people to participate effectively in the workforce and to develop and apply skills in a workplace context, where learning translates into positive outcomes for enterprises, the wider community and for individuals throughout their working lives.*

Only through a genuine partnership can we support and promote change and excellence.

Adaptive capacity—that is the ability to adjust and change based on new and emerging opportunities and challenges—is the most valuable characteristic the Australian workforce needs to continue to develop.

The workforce development agenda encompasses all of the factors that encourage the development of skills and their use in Australian workplaces, and drives participation and productivity improvements.

Actions to realise this agenda go well beyond the scope of education and training institutions or any single government agency or department. This task must also be taken up by those working in business services, industry development and industrial relations across government, educational providers, industry and individual enterprises. In the spirit of this partnership approach, we recommend an investment of \$3.5 million towards a centre of excellence—a Workforce Development Observatory—to foster capability in the workplace, develop adaptive capacity, and disseminate best practice in workforce development and innovation.

A more strategic and deliberate approach to these issues is needed through a new national workforce development agreement. This would provide leadership and better coordination of the efforts already being taken through government and industry programs. We recommend that COAG, Ministerial Councils and industry peak bodies endorse a national workforce development agreement and commit to cross-jurisdictional implementation of agreed targets.

During our extensive consultations—with industry, education providers, government agencies, individual enterprises and peak bodies around the country—we found a genuine appetite and enthusiasm to engage with Skills Australia on many of the workforce development and skills issues Australia faces.

There was unanimous agreement among all of the players that tackling these issues and identifying solutions was an urgent and critical priority for Australia if we are to create a more productive, sustainable and inclusive workforce and ensure our future economic and social prosperity.



# Australian Workforce Futures Strategy: At a glance

<p><b>Vision</b></p>	<p>Australia has the workforce capability required for a productive, sustainable and inclusive future. Australian enterprises have the capacity to develop and use the skills of their workforce to maximum advantage for industry and community benefit</p>					
<p><b>Objectives</b></p>	<p><b>Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages</b></p>	<p><b>Lift the workforce participation rate to 69 per cent by 2025 to provide the required workforce and improve social inclusion</b></p>	<p><b>Lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation</b></p>	<p><b>Increase productivity, employee engagement and job satisfaction by making better use of skills in the workplace</b></p>	<p><b>Position the tertiary education sector to ensure it has the resourcing and workforce capacity to deliver skills for the new economy</b></p>	<p><b>Lead a new partnership approach to workforce development at government, industry and enterprise level</b></p>
<p><b>Actions</b></p>	<p><b>Meeting Australia's future skills and workforce demands</b>          Australian Governments to endorse skills deepening as projected in the Open Doors scenario          Implement a collaborative workforce and skills planning framework with a targeted focus on specialised occupations</p>	<p><b>Raising workforce participation</b>          Address the skill needs of groups with relatively low participation rates:          • women aged 25–34          • men aged 25–64          • older workers 55–64          Address the complex skill needs of vulnerable learners and the disadvantaged</p>	<p><b>Improving adult language, literacy and numeracy skills</b>          Develop and implement a national adult language, literacy and numeracy strategy to drive improvement          Significantly upscale successful approaches such as the Workplace English Language and Literacy Program for existing workers, and the Language, Literacy and Numeracy Program for jobseekers</p>	<p><b>Better using skills to increase productivity</b>          Use government funding to leverage workforce development at industry and enterprise level: eg          • expand the Enterprise Connect program          • develop a national program of industry cluster/networks          Encourage education sector/industry partnerships, that align training with business strategy          Introduce supplier criteria related to workforce development</p>	<p><b>Enhancing the capability of the tertiary education sector</b>          Enhance education and training provider capacity to meet future skill needs          Develop and implement a workforce development strategy for the tertiary education workforce</p>	<p><b>Creating a shared agenda on workforce futures</b>          Provide a strategic approach through a national workforce development agreement that better coordinates the efforts of governments, industry and education providers          Establish a 'Workforce Development Observatory' to foster change and build capacity</p>
<p><b>Success indicators</b></p>	<p>By 2025 three-quarters (76 per cent) will have non-school qualifications          Skill strategies developed for specialised occupations          Skills shortages or surpluses in specialised occupations diminish over time</p>	<p>Participation rate increases from 65 per cent in 2009 to 69 per cent by 2025          Lift performance of specified groups to highest comparable country          Reduce labour force under-utilisation to pre-GFC levels, and continue downward trend</p>	<p>Substantial reduction in the proportion of adults with low language, literacy and numeracy skills          National language, literacy and numeracy strategy in place by mid 2011</p>	<p>Increased participation of employees in structured education and training          Reduced performance gap between small and large firms          Improved levels of skills and qualifications use in employment          Increase in education / industry partnerships</p>	<p>Annual increase in tertiary education enrolments of 3 per cent per annum to 2025          Workforce Development Strategy for the tertiary education sector developed and implemented</p>	<p>A national agreement is implemented by 2011 providing a strategic and coordinated national approach to workforce development</p>



# Recommended actions

## *Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages*

*Recommendation one:* Australian governments to endorse a three per cent increase in Australia's education and training effort to 2025 in order to deepen the level of skills in the workforce as projected in the Open Doors scenario.

For the period up to 2012, this additional enrolment component will principally be achieved through recent Commonwealth initiatives and the funding that accompanies them.

*Recommendation two:* Skills Australia to lead a collaborative workforce and skills planning framework, featuring a new targeted approach to specialised occupations. Skills Australia will develop and maintain a list of specialised occupations based on its methodology and coordinate consortia of industry and professional bodies to prepare skill strategies on an annual basis for these occupations.

## *Lift workforce participation to 69 per cent by 2025 to provide the required workforce and improve social inclusion*

*Recommendation three:* The Council of Australian Governments to adopt a 2025 workforce participation target of 69 per cent, with specific targets to increase the workforce engagement of groups with relatively low participation rates,

- ▶ women aged 25-34
- ▶ men aged 25-64, and
- ▶ older Australians 55-64

to the level of comparable high performing Organisation for Economic Co-operation and Development (OECD) countries.

*Recommendation four:* The Australian Government to provide additional funding to address the complex skill needs of vulnerable learners and the disadvantaged in the VET sector, similar in scope to that being implemented to raise enrolments of low SES students in higher education.

## *Lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation*

*Recommendation five:* The Australian Government to develop and implement a national adult language, literacy and numeracy strategy to drive significant improvement.

*Recommendation six:* Significantly upscale successful approaches such as the Workplace English Language and Literacy Program for existing workers, and the Language, Literacy and Numeracy Program for jobseekers.

## *Increase productivity, employee engagement and job satisfaction by making better use of skills in the workplace*

*Recommendation seven:* Australian governments to use public funding to leverage workforce development at industry and enterprise level, with a special focus on small business. Strategies to include the following:





- 7.1 Establish a national program of industry clusters and/or networks to address the collective skills and workforce challenges faced by enterprises in an industry sub-sector or region.
- 7.2 Expand by 50 per cent the Enterprise Connect program to better link the development and use of skills directly with business innovation and growth.
- 7.3 Industry Skills Councils and other intermediaries to use programs like the Productivity Places Program to promote better use of skills in the workplace through a focus on workforce development.
- 7.4 The Australian Government to introduce requirements in its supply contracts for medium and large firms to meet criteria related to workforce development.

*Recommendation eight:* Australian governments to encourage greater flexibility in resources and VET provider accountabilities to encourage tertiary education sector/industry partnerships that align training with business strategy.

### *Position the tertiary education sector to ensure it has the resourcing and workforce capacity to deliver skills for the new economy*

*Recommendation nine:* Enhance tertiary education and training provider capacity to meet future skill needs.

*Recommendation ten:* Develop and implement a workforce development strategy for the tertiary education workforce.

### *Lead a new partnership approach to workforce development at government, industry and enterprise level*

*Recommendation eleven:* The Council of Australian Governments; Ministerial Councils for tertiary education, industry, workplace relations and regional development; and industry peak bodies to endorse a National Workforce Development Reform Agreement and commit to cross-jurisdictional and industry wide implementation.

*Recommendation twelve:* The Australian Government to lead a collaborative approach between government and industry to build adaptive capacity in the workforce, including the establishment of a 'Workforce Development Observatory'.

The preliminary costing of Strategy recommendations is at Appendix 1 and comes to an additional \$833.5 million in the first year of operation, of which roughly \$173 million will be new funds for new initiatives and the balance relates to funds for additional enrolments. Because we propose that funds for additional enrolments continue and be built into base funding after 2013, base tertiary education funding would increase from some \$22 billion per annum in 2008 to around \$32 billion (in constant prices) by 2025. This increase needs to be considered in the context of the \$24 billion projected additional revenue which the Strategy's implementation is expected to generate.





# Preliminary costing of recommendations—summary

Recommendations	Comment	Resourcing 2010-2012	Resourcing 2013-2025
<b>Funding for new enrolments</b>			
1. Skills deepening 3. Lifting participation 9. Enhancing provider capacity	3% annual growth in enrolments in line with Skills Australia's modelling of the Open Doors scenario	No new funding to 2012.  Funds already allocated as a result of spending on Productivity Places; post Bradley; and infrastructure programs, and improved student assistance.	After that, additional amounts based on \$660m per annum (2008 prices) cumulating to 2025.  By 2025, total tertiary education expenditure from all sources will rise to some \$32b up from \$22b in 2008 (constant prices)
<b>Funding for new initiatives</b>			
2. A new collaborative planning framework	Funds for strategy development for specialised occupations	\$1.5m per annum	On-going as per 2010-2012
4. Address the needs of vulnerable learners and the disadvantaged in the VET sector	Similar in scope to that committed by Government to raise enrolments of disadvantaged students in HE	\$40m per annum cumulating to \$80 m by 2012	Continuing as per 2010-2012 up to at least 2020 when funding per annum should be \$400 m in constant prices.
5. A national adult language, literacy and numeracy strategy	Development new national strategy	Existing DEEWR resources	Funding to be determined as part of the Strategy
6. Expansion of Workplace English Language and Literacy & Language, Literacy and Numeracy programs	50% increase in each program	\$12m per annum  \$38m per annum non-cumulating	Funding in line with national adult language, literacy and numeracy strategy recommendations



Recommendations	Comment	Resourcing 2010-2012	Resourcing 2013-2025
7. Leveraging public funding to drive workforce development	Possible redirection of existing funds eg DEEWR Workforce Innovation Program	\$15m per annum	Continuing as per 2010-2012 up to at least 2015
7.1 Industry/regional cluster program		\$25m per annum	
7.2 Expansion of Enterprise Connect		Current resources	
7.3 ISCs to promote better use of skills			
7.4 Use of government procurement		Current resources	
8. Encourage tertiary education sector/ industry partnerships	Review and revise tertiary education accountabilities to facilitate partnership work.	Current resources	On-going
10. A tertiary education workforce development strategy	Lift pedagogical expertise and skills in industry engagement	\$40m per annum non-cumulating	Continuing as per 2010-2012 up to at least 2016
11. A new partnership approach		Current resources	Ongoing
12. Establish a Workforce Development Observatory	Share national expertise on workforce development efforts and build capacity	\$3.5 per annum	Continuing as per 2010-2012 subject to industry contributions
<b>Total new funds for 2010-2011</b>		<b>\$175 m</b>	<b>To be determined</b>



# 1. Meeting Australia's future skills and workforce demands

*Australia's ability to make a powerful economic recovery and sustain longer term growth depends on a renewed effort to deepen workforce skills. This needs to be accompanied by a new collaborative approach to workforce and skills planning, with specific attention focused on specialised occupations to avoid skill shortages.*

Skills Australia considered three possible scenarios that Australia could plausibly face over the next fifteen years to 2025. The Global Scenarios developed by Shell International were adapted to investigate Australian education and skill issues.<sup>4</sup> Two of the scenarios—Open Doors and Low Trust Globalisation—assume an industry and occupational structure that is driven by a greater global openness, with Australia being more trade-exposed in the traditional sectors of mining and agriculture as well as high-end services, and with high rates of net migration. The more conservative scenario—Flags—assumes a protectionist response and a greater move to domestic self-sufficiency, and a lower rate of net migration.

Based on projections from the highest growth scenario, Open Doors, we will have 9.3 million job openings in Australia over the next 15 years. This includes 4.8 million jobs as a result of projected economic growth and 4.4 million replacement jobs arising due to workers leaving the workforce.

Australia has taken significant steps in recent years to increase education levels, strengthen its apprenticeship system and improve labour market support for the younger and older unemployed.

By 2008, 54 per cent of people in the 20 to 64 year age bracket had a post-school qualification compared to 46 per cent ten years earlier. Despite the recent economic downturn in which trade apprenticeship commencements fell, the number of trade apprentices in training remains considerably higher than in previous decades.<sup>5</sup> However, skill shortages and skills gaps have accompanied periods of economic boom and remain a risk into the future.<sup>6</sup> Increasing complexity of production means that considerable skills deepening, that is, growth in the proportion of people holding qualifications, is needed.

It should be noted that:

- ▶ there has been no increase in the number of domestic students enrolling in public vocational education and training since 2002 despite population growth<sup>7</sup>
- ▶ Australia is now 9th out of 30 OECD countries in terms of the proportion of the population aged 25 to 34 years with university qualifications, down from 7th position a decade ago.

Skills Australia's estimates for the fastest growth scenario are that on present trends and policies the supply of qualifications in 2020 could be more than 1.5 million people short of the COAG target set in 2008. The COAG aims to reduce the proportion of people without a Certificate III or higher qualification from 48 to 24 per cent of the population between 2009 and 2020.<sup>8</sup>

4 Shell's Global Scenarios to 2025 can be found at <http://www.shell.com>

5 Karmel, Tom and Misko, Josie (2009), *Apprenticeships and traineeships in the downturn*, NCVET, p.8

6 The term 'skill shortage' refers to job vacancies that result from the lack of suitable applicants, while the term 'skills gap' refers to workers with lower than required skills.

7 NCVET statistics indicate that in 2002 there were 1,662 domestic student enrolments in public VET, compared to 1,657 in 2008. See Skills Australia (2009), *Background Paper One, What does the future hold?* p.33 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)

8 The target is part of the COAG (2008), *National Skills and Workforce Development Agreement*, found at [www.coag.gov.au](http://www.coag.gov.au). Skills Australia's calculations are that the supply of people with these skills will be some 10 per cent short of the COAG target, taking into account the contribution of skilled migration.



Skills Australia therefore takes the view that government policy should aim to address this gap by increasing the supply of qualifications. Providing system capacity to achieve a higher overall volume of enrolments is a key issue, and is addressed in Section 5.

In addition, we argue for a strategic and multi-level approach to skills and workforce planning. There are certain occupational areas where the labour market is not able to adjust quickly and where the risk of shortages, or indeed over-supply, needs to be better identified and addressed. While skills and workforce planning in Australia is the responsibility of several key groups, including employers, there is a need to nominate those 'specialised occupations' that should be the focus of national planning.

If Australia fails to address these issues, we risk recurring skill shortages, continued reliance on migration rather than locally grown skills, and resource wastage as a result of mismatches between educational supply and workforce demands.

## 1.1 Modelling our future skill needs

Over the last forty years or so, Australians have experienced a major shift from a manufacturing-based to a service economy and this trend is likely to continue. By the end of 2000s, service industries accounted for some 77 per cent of GDP, and Australia had a larger proportion of its workforce engaged in services than most other OECD countries.<sup>9</sup> Computerisation and electronic communication have vastly transformed the nature of work and learning. Efforts across industry and households to reduce greenhouse gas emissions, conserve Australia's water resources and prevent and repair ecological damage will have similarly far-reaching impacts on skill demands. Within this broad frame, variations are possible and the starting point for Skills Australia was to understand how the global forces driving change might play out in the future.

The scenario modelling, undertaken by Access Economics, calculated the skill demands of each scenario: Open Doors, Low Trust Globalisation and Flags. This analysis quantified what the different trends towards increased workforce participation and skills deepening would mean in numbers for each scenario.<sup>10</sup> The key assumptions underlying the modelling of each scenario are set out in Table 1 below.

Table 1: Summary assumptions by scenario			
Variable	Open Doors %	Low Trust Globalisation %	Flags %
Global growth rate <sup>1</sup>	3.80	3.10	2.60
<b>Assumptions</b>			
Australian growth rate <sup>1</sup>	3.93	3.00	2.20
Annual net migration to Australia <sup>1</sup>	250,000 people or 1.00	200,000 people or 0.80	100,000 people or 0.40
Labour productivity growth <sup>1</sup>	1.75	1.50	1.30
<b>Implied results</b>			
Populations growth <sup>1</sup>	1.70	1.47	1.02
Employment growth <sup>1</sup>	2.15	1.48	0.89
Unemployment rate <sup>1</sup>	4.5	5.1	6.0
Participation rate <sup>2</sup>	68.8	64.2	63.1

Source: Access Economics (2009), *Economic modelling of skills demand*, p. i.

1. Average growth rate 2010-2025 (per cent per annum). 2. Level as at 2025

<sup>9</sup> ABS national accounts data provides GDP shares, while the CIA World Factbook provides cross-country comparisons. The data are reported in full at Skills Australia (2009), *Background Paper One, What does the future hold?* Pp.21-22 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au).

<sup>10</sup> A description of the scenarios, the Access Economics modelling report, and state and territory break-downs, are available from the Skills Australia website at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au).



It was deliberately assumed that the proportion of employed people with qualifications (skills deepening) continues to rise very rapidly as it has in recent years. In our view this skills deepening is essential if Australia is to remain competitive and productive. Access Economics therefore builds skills deepening into its model to account for the recent trend of job roles becoming more complex, and needing skills that correspond to higher levels of qualifications. The modelling also took into account employment growth, the retirement rates for the current workforce and a range of other factors affecting the demand for and supply of skills.

The modelling assumes that projected job openings will translate into demand for additional qualifications. Thus in the Open Doors scenario, it is projected that around 4,615,000 additional qualifications will be required over the next 15 years due to employment growth. Some 3,805,000 are expected as a result of the retirement of the existing workforce and around 3,477,000 are likely to be required as a result of skills deepening.<sup>11</sup>

### Need for qualifications in different scenarios

The modelling estimates the likely supply of qualified people as generated by the education and training system and skilled migration, and balances this against the workforce demand generated by the economy.

Table 2 shows that each of the scenarios projects a need for qualified people over the next five years (to 2015) that is greater than the 500,000 plus qualifications expected to be completed every year. However, this common pattern changes after ten years:

- ▶ in the Open Doors scenario demand for qualifications is projected to grow rapidly to 2015 and more slowly afterwards reaching around 830,000 per annum by 2025
- ▶ in the most protectionist scenario (Flags), the demand for qualifications between 2015 and 2025 is projected to fall back to the present level of 500,000 per annum.

<b>Table 2: Differences in the supply of, and demand for, qualified persons</b>			
<b>Projection</b>	<b>Open Doors</b>	<b>Low-trust globalisation</b>	<b>Flags</b>
<b>To 2015</b>			
Demand	770,000	645,000	540,000
Supply	530,000	525,000	505,000
<b>Balance</b>	<b>-240,000</b>	<b>-120,000</b>	<b>-35,000</b>
<b>To 2025</b>			
Demand	830,000	645,000	500,000
Supply	660,000	620,000	555,000
<b>Balance</b>	<b>-170,000</b>	<b>-25,000</b>	<b>+55,000</b>

Source: Access Economics (2009), *Economic modelling of skills demand*, Tables 9.1 to 9.3 (rounded figures). The figures represent the annual average number of qualifications projected in the five years prior to 2015 or 2025.

Modelling of the Open Doors scenario indicates that the number of people to hold tertiary qualifications (at any level) increases by some 5.5 million between 2008 and 2025,<sup>12</sup> at which time over three-quarters of employed people (76 per cent) will have non-school qualifications. This approaches, but does not achieve the COAG target which contemplates 76 per cent of working age Australians having a qualification at Certificate III or above by the earlier date of 2020. Skills Australia's estimates, based on our modelling, are that in 2020 Australia's demand for people with qualifications at Certificate III and above will be more than 1.5 million people short of achieving the COAG goal.

In all scenarios, the most notable demand for qualifications is in the Diploma and Degree levels. There is a move away from Certificate qualifications, even though the role of lower

<sup>11</sup> Access Economics (2009), *Economic modelling of skills demand*, adapted from Table 8.13, p.59 [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)

<sup>12</sup> Access Economics (2009), *Economic modelling of skills demand*, Table 8.1, p.53 and related intermediate year data



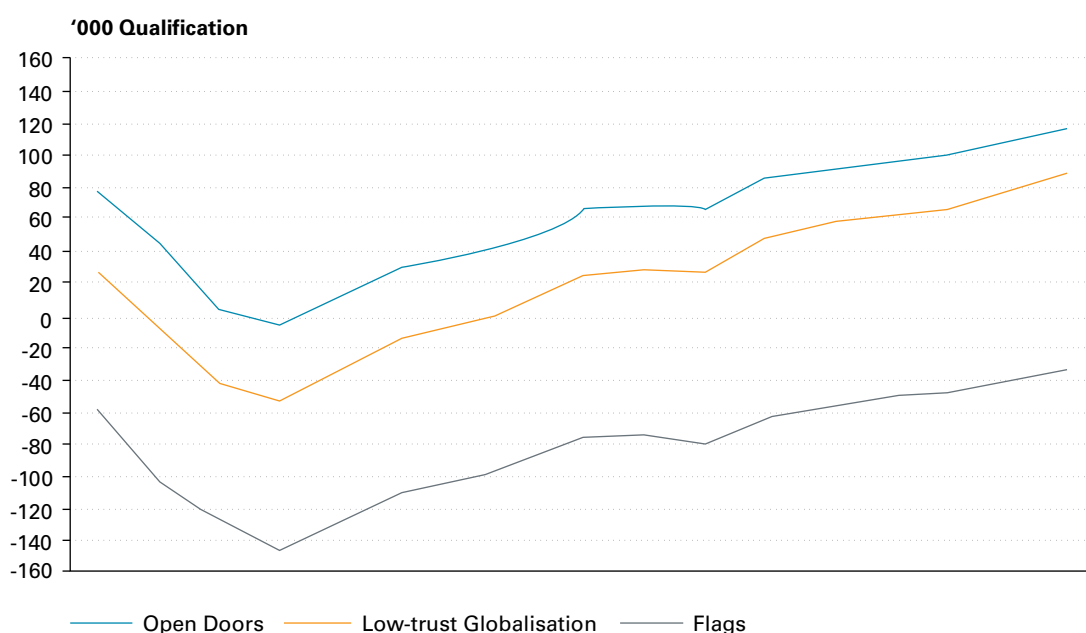
level qualifications as stepping-stones to higher ones was taken into account in the analysis. These are aggregate trends, masking considerable internal variation. For example, many Certificate III and IV qualifications, including specialised trade qualifications, will remain in strong demand as a result of the older profile of these occupational groups and the fact that many people move into other vocations.<sup>13</sup>

While there is a steady increase in the supply of qualifications there is also a shortfall in qualified persons in the medium term. For all three scenarios, the demand falls short of the supply of qualifications by 2015. But, by 2025, this shortfall is only significant for the Open Doors scenario and any retreat to protectionism (as in Flags) could even lead to an excess supply of skilled labour sometime in the next fifteen years or so.

Migration will continue to play a significant role in supplementing Australia’s training efforts and help to balance any anticipated shortfall in supply. In 2010, the qualifications contributed by net migration are expected to be around 20 per cent of the annual student completions. Under the Open Doors scenario, this contribution reduces only slightly to 18 per cent. In contrast, under the Flags scenario with much lower migration, the number of qualifications contributed by migrants will only be around six per cent.

Figure 1 shows that when migration is taken into account, there is still a deficit in the supply of qualifications in two of the scenarios (Low Trust Globalisation and Open Doors) in the period to 2015. Much of the skills gap will, however, be addressed over the longer term to 2025, except in the Open Doors scenario where a deficit of around 50,000 qualifications remains.

Figure 1: Net migration implications of the balance of projected student supply less projected labour market demand (2010–2025)



Source: Access Economics (2009), *Economic modelling of skills demand*, derived from Chart 9.2.

This failure to achieve the projected skills deepening does not necessarily imply a *skills shortage* of any particular type of workers. The possibility and extent of shortages, as discussed later in this Section, will be considered through work on separate industries and in particular on those specialised occupations where a shortage of workers is likely to cause considerable disruption to production.

13 Note that the potential for skills deepening, in the sense of more persons holding at least one qualification, is low in highly skilled occupations especially professional occupations as most workers already hold a qualification. The scope for this form of deepening is greatest in the intermediate and semi-skilled occupations where a VET qualification is usually appropriate. However, skills deepening in the sense of acquiring additional qualifications occurs across a broad range of occupations and for both VET and higher education qualifications. The greatest potential for skills deepening exists in the VET-qualified population as those with higher education degrees are less likely to pursue additional qualifications.



However, the failure to achieve economy-wide skills deepening does imply a *skills gap* in the sense that a smaller proportion of persons will hold a qualification than industry and government (as expressed by COAG) deem desirable.

This gap can be addressed by action on education and training and migration, including:

- ▶ enrolments—provision of extra places and incentives to attract more students
- ▶ the composition of the migration intake—more skilled people rather than increased migration which in Open Doors is already at a high level<sup>14</sup>
- ▶ raising educational completion rates.

The current capacity of the system and the extent to which additional enrolments are needed is discussed in Section 5. The composition of the migration intake is outside the scope of this paper, although Skills Australia emphasises the importance of skilled migration in building Australia's skills base. Completion rates will be dealt with as part of Skills Australia's forthcoming work program, but it should be noted that the completion rate of apprentices and trainees who started training in 2003 was a little under 50 per cent.<sup>15</sup> Completion rates in other vocational courses appear to be lower than for apprentices and trainees.

We also argue for changing *demand management*, in the sense that there is room to make more effective use of the skills already available in our workplaces and our workforce more generally. Later sections of the Strategy address this issue.

In summary, the liberal, open economy scenario of Open Doors is probably the closest to Australia's current policy settings and recent economic, demographic, migration and labour force parameters. It would be prudent to plan for this scenario. Under it, there is a significant unmet demand for qualifications which, if not addressed, is likely to threaten long-term economic growth.

## 1.2 Where to direct planning efforts?

We have argued that enlarging Australia's skills base is a crucial part of the solution to skill shortages in the medium and long term. Improving skills and workforce planning is a complementary strategy, and the new approach we advocate can be implemented immediately.

There are compelling reasons for governments to undertake planning. Interpreting likely social and economic trends and influences is essential for informed public investment. But understanding what we can not plan for is equally important. The dimensions of change and likely directions in industry and occupations are foreseeable—yet extremely difficult to predict with accuracy.

Labour markets are complex and subject to forces outside the ambit of skills planning. Macro-economic conditions, export policies of trading partners, technological and communication advances, enterprise innovations and domestic social policy all have implications for the way jobs may surge or decline in particular industries.

Moreover, the life span of some qualifications is short. People continue to learn in the workplace and job roles continually evolve. Many skilled workers, including tradespeople and managers, lack formal qualifications but have built up expertise through experience. The following contemporary labour market facts need to be taken into account:

- ▶ *People change jobs frequently*: 45 per cent of the workforce changes their employer within a three-year period, and many people change not just their employer but also their industry and occupation.<sup>16</sup>

14 The Open Doors scenario assumes that net migration (ie the difference between people coming to and leaving Australia) will be some 250,000 per year in the short-term, rising as the population increases. In the past, new overseas migration has exceeded natural increase on only a few occasions. The most recent peak was in 2006-07, when new overseas migration reached some 233,000. See ABS (2009), *Migration, Australia*, Cat no. 3412.0, p.11.

15 Skills Australia (2009), *Background Paper One, What does the future hold?* p.37 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)

16 Australian Bureau of Statistics (2008), *Labour mobility*, Cat no. 6209.0, Table 1. Figures are for 2008, but have not changed significantly in recent years and were higher in the 1990s





- ▶ *Job destinations are varied:* The job destinations people arrive at following training are often quite different to the jobs for which they initially trained. Averaging the years 2007 to 2009, NCVER analysis indicated that just 41 per cent of VET students ended up working in the job for which they had trained.<sup>17</sup>
- ▶ *Employer requirements change:* Labour market conditions—such as abundance or shortage of potential recruits—lead employers to adapt their requirements for workers, varying the quality of those they are prepared to employ, and increasing their tolerance for people learning on the job.
- ▶ *Non-accredited and informal learning can supplement or substitute for formal education:* Skills are often learned on the job, through experience and unaccredited structured training, rather than by formal study for a qualification. In 2008, 38 per cent of technicians and tradespeople in Australia had no qualification or a Certificate I/II level qualification only.<sup>18</sup>
- ▶ *Decentralised engagement can be the most effective way to ‘plan’:* New skill demands may flow from the changing skill composition of existing occupations, resulting from new technology, services or products, rather than from industry or occupational growth and decline. Such demands will vary from firm to firm, depending on their innovation intensity and business strategy. The responsiveness of education providers to changing industry needs, and on-going dialogue between education and industry may therefore be more important than centralised planning efforts.

The unpredictable effects of climate change adaptation and mitigation requirements are a further example of an emerging future with significant ramifications for all industries and jobs. Similar uncertainty accompanies technological change including the roll out of the broadband network. While broad industry effects can be projected, the occupational impacts are more uncertain as are the changing skill requirements within occupations.

*Rather than attempting to forecast, with all the attendant errors in over- or underestimating the true outcomes, it is preferable to have effective systems for rapidly identifying emerging trends and for responding to them.<sup>19</sup>*

For these reasons, the idea of matching education and training to the labour market is unrealistic if it is conceived as a mechanical process of identifying skill needs and then filling them.

Skills Australia’s advice, supported in consultations, is for a common planning framework and an ongoing collaborative planning effort involving Skills Australia; the Department of Education, Employment and Workplace Relations; the states and territories; industry; education providers;<sup>20</sup> and Industry Skills Councils.

This entails (i) support for the current shared and multi-layered approach to planning, and ensuring employers and providers have timely access to the information they need for this purpose; and (ii) concentrating planning efforts where there is significant risk to the economy, and to communities, of certain skills not being available, or where potential exists for market failure because of under or over supply. A methodology for this is outlined in detail below. First, we note the current and, we argue, unavoidable complexity of skills and workforce planning in Australia.

17 NCVER (2009), *Student outcomes survey, 2007-2009* aggregated, unpublished data obtained by Skills Australia. The percentage of job match depends on how detailed a definition of the job classification is considered. At the broadest level of the ANZSCO classification, that is the major group such as ‘Manager’ or ‘Technicians and trades worker’, the match is higher at 53 per cent. At the sub-major group level of, for example, ‘Hospitality, retail and service manager’ or ‘Foods trades worker’, the match is 41 per cent. At the ANZSCO unit group level such as ‘Hotel or motel manager’ or ‘cook’ the match is 26 per cent (though it varies considerably and is higher in general for trades occupations).

18 Australian Bureau of Statistics (2008), *Education and work, Australia 2008*, Cat no. 6227.0, Table 12

19 Richardson, Sue and Tan, Yan (2007), *Forecasting future demands: what we can and cannot know*, NCVER, p.10

20 The term ‘industry’ includes employers, employees, and their representative associations and covers the private, public and not-for-profit sectors. ‘Education providers’ includes tertiary education public and private organisations—universities, TAFE colleges and other Registered Training Organisations, and their representative associations.



## Skills and workforce planning as a multi-level activity

We recognise that skills and workforce planning in Australia is a shared enterprise between a range of players that takes place at different sites and in different contexts around Australia.

Clearly, industry has primary responsibility for planning for specific workforces, both within individual businesses, and collectively, through associations and peak bodies. Governments and industry also draw on the intelligence gathered by Industry Skills Councils and by the state industry training advisory bodies. The Councils utilise varying methodologies, but share the ability to gather direct input to industry and to scan recent and emerging trends. Governments take a prominent role in planning for tertiary education provision. Australian Government funding agreements affect the size and direction of state activities. States and territories however undertake varied approaches to the fine-grained planning of educational provision, to cater for particular regional influences and the demographic suitability of services.

Complementing the industry-level work undertaken nationally, all states and territories develop skills plans and strategies using detailed labour market information. In most cases this involves projections of employment by industry and occupation and the likely qualification structure of future employment.<sup>21</sup> This work often draws on the regular national occupational, industry and labour market profiling undertaken by the Australian Government (DEEWR) and available through the SkillsInfo website.<sup>22</sup>

A detailed local forecasting role is undertaken by educational organisations, who are interested in determining likely demand for possible courses. Qualitative information gleaned from research and client consultation is frequently used in addition to economic data.

Finally, the role of labour markets in coordinating employers, employees and shaping student behaviour is critical. Individuals, employers, educational providers, recruitment firms, professional associations, migration agents and a host of other institutions make daily choices, reacting to opportunities opened up or closed off by governments, and mediated through labour markets.

## A common planning framework

Recent intergovernmental agreements in COAG have brought greater policy and planning consistency across states, notably on qualifications targets and for participation by Indigenous Australians and young people.

Consultations recognised the value of a common national planning framework and base level information to assist in the deliberations of jurisdictions, individuals and organisations.<sup>23</sup> However there was resistance to the idea of a common, or single, national planning methodology. Arguments were presented for finely grained analyses that take into account local conditions and opportunities not captured through periodic, broad level planning. The distinction between a national approach and centralised control was often made, and there were calls for greater role clarity to avoid duplication.

*At the national level a successful strategy needs to identify the priorities that are worth pursuing. It needs to allow flexibility at the local level and has to be 'loose at the top'.*

21 Key state and territory documents include: Training WA Planning for the future 2009-2018; Queensland Skills Plan 2008; SA Skills for Jobs: the Training and Skills Commission's five year plan for skills and workforce development 2009; Skills—Creating our future, The Tasmanian skills strategy 2008-15; ACT Skills Future, Key initiatives in a long-term strategy to address the skills challenge 2008; Planning for the future 2009-2018 Securing jobs for your future skills for Victoria 2008; Job Plan 3, Jobs for the Future 2007-08, NT Department of Education and Training; Delivering skills for NSW, Strategic plan for vocational education and training 2008-2010.

22 SkillsInfo contains up-to-date skills-related information, including detailed occupational and industry data, broken down regionally and linked to job vacancies and training requirements [www.skillsinfo.gov.au](http://www.skillsinfo.gov.au).

23 The Workforce Futures strategy is based on a wide-ranging consultation process that Skills Australia undertook during 2009. Appendix 2 describes the consultation process. The Issues papers, formal submissions and other consultation material can be found on the Skills Australia website at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au).



*Each of the players in the workforce development arena need to have agreed roles, purpose and scope (not necessarily 'exclusive' roles). The value will be achieved through interconnections and 'cross-fertilisation'. (Tasmanian consultation session)*

Stakeholders accepted that the labour market operates effectively in satisfying the need for most skills. Consultations indicated that funding strategies to support workforce development could fit well with the student demand driven model being introduced in the higher education sector and in some states and territories in the VET sector. But caution was also expressed, with the suggestion that government interventions may be needed to ensure Australia's overall skills needs are met within a demand-driven approach.

*Targeted government intervention was seen as critical in thin markets, regional and remote areas, or occupations with small numbers of employees as these do not respond to demand driven models in the same way as the broader market. (Minerals Council of Australia submission)*

In all, consideration of planning for future skills suggests the need for a four-pronged approach with each prong the province of different sectors and organisations:

1. Monitor broad demand and supply trends—public authorities including DEEWR, Skills Australia and research bodies
2. Undertake local forecasting, investigating and reporting—education sector, state governments and regional bodies
3. Disseminate information and the know-how to use it—Skills Australia, DEEWR, state governments
4. Identify specialised occupation groups and develop responses according to findings—Skills Australia and all levels of government.

### **A focus on specialised occupations**

As noted earlier, many of the factors influencing the demand and supply for people with specific skills are not subject to educational planning or control and are coordinated through labour markets.

Skills Australia in its review of research found that for most occupations there is no clear link with any specific qualifications and also that many workers are highly mobile. As a consequence, the existing labour market mechanisms and demand monitoring by education providers work adequately for meeting the skill needs for these occupations.

However, there are a significant number of jobs that cannot be left to market mechanisms alone. These occupations include ones where:

- ▶ the preparation time for development is long and it is therefore difficult for employer demand to quickly translate into workers with the requisite skills
- ▶ there is a strong connection between the education or training undertaken and the destination occupation (so that government intervention has a reasonable likelihood of being effective)
- ▶ the jobs are central to the achievement of other national economic and social priorities, or cause significant supply bottlenecks.

Skills Australia has developed and tested a set of criteria to determine where planning attention is best targeted. Stakeholders were overall in favour of an approach that targets specialised occupation groups where government intervention is most appropriate and potentially effective.

*A risk-based approach is eminently sensible. The criteria identified are reasonable; the approach increases the likelihood that the system gets it right where it counts. (Western Australian consultation session)*



During the consultation process, the Department of Immigration and Citizenship conducted a retrospective analysis of 2008 visa grantees to compare the employment outcomes for migrants in occupations that were present or absent from Skills Australia's specialised occupations list. The analysis showed superior outcomes soon after arrival in terms of gaining relevant employment and pay levels for migrants in occupations on the specialised occupations list.

Feedback from stakeholders led to further refinements of the methodology for identifying specialised occupations, and some commented on the need to also consider occupations that operate as supports to them, or from which specialised occupations draw in times of skill shortages. In addition, more work is needed for those industries where the ABS ANZSCO classifications are not felt to adequately capture at risk occupations.

We define a specialised occupation as follows:

*A specialised occupation is one where specialised skills, learned in formal education and training, are needed at entry level and the impact of market failure is potentially significant.*

The methodology is based on identifying those occupations that have at least two of the following three characteristics:

- ▶ long lead time—skills are highly specialised and require extended learning and preparation time over several years and/or
- ▶ high use—skills are deployed for the uses intended (i.e. good occupational 'fit') and/or
- ▶ high risk—the disruption caused by the skills being in short supply is great, resulting either in bottlenecks in supply chains or imposing significant economic or community costs because an organisation cannot operate.

In addition, the occupation must fit the following criterion:

- ▶ high information—the quality of information about the occupation is adequate to the task of assessing future demand and evaluating the first three criteria.

Twenty-seven occupational clusters are identified as 'specialised' comprising some 92 occupations at the ANZSCO unit group level made up of managerial, professional and intermediate (including trade) level jobs. This amounts to just over 25 per cent of all occupations at the unit group level and 22 per cent of total employed people in 2006. A range of actions to analyse the demand and supply of skills for these occupations is proposed, to identify possible shortages or surpluses and where government interventions are needed, if at all. The new Skilled Occupation List to be used in the General Skilled Migration Program will be based on these specialised occupations but may well differ in the occupations included.

Skills strategies for specialised occupations would include:

- ▶ indications to governments where skill supply is adequate and inadequate
- ▶ identification of the range of interventions that are needed in addition to what is happening currently
- ▶ ensuring the connections between industries and education providers are operating to maximise return on public investment.

These specialised occupation skill strategies will help future-proof Australia from the damaging skill gaps and shortages that tend to re-emerge when economic growth accelerates. In other occupational areas, regional and local imbalances are to some extent inevitable, and reflect the working of labour markets as individuals and employers adjust to changing economic and social pressures. However, the overall growth in tertiary education and workforce capacity proposed in this Strategy, coupled with the existing monitoring and forecasting activities should provide a suitable means to influence labour markets in non-specialised areas.



Appendix 3 lists the specialised occupations identified using the new methodology and describes the criteria and data sources.

## Industry and occupational outlooks

Much of the discussion in this Section has dwelt on large-scale trends occurring across the economy or over time. The range of different growth rates and job outcomes across industries and occupations was also a focus of the scenario development and modelling work.

The industries and occupations shown below in Table 3 are projected to have the highest rate of employment growth across all three scenarios to 2025.

<b>Table 3: High growth industries and occupations, all scenarios, average to 2025</b>			
Industry	% growth p.a.	Occupation	% growth p.a.
Storage	6.5	Welfare associate professionals	2.8
Community services	4.0	Carers and aides	2.6
Services to finance and insurance	3.7	University and vocational teachers	2.3
Water transport	3.0	Computing professionals	2.0
Scientific research, technical and computer services	2.7	Process workers and elementary clerks	1.9

Source: Access Economics (2009) Economic modelling of skills demand, Tables D1 and D2. Note: ASCO occupational classifications are used in the report.

In addition to employment growth trends, modelling of total job openings in the Open Doors scenario was undertaken for occupations. These are calculated on the basis of an estimate of the net replacement of workers who leave the occupation and whose exit therefore generates a training need. This replacement requirement is particularly significant in industries like manufacturing where the workforce has a high average age, even if the industry is not expanding. For example, in the Open Doors scenario between 2010 and 2015:

- ▶ 41 per cent of the additional qualification demand is due to employment growth
- ▶ 30 per cent is due to replacement demand
- ▶ 29 per cent is due to skills deepening.

Over time, as employment growth moderates, then retirement and skills deepening account for larger shares of overall qualifications demand. Over the five years to 2025:

- ▶ 37 per cent of additional qualification demand is due to employment growth
- ▶ 33 per cent is due to replacement demand
- ▶ skills deepening has increased slightly to 30 per cent.<sup>24</sup>

The modelling found that professionals and community and personal service workers would be the two groups expected to grow most strongly whichever scenario eventuates in the period to 2025. If we consider total job openings, around 18 per cent will be in professional occupations but sales and clerical and administrative occupations also account for a high share of the total at 17 and 14 per cent respectively.

However there is considerable divergence in the patterns of projections and local, state and regional trends will vary markedly from the national picture.

Data on all major industry and occupational groupings will be provided in an accompanying document, *Australian Industry and Occupation Snapshots*. In these snapshots, both projected new job growth and total job openings, including net replacement demand, are shown.

<sup>24</sup> Access Economics (2009), *Economic modelling of skills in demand*, p.58



## 1.3 Recommended actions

### Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages

*Recommendation one:* Australian governments to endorse a substantial increase in Australia's education and training effort to 2025 in order to deepen the level of skills in the workforce as projected in the Open Doors scenario.

Funding requirements to support this are outlined in Recommendation nine.

*Recommendation two:* Skills Australia to lead a collaborative workforce and skills planning framework, featuring a new targeted approach to specialised occupations. Skills Australia will develop and maintain a list of specialised occupations based on its methodology and coordinate consortia of industry and professional bodies to prepare annual skill strategies for these occupations.

**Funding:** Current resources of Skills Australia will be used for the development of a coordinated planning framework, with additional annual funding of \$1.5 million each year (non-cumulating) required for the development of specialised skills strategies. This will be allocated on the basis of an estimated \$100,000 for each skill strategy and assumes 15 specialised occupational groups will be covered each year.

Skills Australia's proposed work program will involve:

- ▶ triennial scenario development and modelling of national and state level long term skill demand and supply trends
- ▶ preparation of industry snapshots indicating anticipated growth in total employment and job openings, occupational trends and forecasts, examples of workforce development initiatives or other interventions in the industry or among occupations
- ▶ monitoring and evaluation of the implementation of the Workforce Futures Strategy and preparation in 2011 of a revised Strategy.

Skills strategies for specialised occupations would entail:

- ▶ indications to governments where skill supply is adequate and inadequate
- ▶ identification of the range of interventions that are needed in addition to what is happening currently
- ▶ ensuring the connections between industries and education providers are operating to maximise return on public investment
- ▶ identification of how to enable the key parties, especially employers, workers and local communities to contribute to the development of a sustainable occupational workforce across Australia.

Related actions would include:

- ▶ preparation of an annual outlook report to Government on specialised occupations
- ▶ alignment of planning for skilled migration with the specialised occupation list
- ▶ consultation with industry over areas where alternatives to the ABS ANZSCO classification are needed to adequately identify at-risk jobs.







## 2. Raising workforce participation

*Australia faces a significant workforce participation challenge. We need to increase the aggregate participation rate to avoid future skills and labour shortages. This will also significantly mitigate the impacts of an ageing population.*

*Our focus needs to be on specific groups which have relatively low participation rates, but at the same time we must continue to make efforts to increase the participation of Australians who have traditionally faced educational, social and locational barriers, which have prevented their active and effective engagement in the workforce.*

### 2.1 Why set an ambitious target?

Australia's economic and social prosperity over the coming decades depends on us lifting our workforce participation rate, particularly in the context of our ageing population. While our labour force participation rate has been slowly increasing, and is currently relatively high at around 65 per cent,<sup>25</sup> Skills Australia believes there is significant room for improvement.

The international evidence shows that comparable countries achieve higher rates of participation, particularly among certain demographic groups, demonstrating that it can be done.

Raising the participation rate by four per cent over the next 15 years is a challenging and ambitious target. It will require a bold new approach which encourages and supports more people to enter, re-enter and remain in the workforce, particularly those who face educational, social and locational barriers. Achieving this target is absolutely critical if we are to lift Australia's productivity and avoid or minimise skills and labour shortages.

Increased workforce participation is also important in order to deliver on the aspiration expressed in the Australian Government's recently released social inclusion strategy, *A Stronger, Fairer Australia*, of a society 'in which all individuals, families and communities have the capabilities, opportunities, responsibilities and resources they need to participate successfully.'<sup>26</sup>

Stimulating the participation of those who are on the margins of the workforce is a critical priority. The unacceptably low levels of language, literacy and numeracy among many adults, discussed in greater detail in Section 3, means that many Australians lack the literacy and numeracy proficiency to deal with day to day situations, let alone enjoy the full participation in work and the ongoing adaptability required to deal with changing workplaces, technology, sustainability and new careers.

Australia has achieved small increases in workforce participation since the first Intergenerational Report (IGR) in 2002 drew attention to the potential impact of an ageing population on our future workforce participation rate.<sup>27</sup> Despite this improvement, Skills Australia argues that the slow upward trend in participation experienced in recent years urgently needs to be accelerated.

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25 Australian Bureau of Statistics (2009), *Labour Force, Australia* Cat no. 6202.0

26 Department of Prime Minister and Cabinet (2009), *A Stronger, Fairer Australia* [www.socialinclusion.gov.au/Resources/Documents/ReportAStrongerFairerAustralia.pdf](http://www.socialinclusion.gov.au/Resources/Documents/ReportAStrongerFairerAustralia.pdf)

27 Department of Treasury (2002), *Intergenerational Report 2002-03*



The 2010 Intergenerational Report<sup>28</sup> offers even more evidence of a demographic time bomb, which will see the number of people in Australia aged from 65 to 84 more than double over the next 40 years and the number of people 85 years and older more than quadruple.

Based on the 2010 IGR projections, it's expected that the proportion of people over 65 will rise from its present share of 16.7 per cent of the total population aged 15 and over to more than 20 per cent by 2025. Largely as a result of our ageing population, the aggregate workforce participation rate is projected to fall from its present level of 65.1 per cent to 63.9 per cent in 2025.

Our aged-dependency ratio (the number of people of working age as a ratio of the number of Australians aged 65 and over) is also projected to decline in the years ahead.

Currently there are 4.11 workers for every dependent older person over 65. Without appropriate and timely action, by 2025 this number will fall to just 3.04.<sup>29</sup>

We estimate that by achieving a 69 per cent participation rate by 2025, we will nearly halve the projected increase in the level of dependency of older Australians on those in the workforce.

Scenario work on Australia's future workforce skill needs, undertaken for Skills Australia by Access Economics in 2009, models that under the liberal, open economy of the Open Doors scenario, the workforce participation rate will rise to 69 per cent.<sup>30</sup> This figure was reached taking into account past trends and the participation rates of comparable countries. Skills Australia argues this is a highly desirable target because of the benefits for both individual well-being and the Australian society and economy as a whole.

**Table 4: Open Doors scenario projected increase in labour force participation**

Open Doors scenario	June 2009	June 2015	June 2020	June 2025
Labour force participation rate %	64.5	67.7	68.3	68.8
Workforce (employed and unemployed) millions	11.3	13.3	14.6	16.0

We also believe it is an achievable target, given the experience of other comparable countries, and the right policy settings, the necessary resources and the commitment of all stakeholders. The significantly higher labour force participation rates for people with post-school qualifications, regardless of their age, suggests a high participation rate is possible if policies are directed to achieve the recommended increase in post-school qualifications. Chart 2.9 in the Access Economics report demonstrates this convincingly.<sup>31</sup>

## 2.2 Participation rates—we can do better

While the labour force participation rate in Australia grew from 61 to 65 per cent from 1986 to 2006, since then it has remained at around that level.<sup>32</sup> This relatively stable picture however masks contrasting patterns in different parts of the country, and in the participation of men, women, and people of different age and social groups.

### Australia lags behind other high performing countries

The evidence is clear. While the Australian workforce participation rate overall compares favourably to the OECD average, we significantly lag behind that of other high performing countries—including countries with comparable labour forces to our own.

Using OECD comparisons, in 2008 our participation rate was lower than that of New Zealand, Canada and the United States for example.

28 Department of Treasury (2010), *2010 Intergenerational Report*

29 Projections based on the 2010 Intergenerational Report.

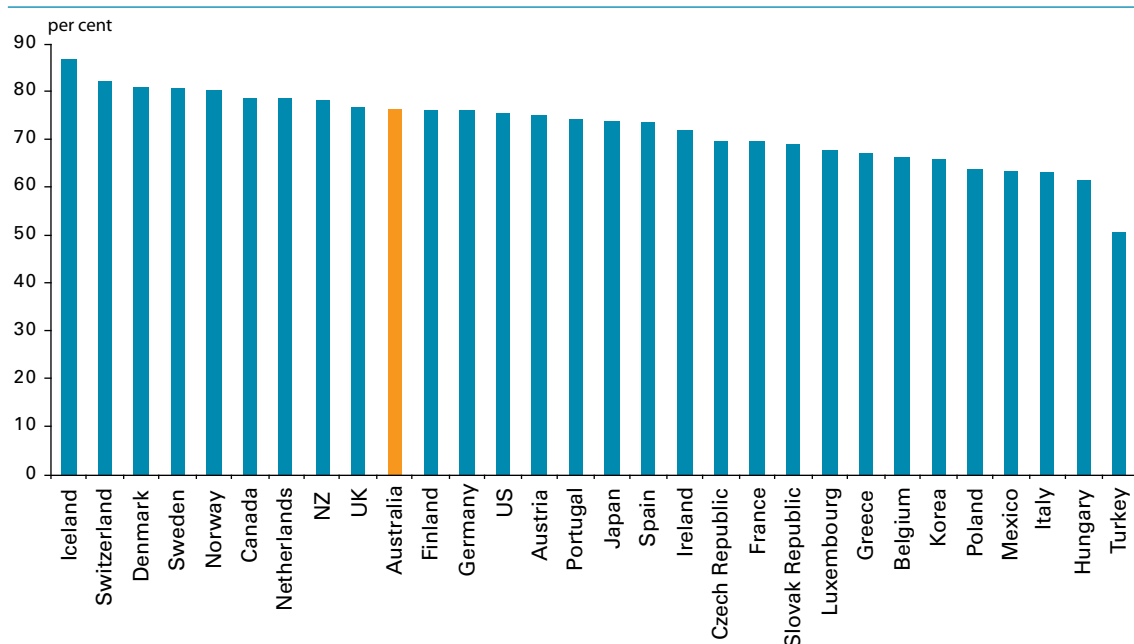
30 See Access Economics (2009), *Economic modelling of skills demand*, pp 9 to 10

31 Ibid, p.11

32 Australian Bureau of Statistics (2009), *A picture of the nation: the Statistician's report on the 2006 Census*, Cat no. 2070.0, p.138



Figure 2: OECD participation rates 2008, people aged 15 and over



Source: OECD (February 2010) Online OECD employment data base

Although Australia is one of the world’s most urbanised countries, with over 85 per cent of people living in urban areas and concentrated in seven capital cities, there is profound regional diversity. Some fifteen percentage points separate states and territories with the lowest and highest participation rates.

**Table 5: Labour force participation rates in Australian States and Territories, May 2009**

TAS	SA	NSW	VIC	QLD	WA	ACT	NT	Australia
61%	64%	64%	65%	68%	70%	72%	76%	65.5

Source: Labour force, Australia, May 2009, ABS Cat no. 6202.  
Population: Civilian population aged 15 years and over.

In addition, the five-yearly censuses show that regional workforce participation rates change markedly over time. In 1986 many of the areas with high participation rates were in or near the ACT, due to expanding public administration. By 2006, four of the top five high participation areas were located in rural Western Australia, reflecting growth in mining and related industries. De Grey, near Port Hedland, and Lakes, near Perth, had participation rates of near or over 80 per cent, while in Lismore on the NSW North Coast, the rate was just 57 per cent.<sup>33</sup> The ABS projects that participation rates in regional coastal areas will continue to fall as these areas attract retirees.

Australia’s large cities also combine suburbs of wealth and privilege with areas where people experience multiple disadvantage. A study based on 15 indicators of disadvantage finds people clustered in both high and low disadvantage suburbs in most Australian capital cities.<sup>34</sup> In these localities, low access to job opportunities intersect with high rates of poor health and imprisonment, lack of informal work and business networks, high rates of single parent families and so on, creating what Vinson describes as ‘webs of disadvantage’.<sup>35</sup>

Australia also has a relatively low participation rate for several significant population groups.

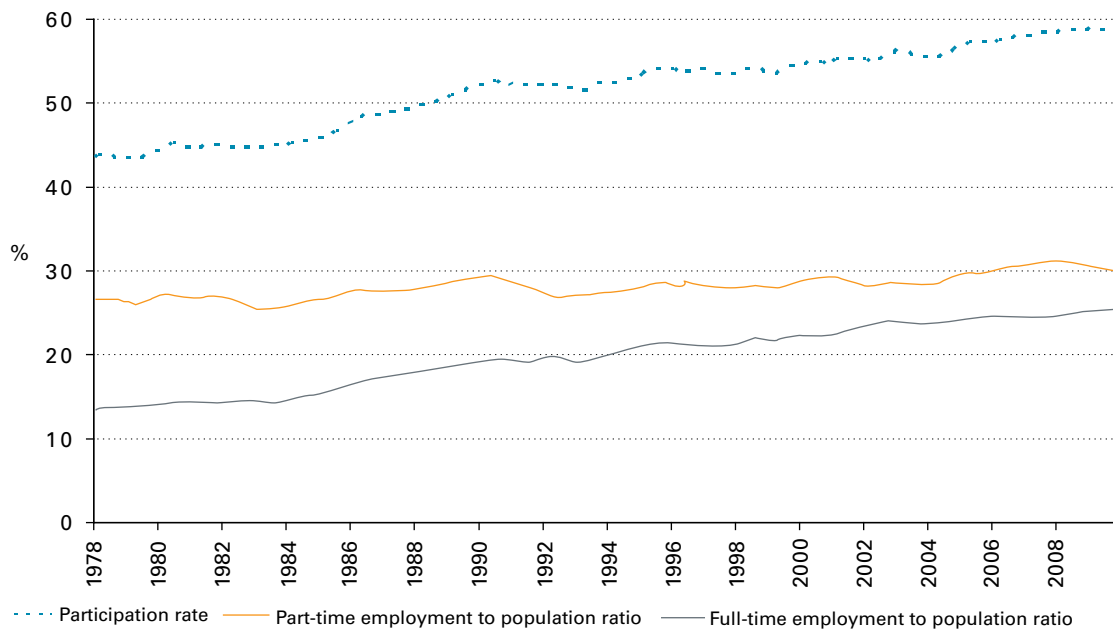
Women’s overall labour force participation rate has grown from just under 44 per cent in February 1978 to nearly 60 per cent in December 2009, while men’s participation rate over the same period fell seven per cent to 72 per cent.

33 Australian Bureau of Statistics (2009), *A picture of the nation: the Statistician’s report on the 2006 Census*, Cat no. 2070.0, p.139 and ABS 2006 census tables

34 Baum, Scott (2008) ‘Making space for social inclusion’ in *People and Place*, Vol 16, no. 4, p.32

35 Vinson, Tony (2009), *Markedly socially disadvantaged localities in Australia: their nature and possible remediation*, Commonwealth of Australia, January 2009

Figure 3: Female labour force participation and employment, February 1978 to December 2009



Source: Labour force, Australia, December 2009, ABS Cat no. 6202.0. Trend series.  
Population: Female civilian population aged 15 years and over.

Female participation remains below that of men, with women overrepresented in casual, part-time and low-skilled jobs.

Currently nearly as many women work part-time as full-time, with 46 per cent of employed women working part-time in December 2009, compared to 17 per cent of employed men.<sup>36</sup>

This means that for many women, their connection to the labour force can be marginal and renders them vulnerable to economic change.

Using OECD data comparisons, the participation rate of Australian women (25 to 34 years) was 74 per cent. This was the 10<sup>th</sup> lowest of OECD countries. The highest performing country was Portugal (87 per cent). Canada's participation rate was 81 per cent.<sup>37</sup>

The employment to population ratios for Australian men in the prime working age group, 35 to 54 years, fell from 91 per cent in 1978 to 85 per cent in 2003, and continues to be relatively low at 87 per cent in 2009.<sup>38</sup>

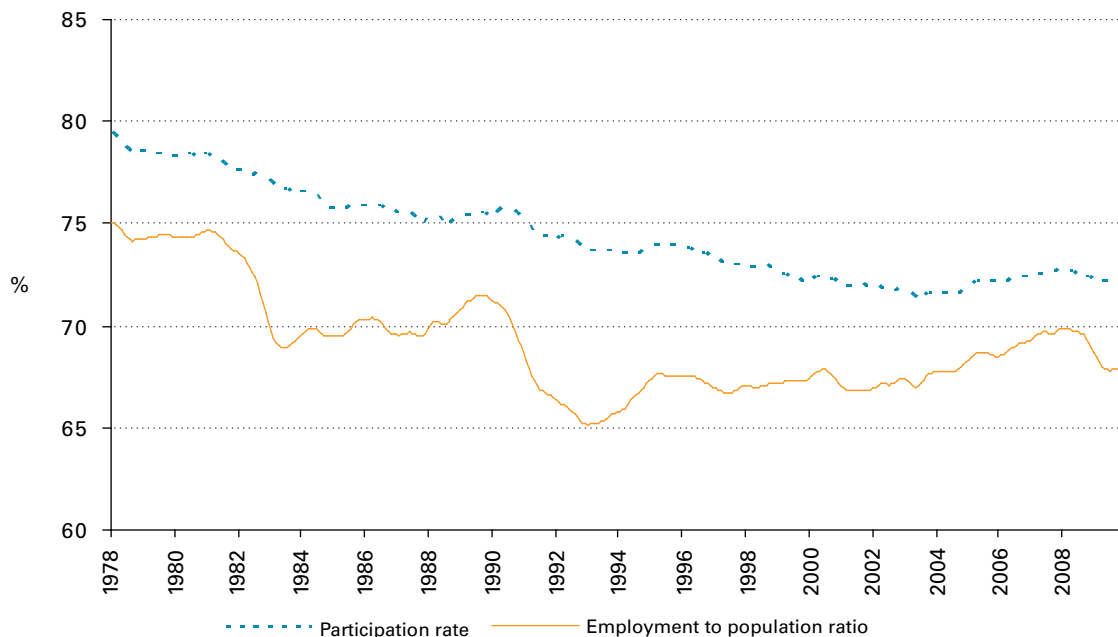
36 Australian Bureau of Statistics (2009), *Labour force, Australia* Cat no. 6202.0. Trend series

37 OECD (December 2009), Online OECD employment data base. The variation of over 10 points between the ABS and the OECD workforce participation rate can be accounted for by the different parameters used between the data sources. The ABS bases their workforce participation rate on the population aged 15 years and over, whilst the OECD bases their workforce participation rate on the population aged 15 to 64. This difference in age groupings would be sufficient to cause such a variation in the workforce participation rates. (The OECD also takes the defence population into account where the ABS excludes them. However, this alone is not significant enough to account for the gap in rates).

38 All data in this section is from ABS, *Labour force, Australia*, Cat no. 6202.0, Trend series



Figure 4: Male labour force participation and employment, February 1978 to December 2009



Source: Labour force, Australia, December 2009, ABS Cat no. 6202.0. Trend series.  
Population: Male civilian population aged 15 years and over.

The changing occupational composition of the workforce appears to be the cause of the decline in male participation. Over the last several decades Australia has experienced substantial growth in skilled professional and managerial jobs but there has been a fall in the number of 'blue-collar' jobs, typically filled by men, over the same period.<sup>39</sup>

International comparisons based on OECD 2008 data<sup>40</sup> and other sources indicate that:

- ▶ The Australian male labour force participation (for those in the prime working age range of 25 to 64 years) was 86 per cent—little changed since 2000. The Australian rate of male workforce participation is below the OECD average, and is 10th lowest. The highest performing country was Iceland (94 per cent). New Zealand's participation rate was 89 per cent. Like many other industrialised countries where blue collar jobs have declined over recent decades, Australia has experienced a significant reduction in mature male participation—down from 96 per cent for the 35 to 59 age group in the 1970s to 89 per cent in December 2009.<sup>41</sup> The fall in prime age male participation since 1970 is almost entirely accounted for by the fall in participation by those who left school early and have no further qualifications.<sup>42</sup>
- ▶ The participation rate of older Australians (55 to 64 years) has increased by 11 percentage points since 2000 to 59 per cent. While now above the OECD average, it remains short of the performance of New Zealand, Canada and the United States (73, 65 and 61 per cent respectively).

39 Keating, Michael (2006), 'Increasing employment participation in Australia and how to finance it,' *Australian Bulletin of Labour*, Vol. 32, No. 2, p.165

40 OECD (December 2009), *Online OECD employment data base*

41 Keating, Michael (2006), 'Increasing employment participation in Australia and how to Finance It *Australian Bulletin of Labour*; 2006; 32, 2 and ABS (2009), *Labour force*, Australia Cat. No. 6202.0

42 Kennedy, Steven and Hedley, David (2003), 'Educational attainment and labour force participation in Australia', *Treasury Economic Roundup*, Winter 2003

## Opportunity at 56<sup>43</sup>

At 56 years of age Gideon found himself unemployed. 'I had everything I could desire in my family and employment. I had the world at my feet working as a professional chef and I lost everything to drink.' He had gone from being a chef in a 5 star restaurant to fast food preparation in a 21 year career dive.

Gideon managed to regain his health, but his confidence was at an all time low, fearing his past problems and his mature age would be a barrier to new employment. However, when Gideon approached his local Job Services Australia provider, they suggested that with his experience he consider re-entering the hospitality industry.

With support, Gideon applied for several jobs, and was successful at his first interview and commenced in a new role as a Chef/Manager of an Aged Care Facility.

Gideon regained his motivation, energy, enthusiasm and pride in himself. Gideon said 'rather than sit at home and believe that I would never get a job at my age with my life problems, having a go has meant a new chance on my career. Now that things are going right for me with my job, I am finding that other things in my life are now improving.

The Indigenous labour force participation rate is lower, and the unemployment rate is higher, than for non-Indigenous people in all parts of Australia, all states and territories and all age groups.<sup>44</sup> Indigenous Australians also continue to experience the lowest levels of employment of all groups—48 per cent employed compared with 72 per cent of non-Indigenous Australians.

## Education is a critical factor

There is also a clear association between the level of educational achievement and labour force participation. In 2008, some 86 per cent of people with a non-school qualification were in the labour force, compared to 71 per cent of those without one (these figures relate to 25 to 64 year olds). People without post-school qualifications make up 44 per cent of 25 to 64 year-old people not in the labour force, compared to 39 per cent of all people in this age group.

**Table 6: Labour force participation and non-school educational qualifications, May 2008**

Highest educational attainment	In the labour force	Not in the labour force	Total '000
Has a non-school qualification %	86	14	6 697
Does not have a non-school qualification %	71	29	4 281

Source: ABS Education and work, Australia 2008, Cat no. 6227.0, unpublished data.

A non-school qualification refers to educational attainment other than those of primary or secondary education.

Population: Civilian population aged 25 to 64 years.

Kennedy and Hedley<sup>45</sup> focused on the relationship between the level of educational attainment and workforce participation during the 1980s and 1990s, noting that this effect was more marked for men than women. Of particular relevance was their finding that exclusion from the workforce impacted most heavily on those males who left school early and have not acquired further qualifications. For this group, educational disadvantage was more important than age in explaining nonparticipation, while among the more qualified groups, age better explained low participation rates.<sup>46</sup>

43 Job Services Australia provider Salvation Army Employment Plus, Morley, WA (2010)

44 COAG (2009), *Overcoming Indigenous disadvantage, key indicators 2009* p.19, data accessed at Productivity Commission [www.pc.gov.au](http://www.pc.gov.au) 'Indigenous' here refers to Aboriginal and Torres Strait Islander Australians.

45 Kennedy, Steven and Hedley, David (2003), 'Educational attainment and labour force participation in Australia', *Treasury Economic Roundup*, Winter 2003

46 *Ibid*, p.5



Almost all the decline in male participation is accounted for by the fall in participation by those early school leavers. This suggests it is most likely that prime working age adults may not be able to get as much work as they want because of a lack of contemporary skills or experience which would allow them to be competitive in the current labour market.<sup>47</sup>

In 2007, the ABS used its labour force survey to investigate people's reasons for not working or only working a few hours. Around 80 per cent of the five million people not in the labour force did not want to work and were not looking for work. Almost two-thirds of these were retired, and around one-fifth had a long-term sickness or disability.<sup>48</sup>

- ▶ The fact that 'lack necessary training, skills or experience' was the most commonly reported specific barrier among unemployed people (i.e. those in the workforce who could not get work) in the ABS 2007 survey, suggests that a proportion of those not in the workforce are discouraged job-seekers.<sup>49</sup>
- ▶ 'Caring for children' was the most frequent reason women gave for not actively seeking work. A South Australian Government study notes that both the rising cost and the scarcity of childcare create barriers to women's participation, commenting: 'If women's financial return from work is lower than the costs of alternative childcare arrangements, they will opt out of the labour force'.<sup>50</sup>
- ▶ 'Being considered too old by employers' was the most common reason for older people, and 'study' was the most common reason for 18 to 24 year olds.<sup>51</sup> Almost half of the men who wanted to work but were not available to start straight away reported 'long-term sickness or injury' as the barrier.
- ▶ Among carers, lack of flexible employment options was an additional factor. A recent study of women who provided informal care for people with a disability found similarly that nearly 30 per cent of carers not actively looking for work nevertheless wanted to engage in paid employment.<sup>52</sup>

The Productivity Commission estimated,<sup>53</sup> on the basis of 2005 figures, that if Australia were to close the participation gap relative to the highest performing comparable OECD country for each of these labour force groups, then Australia's aggregate participation rate would be boosted by close to five percentage points, to around 69 per cent by 2030.

### Supporting and complementing the social inclusion agenda

Employment participation is in many respects the key to achieving greater social inclusion.

*... our commitment to social inclusion was driven by the reality that, through a decade of economic growth, too many Australians were being left behind. Our measures ... include the reshaping of Employment Services to provide more intensive support for jobseekers ... massive investment in childcare, to lift the quality and accessibility of places and to make childcare more affordable for all ... the introduction of Australia's first paid parental leave scheme ... to encourage their participation in the workforce.*<sup>54</sup>

Self esteem, contact with other citizens, and the ability to make choices are very often dependent on having a job and the income that goes with it. We note that low participation is always associated with early school leaving and lack of post-school qualifications; that provision of core skills is a necessary condition for increasing participation; but that education and training strategies are not always sufficient. Other support services and

47 Keating (2006), p.169

48 Australian Bureau of Statistics (2008), 'Barriers to work', *Australian social trends*, 2007, Cat no. 4102.0, p.4

49 Ibid p.4

50 Moskos, Megan (2007), 'Workforce participation in South Australia, barriers and opportunities', Report to the Department of Further Education, Employment, Science and Technology, p.40

51 ABS (2008) 'Barriers to work', *Australian social trends*, 2007, Cat no. 4102.0

52 Gray, Matthew and Edwards, Ben (2009), 'Determinants of the labour force status of female carers', *Australian Journal of Labour Economics*, Vol 12, no. 1, pp.5-20

53 Joanna Abhayaratna and Ralph Lattimore (2006), 'Workforce Participation Rates – How does Australia compare *Productivity Commission Staff Working Paper 2006*

54 The Hon Julia Gillard (January 2010), Social Inclusion speech at the Melbourne Convention and Exhibition Centre





employment adjustments are typically also necessary to address people's complex needs and accommodate their social and cultural choices.

In the decade to December 2009, employment in Australia grew by 18.6 per cent (or 2.03 million people).<sup>55</sup> Despite this strong growth, Australia is not short of people who remain unable to secure a job or want to work more hours.

More than 1.5 million people are unemployed or underemployed.<sup>56</sup> A further one million people are outside the labour force but would like to work. Current evidence suggests young people and recent non-English speaking migrants appear to be bearing a disproportionate impact from the economic downturn, potentially repeating the pattern of previous recessions.

### Addressing complex skills needs

One of the keys to lifting the participation rate is to more effectively engage people from a range of different backgrounds, including those who experience multiple disadvantage, in education and training.

Skills Australia supports stronger links between local employers and service providers in the design of services for the unemployed and disadvantaged groups, to help them successfully join the active workforce.

Innovative place-based solutions in local communities and regions offer a solution involving employers, job service providers, training providers and the community. This is explored in greater detail in Section 5.

### More flexible solutions needed

The need for flexible, local solutions to address stubbornly resistant workforce participation issues was emphasised throughout our consultations. Stakeholders affirmed 'wrap around' local services are preferable because they can build networks to address community priorities.

Whole of government interventions were also seen as essential to address structural issues such as child care provision and transport options to make work more accessible, attractive and rewarding.

Linking education and training services to workplace interaction and the experience of real jobs was seen as vital to avoid repeat cycles of short course training and to realise more sustainable job outcomes.

*Qualifications are often simultaneously not enough and too much for those at the fringe of the labour market. Not enough because they don't provide all the skills required for functioning effectively in a workplace, and too much because they often go beyond what is needed in some areas. (South Australian consultation session)*

## 2.3 Action taken—but there's more to do

Achieving a participation target of 69 per cent by 2025 will require not just bold new policy and program initiatives in the industry, education and training space, but across all of government including taxation reform, government encouragement for more flexible working arrangements, and new initiatives to ensure more affordable child care.

A broad suite of national policy settings and programs has already been developed and implemented, aimed at improving Australia's workforce participation rate, particularly among disadvantaged and marginalised groups.

<sup>55</sup> Australian Bureau of Statistics (2009), *Labour Force, Australia* 6202.0. Trend series

<sup>56</sup> Australian Bureau of Statistics (2009), *Labour Force, Australia* 6202.0



The Council of Australian Government's 2009 *Compact with Young Australians* involves a *National Youth Participation Requirement* which will make participation in education, training or employment compulsory for all young people until they turn 17.<sup>57</sup>

The 2009 *Jobs and Training Compact* involves complementary measures to encourage young people into education and training, to help retrenched workers and to coordinate job creation in local communities.

Halving the gap in employment outcomes between Indigenous and non-Indigenous Australians was agreed by the Council of Australian Governments in 2008 as one of its six key *Closing the Gap* targets for 2017;<sup>58</sup> this will require the employment of an additional 100,000 Indigenous people.

More recent government measures and initiatives are also designed to lift participation rates among specific demographic groups.

These include:

- ▶ The \$43.3 million Productive Ageing Package to provide vital training and support for older workers who want to stay in the workforce<sup>59</sup>
- ▶ The progressive increase in the qualifying age for the age pension to 67 by 2023, in recognition of the expanding numbers reaching pension age and the increased time spent on the pension (currently 19 years on average for men)<sup>60</sup>
- ▶ Increasing the taxation rebates for childcare and removing welfare-based disincentives to workforce participation in order to boost workforce participation, especially among women
- ▶ The planned introduction of an 18-week paid parental leave scheme in Australia in 2011 designed to add approximately half-a-year to average female lifetime employment.<sup>61</sup>

These measures are welcome and necessary, and will encourage and support higher levels of workforce participation. Also critical is the willingness of employers to offer flexible working arrangements.

Skills Australia also believes, however, that further initiatives and measures are needed, particularly targeting specific groups, if we are to achieve a 69 per cent workforce participation level by 2025.

## 2.4 Recommended actions

### **Lifting Australia's workforce participation rate to 69 per cent by 2025 would place us in the top league of OECD countries.**

Skills Australia believes this is achievable through targeted measures aimed at improving the participation level among specific groups which have either chosen not to participate in the workforce, or are unable to effectively participate because of educational, social or locational barriers.

*Recommendation three:* The Council of Australian Governments to adopt a 2025 workforce participation target of 69 per cent, with specific targets to increase the workforce engagement of groups with relatively low participation rates,

- ▶ women aged 25-34
- ▶ men aged 25-64, and
- ▶ older Australians 55-64

to the level of comparable high performing OECD countries.

57 COAG (2009), Communiqué - 30 April 2009

58 COAG (2009), *National Integrated Strategy for Closing the Gap in Indigenous Disadvantage*, 2 July 2009

59 The Hon Wayne Swan & Senator the Hon Mark Arbib (February 2010), *Productive Ageing Package announcement media release*

60 Australian Government (2009), *Budget overview - secure and sustainable pensions*, 12 May 2009 found at [www.budget.gov.au/2009-2010](http://www.budget.gov.au/2009-2010)

61 Australian Government (2009), 'Paid parental leave, support for parents with new-born children', *Productivity Commission Inquiry Report no. 47*, February 2009, p.xiv



*Recommendation four:* The Australian Government to provide additional funding to address the complex skill needs of vulnerable learners and the disadvantaged in the VET sector, similar in scope to that being implemented to raise enrolments of low SES students in higher education.



# 3. Improving adult language, literacy and numeracy skills

*Adult language, literacy and numeracy skills are recognised as fundamental to improved workforce participation, productivity and social inclusion. Local and international studies have consistently demonstrated the correlation between high levels of language, literacy and numeracy and positive outcomes at the national, enterprise and individual levels.*

*However, in Australia we are not doing as well as we should be.*

## 3.1 Language, literacy and numeracy levels

The 2006 Adult Literacy and Life Skills Survey (ALLS) revealed that Australian language, literacy and numeracy levels have shown little improvement in the decade since the 1996 International Adult Literacy Survey (IALS). It found that:

- ▶ approximately 7 million Australians (46 per cent) had literacy scores below the minimum level needed to function fully in life and work
- ▶ approximately 7.9 million (53 per cent) had numeracy scores below the minimum needed.<sup>62</sup>

The Council of Australian Governments (COAG) has highlighted this issue,<sup>63</sup> noting that many working age Australians—15 to 64 years—do not have a proficient level of literacy and numeracy skills. More than four in ten people have literacy and numeracy skills below level 3, the level considered by COAG to be the minimum level required by individuals to meet the complex demands of work and life in modern economies:

- ▶ 43.5 per cent of the working age population has low literacy skills (level 1 and 2). This equates to nearly 6 million people. Approximately 15 per cent (2.1 million) are in the lowest literacy category (level 1).
- ▶ Almost half (49.8 per cent) of the working age population have low numeracy skills. This equates to 6.8 million people. Just under 20 per cent (2.7 million) are in the lowest category (level 1).

The implications of these figures are profound for our economy, businesses and individuals.

### International comparisons

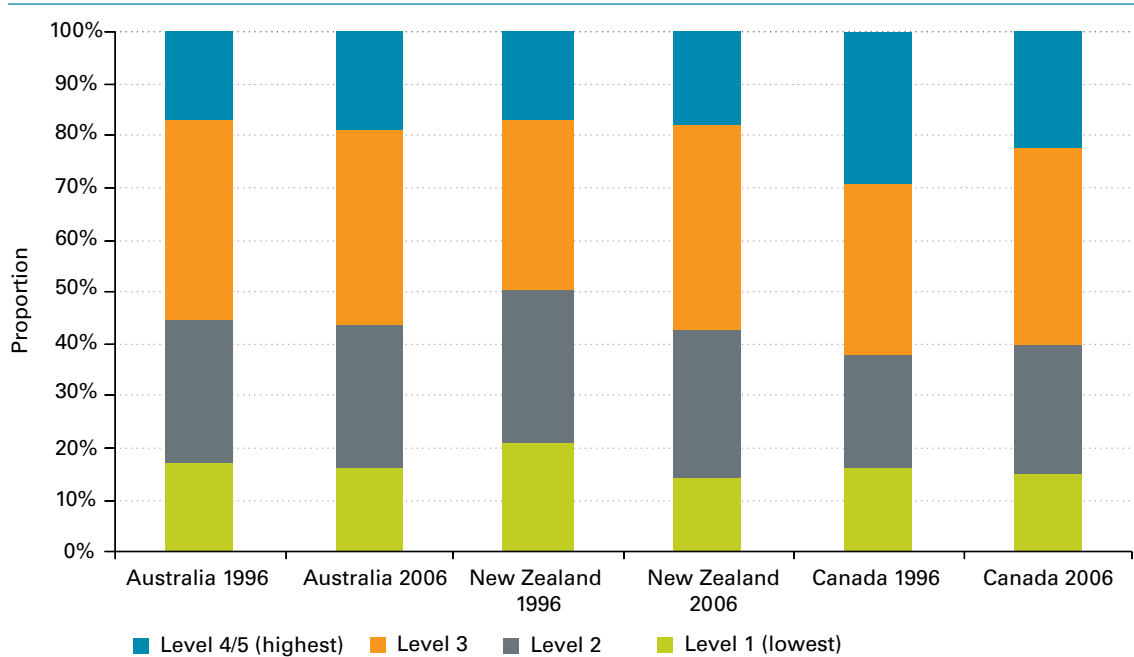
International comparisons of language, literacy and numeracy performance indicate that although we are performing better than many other countries overall, more can be achieved, as indicated in the figure below. For instance, the New Zealand growth in document (reading) literacy shows it is possible to make significant growth in language, literacy and numeracy skills in a ten year period.

62 Australian Bureau of Statistics (2008), *Adult Literacy and Life Skills Survey, Australia*. Summary results, Cat no.4228.0 (2006 reissue) p.5

63 COAG (2009), *National agreement for skills and workforce development: baseline performance report for 2009*, p.46



Figure 5: Change in adult reading literacy 1996-2006 (IALS, ALLS)



Source: Ministry of Education, Wellington, New Zealand, Literacy Skills in the adult population

## 3.2 Improvements in language, literacy and numeracy will deliver significant benefits

### Productivity and participation

Language, literacy and numeracy skills are fundamental to workforce productivity. A one per cent higher national literacy score has been found to be associated with 2.5 per cent higher labour productivity and an associated increase in GDP per capita,<sup>64</sup> with Canadian research finding that raising language, literacy and numeracy skills for those at the lowest levels is more important to economic growth than producing more highly skilled graduates.<sup>65</sup> The OECD also notes the correlation between national productivity and language, literacy and numeracy skills, as well as the correlation between income inequality and literacy inequality.<sup>66</sup> Low levels of language, literacy and numeracy skills are also associated with lower workforce participation.<sup>67</sup>

Additionally, low levels of language, literacy and numeracy skills not only present a barrier to skill development and participation in the workforce, they also present a risk to workplace health and safety, as noted in a study which found that workers with low literacy levels

*'are potentially at risk because they are unable to read and understand machinery operating instructions, safety precautions, equipment and repair manuals, first-aid instructions, or organizational policies on workplace health and safety. They may be unable to leave a warning note for the next shift worker regarding a damaged machine or part. And they may be reluctant to inform a supervisor that they cannot understand written work area or end-of shift clean-up procedures.'*<sup>68</sup>

64 Coulombe et. al. (2004), *Literacy scores, human capital and growth across fourteen OECD countries*, Statistics Canada

65 C.D. Howe Institute (October 2005), *Public Investment in Skills: Are Canadian Governments Doing Enough?*, Commentary No. 217

66 Pont, Beatriz; and Werquin, Patrick (October 2000), *Literacy in a thousand words*, OECD Observer No. 223 pp. 49-50

67 Grinyer, John (2005), *Literacy, Numeracy and the labour market: Further analysis of the Skills for Life survey*, UK Department for Education and Skills

68 Campbell, Alison (2008), *All Signs Point to Yes: Literacy's Impact on Workplace Health and Safety (Highlights)*, Conference Board of Canada

## Educational achievement

The ALLS notes a strong association between educational attainment and language, literacy and numeracy levels. It is expected that the implementation of the actions proposed elsewhere in this strategy to lift the qualification levels of the workforce will see a concomitant improvement in language, literacy and numeracy skills in the workforce.

Improving language, literacy and numeracy levels will also contribute to the realisation of targets to increase the qualification levels of Australians since literacy is fundamental to the ability to accumulate higher-level skills. Level 3 or higher language, literacy and numeracy (using the ALLS scale) is the level generally regarded as necessary for successful completion of a Certificate III or higher qualification. This highlights the need to lift the core skills of those at lower levels in order to provide more Australians with the foundation for the higher level skills essential for increased participation and economic productivity.

## Social inclusion

People with higher language, literacy and numeracy skills are more likely to participate in the workforce and be employed,<sup>69</sup> but also to have increased social participation and experience better health.<sup>70</sup> There are significant benefits in terms of social inclusion and improved ability to contribute as active citizens since language literacy and numeracy skills are 'skills for life, not just for work'.<sup>71</sup>

UK studies indicate the correlation between increases in language, literacy and numeracy scores and the ability to participate in civic life. People with poor language, literacy and numeracy skills are found to be significantly less interested in politics, less likely to vote, and less likely to trust people in their area. In particular, people with good language, literacy and numeracy skills are four times more likely to be a member of a social or community organisation than those with poor language, literacy and numeracy skills.<sup>72</sup> Other research shows that 16 per cent of men (between the ages of 21 and 34) who improved their literacy had contact with government, compared to 0 per cent whose literacy remained poor.<sup>73</sup> Those with low literacy levels are also found to be disproportionately represented in UK prisons, with 48 per cent of the prison population having low levels of literacy compared to 23 per cent of the total population.<sup>74</sup>

Improvement in adult language, literacy and numeracy skills is suggested to have a generational flow-on effect, with the transfer of improved language literacy and numeracy skills from adults to their children. Canadian case studies have shown that workers who undertake LLN training become more active in their children's education,<sup>75</sup> with studies showing that parental involvement in children's literacy development is vital to successful outcomes.<sup>76</sup>

In Australia, the Adult Literacy Research Project ran from 2002 to 2006, making a number of findings about the complex and varied social inclusion benefits of language, literacy and numeracy training. Significant examples were found in relation to improvements in the ability of individuals to function more confidently in life as the result of such training, including the ability to participate in formal and informal discussions, to make telephone enquiries and to listen to the views of others.<sup>77</sup> The most powerful increase in social capital was found to be improvements in people's ability to engage and interact with social

69 Chiswick, Barry., Lee, Yew Liang and Miller, Paul (2003), 'Schooling, Literacy, Numeracy and Labour Market Success', in *The Economic Record*, 79 pp.165-181

70 Brynner, John and Parsons, Samantha (2006), *New light on literacy and numeracy: summary report*, UK National Research and Development Centre for adult literacy and numeracy

71 Waterhouse, Peter and Virgona, Cria (2005), *Contradicting the stereotype: Case studies of success despite literacy difficulties*, NCVER p.34

72 Dugdale, George and Clark, Christina (2008), *Literacy changes Lives*, UK National Literacy Trust

73 Dorgan, J (2009), *A cost benefit analysis of literacy training*, The National Adult Literacy Agency 2009 (Eire)

74 KPMG (2006), *The long-term costs of literacy difficulties*

75 The Conference Board of Canada (2005), *Diavik's Workplace Learning Centre: A Literacy Gem That Is Creating Opportunities and Changing Lives*, Case Study December; The Conference Board of Canada (2002), *Excellence in Workplace Literacy, Small Business Winner 2001, Diversified Metal Engineering Ltd*, Case Study May 2002

76 Weigel, Dan and Marting, Sally (2008), *The Crucial Role of Parents in Children's Literacy and Language Development*, Foundation of Literacy Study, University of Nevada

77 Balatti et. al., (2006), *Reframing adult literacy and numeracy course outcomes: A social capital perspective*, NCVER



networks, with 32 per cent of all participants citing an improvement, and importantly, 51 per cent of Indigenous participants identifying an improvement in this area.<sup>78</sup>

### 3.3 The barriers and challenges

#### A hidden problem

Recognising and addressing inadequate language, literacy and numeracy skills is a significant challenge. The Adult Literacy and Life Skills Survey (ALLS) indicates the disconnect between many individuals' perceptions of their language, literacy and numeracy skills and their actual ability, with two-thirds of people with writing skills below the standard required in the workplace rating their ability as 'good' or 'excellent'. Almost 75 per cent of people with reading levels below the standard required in the workplace rated themselves as 'good' or 'excellent' in this skill. Moreover, many people function socially and in the workplace despite low measured literacy.

In the workplace, individuals are often reluctant to admit any shortcoming to an employer, particularly in relation to fundamental skills like language, literacy and numeracy. People learn to manage and hide the problem, making it difficult for employers to recognise the problem and assist them.<sup>79</sup> Employers may also recognise the symptoms of inadequate literacy without recognising their cause, or may not be aware that there are programs to assist them in improving their employees' language, literacy and numeracy skills.

#### The adult literacy practitioner workforce

There is also an issue of present and increasing skill shortage in the adult language, literacy and numeracy practitioner workforce. The supply of adult language, literacy and numeracy professionals is insufficient to meet current training needs across the nation.<sup>80</sup> Supply will continue to decline as the mostly baby-boomer teacher/trainer workforce heads for retirement. Measures need to be put in place to entice more practitioners into the field and to ensure the availability of pathways into the field and adequate professional development opportunities for existing practitioners.

Significantly, literacy training is currently an elective, rather than a core component of the Certificate IV in Training and Assessment required for teaching in a registered training organisation. Skills Australia considers it should be compulsory for all VET practitioners to gain competency in addressing language, literacy and numeracy issues, so they can identify the language, literacy and numeracy shortcomings of learners and refer them to the appropriate support.

#### Program delivery

Language, literacy and numeracy skills are embedded in Training Package-based qualifications. However, it is difficult to quantify and assess outputs from this delivery. The lack of improvement in adult literacy scores in Australia since the inception in 1997 of Training Packages with integrated language, literacy and numeracy indicates there has not been a return in terms of improved language, literacy and numeracy outcomes.

There is therefore a need to review the position of language, literacy and numeracy skills in the Training Package context. The EE-Oz Industry Skills Council has taken initiative in this area, mapping its Training Package competencies against the newly-developed Australian Core Skills Framework (ACSF) which provides a consistent framework for identifying language, literacy and numeracy skill requirements. Further integration of the ACSF within the training sector will improve the consistency and focus of training on language, literacy and numeracy skills.

<sup>78</sup> Ibid

<sup>79</sup> Waterhouse, Peter. and Virgona, Crina (2005), *Contradicting the stereotype: Case studies of success despite literacy difficulties*, NCVER

<sup>80</sup> Supported by experience in both the Workplace English, Language and Literacy program, and the Language, Literacy and Numeracy program and anecdotal evidence from training organisations; NCVER (2006), *Current and future professional development needs of the language literacy and numeracy workforce*





### Lack of a national focus

In Australia there is currently a significant focus on improving the literacy and numeracy skills of school students. However this needs to be broadened to include a national focus on adult language, literacy and numeracy to provide a coordinated response to addressing the problem. A national strategy is required to raise awareness of adult language, literacy and numeracy, to reduce the stigma of poor literacy, and to raise awareness of programs which can assist employees, as well as their employers, to improve these skills and gain better outcomes.

Other Western countries are currently addressing these issues through national strategies for improving adult language, literacy and numeracy skills. In 2001, the New Zealand Government adopted a national adult literacy strategy outlining clear goals and mechanisms for improving language, literacy and numeracy skills among its adult population.<sup>81</sup> Implementation of the strategy contributed towards a seven percentage point improvement in adult reading literacy in New Zealand between 1996 and 2006. The UK Government has invested heavily in its language, literacy and numeracy-focused Skills for Life program since 2001, providing free language literacy and numeracy training to over 5.7 million adults whose language, literacy and numeracy skills did not meet the standard required for functioning in the workplace. Over 2.8 million have successfully completed their training<sup>82</sup> and a national language, literacy and numeracy skills survey in 2010 will provide insight into the full extent of the UK's progress since its 2003 survey.

### 3.4 Current initiatives

As mentioned above there is currently significant effort underway to address the literacy and numeracy skills of young Australians. A four year bilateral National Partnership Agreement is in place to accelerate literacy and numeracy improvements among our young people, but it will take some time for the impact of improved youth literacy levels to be felt in the workplace.

For adults, the Australian Government runs two recognised best-practice adult language, literacy and numeracy programs targeted at specific sections of the workforce. For those in employment, the Workplace English Language and Literacy Program (WELL) provides employer-initiated language, literacy and numeracy training where needs are identified in the workforce. The WELL program is funded to service 16,500 workers in 2009-10. However, this represents only a small proportion of working age Australians identified through the ALLS as not having required literacy skill level for their workplace. A 2006 independent evaluation of WELL found strong evidence of satisfaction from employers, registered training providers and employees that participated in the WELL program.<sup>83</sup>

The effort is somewhat larger for the unemployed section of the workforce, where the Language, Literacy and Numeracy Program (LLNP) is funded to service 19,900 of at least 390,000 unemployed people who are estimated to have language, literacy and numeracy skills below the level required in the workplace.<sup>84</sup> Review of the LLNP has found that it has measurably improved the skill levels of participants and subsequently the likelihood of participants finding employment, entering further education and coming off income support.<sup>85</sup>

Total funding for these two programs is \$103 million in 2009-10. By way of comparison, the United Kingdom is investing approximately \$2 billion per annum and New Zealand is investing approximately \$50 million per annum on language, literacy and numeracy programs.

81 New Zealand Government (2001), *More than words: The New Zealand adult literacy strategy*

82 UK Department for Business Innovation & Skills, Skills for Life website [http://www.dius.gov.uk/skills/skills\\_for\\_life](http://www.dius.gov.uk/skills/skills_for_life) accessed January 2010

83 KPMG (2006), *Workplace English Language and Literacy (WELL) Evaluation*, DEST

84 WELL and LLNP places use internal DEEWR figures, LLN requirement figures calculated using December 2009 ABS Labour Force Statistics (6202.0)

85 Department of Education Science and Training (2005), *Review Report of the Language, Literacy and Numeracy Programme*



**Table 7: Federal adult vocational literacy training programs in Australia, New Zealand and the United Kingdom**

Country	Population (m)	Annual Expenditure (in \$m AU)	Number trained in LLN	Expenditure per trainee	Expenditure per head of population	Trainees per head of population
Australia	21	\$103	36,400	\$2,830	\$4.90	1/580
New Zealand	4	\$50	26,000	\$1,920	\$12.50	1/154
UK	61	\$2000	1 million	\$2,000	\$32.80	1/61

In Australia, state and territory governments make a significant contribution to adult language, literacy and numeracy training, particularly through TAFE Institutes. However it is difficult to assess the overall investment.

At the national level, the Australian Department of Education, Employment and Workplace Relations (DEEWR) has funded the Australian Industry Group to conduct a national workplace literacy and numeracy project to test the efficacy of different language, literacy and numeracy training methods in workplaces. This work will be valuable in informing future workplace-based literacy training, with its recommendations to be made in 2011. DEEWR is also piloting a Foundation Skills Taster Course Program for those not participating in the workforce, where language, literacy and numeracy skill development is provided as a central core to life-relevant programs such as cookery, delivered in community-based settings. If these initiatives are successful, full-scale roll-outs should be considered.

### 3.5 The perspective of industry

A recurring theme of concern across all consultations was the need for government to give immediate attention to the development of language, literacy and numeracy skills across the population. Those consulted also urged the need for policy, planning systems, and teaching and learning developments to give as much weight to the importance of core and transferable skills as to vocational and technical expertise.

*Any attention to the 'risk' occupations should not detract from the effort on the generic or foundational skills that are pre-requisites for further education and training and, indeed, employment for all occupations and at all levels.*

*(South Australia DFEEST submission)*

*Low levels of literacy and numeracy in over 40 per cent of the workforce ... is an alarming statistic. It seems rather pointless to pursue a policy of increasing higher level skills in the population if we leave 40 percent behind. There must be an equally resourced endeavour to lift the literacy and numeracy of the nation. This is especially so for Indigenous Australians where job readiness skills are critical. (Minerals Council of Australia submission)*

Three key areas of action were identified in consultations:

- ▶ the urgent reversal of Australia's stagnating language, literacy and numeracy performance as a lever to sustainable work, social inclusion and the foundation of Australia's future productivity
- ▶ the importance of targeting those people with lower level literacy and numeracy skills, particularly older and unemployed Australians, to remove the impediments to workforce participation and to break cycles of disadvantage
- ▶ the development of people's core skills, including critical thinking at higher levels throughout careers, to increase ongoing learning potential and individual adaptive capacity throughout working lives.



Our consultations also highlighted concern that the most recent Australian government policy focused on adult literacy and numeracy, Australia's Language: The Australian Language and Literacy Policy was produced in the early 1990s. Likewise, the OECD's International Adult Literacy Survey was critical of Australia's 'lack of an across-industry view of the scope, range and demands of English language and literacy skill for workplace performance and workplace learning', noting that Australia has 'the least defined central focus' on literacy of the countries surveyed.<sup>86</sup>

The Australian Council of Adult Literacy also highlights the cost of a lack of national focus in adult literacy between 1996 and 2006 in comparison to New Zealand's national approach.

New Zealand did a great deal better in the same time span with a concerted national effort under a national strategy improving the two basic skill levels by eight per cent.

In comparison, Australia 'integrated' literacy delivery with the vocational training sector—with limited success—and there is now increasing concern about the capacity of industry training products to foster the development of the generic or underpinning 'employability' skills including language, literacy and numeracy.<sup>87</sup>

Consultations also indicated that both employers and employees prefer to work with a literacy trainer (or trainers) who can combine literacy teaching with the appropriate vocational skills and knowledge. Again, this reinforces the need to look at the skills needed by the tertiary education workforce to meet these requirements.

## 3.6 Recommended actions

### Improving adult language, literacy and numeracy skills.

*Recommendation five:* A national adult language, literacy and numeracy strategy.

The Australian Government to develop and implement a national adult literacy and numeracy strategy to drive improvement and decisively lift Australia's performance for adult language, literacy and numeracy levels to achieve the outcomes established by the Council of Australian Governments.

Improving our language, literacy and numeracy levels will result in greater productivity and better social outcomes. It is imperative that there is a renewed national leadership in focussing efforts in raising the level of our language, literacy and numeracy skills. Skills Australia therefore advocates a more strategic approach to ensure that we: better identify and address literacy and numeracy both for unemployed learners and existing workers; make better use of the framework that exists in the training programs; and engage individuals to improve their skills.

This national response should:

- ▶ reframe language, literacy and numeracy as central to participation and productivity
- ▶ review and build on the extensive work underway through schooling
- ▶ outline the total national effort in adult language, literacy and numeracy training and identify gaps and needs
- ▶ set clear and achievable targets for success
- ▶ provide strategies to enhance the language, literacy and numeracy training of the workforce, including a wide range of alternative approaches appropriate to both low and high skilled workers and varied workplace and community settings
- ▶ provide best-practice models for engaging those who would benefit from language, literacy and numeracy training
- ▶ include measures to develop the adult language, literacy and numeracy training workforce, including considering the identification and addressing of language,

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<sup>86</sup> OECD (2000), *Literacy in the Information Age: Final Report of the Adult Literacy Survey*

<sup>87</sup> The Australian Council of Adult Literacy (2009), *Literacy Link*, Vol 29, Number 1, March 2009



literacy and numeracy issues as a core— rather than elective—component of the Certificate IV in Training and Assessment

- ▶ evaluate the integration of language, literacy and numeracy skills in training package qualifications
- ▶ recognise the shared responsibility of governments, employers and workers as contributors to the development of these skills.

This may entail:

- ▶ increasing resources to the specialist teaching and learning of core skills across the tertiary education sector and in the workplace

*Recommendation six:* Substantially expand the WELL and LLNP programs.

Significantly upscale successful approaches such as the Workplace English Language and Literacy Program (WELL) for existing workers and the Language Literacy and Numeracy Program (LLNP) for jobseekers, with additional funding of \$38 million per annum for LLNP and \$12 million per annum for WELL to 2012, with a review in the light of the new national LLN strategy after that date. This will provide a 50 per cent increase in each program at constant prices.

While good practice government programs exist, past approaches have not improved our adult LLN outcomes and there is a need to radically upscale the national effort in LLN training. In the short-term, Skills Australia therefore recommends an investment of \$50 million per annum to 2012, with a review in the light of the new national LLN strategy after that date. This will provide a 50 per cent expansion of both the WELL and LLNP programs in order to increase their reach. To support increased take-up, a portion of this funding should be used to raise awareness of literacy issues and how these programs can benefit employers and employees.



# 4. Better using skills to increase productivity

*Workforce development strategies need to focus on improving the use of skills in Australian workplaces as a means of unleashing productivity growth and raising innovation levels. A spin-off benefit will be increased employee satisfaction and engagement.*

*Direct linkages between skills and business development, encouraging education-industry partnerships, a new industry cluster program and leveraging changes in workplace culture from public training funds are ways this can be achieved.*

Many Australian workplaces and enterprises need to rethink how they use the skills, expertise and talent of their employees. The effective and strategic use of existing skills in individual enterprises is as important in achieving productivity growth as the actual acquisition of those skills. While Sections 1 to 3 of this Strategy have focused on deepening and extending Australia's skills base, this Section examines how we can increase our rate of return on the greater levels of investment that skills deepening entails.

## 4.1 Effective skills use

At the same time as some firms experience acute skills shortages for particular professional and technical skills, many Australians with high-level qualifications are not using those qualifications and skills in their job. ABS survey data (2001, 2007) indicate that:

- ▶ 30 per cent of Australian tertiary education graduates have qualifications exceeding the occupation skill classification
- ▶ being over-qualified for their current job is most common for people with diplomas and advanced diplomas
- ▶ the proportion of potentially over-qualified people increased between 2001 and 2007.<sup>88</sup>

These findings do not mean that education and skills are not valued. According to 2007 NCVET data, 41 per cent of VET graduates who were not working in their field of study nevertheless described their training as 'highly or somewhat relevant' to their current job.<sup>89</sup> The generic skills learned through post-school education are clearly of general value, even where vocationally oriented courses do not lead to a related job.

However, those with a matched qualification reported a far higher degree of relevance: 93 per cent. These and other similar data suggest that the deployment of skills across the economy is neither even nor optimal.

As well as evidence of a growing mismatch between qualification and job levels, employers and employees are reporting considerable levels of skills under-usage.<sup>90</sup> A growing percentage of employers (42 per cent in 2009, compared to 37 per cent in 2005) reported to NCVET that the skill level of their employees is higher than their organisation requires.<sup>91</sup> Longitudinal surveys that track a cohort of workers over time also suggest that significant

88 Australian Bureau of Statistics (2001 and 2007), Survey of education and work, unpublished data using ASCO coding, Cat no. 6227.0; see Skills Australia (2009), *Background Paper Two, Powering the workplace* p. 8 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au) for details of the analysis

89 Karmel, Tom; Mlotkowski, Peter; and Awodeyi, Tomi (2008), *Is VET vocational? The relevance of training to the occupations of vocational education and training graduates*, NCVET Occasional Paper, p.19

90 Skills under-use reflects an employee or employer's perception of whether someone's skills and knowledge are used in their job, while over-qualification is limited to whether someone is working at a level commensurate with their formal qualifications. Measures of perceived skill use are considered more accurate than measures of formal over-qualification because they include the totality of someone's skills and knowledge, rather than relying on the qualification as the single proxy for skill.

91 NCVET (2005, 2009), *Employers' use and views of the VET system*



numbers of employees believe they are not able to apply their skills and knowledge in their current jobs.<sup>92</sup>

The issue of skills under-use has emerged as a significant issue in Australia and overseas in recent years, and has been raised in the context of developing a more collaborative style of workplace relations:

*The fact that people at work are not given the opportunity to contribute to their full potential may well be the biggest 'skills and productivity crisis' we face today.<sup>93</sup>*

### Relationship between skills and productivity

Research by Treasury staff on the factors affecting productivity noted:

*The ability to use particular skills and knowledge in the production process, not merely acquiring them, is what really matters for productivity and income.<sup>94</sup>*

Indeed, a very compelling reason to focus attention on skills use is because of the role it can play in lifting Australia's stagnating productivity performance. Australia's productivity growth has flat-lined in recent years, and our innovation performance has also stalled. The 2009 to 2010 Global Competitiveness Index found Australia ranking 21<sup>st</sup> on innovation factors, behind North America, Northern European countries and most of its Asian trade partners. Some 165,000 firms across Australia would need to be transformed if we were to lift the proportion of firms that are 'active innovators' closer to the European average of 60 per cent. Currently, only about 37 per cent of Australian firms undertake process, technology or organisational innovations each year.<sup>95</sup>

A highly skilled workforce is critical to strong innovation performance. Active linkages between firms, users, suppliers, researchers and education institutions such as universities are also crucial. But additionally, overseas and Australian research points to the importance of work organisation, management practices and firm culture as the mediators that translate skills into performance.

The way jobs are designed, work is organised and people are managed, sometimes summarised as 'organisational culture', is particularly important in mature economies like Australia. Unlike countries that have a low-wage advantage, business sophistication and innovation capacity are the main sources of productivity growth in mature economies. In Australia, the majority of innovation is incremental, rather than radical, and most involves the diffusion of existing knowledge rather than being based on scientific breakthroughs.<sup>96</sup> Most of our innovation occurs in the workplace—not the laboratory—and a workforce that is able to effectively use its skills to adopt and adapt new work processes is a key ingredient.

Placing debates about skills in the context of improving innovation and productivity was widely supported in Skills Australia's consultations.

*Lifting the skill levels of Australia's workforce will undoubtedly contribute to productivity growth but we must optimise the learning process by using it as a pro-active means of diffusing new knowledge ... This notion goes ... to the very heart of building a sustainable model for innovation within industry and starts to lay the formative linkages between innovation, skills and productivity. (Chairs of Industry Skills Councils submission)*

92 The Household, Income and Labour Dynamics in Australia (HILDA) survey which has been underway since the early 2000s asks individual employees about use of their skills at their workplace. Analysis by Mavromaras et al found that that 'over 11 per cent of employees were found to be severely over-skilled, a further 30 per cent were found to be moderately over-skilled and the rest well-matched' in the period 2001 to 2006. For more discussion, see *Background Paper Two, Powering the workplace* pp 10-11 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au).

93 Society for Knowledge and Economics (2009), *Workplaces of the future forum, Background Paper*, July 27, 2009, p.4

94 Davis, Graeme and Rahman, Jyoti (2006), 'Perspectives on Australia's productivity prospects', *Treasury Working Paper 2006-4*, p.11

95 Australian Bureau of Statistics (2008), *Innovation in Australian business 2006-7*, Cat no. 8158.0, Table 1. Innovation is here used to refer to the implementation of technologically new or improved goods or services, operational processes, organisational or managerial processes, or marketing method, consistent with the ABS definition.

96 Toner, Phil (2007), *Skills and innovation, putting ideas to work*, NSW DET, pp.3-4





It was also widely recognised that Australia needs to address not only skills supply (the competence of the workforce) but skills demand, (the effectiveness of the workplace in harnessing skills) as shaped by employer practices. To create a more productive economy requires employers to shift their business strategies to focus on differentiated or higher-end markets, and adopt forms of work organisation that require more skill and offer more opportunities for learning and development.

In addition to the direct benefits, high skill strategies are also often welcomed by employees and can be an effective tool for increasing employee engagement.

### **Skills use, job satisfaction and employee engagement**

In our consultations, stakeholders acknowledged the frustration many individuals faced in not being able to find a suitably skilled job and the fact that skills can be lost through a lack of use, especially in fast-changing and dynamic fields such as computer programming or engineering.

*VTA supports a coordinated approach to tapping into skills underutilised/not utilised in the workforce. De-motivation and disenchantment are outcomes of underutilisation of skills. (Victorian TAFE Association submission)*

Indeed, skills under-use and over-qualification have been associated with low wage returns, job dissatisfaction and high levels of job turnover. Green and Zhu in reviewing international research note that people who are overqualified typically earn 10 to 25 per cent less than what they should be earning based on their qualification level. Several recent studies reveal overqualified workers to have 'substantially lower job satisfaction and well-being at work' as well as 'some evidence that over-qualification contributes to cognitive decline among workers'.<sup>97</sup>

Green and Zhu's analysis of British graduate data finds that when people experience over-qualification and skills under-use there is 'a substantial negative impact' on job satisfaction. In 2006, 22 per cent of people in this situation were dissatisfied with their job compared with seven per cent of matched graduates.<sup>98</sup>

McGuinness and Wooden explored the effects of over-skilling on Australian workers.<sup>99</sup> They found that over-skilled workers were more likely to say they intend to leave their job within twelve months of commencing it, and are indeed more job mobile, leaving jobs more frequently than other workers. However, most of those who quit are not re-employed in jobs where their skills are better used. Instead, most either re-enter jobs where their skills are not adequately utilised or exit the workforce entirely.

More research is needed on the link between over-qualification and skills use and how this affects job satisfaction. There is however a well-established positive relationship between complex job tasks and job satisfaction. A recent study of workers in the UK and Canada, that examined both job and life satisfaction, found that jobs with high skill demands result not only in greater job satisfaction, but also that this 'spills over' into life satisfaction, with attendant health benefits.<sup>100</sup>

Job complexity, in turn, appears to be correlated with feeling that one's skills are well-used. Perhaps unsurprisingly, Australian research finds a robust causal relationship between reported high skill use and strong agreement with the statement: 'My job is complex and difficult'.

97 Green, Francis and Zhu, Yu (2008), 'Over-qualification, job dissatisfaction and increasing dispersion in the returns to graduate education', *University of Kent, Department of Economics Discussion Paper*, p.10

98 Green and Zhu (2008), *ibid*, p.25

99 McGuinness, Sean and Wooden, Mark (2009), 'Overskilling, job insecurity and career mobility', *Industrial Relations*, Vol 8, no. 2, April 2009

100 Helliwell, John F, and Huang, Haifang (2010), 'How's the job? Well-being and social capital in the workplace', *Industrial and Labour Relations Review*, Vol 63, Issue 2, p.220





People who agree strongly that their job is 'complex and difficult' are more likely to report high skill use than those who feel they have a high degree of job autonomy, although a weaker relationship exists there as well.<sup>101</sup>

Watson's analysis indicates that these two aspects of work (autonomy and complexity) are quite separate, and highlights the fact that some lower level workers (such as labourers and some clerical workers) have jobs that are high on autonomy, but score poorly on complexity and skill use.

These aspects of job design and work organisation are often the focus of models of 'high performance working', which aim to raise both the productivity of the enterprise and worker well-being. Increasingly, discussions of 'high performance working' emphasise factors that enhance people's ability to contribute within an organisation and this is linked to improved motivation, commitment to the organisation, and overall well-being—as well as directly to productivity.<sup>102</sup>

Job-skills match is a significant attraction tool among Australian public service employees, according to the recent Australian Public Service Commission's *State of the Service Report*.<sup>103</sup> Employees identified that job-skill match was the second most important factor (after job security) in attracting them to their current job. Around 55 per cent of public service employees reported satisfaction with the match between their skills, experience and interests and the requirements of their job or the business of their agency, and this percentage increased with seniority.

## 4.2 Skill development and use in enterprises—a holistic approach

An effective workforce development approach recognises that there needs to be an interaction between the following elements:

- ▶ improvements focused on people (communications, recruitment and selection, skill development, rewards and recognition, team effectiveness)
- ▶ improvements focused on the organisation of work (work systems, processes, job design, equipment, plant or technology, quality, and procedural redesign)
- ▶ improvements focused on customers and stakeholders (supply chain issues, customer service, sales and marketing).

Thus education and industry service providers who work with businesses need to address the use of people's capabilities and skills from the perspective of an enterprise's business strategy and performance imperatives while simultaneously considering the learning needs and outcomes for individual workers. The fast track to improving skills use is through ensuring learning and development is relevant to the needs of individual enterprises.

Many of our stakeholders endorsed the value of this approach.

*Employers are looking for anything that improves productivity and efficiency and ultimately the bottom line. [This involves] review, analysis and advice which is highly customised to context of the particular enterprise.  
(TAFE NSW submission)*

*... often the [training] services provided are generic ... and result in people being churned through a system that gives them a piece of paper but few skills.  
What would be better?*

*Training programs that provide real benefit to the employers so that they support the trainees with the time and resources to apply what they learn in their training.  
(LEAN Rt submission)*

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101 Watson, Ian (2008), *Skills in use, labour market and workplace trends in skills usage in Australia*, NSW DET

102 See, Guest, David (2006), *Smarter ways of working, the benefits or and barriers to adoption of high performance working*, Sector Skills Development Agency, UK; and *High performance working: a synthesis of the key literature*, Evidence Report 4 UK Commission for Employment and Skills (2009),

103 Australian Public Service Commission (2009), *State of the service report 2008-09*, p. 99 available at [www.apsc.gov.au](http://www.apsc.gov.au)



Skills Australia therefore recommends that stronger and more explicit connections be made between skilling and reskilling initiatives and those designed to build business capability. Strategic opportunities often emerge when organisations restructure, introduce new technology, a product or process innovation, consider exporting their goods or changing markets. This is particularly the case where they are seeking the assistance of specialists or funds through government programs.

It is important to keep in mind that there is no single program response or 'recipe' for successful workforce development. The many examples underway across states and territories on a number of program fronts, suggest successful actions occur through co-ordinating and combining efforts—not necessarily replacing or substituting new efforts for old. This represents a significant challenge for governments; that is, holding the reins of public programs loosely, to allow for 'fusion' of activities, innovation and experimentation.

Our scan of current workforce development practice reveals some of the key features that recur in descriptive and evaluative work on industry/education partnerships, workplace improvement projects and organisational learning interventions. These include the following:

- ▶ an identified enterprise innovation or development is underway and skill development is integral to the change process
- ▶ the employer is engaged as a partner, not a 'recipient', in the skill solution
- ▶ workplace champions with carriage of the project are identifiable and have the support of management
- ▶ the skill specifics of any training are customised to the business and there are ongoing opportunities for workplace learning
- ▶ there is allocated time and support for on-the-job training
- ▶ workplace arrangements, such as the design of jobs and employment arrangements, ensure new skills will be used
- ▶ knowledge-sharing takes place, and the workplace culture supports application of the new skills acquired across the workforce
- ▶ the trainer is credible, an authoritative source of expertise and can integrate practical, real examples from the workplace
- ▶ enterprise performance indicators, in addition to competency outputs for individuals, are in place to measure achievements
- ▶ employee benefits are separately and clearly identified
- ▶ and, in order to maximise the benefits from public funds, insights are shared with other enterprises, via education and training providers and industry bodies.

### **Workforce development through Enterprise Connect**

Skills Australia believes it is critical to break down the silos that place industry development in one government agency and education and training in another. What is necessary is a holistic approach based on recognition that changing the organisation of work to maximise the use of employees' skills is an essential aspect of industry development. We need new and innovative approaches that encourage joint funding and management of specific projects by government agencies which are responsible for both industry and training.<sup>104</sup>

There are opportunities for much a closer alignment between government programs such as Enterprise Connect<sup>105</sup> (and state and territory counterpart programs) that provide business development assistance, as well as programs focused on upskilling workers, such as the Productivity Places Program. Enterprise Connect currently offers a range of follow-up services to businesses after a comprehensive business review. We propose that

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<sup>104</sup> Building the capacity of the education and training workforce to work in new ways is also critical, and is addressed in Section 5.

<sup>105</sup> A Department of Innovation, Industry, Science and Research program that targets small and medium enterprises available at [www.enterpriseconnect.gov.au](http://www.enterpriseconnect.gov.au)



an additional specialist service offering workforce development advice be developed under the Enterprise Connect umbrella. This service offering should also provide enterprises with direct access to current public training funds, where appropriate, on a shared cost basis.

Currently funded in the amount of \$50 million per annum, the Enterprise Connect program is relatively small in scale and is capable of servicing some 1,500 businesses per year nation-wide. Its current main focus is on manufacturing, with a smaller role in supporting four other industries. As shown in the disability services workforce development case study (Appendix 6) there is also scope for innovation, productivity gains, stronger staff engagement and the use of staff skills in more complex and satisfying work in the service industries that employ the majority of Australians.

An extension of this program to selected service industries is therefore well overdue, and should be pursued, in addition to a new workforce development advisory service that provides consistent specialist support on workforce and skill issues. This is taken further in the recommendations below.

### 4.3 Developing the capability of enterprises

#### Management capability

Management capability is key to national economic prosperity and sustained innovation. Despite this, the performance of Australian management ranks only as average when measured internationally.<sup>106</sup> Recent research confirms that enterprises and countries which perform highly in terms of management capability achieve higher productivity growth:

*the association between management practices and firm productivity performance is economically significant ... This finding suggests that investing in management practices may be a cost-effective way for firms to boost productivity, relative to hiring additional employees or direct investment in fixed capital.<sup>107</sup>*

While comparatively strong in operational management, Australian organisations lag in the areas of people management and the deployment of skills, significantly behind the best performing countries.

*Australia ranks low in almost all the people management dimensions ... Australian businesses must improve their human resource-related practices with a target of attracting, retaining and promoting best talent and more importantly addressing poor performance.<sup>108</sup>*

During our consultations, many stakeholders advocated the development of strategies to improve management expertise—including support for enterprises to acquire these skills—as a necessary condition for implementing successful workforce development initiatives.

Skills Australia supports current Australian government initiatives being undertaken with industry and other leaders following the ‘Workplaces of the Future Forum’<sup>109</sup> that aim to build Australia’s workplace leadership, culture and management capabilities. Our proposal for a Workforce Development Observatory (see Recommendation Twelve in Section 6) will synthesise research and information on national and international developments in this emerging field.

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<sup>106</sup> Green, Roy et al (2009), ‘Management matters in Australia, just how productive are we?’ *Report to the Department of Innovation, Industry, Science and Research*

<sup>107</sup> Ibid, pp.13-14

<sup>108</sup> Ibid, p.18

<sup>109</sup> The Hon Julia Gillard MP (2009), Speech, 15<sup>th</sup> World Congress of the International Industrial Relations Association, 25 August 2009



## Small enterprises—a particular focus

Small businesses employ collectively around half the Australian workforce. Ninety per cent of employing businesses in 2007 had less than 20 employees, and over two-thirds of these were micro-businesses, with less than five people.<sup>110</sup> Australia has a smaller average firm size than many OECD countries.

*... many employers, particularly small and medium sized enterprises, still find the VET system opaque, mysterious and inflexible. (Construction and Property Services Industry Skills Council)*

*Methods of engaging small and micro-businesses are essential – they do not have [Human Resource Management] departments to help them navigate this area. A program to assist them will be important – this will need to allow for the full range of variables that can impact on SMEs, that is, not be narrow in concept. (Queensland consultation session)*

Our consultations provided useful observations about the likely difficulties and impediments in engaging small businesses. Industry representatives emphasised that the successful application of workforce skills requires effective management and human resources capability which may be lacking in smaller enterprises. Many agreed that devoting attention to issues such as job design and performance management were critical to improve the development and application of skills among existing workers, and it was noted that many small to medium enterprises would need support to do this well.

Micro-enterprises and smaller firms use different knowledge and learning strategies in comparison to larger firms. They are also typically less likely to innovate or invest in training, although some micro-enterprises are highly innovative.<sup>111</sup> They recruit fewer apprentices and spend less on training per employee. In 2009, the NCVER reported that only 20 per cent of small firms (under 10 employees) provided nationally accredited training for their employees in the previous 12 months, compared to 78 per cent of large firms (more than 100 employees) and 40 per cent of medium firms (10 to 100 employees). Small firms were also less likely to offer nonaccredited training, although 45 per cent did.<sup>112</sup>

Often small firms do not see the need for training, and lack the financial resources, time and expertise to organise it. They dislike the bureaucracy it entails, and Australian research suggests many small businesses do not feel that training relevant to their business is actually available.<sup>113</sup> In a UK study, small firms reported that the most common routes to employee development were from 'learning by doing' and through 'discussions with their manager'.<sup>114</sup>

Small firms tend not to employ functionally separate human resources staff, and the role is often undertaken, if at all, by the owner or manager. As a result, their capacity for the sourcing, planning and management of training is limited.

However, small firms are likely to undertake a range of internal and external informal competence-building initiatives for their firms, such as visits to expos and trade fairs, courses and seminars by external providers, liaison with clients, suppliers and customers, and drawing from professional literature.

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110 Australian Bureau of Statistics (2007), *Counts of Australian businesses, including entries and exits*, Cat no. 8165

111 Toner notes that in Australia between 2001 and 2003, 30 per cent of firms with less than 20 employees innovated compared to 61 per cent of firms with over 100 employees. The latter accounted for seven per cent of total employees but 56 per cent of all innovation expenditures, Toner (2009) *Workforce skills and innovation: an overview of the major themes in the literature*, OECD Committee for Scientific and Technological Policy, p.26

112 NCVER (2009), *Employers' use and views of the VET system*

113 See, Townsend, Ray, Waterhouse Peter and Malloch, Marg (2005), *Getting the job done: How employers use and value accredited training leading to a qualification*, NCVER.

114 CFE/LEED (2008) *Leveraging training and skills development in SMEs*, OECD Centre for Entrepreneurship, SMEs and local development, p.23



Indeed, Australian survey evidence suggests that innovative small firms use informal learning sources more than large firms and perform more knowledge-intensive service activities through linkages with supply-chains and other organisations in their network.

While firms value informal competence-building strategies, it tends to be for the more qualified and skilled employees and those in higher-level positions. Also they usually do not result in transferable qualifications that are of most benefit to workers, especially those with no post-school qualifications.

The ways that small firms provide learning for their employees can provide valuable insights into the flexible arrangements for formal training that may be the most suitable and appropriate.

*The high proportion [of small firms engaging in informal learning] ... could in fact indicate self-regulation by SMEs of the way they overcome obstacles to traditional training models and how they use ... knowledge that is more relevant to their business needs and resources.<sup>115</sup>*

We recommend that the Australian Government, through the departments responsible for innovation and education, develops a focused program for small firms that combines organisational learning and workforce upskilling, and targets those firms with fewer than ten employees which are not generally eligible for Enterprise Connect services.

#### 4.4 Using public training funds as leverage

As noted above, Skills Australia believes that much can be achieved by creating stronger links between government business advisory programs and workforce development and skill development measures. This would however be relatively small-scale, compared to what is possible through leveraging public training funds to encourage workforce development.

Driving change through the larger publicly funded training programs provides many more opportunities to encourage workforce development outcomes and help organisations tackle job design, work organisation, innovation and the effective engagement of workers.

A key question for governments is how can the substantial public investment in skills and education be used to encourage more businesses to become places where employees can extend their learning and development, consistent with business performance goals and strategies?

As discussed further in Section 5, current government investment in education and training is significant. The Commonwealth, state and territory governments currently spend nearly \$5.16 billion on the provision of vocational education and training in Australia. This is being supplemented in the period 2009 to 2013 by an additional \$0.4 to \$0.65 billion per annum to be spent on training through the Productivity Places Program. In addition, the federal government spends about \$1.2 billion on employer incentives and support programs for entry-level learners and state and territory governments provide cash incentives or tax and fee exemptions to employers.

Employers also resource regular and extensive accredited and unaccredited formal training that is not well captured by current reporting systems. In the five years from 2003 to 2007, an average of 42 per cent of employees each year aged over 25 years reported having attended structured education or training as part of their work in the previous 12 months.<sup>116</sup> NCVER data indicates that the majority of this is likely to be non-accredited; in 2009 around 26 per cent provided nationally recognised training, compared to 53 per cent who provided

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<sup>115</sup> Ibid, p.34

<sup>116</sup> This analysis comes from unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this paper, however, are those of the author and should not be attributed to either FaHCSIA or the MIAESR.



unaccredited but structured training.<sup>117</sup> Since then, NCVER, ABS and longitudinal research suggest that there may be a decline in the duration and incidence of employer-provided structured training but there is limited reliable data to confirm this.<sup>118</sup>

Although current total employer expenditure on structured training is unknown, in 2001–2002 the ABS estimated that it was of a similar scale to public expenditure.<sup>119</sup> However, the unequal access of casual workers, typically women, to work-related training is marked.

The consultations endorsed the need to develop improved ways of linking public training funding to broader workforce development outcomes.

For innovative workforce development approaches to gain traction and become mainstream activities, funding should not only focus training on qualification outputs but should instead assist the development of a multi-stranded relationship between tertiary education providers and enterprises.

Where enterprise-based skill development is involved, VET funding arrangements, and in particular performance measures, need to be recalibrated. The continuing narrow focus on training outputs is limiting the relevance of the Australian training system in offering skill solutions to existing workers.

Stakeholders also emphasised the importance of funding and supporting partially completed qualifications.

*The skilling needs of existing workers are more likely to be for skill sets than for full qualifications, yet funding arrangements (and COAG targets) are biased towards the attainment of full qualifications ... (South Australia DFEEST submission)*

In some cases, upskilling will involve enriching existing qualifications rather than providing new ones.

Many of those who participated in our consultations gave examples of innovative education/industry partnerships, and initiatives that assisted employers by improving their capacity to link learning and development to business needs. As demonstrated in the following case study, these can generate significant successes for individual firms or an industry group, where employer collaboration is involved.

### **Workforce development in a dairy food manufacturing plant**

An industry-led, enterprise-based project explored opportunities to improve productivity at Fonterra Australia's Darnum Gippsland plant, a large regional employer that produces dairy products for the domestic and international market.

Process upgrades were underway through a \$17 million plant and equipment upgrade. To realise the benefits of the investment, employee skills were targeted using an industry partnership model. The four-stage approach involved: locating technical expertise; establishing key performance indicators; realising the potential of skills measures; and facilitating training delivery.

The company achieved estimated savings of \$650,000 over 10 months. Other outcomes of the project included increased product variety and improved technical knowledge of the operators. Operators noted: an increase in recognition for their expertise; being challenged by and engaged in their work which required greater technical complexity; enjoying ongoing opportunities to learn from experts; and experiencing pride and passion for the work

117 NCVER (2009), *Employers' use and views of the VET system*, Table 1

118 For a discussion of these data see Skills Australia (2009), *Background Paper One, What does the future hold?* pp.43-48 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)

119 Australian Bureau of Statistics (2002), *Employer training expenditure and practices, Australia, 2001-2* Cat no. 6362.0



they did. Employees also appreciated working in a company prepared to invest in plant, equipment and systems that delivered improved performance.

The project demonstrated workforce development good practice in making connections between a range of productivity improvement levers: the physical plant, industrial relations, workplace culture, job redesign and skills and knowledge.

**A detailed account of the workforce development journey at the Fonterra Darnum plant is at Appendix 6.**

It was pointed out, however, that initiatives were often funded for too short a period and were not properly evaluated or scaled up. There was also a cautionary warning about ensuring that in designing training programs, government funding doesn't create perverse incentives, including substituting public in place of existing private efforts, and funding learning and development activities that employers were already undertaking in a different form.

## 4.5 Supporting industry workforce development needs

*Industry must take responsibility for developing skills bases when individual [businesses] are reluctant to do so, but needs the support of government to do this effectively. (Australian Capital Territory consultation session)*

*Coordination across regions, industries, etc. will be an on-going problem ... solutions that work best are local. (South Australian consultation session)*

*Success [in collaborative work] depends on highly organised peak bodies, plus the engagement of training providers backed by the state authority; collaboration is important but such approaches are highly resource intensive to tackle. (Tasmanian consultation session)*

The broader context in which enterprises operate, including the dynamics of their industry sub-sector, has an important influence on business and workforce planning and development.

Many of the contextual issues enterprises need to consider in business and workforce planning and development are relevant to the industry as a whole. Whether it is government funding priorities, the exchange rate, technological developments, climate change, the impact of drought, government regulations, or the nature of global competition, enterprises competing in an industry sub-sector often share common concerns and, in some cases, can benefit from pursuing common responses.

Industry policies by governments around the world are increasingly recognising the importance of supporting industry sectors, supply networks—or clusters—through formalised groups of competing, collaborating and interdependent businesses working in the same or related industry, and concentrated in a geographic region. Supporting collaborative industry action is one of the keys to helping to develop a new product or service, and support innovative business practice, and as a result increase productivity.

To date, however, government-supported training and workforce development effort has mainly been directed towards individual enterprises.<sup>120</sup> While this is important, there is a risk that individual enterprise solutions will fail to address wider institutional or industry needs and lead to the same issue emerging in other contexts. In other words, there appears to be a gap in industry-level initiatives that tackle institutional and systemic workforce development issues or can encourage collective industry initiatives or regional action.

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<sup>120</sup> Notable exceptions include Queensland's Skill Formation Strategies Program and more recently, national health workforce initiatives.





Skill ecosystem or cluster-based styles of workforce development activity achieve buy-in from a broad range of stakeholders, including key employers and trade unions, business and skill development experts, researchers and regulators. These activities also seek to build the capacity of key industry bodies to identify and manage skills issues for the industry, independently of government.

The term 'ecosystem' captures the notion of an intersecting and mutually reinforcing equilibrium between skills supplied by the training system and skills demanded and applied in workplaces. While this equilibrium can be understood at the enterprise level, an industry approach goes beyond finding solutions to specific problems to promote broader industry capability to plan and manage skill development.<sup>121</sup> This approach offers the potential to engage, influence and share learning among large numbers of enterprises. It also positions industry to develop a critical mass of workforce development activity that is mutually reinforcing and sustainable.

The need for industry-based strategies came up during many consultations. The importance of industry, regional and local variation was noted, and there was frequent reference to successful industry examples of cooperative and collaborative action. On-going work by National Disability Services provides an example of a sectoral strategy to develop and industry workforce that has been 'built from the ground up'.

### **Sectoral workforce development: the disability services national project**

The National Disability Services workforce project was designed to assist non-government disability services employers to make positive changes to deal with persistent challenges. These included constant staff turnover, recruiting trained staff, remuneration, the changing context of disability work, occupational image and engagement with the VET system.

In a nationally coordinated project, participating services were guided to undertake an organisational diagnosis and then develop and evaluate their own strategies. Organisations focused on a variety of outcomes including: job redesign; implementation of full-time positions and increased remuneration; improved recruitment and management capability strategies; a new awareness amongst management of issues in the attraction and retention of staff; improved quality of service; reduced long-term vacancies and reliance on casual staff; recognition that 'job-sharing was doable'; strategies to encourage trainees; modified courses to provide more work-based delivery; implementation of a training bonus; introduction of an e-learning training program; and mentoring and buddy schemes.

Aspects of the project that were seen as important in achieving success include the adoption of a multi-stranded approach to workforce challenges; understanding how skills will be used before a training response was commenced; the importance of the engagement of staff in developing strategies at the ideas generation stage; and allowing sufficient time for the completion and evaluation of strategies.

A detailed account of the workforce development journey undertaken in the disability services sector is at Appendix 6.

## **4.6 Government procurement to encourage workforce development**

Government procurement policy is recognised as an effective tool for stimulating industrial, employment and training practices that are in the public interest. In Australia they have been widely used by state, territory and Australian governments in construction procurement to set targets for apprentice training ratios, training management policies and systems, or training rates more generally. At its July 2009 meeting, the Council of Australian Governments agreed that when contracting for government stimulus and infrastructure projects, the states and territories will aim to secure at least 10 per cent of the total contract

<sup>121</sup> See [www.skillcosystem.net](http://www.skillcosystem.net) for information about the skill ecosystem pilot program



labour hours to be undertaken by apprentices and trainees and those seeking to up-skill, where this does not result in unreasonable costs to business.<sup>122</sup>

Overseas, accreditations whose primary purpose is improving business performance, such as the Investors In People (IIP) Standard, are similarly required for procurement by local and national governments. This has contributed to the spread of such standards. In the case of IIP UK, it is estimated that some 40 per cent of the British workforce is working in or—has worked in—organisations recognised by or working towards the standard.<sup>123</sup>

Like awards for excellence, these forms of accreditation are also used to provide positioning in competitive marketplaces, including where a company is recruiting staff or tendering for contracts. The Equal Opportunity in the Workplace Agency in Australia offers a citation known as the EOWA Employer of Choice for Women citation which operates in this way and is now held by 111 Australian organisations across a range of industries.

Consultations indicated that stakeholders wanted Skills Australia to pursue ways of encouraging workforce development through the powerful tool of government purchasing. ACTU policy seeks the adoption of the following requirements in large contracts of national significance, where local provision of goods and services is occurring:

- ▶ local skill development including investment in training for higher level broad-based qualifications and retraining of existing workers
- ▶ effective labour market planning and forecasting
- ▶ the use of skilled migration only where a genuine skills shortage has been demonstrated.<sup>124</sup>

The framework adopted could involve contract requirements and/or a recognition-based system, and could draw on the metrics developed in other relevant schemes, including those used by the Australian Human Resources Institute for its annual excellence awards.

## 4.7 Recommended actions

### *Increase productivity, employee engagement and job satisfaction by making better use of skills in the workplace*

*Recommendation seven:* Australian governments to use public funding to leverage workforce development at industry and enterprise level, with a special focus on small business. Strategies to include the following:

7.1 Establish a national program of industry clusters and/or networks to address the collective skills and workforce challenges faced by enterprises in an industry sub-sector or region.

Industries identified initially to participate could include those of key social and economic importance, and/or those which are restructuring in the face of global competition.

The readiness of industry participants to collaborate on common issues and to participate in a 'root cause' diagnostic process is critical.

*Funding: \$15 million per annum*

7.2 Expand by 50 per cent the Enterprise Connect program to better link the development and use of skills directly with business performance and innovation.

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122 Council of Australian Governments' Meeting Communiqué (2 July 2009), available at [www.coag.gov.au](http://www.coag.gov.au)

123 Investors in People (2009), *Company Annual Report*, 2008-9 available at [www.investorsinpeople.co.uk](http://www.investorsinpeople.co.uk), [www.investorsinpeople.co.uk](http://www.investorsinpeople.co.uk)

124 ACTU Congress (2009), *Government procurement policy* available at [www.actu.asn.au](http://www.actu.asn.au)



Initiatives need to be developed and costed by the Department of Industry, Innovation, Science and Research (DIISR) in collaboration with DEEWR, but could include:

- ▶ a workforce development hub within Enterprise Connect that offers specialist expertise to firms to enable improved skills development and use in the context of boosting innovation and firm performance
- ▶ an extension of Enterprise Connect to selected service industries, including as a priority, community services, transport, wholesale, tourism and construction
- ▶ new funding for a small and micro-business strategy, run by DIISR together with small business associations, and focusing on developing successful models for combined firm and employee learning
- ▶ increasing field officer roles working between research institutes and education providers, based on the agricultural extension model, to assist small businesses to adopt continuous improvement practices and maximise use and development of workforce skills.

*Funding: \$25 million per annum*

7.3 Industry Skills Councils and other intermediaries to use programs like the Productivity Places Program to promote better use of skills in the workplace through a focus on workforce development.

This recommendation entails:

- ▶ skills being integrated with enterprise development and workplace change objectives as defined by enterprises with upskilling or reskilling related to those KPIs
- ▶ enterprises demonstrating a commitment to supporting workplace learning and development, including for people employed under non-standard employment conditions such as casual and part-time workers, if applicable
- ▶ the allocation of funds, monitoring and evaluation of outcomes being undertaken according to agreed workforce development standards, by intermediaries such as Group Training Organisations, Industry Skills Councils and peak industry bodies
- ▶ collaborative and experimental approaches across intermediary bodies would be encouraged to devise individualised and tailored responses to meet specific enterprise contexts.

Training funds available to firms within this stream of funding should be offered flexibly, including:

- ▶ part-qualifications for existing workers who already have a Certificate III qualification or above
- ▶ the availability of staged delivery leading to a qualification
- ▶ 'bundling' of competencies across certificate levels (including at levels I&II) and across several training packages
- ▶ development of supervisor skills (for example, a customised Frontline Manager qualification) as a 'combined package' with worker skill development
- ▶ connecting the use of these funds with a parallel business intervention, following a whole-of-business diagnostic about skills gaps and skill use linked to enterprise development
- ▶ networking across small and medium enterprises
- ▶ mentoring and coaching.

These activities would be part publicly funded, with an employer contribution component to be determined subject to eligibility arrangements.

*Funding: Reallocation within current resources*

7.4 The Australian Government to introduce requirements in its supply contracts for medium and large firms to meet criteria related to workforce development.



Criteria could be developed from, for example, the internationally recognised Investors in People Standard, Australian standards for workforce planning and management, and/or best practice indicators used in national training and human resource development awards.

*Funding: Within current resources*

*Recommendation eight:* Australian governments to encourage greater flexibility in resources and VET provider accountabilities to encourage tertiary education sector/industry partnerships that align training with business strategy.

Resource flexibility to undertake workforce development activities could involve:

- ▶ identifying and using a proportion of funding for traditional training to cover non-formal activities in workplaces, such as brokering, mentoring, coaching or advice on skill planning at a whole of business level
- ▶ using employer training incentives to support training for existing workers who are not apprentices or trainees
- ▶ joining up funds across portfolios for innovation, incentive payments or joint project-based grants.

Elements to build on:

- ▶ Enterprise Connect services and similar state and territory programs such as My Business, My People, and Skills for Growth in Victoria
- ▶ The DEEWR Productivity Places and Workplace Innovation Programs
- ▶ Intermediary organisations and services that broker business and skills development, including Industry Skills Councils, Group Training Organisations and certain training organisations
- ▶ Cooperative Research Centres, especially those in primary production, that have effective cross-sectoral education and extension programs
- ▶ National Skill Ecosystem Program
- ▶ Queensland Skill Formation Strategy program
- ▶ Australian Human Resources Institute people management metrics.



# 5. Enhancing the capability of the tertiary education sector

*The tertiary education sector needs to expand its capability to achieve the key objectives we have outlined, including a strong focus on increasing qualifications levels, improving core skills and addressing the needs of the less advantaged and at risk groups. At the same time a strong focus on quality needs to be maintained. The sector will require additional resourcing and the development of new strategies to encourage greater participation in education and training.*

*We also propose a major change initiative in workforce development for the tertiary education sector to ensure it has the capacity to deal with these new challenges.*

Australia needs significantly more qualified people whether we experience the low, medium or high growth scenarios discussed in Section 1. The question then arises as to the scale and nature of the investment required to meet future needs and the capacity of the tertiary education sector to meet increased student demand.

In this context it is important to note that while domestic student numbers in universities have increased on average by over one per cent per annum and overseas student numbers have grown over seven per cent per annum in recent years, enrolments in vocational education and training have changed little.<sup>125</sup>

While COAG agreements should ensure an expansion of VET places in the future it is not clear that the funding provision will be forthcoming. The considerable fall in recent years in public funds per hour of VET training indicates this could be a continuing concern.<sup>126</sup>

## 5.1 Implications of the Open Doors scenario

We consider it prudent to plan for the Open Doors scenario not only because it is most consistent with current government settings, but most importantly because of the advantages deriving from the increased workforce participation levels that would be made possible by a more highly qualified workforce (see Section 2).

Modelling of the Open Doors scenario indicates that the number of people to hold non-school qualifications (at any level) by some 5.5 million between 2008 and 2025.<sup>127</sup> By 2025 over three-quarters of employed people (76 per cent) would have non-school qualifications as follows:

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<sup>125</sup> Skills Australia (2009), *Background Paper One, What does the future hold?* p.33 at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au)

<sup>126</sup> The Annual National Report of the Australian Vocational Education and Training System (2008) indicates that Government recurrent expenditure of publicly funded VET training fell 11.5 per cent per hour of training (2008 prices) between 2004 and 2008.

<sup>127</sup> Access Economics (2009), *Economic modelling of skills in demand*, Table 8.1, p.53 and related intermediate year data



**Table 8: Open doors modelling of the demand for people with non-school qualifications**

Year	No. of employed people with quals (million)	% of employed persons with quals
2008	6.1 million	60%
2015	8.6 million	68%
2020	10.1 million	72%
2025	11.6 million	76%

### Funding for more enrolments

To accommodate the growth and the projected increased demand for employed people with qualifications under Open Doors an increase in funding for additional tertiary education enrolments will be required. However, even at the higher levels of qualifications projected under Open Doors, and shown above, employers' demand for qualifications may not quite reach the COAG target of halving the proportion of 20 to 64 year olds without qualifications at Certificate III level and above.

The estimates in Table 9 for the Open Doors scenario show projected student enrolments and completions, and average growth rates, over the period to 2025. They indicate the average annual growth rate of completions (or supply of qualifications) will be just over two per cent, up to 2.4 per cent in 2025. To achieve this supply, Access Economics projects a similar rate of growth in enrolments.

**Table 9: Open Doors scenario projected student completions and enrolments (2008 to 2025)**

	2008 Actual	2015	2020	2025
Projected completed quals p.a.*	500,000 (2007)	530,000	589,000	660,000
Average annual growth %		2.1	2.1	2.4
Projected enrolments p.a.*	1,978,000	2,275,000	2,513,000	2,815,000
Average annual growth %		2.0	2.0	2.6

#### \*5 year average

Source: Access Economics (2009) *Economic modelling of skills in demand*, various tables. Enrolments include all domestic higher education students and VET students in courses leading to an AQF qualification excluding full-fee students with private providers. Most higher education and some VET courses span several years.

However, as outlined in Section 1, Table 2 on the Open Doors growth rates, a shortfall of qualifications is projected of 240,000 per year in 2015, falling to 170,000 per year by 2025. Some of this balance will be met by skilled net migration, but Skills Australia proposes increasing the annual average growth rate of enrolments from two to three per cent per annum to 2020, moderating over the period to 2025, in order to eliminate the shortfall more securely.

This is a much faster expansion in domestic enrolments than occurred in the last decade. The recommended expansion will also increase the prospect of achieving the COAG targets which are higher than those projected in Open Doors. Better completion rates are also a key factor in bringing us closer to both the Open Door projections and COAG targets.

The likelihood of meeting employer requirements and also of achieving the COAG targets will be enhanced if completion rates can be lifted. This will be addressed particularly in the work that Skills Australia is currently undertaking on the VET sector.

In 2008 total spending on tertiary education delivery and related support for domestic students was over \$22 billion per annum, with over 70 per cent provided by governments.<sup>128</sup>

<sup>128</sup> NCVER (2008), Financial information and DEEWR Finance 2008, Skills Australia analysis. Research funding, consultancy revenue and overseas student fees are not included.



Assuming funding per student is maintained in real terms, then to provide for the projected expansion in enrolments, a cumulating addition to funding of about \$660 million<sup>129</sup> in 2010-11 and \$1320 million in 2011-2012 is required, with larger sums in the following years. For the period up to 2012-13, this additional enrolment component will be achieved without new Commonwealth expenditure as a result of recent Commonwealth initiatives and the funding that accompanies them. After that time, Skills Australia argues that additional expenditure should be built into base tertiary education funding. By 2025 total tertiary education spending would rise to \$32 billion in constant prices.

Concurrent with this expansion in enrolments, it is critical that a focus on quality provision be maintained in both the VET and higher education sectors. Recent moves towards better regulation are important but these need to go hand in hand with a strong and continuing commitment to improving the performance of all education and training providers. Skills Australia considers this an area that requires greater attention.

### Ensuring a solid base

Recent Commonwealth initiatives including the Productivity Places Program, the post-Bradley Review programs in higher education (including the uncapped entitlements), the large infrastructure programs, such as the *Better TAFE facilities* and *Better Universities Renewal Funding* and improved student assistance mean that this rate of funding expansion is being exceeded in the short term, particularly in higher education. However, Skills Australia believes these additional programs need to be built into longer-term base funding to meet the cost of supplying additional qualifications in line with Skills Australia's preferred rate of expansion.

This will require funding commitments from states and territories as well as the Australian government. Under the COAG targets the states and territories have already agreed to the provision of places at a faster rate than indicated in the highest scenario. However, provision of the required funding in the VET sector to ensure the higher participation rates and quality provision has yet to be assured.

## 5.2 Supporting a diverse student body

The calculation above assumes current funding levels. However, simply maintaining the current level of funding per student will not be sufficient to provide for the changing composition of students. This is already acknowledged in the provision in higher education (following the Bradley Report) for additional funds to support an increase in participation especially by students of low socio-economic status.<sup>130</sup>

The lift in workforce participation implied in the Open Doors scenario has significant implications for VET, as well as adult and community education. It would be expected that this sector will take on the major proportion of provision for adults who have low skills in language, literacy and numeracy programs and for the provision of vocational courses to low SES students who are unemployed, not in the labour force or marginally attached to it. The higher cost of addressing the skills needs of these cohorts also needs to be factored into the sector's capacity to respond effectively. Actions and funding in these areas are outlined in recommendations 4 and 6 earlier in this report.

The size of any employer and individual contribution to the expanded funding needs further consideration, but we consider majority public funding appropriate especially for the more vulnerable and marginalised.

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129 \$660 million is three per cent of \$22 billion. Note that these figures refer to public and private spending. A proportion of the additional funding could be provided by employers and individuals, but a major government contribution will be important as disadvantaged students are involved.

130 Commonwealth of Australia (2009), *Transforming Australia's higher education system*. Following Government acceptance of the Bradley report, funding for low SES students is estimated to grow to \$176 million per annum by 2012-13





## 5.3 Getting more Australians into education and training

Achieving higher enrolments in the short term, when school leaver numbers have flattened means we need to increase the proportion of school leavers who progress to tertiary education, beyond that assumed in the projections. We also need to further increase the proportion of adults participating in education and training.

Specific strategies will be therefore be needed to focus on key target groups, including young people at risk of disengaging from education and training, existing workers, and mature aged people, including those who are unemployed or at risk of unemployment.

More innovative and flexible ways of engaging with these cohorts will be essential, acknowledging that, for many, formal training in an institution may not be an attractive prospect.

### Learning from others

Models of successful programs to engage marginalised people and at risk groups need to be studied, adapted and applied as appropriate. The examples that follow demonstrate how flexibility, partnerships and community involvement can make a difference:

**The Men's Shed:** A highly successful, flexible outreach program that helps marginalized people to participate in the community and workforce has been established in the Nambucca Shire.

The shire is characterised by high levels of unskilled workers, long term unemployed, court convictions, psychiatric hospital admissions, low levels of income and education and also has a significant indigenous population.<sup>131</sup>

To address some of these issues the Nambucca Community Services Council developed *The Men's Shed* project. It is an effective, regionally based, socially inclusive community program for men. *The Men's Shed* is a place where skilled and unskilled men of all ages can exchange experiences and work together on personal or community based projects. *The Men's Shed* aims to maintain and expand men's social networks, providing healthcare information, education and work related skills. It encourages men to participate in projects that can benefit the whole community.

The project design facilitates learning through skill development and seeks to use the skills, knowledge and experience of participants in mentoring other members of the community.<sup>132</sup> All mentors are volunteers and are supported with TAFE training in mentoring.

Activities at *The Men's Shed* may include the repair of toys, furniture, boats, trailers and caravans. Courses held include a wide variety of practical and health related subjects like welding, small engine maintenance, cooking classes, fathering courses, training small groups, Occupational Health and Safety and yoga.

*The Men's Shed* engages marginalised men in a relaxed, non threatening environment where skills can be learnt, taught, shared, developed and valued.

**Women 4 Work:** A program that focuses on re-engaging with the workforce.

The Victorian *Women 4 Work* employment program is run by Melbourne's Citymission Justice Program. *Women 4 Work* operates in metropolitan Melbourne and the Shepparton area and assists women who are leaving prison or who are on a community correctional order, to find meaningful employment.

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131 Commonwealth Grants Commission Indigenous Funding Commission Submission Nambucca Shire (2000) [http://www.cgc.gov.au/\\_\\_\\_data/assets/pdf\\_file/0012/4224/IFI-SUB-0040.pdf](http://www.cgc.gov.au/___data/assets/pdf_file/0012/4224/IFI-SUB-0040.pdf)

132 Nambucca Community Services Council, [http://www.nvsc.org/Mens\\_Shed.htm](http://www.nvsc.org/Mens_Shed.htm)



This program provides:

- ▶ comprehensive job search training
- ▶ individualised job search planning and one-on-one help to find a job
- ▶ up-to-date information on labour market trends and skill shortages
- ▶ access to vocational training
- ▶ support to maintain employment

The program supports these women by building their skill base, their confidence, and self esteem so they can make a successful transition to civic life when they leave prison, and find and keep employment.<sup>133</sup>

### **A national initiative: employer broker service**

At the national level, the Australian government launched a new, specialised employer broker service in July 2009 to build better links between job seekers and employers, with a focus on sustainable employment and the skill based needs of local employers.

Round one successful broker proposals include the following:

#### **Real Corporate Partners' Connecting Displaced Workers with Jobs in the Logistics Industry:**

Training, and onsite work experience and industry education will be provided to attract displaced workers to logistic and warehousing positions in the Orange region of NSW.

#### **Queensland Rural Industry Training Council's Moving Farmhands into Moving Machinery:**

Training for the long-term unemployed, youth and Indigenous Australians to address the acute shortage of skilled farmhands in Queensland. Job seekers will undertake training to allow them to obtain an operator's ticket in at least three types of farm machinery. Tailored pre-employment training, including language, literacy and numeracy, will also be provided.

### **The role of the Adult Community Education sector**

The Adult Community Education (ACE) sector also plays an important role in supporting vulnerable learners, with its strong community base, commitment to lifelong learning, less formal structures and accessibility. Community colleges are well positioned to support less confident learners and to provide foundation and core employability skills as well as pathways to other learning.

In summary, additional revenue per student will be required above current levels to meet the challenges of changing services. While COAG agreements target a much higher level of qualification outcomes, the funding to support this expansion at the rate required is yet to be assured. The considerable fall in recent years in public funds per hour of training in VET is an indicator that this is an issue requiring immediate attention.<sup>134</sup>

## **5.4 The tertiary education workforce currently faces a number of challenges**

The tertiary education sector has an ageing workforce with potentially large workforce replacement issues. Additionally, to meet the needs of both industry and of individual learners, the tertiary education workforce must be increasingly flexible, innovative and responsive. It also needs to explore new ways of working with industry. This includes developing the capability of the higher education and VET workforce to play a broader role in workforce development.

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<sup>133</sup> See Women 4 Work State Government Victoria at [http://www.justice.vic.gov.au/wps/wcm/connect/DOJ+Internet/resources/file/eb81c10fffc73a7/program\\_information\\_final\\_web.pdf](http://www.justice.vic.gov.au/wps/wcm/connect/DOJ+Internet/resources/file/eb81c10fffc73a7/program_information_final_web.pdf)

<sup>134</sup> The Annual National Report of the Australian Vocational Education and Training System (2008) indicates that Government recurrent expenditure of publicly funded VET training fell 11.5 per cent per hour of training (2008 prices) between 2004 and 2008.



## The demographics

The OECD review of Australian VET points out the urgent issue of an ageing VET/academic workforce, raising concerns over familiarity with the workplace in a rapidly changing technological environment.<sup>135</sup> The latest figures for the VET workforce indicate that 38 per cent of VET practitioners were aged 45 to 64 years in 2005, compared to 30 per cent in 1997.<sup>136</sup> In TAFE, the ageing workforce is an even more pressing issue, with 48 per cent of its workforce aged over 50 years in 2008.<sup>137</sup>

The ageing VET workforce was also a concern highlighted in our consultations.

There is little evidence of planning to address this issue and more needs to be done to consider how to attract, develop and retain the academics, teachers and trainers of the future.

The ageing of the higher education workforce is also clearly delineated in recent research which demonstrates that over the next decade the universities will face their largest recruitment task for three decades.<sup>138</sup>

## The need for creative pedagogy

Given the diversity and wide range of learning needs of tertiary students, it is critical that the tertiary workforce has the required skills and support to deal with challenging learners and to devise innovative teaching and learning strategies in both institutional and workplace environments.

There are many excellent examples of flexible and on line learning initiatives, of workplace delivery and innovative practice but these need to be expanded and 'mainstreamed'.

It also needs to be recognised that VET practitioners, in particular, work in a dynamic environment and are facing new challenges. They need to continually develop their skills in teaching, learning and assessment, in an environment that is characterised by increasing diversity. They need to address individual learning styles and preferences, including those of online learners, and to provide support to disadvantaged learners and at risk groups. They also need to work with industry and individual enterprises and maintain their industry knowledge.

Reflecting these new challenges, Mitchell et al found:<sup>139</sup>

*Our research suggests that, as the context in which vocational education and training operates changes, a notional 'new practitioner' is emerging whose role is to meet the increasing expectations of industry clients and individual students. The new VET practitioner doesn't rely on the old certainties such as pre-set curriculum and classroom instruction, but develops attributes, attitudes, ideas and techniques to meet the needs of clients. The new practitioner looks outwards at market needs and seeks to meet those needs. The attributes of the new VET practitioner reflect a new hybrid mix of sound educational practice on the one hand, and contemporary business strategies on the other. This mix is understandable, given that VET practitioners are being encouraged to work more closely with industry and enterprises.*

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135 Hoeckel et al (2008), *Learning for jobs: OECD Reviews of vocational education and training, Australia*

136 Australian Bureau of Statistics (2005), *Survey of education and training, 1997*

137 Mlotkowski, Peter and Guthrie, Hugh, *Getting the measure of the VET professional: an update*, commissioned report for DEEWR, NCVET, forthcoming

138 Hugo, Graeme (2008), *The demographic outlook for Australian universities academic staff*, Council for Humanities, Arts and Social Sciences

139 Mitchell, John et al (2006), *Quality is the key: critical issues in teaching, learning and assessment in vocational education and training*, NCVET



In working more closely with business and enterprises, it also needs to be acknowledged that most education and training is not taking place in the workplace. Knight and Mlotkowski explain that only 6.8 per cent of recognised delivery in the public VET system in 2006 took place in the workplace, while 75.2 per cent was campus based, 5.3 per cent was in online or other off campus modes and the remaining 12.7 per cent took place in other modes.<sup>140</sup>

There is a need to reinvigorate and review institutional teaching and learning styles to reflect this reality and to consider new ways of building in workplace relevance. This will require an expansion of initiatives to improve the familiarity of service providers with the latest workplace environments and technology. As well as the significant benefits already achieved by the practice of employing VET teachers who work part-time in VET and part-time in industry, other strategies such as sabbaticals in industry and other ways of inter-changing staff need to be applied more widely.

## 5.5 Developing service provider capability

The Australian tertiary education sector itself needs a new and different repertoire of responses to help create a step change in workforce development at the enterprise level. Education and training providers need to redesign their business models away from the traditional institutional provision of standardised courses, 'teacher-centred' and classroom-based face-to-face delivery of education and training.

Industry also expects both the higher education and VET sectors to expand work-integrated learning to increase the relevance of the learning experience. While this is the standard model for apprenticeships and traineeships, it is inconsistently found elsewhere in the VET sector and in higher education. The motivation to increase the work-readiness of graduates similarly inspires the demands being made on universities to increase the 'employability skills' content of degrees, alongside technical learning in professional university courses such as engineering.

Education providers will need the staff, or will need to collaborate with other experts who can work effectively with industry on a number of levels. This will include guiding enterprises through a diagnosis of workforce performance as a whole, rather than simply offering an existing training product or course. The key questions from a firm's perspective are often not 'what is the right training program for my employees?' but 'has the performance challenge been identified correctly and will training help me achieve my business goals?' This message was reiterated strongly during consultation sessions.

*With a few notable exceptions, most providers do not have the skills or the products to engage usefully with enterprises in the area of business focussed workforce development. Close examination and exposure to the models used in enterprise training organisations would be of value to all providers. (Enterprise RTO Association submission)*

Reorienting education providers to industry outcomes, rather than training outputs, will require major cultural and professional change for many staff.

The significance of this transformation must not be under-estimated.

*It means a fundamental change in mission, staff skills, funding models. (TAFE provider)*

Funding models will need to address the lead time needed to facilitate productivity impacts at enterprise levels and the respective contributions of government, employers and individuals.

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<sup>140</sup> Knight, Brian and Mlotkowski, Peter (2009), *An overview of vocational education and training in Australia and its links to the labour market*, Adelaide NCVET, p.34



In regard to future vocational education and training funding, a wide range of stakeholders identified the need to 're-engineer' VET funding arrangements.

*... to meet productivity outcomes—skills utilisation rather than just acquisition. (Western Australian consultation)*

Many have already started down this track and there are multiple examples of successful partnerships between tertiary providers, particularly those between enterprises and industry in the TAFE system. Well-documented examples are found in TAFE NSW (2008) *Improving the bottom line, why industry values TAFE NSW*; and Skills Victoria (2008) *Building skills, growing business; Innovative training partnerships with industry*.

**See also the sample enterprise and industry workforce development case studies documented in Appendix 6.**

The capacity for education and training providers to be agents of knowledge diffusion is given more prominence within a workforce development model. This can involve sharing the latest production or service capabilities in use in one enterprise with other firms through training or feeding them into training packages through the continuous improvement process (see also Appendix 6).

It can also take the form of stronger links between applied research and development institutions, such as Cooperative Research Centres (CRCs), education and training providers (both VET and university) and enterprises. In the primary industries—where there has been a tradition of such relationships—it means that teaching becomes a vehicle for innovation and new technology diffusion. Examples include the partnerships between industry and education providers through the Weeds, Cotton, Sheep and Viticulture CRCs. This is often supported by equipment donations to education and training providers from leading edge firms and return-to-industry programs for teachers and trainers.

This model brings the educationalist role closer to that of field officer or extension worker, helping diffuse innovations across an industry and facilitating peer learning. Equally, education and training providers are well-placed to enhance the broader educational dimension of skills upgrading in workplaces by helping employees articulate their own learning needs which may be longer term or support more in-depth learning.

*The debate around workforce development needs to focus on the broader public interest ... training must be focussed on what will sustain people for their working lives—not what an employer needs now. (Australian Council of Trade Unions submission)*

## 5.6 Return on investment

The investment outlined in this section to increase the levels of enrolments and the capability of the tertiary education workforce, involve a total additional expenditure each year of \$660 million, cumulating, in constant prices. Other actions outlined elsewhere in this Strategy to increase participation, improve productivity and make better use of skills in the workplace, amount to a further \$175 million additional spending in the first year with varying amounts after that. The total required in the first year is an estimated \$833.5 million funding, much of which, as noted above, is already being allocated through Commonwealth initiatives (see details at Appendix 1).

Apart from the social and community benefits of these proposals, in purely fiscal terms the investment we recommend in this Strategy will more than pay for itself.

Preliminary estimates based on work by the Productivity Commission suggest that our recommendations could increase employment and output by six per cent by 2025, and raise



the operating balances of Australian governments by as much as \$24 billion (2005-06 dollars) each year.

Indeed, the Productivity Commission estimated, on the basis of 2005 figures, that if Australia were to close the participation gap relative to the highest performing comparable OECD country for each of the labour force groups identified in Section 2, then Australia's aggregate participation rate would be boosted by close to five percentage points, to around 69 per cent by 2030. The Open Doors scenario conforms to this aspiration, although as the aggregate participation rate has risen a little since 2005, the projected increase is now less than five percentage points, and should be achievable by 2025.

Approximate estimates of the income and fiscal benefits of participation increases have been derived based on the methodology of the Productivity Commission.<sup>141</sup> National output is estimated to be progressively raised by around an additional six per cent as the projected participation levels are realised over the period to 2025.<sup>142</sup> Based on the Productivity Commission's estimates, this six per cent increase in output would translate into an annual improvement in the operating balance of Australian governments of around \$24 billion (2005-06 dollars).

As stated the cost to governments of the various proposals in this report to improve participation and productivity is estimated at an additional \$833.5 million each year when they are fully taken up. This additional funding could therefore be running at around \$12 billion extra (in constant prices) by 2025. There will also be some lag between spending on the initiatives and reaping the benefits, but this should not be long given the nature of the proposals. The most critical uncertainty is the degree of success in terms of job outcomes and improved productivity that can be expected from these proposals.

However, even heavily discounting for very considerable margins of error, clearly the presently estimated additional costs each year to governments of the order of \$800 million are enormously outweighed by the projected fiscal benefits which are estimated to reach around \$24 billion in 2025, or double the extra funding in that year. Clearly this represents a very good return to governments on their share of the extra funding, and an even better rate of return to the economy as a whole.

## 5.7 Recommended actions

### Position the tertiary education sector to ensure it has the resourcing and workforce capacity to deliver skills for the new economy

*Recommendation nine:* Enhance tertiary education and training provider capacity to meet future skill needs.

We recommend an investment of an additional \$660 million cumulating each year to 2025 compared to the 2008 base to provide for a three per cent per annum growth in enrolments in higher education and VET.

For the period up to 2012, this additional enrolment component will principally be achieved through recent Commonwealth initiatives and the funding that accompanies them.

*Recommendation ten:* Develop and implement a workforce development strategy for the tertiary education workforce.

We recommend an investment of \$40 million per annum over the next six years to develop and implement a workforce development strategy for the tertiary education sector.

141 Productivity Commission (2006), 'Potential benefits of the National Reform Agenda', Report to COAG

142 The projected increase in the workforce participation rate to 69 per cent in 2025 compares with rate of 64 per cent in that year, as projected by Treasury on the basis of a continuation of present trends and policies. The increase of five percentage points is equivalent to an eight per cent increase in participation. The Productivity Commission assumes that an eight per cent increase in participation translates into a six per cent increase in output, because it conservatively assumes that the extra workers have less than average productivity. While we have retained this conservative assumption, it is debateable if those additional workers are replacing other lower skilled workers who are moving up the skills ladder as is projected in the Open Doors scenario through a significant increase in skills deepening. An alternative interpretation would be that the extra education and training and workforce development initiatives proposed will lead to an increase in productivity that at least equals any loss of productivity through engaging more people who are relatively less skilled.



The strategy should explore, and provide support for, ways to expand the engagement of industry with the education and training workforce. These might include industry and provider staff exchanges, joint industry/provider staff appointments and industry sabbaticals and return to industry placements for teaching staff.

Research, development and diffusion of distinctive VET and higher education pedagogies should also be a priority.





# 6. Creating a shared agenda on workforce futures

*National reforms to implement workforce development should be brought together in an Australian agreement to work collaboratively on a shared Workforce Futures agenda. Government should lead the reforms but this should be shared with industry partners who are responsible for realising the productivity gains that will result.*

*A Workforce Development Observatory, or centre of excellence, is proposed as the key vehicle for sharing expertise nationally and driving innovation in workforce development.*

Underpinning all of Skills Australia's recommendations is a unifying theme. This theme is the need for a new partnership approach and a shared agenda between the key parties responsible for workforce development.

To provide a common starting point, Skills Australia has drawn on descriptions in use in Australia and internationally to define workforce development as follows:

*Those policies and practices which support people to participate effectively in the workforce and to develop and apply skills in a workplace context, where learning translates into positive outcomes for enterprises, the wider community and for individuals throughout their working lives.*

We believe that in a dynamic global environment, adaptive capacity—that is the ability to respond to new and emerging opportunities and challenges—is the most valuable characteristic the Australian workforce needs. Skills Australia is convinced that the recommendations outlined in *Workforce Futures* will, if fully implemented, go far in building this capacity and with it, our resilience as a nation.

## 6.1 Fragmented effort

*There seems to be a lot happening, but it tends to be uneven, because there is no overall direction. (Victorian consultation session)*

Governments alone cannot unlock skill potential at the individual or the workplace level. The establishment of new initiatives to encourage and support workforce development requires the engagement of many parties and cooperation across government agencies. Governments can however provide a coordinating role.

The *Workforce Futures* consultation process has tapped an enthusiasm and growing consensus for urgent change to progress workforce development across Australia. A holistic vision needs to be communicated, a common purpose on actions to support reforms established, resources allocated or re-directed, relationships forged across current silos and responsibilities and outcomes clearly articulated.

Australian public policy on workforce development as defined in *Workforce Futures* is multifaceted, encompassing productivity goals as well as education, social inclusion and employment dimensions. Relevant policy areas include education and skills programs as well as industry innovation, workplace relations, employment services, infrastructure, social inclusion and regional development. All these areas have a contributing and reinforcing role. The need for connected actions between government agencies, particularly across business



capability and skill-focused programs, is the key to achieving effective and lasting change in skills development and skill use in the workplace.

Workforce development policy can provide the national focus and integrative framework that will overcome the current fragmentation of effort in many of these areas.

## 6.2 Roles and responsibilities

Consultations clearly supported the need to have everyone involved.

*All of the players need to be part of the discussion/solution. A totally industry-led approach will not lead us to a future-focused approach, governments and education providers must have a voice as well so that Australia's overall well-being and capability is considered. (Tasmanian consultation session)*

Participants saw value being achieved through interconnections and 'cross fertilisation' across partners. They identified the need for a sophisticated and coherent focus with clear, but not necessarily exclusive roles and responsibilities.

*Whilst there is a role for industry/ industry associations there is also a public good element which cannot be ignored ... this necessitates a commitment from governments for appropriate resources to achieve desired outcomes. Industry can provide 'expert' input but the solution requires all stakeholders to take appropriate roles. (ACT consultation session)*

From a consideration of current roles and responsibilities, along with the suggestions made during the consultation process, we recommend the following allocation of roles and responsibilities.

### Australian Government

*[Government should] provide leadership on this new focus, and demonstrate value. Publicise good examples, lessons learnt and build momentum. (South Australian consultation session)*

There are two broad roles for the Australian Government. First, stakeholders called on the Australian Government to play a leadership role in driving a new, cross-government workforce development agenda and bringing the key stakeholders together. By communicating a strong message and insisting on a collaborative approach, efforts can be co-ordinated and expertise shared.

Stakeholders also saw a clear leadership role for Skills Australia, including:

- ▶ articulating the benefits of such an approach to industry
- ▶ fostering the adoption of broader strategies to workforce issues, explicitly including the benefits of workforce participation approaches
- ▶ fostering partnerships between agencies across portfolios and from all levels in order to develop and implement more comprehensive and effective solutions
- ▶ articulating clearly the national and international factors influencing the broad direction and effort needed by all parties to ensure Australia has an effective and competitive workforce.

Second, the Australian Government, through Skills Australia and DEEWR, should be directly involved in skills planning at the national level, with a continuing responsibility for the provision of high quality information and a more refined and thorough focus on specialised occupations and interventions. In higher education, where it is the major funder,



the Australian Government needs to negotiate performance and funding agreements with individual institutions that are consistent with Australia's overall skills and workforce planning objectives. Such agreements would need to avoid compromising the entitlement-based approach introduced in response to the Bradley Review.

### States and territories

*Given that jurisdictions already have their own planning systems in place, it is necessary for states to be involved in any developments in this area. (South Australian DFEEST submission)*

States and territories have a core and ongoing planning and policy role in education and training and regional economic development. States contribute the majority of funding for vocational education and training, and different models of planning and funding have emerged in response to issues of demography, geography and industry.

In a partnership approach, states and territories would have significant responsibilities in all of the Workforce Futures action areas. They would play an important role in identifying and responding to national initiatives for specialised occupations at risk of over or under supply. They would be partners and joint leaders of national workforce development reforms, such as those around lifting workforce participation rates, improving language, literacy and numeracy skills and building the capacity of the tertiary education workforce to connect more strongly with industry. Finally, where this is not currently happening, they would need to mirror the initiatives proposed for existing workers in Section 4 through recasting their own business assistance and regional development programs.

We propose that these government roles and responsibilities be formalised in a national workforce development agreement containing cross-jurisdictional implementation of agreed targets.

### Industry and industry-linked intermediaries

*Government needs to let industry lead and inform systems, processes and funding. (NSW consultation session)*

Australia's vocational education and training system is formally industry-led and there is also industry input into higher education teaching and research, varying as a function of institute and discipline. Yet many feel industry's role is, at times, token. The reforms envisaged in Workforce Futures give employers and industry sub-sectoral bodies more direct responsibility for anticipating and solving workforce issues, and leading action in the industry where employers have common interests at stake.

Skills Australia will continue to provide a key access point for industry through its triennial work program of scenario development and skills forecasting, described in Section 1. Industry Skills Councils, Group Training Organisations and other industry bodies will be participants of consortia responsible for conducting in-depth analyses of specialised occupations to advise whether skill supply is adequate and where other incentives to stimulate the supply and demand for, or use of skill, may be required. Leadership of industry workforce development projects and devising and promoting industry strategies to underpin workforce initiatives will be another way in which industry leadership of workforce development in Australia will take place, as described in Section 4.

Professional bodies would similarly be responsible for devising and promoting industry strategies to underpin workforce initiatives.

Skills Australia proposes to recognise the central role of industry by obtaining industry peak body endorsement for the National Workforce Development Reform Agreement (see below).



## The tertiary education sector

Tertiary education providers have an essential role in partnering with enterprises in workforce development. This means being more than simply providers of educational services to individuals. Many institutions already offer holistic services linked to enterprise organisational developments, but these activities need to be encouraged and facilitated so they become common practice.

States and territories also have the potential to leverage the scale and reach of their TAFE systems, as agents that have already demonstrated the capability of working closely with enterprises at the local level.

One way of better linking business development, innovation and the education and training required to support these, is to identify an agreed set of measures, principles and activities related to workforce development and enterprise partnerships that are conducted by tertiary institutions. These should then be built into tertiary education sector accountabilities and funding (see also Section 4). For too long such work has not been acknowledged as a core business of the sector.<sup>143</sup>

## Strong local linkages across programs

As noted above, the workforce development agenda is complex, crossing jurisdictional and portfolio boundaries. As a result, workforce development activity pulls in a range of industry stakeholders, including key employers and unions, business and skill development experts, researchers, and regulators. Localised or place-based approaches are widely recognised as playing a key role in a range of social inclusion initiatives and they are similarly important for specific workforce development ones.

Australia is fortunate in that its VET providers are widely dispersed across the continent, with a highly localised but inter-connected network of adult and community education providers that offer flexible and customised services in metropolitan, regional and remote areas. Our tertiary education sector is recognised as world class with valuable international and national teaching and research partnerships.

The services provided to job-seekers at some 2000 locations as part of Job Services Australia offer another crucial network that plays an important role in any workforce participation initiative, and is usefully complemented by the Local Employment Coordinators now working in some 20 Priority Employment Areas across Australia. Consultation feedback suggests that effective work on this issue is best devolved and managed close to the operations of the industry, enterprises and communities concerned.

Consultation feedback suggests that effective work on this issue is best devolved and managed close to the operations of the industry, enterprises and communities concerned.

Flexibility has been a key feature of recent approaches to workforce planning and industry development activities in South Australia. This has been achieved through greater devolution of decision-making to those closest to the industry or sector concerned and relies on a collaborative approach to problem definition and resolution that removes unnecessary bureaucratic processes. (South Australia DFEST submission)

## 6.3 What national reforms would achieve

### Shared language, objectives and outcomes

Workforce development, as an emerging field of practice, has benefited from a period of creativity and innovation to generate and trial new approaches. Australia is building a presence as a leader in the field of workforce development. The OECD currently recognises

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<sup>143</sup> Ideally training providers that partner with enterprises to improve workforce development should be paid by those enterprises for the services provided. In some cases this has led to individual TAFE Institutes being set revenue targets for these partnerships with the Institutes then retaining the funds obtained.



Australia as an innovator in workforce development and skills utilisation and observes the sophistication of the industry discussions here, commenting that in Australia:

*industry networks ... increasingly understand the limitation of taking short-term approaches to filling labour shortages ...*<sup>144</sup>

However, the diversity of views and understandings can also hamper efforts to build on successful experiences and learn from one another. It is time to step up actions to take forward these individual experiences and integrate them into mainstream practice. We propose a national reform agreement setting out a common language, objectives, outcomes and agreed success indicators as the vehicle for realising this vision.

The reform agreement should have intergovernmental support through the Council of Australian Governments, with industry endorsement through peak industry associations. The principles it contains are particularly important for the allocation of government funds.

This Agreement would:

- ▶ set out a shared vision, objectives and outcomes to guide a whole of government and industry wide approach to workforce development
- ▶ progress priority actions and establish new approaches and initiatives to address future skill needs; promote demand for, use and development of skills in workplaces and industry
- ▶ maximise the application and development of the skills of the workforce through publicly funded programs for enterprise, industry or regional development by leveraging existing education and training programs and industry/enterprise funding
- ▶ introduce a communication and engagement campaign on the Australian vision for workforce development explaining ways for enterprises, communities and individuals to take up workforce development reforms and opportunities.

**Appendix 7 contains a draft national reform agreement for Australian Workforce Development.**

### **Fostering adaptive capacity through a Workforce Development Observatory**

Sharing knowledge, practices and experiences in a structured and efficient way, together with the development of indicators of success and evaluation will lay the groundwork for building excellence in workforce development initiatives.

Australia is already recognised as a leader in trialling innovative approaches in the emerging field of workforce development. There is an opportunity to build on this position by establishing a centre of excellence, or 'observatory' to disseminate advice on excellence in this field. Consistent with the objectives of promoting industry leadership and engagement, a clearinghouse should be independent of government agencies, and engage in strategic partnerships with industry and professional groups.

The task of an observatory would be to build a network of expertise to explore, promote and resource new knowledge and disseminate information on how best to harness workforce development to drive sustainable productivity growth. Successful examples of clearinghouses, cooperative research ventures and centres of excellence exist within Australia and overseas and these should be drawn on to define the observatory's structure and role.<sup>145</sup> For now, Skills Australia proposes the following core functions for the observatory:

- ▶ consolidate national expertise and be a first point of reference for innovation in workforce development

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<sup>144</sup> Giguère, Sylvain (ed) (2008), *More than just jobs. Workforce development in a skills-based economy*, OECD, p.11

<sup>145</sup> These include the Cooperative Research Centres, the Communities and Families Clearinghouse, the Australian Clearinghouse for Youth Studies, the Australian Domestic and Family Violence Clearinghouse, the Homelessness Clearinghouse and the soon-to-be-established Closing the Gap Clearinghouse.



- ▶ engage with international experts and overseas practice to provide Australians with leading edge advice on what works
- ▶ provide a national online clearinghouse and plain English publications to disseminate practice, tools and resources
- ▶ facilitate dialogue among practitioners through conferences, events and seminars and on-line networking tools
- ▶ contribute to the tertiary education workforce development strategy to build the capacity of education and training professionals in this field (see Section 5)
- ▶ facilitate and fund research where there are gaps in national data collections or in what is known about the application of workforce development strategies
- ▶ develop and advise on performance indicators and measures and conduct evaluations to support continuous improvement and learning.

Government funding of the work of the observatory is crucial in the short term, with a longer term prospect of industry contributions and self-funding arrangements. There would be the opportunity to link the work of Skills Australia to other national, regional and industry initiatives that focus on industry, workforce and economic development.

## 6.4 Recommended actions

### Lead a new partnership approach to workforce development at government, industry and enterprise level

*Recommendation eleven:* The Council of Australian Governments and Ministerial Councils for tertiary education, industry, workplace relations and regional development, together with industry peak bodies endorse a National Workforce Development Reform Agreement and commit to cross-jurisdictional and industry wide implementation.

*Funding:* Within current resources.

*Recommendation twelve:* The Australian Government to lead a collaborative approach between government and industry to build adaptive capacity in the workforce, including the establishment of a 'Workforce Development Observatory'.

*Funding:* \$3.5 million each year to 2020, indexed but non-cumulating, subject to industry contributions. This estimate assumes costs of some \$980,000 per annum for seven staff; research, survey and database funds amounting to some \$1.8 million with the remainder providing for operating costs, including those required for establishment. Appendix 1: Preliminary Costing of Recommendations





# Appendix 1: Preliminary Costing of Recommendations

## Workforce Futures Strategy funding summary

Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<b>A: Funding to increase enrolments</b>				
<b>1 Skills Deepening</b>	Resourcing the tertiary education sector to deliver the additional enrolments and qualifications required to deepen the skills of the workforce and increase workforce participation	Skills Australia's modelling of the Shell Open Doors scenario projects economic demand for 70 per cent of employed people with Cert III and above by 2025. This level of skill deepening will also allow us to approach the COAG target to raise to 76 per cent the proportion of the population with a Certificate III or above by 2020.	No new funding to 2012. <sup>146</sup> Current Commonwealth initiatives such as the Productivity Places Program, the post-Bradley Review programs in higher education, the infrastructure program and improved student assistance means that in the period to 2012 more than this amount is being added to the 2008 base figure, before contributions from the states and territories and other stakeholders.	To achieve the \$660m cumulating each year beyond 2012 to 2025. Skills Australia believes this additional funding needs to be built into longer term base funding for both VET and higher education to meet the cost of supplying additional qualifications.
<b>3 Lifting Participation</b>	Based on the current funding per student we calculate that an additional \$660m per annum, cumulating, needs to be added to the 2008 base to support the expansion in tertiary education sector enrolments outlined in the Strategy.	Increased participation is required to sustain growth and offset the effects of the ageing population		Given \$22 billion as the base in 2008 for tertiary education delivery (all sources) this means spending in 2015 should be \$25.3 billion, in 2020 be \$28.6 billion and by 2025 should be \$32 billion in constant prices

<sup>146</sup> The Productivity Places Program post-Bradley funding programs in higher education, infrastructure spending and improved student assistance, account for new Commonwealth spending of \$2187.1 million in 2009-10, \$1716 million in 2011-2012, \$1841.5 million in 2011-2012 and \$1861.3 in 2012-2013. Skills Australia's costings of \$660 million (2010-11), \$1360 million (2011-2012) and \$1980 million (2012-2013) for additional enrolments under the Strategy are calculated on the basis of total expenditure, including from Commonwealth, state and territory governments and individuals. These amounts are therefore covered in the first and second years and nearly covered in the third year by Commonwealth expenditure before any contributions from other sources. Figures are based on 2009/10 Commonwealth budget estimates.



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<p><b>9</b> <b>Enhancing provider capacity</b></p>	<p>Increasing workforce participation by raising the participation of groups which have relatively low rates by international standards</p> <p>Australian Governments to endorse the need for a substantial increase in Australia's education and training effort to 2025 in order to deepen the level of skills in the workforce as projected in the Open Doors scenario</p>			
<p><b>Total A</b></p>			<p>No additional resources</p>	<p>Additional amounts based on \$660m per annum, cumulating, to 2025</p> <p>Given \$22 billion as the base in 2008 for tertiary education delivery (all sources) this means spending in 2015 should be \$25.3 billion, in 2020 be \$28.6 billion and by 2025 should be \$32 billion in constant prices</p>
<p><b>Funding to increase enrolments</b></p>				



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<b>B: Funding for new initiatives</b>				
<b>2</b>				
<b>A new collaborative planning framework</b>	A collaborative workforce and skills planning framework, featuring a new targeted approach to specialised occupations, led by Skills Australia, with skills strategies for these occupations developed by consortia	A collaborative workforce planning framework will provide efficiency of effort and a coordinated approach to addressing future skills needs  Skills surpluses or shortages will be avoided in specialised occupations	Current resources of Skills Australia will be used for the development of a coordinated planning framework, with additional annual funding of \$1.5m each year (non-cumulating) required for the development of specialised skills strategies. This will be allocated on the basis of an estimated \$100,000 for each skill strategy and assumes 15 specialised occupational groups will be covered each year	Ongoing as per 2010-2012.
<b>4</b>				
<b>Address the needs of vulnerable learners and the disadvantaged in the VET sector</b>	Increasing the Commonwealth general purpose recurrent funding to VET by 3.6 per cent per annum based on 2008 figures to enable VET providers to engage and support disadvantaged learners through to completion of qualification and a work outcome  Funds could be provided to states and territories on the basis of the SEIFA index, and/or an approved strategy for using the funds  Disadvantaged students in higher education have received equivalent funding through the Transforming Australia's Higher Education System initiatives	Increasing the workforce participation rate means more VET students will be vulnerable learners requiring additional support. VET per student funding has declined substantially in recent years affecting the system's capacity to cater to these groups  This recommendation underpins Recommendation 1 on skills deepening and Recommendation 3 on lifting participation in the labour force	\$40m per annum in 2010-11 and cumulating annually. This means that by 2011-2012 funding should be \$80m per annum.	Continuing as per 2010-2012 up until at least 2020  This means that by 2020 this funding should be \$400m in constant prices

Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<p><b>5</b></p> <p><b>Development of a national adult language, literacy and numeracy strategy</b></p>	<p>A national language, literacy and numeracy strategy developed by mid-2011 will provide approaches for:</p> <ul style="list-style-type: none"> <li>* Developing the adult literacy and numeracy teaching workforce</li> <li>* Addressing barriers to accessing literacy and numeracy training, including reducing stigma</li> <li>* Developing alternative delivery methods for both low and high skilled workers</li> </ul>	<p>New Zealand's seven percentage point improvement in document literacy from 1996 to 2006 demonstrates the success that can be achieved by having a national strategy that provides for broad delivery of literacy and numeracy training, development of the literacy teaching workforce, and quality assurance of literacy training</p>	<p>Existing DEEWR resources</p>	<p>Ongoing funding to be determined in line with recommendations of the LLN national strategy</p>
<p><b>6</b></p> <p><b>Expansion of adult language, literacy and numeracy (LLN) programs</b></p>	<p>Increase by 50 per cent the delivery provided by LLNP and WELL programs in order to serve a greater proportion of people with low LLN levels</p>	<p>Overall, 36,400 (less than one per cent) of the estimated 4,700,000 people in the labour force who have LLN needs are currently being serviced by these programs. Given the scale of the problem, there is an urgent need to address adult LLN issues with current best-practice programs before the implementation of a national LLN strategy. A 50 per cent increase over the next two years prior to the implementation of the national LLN strategy is considered necessary to address the current low levels</p>	<p>An additional \$12m each year for the WELL program and an additional \$38m each year for the LLNP to 2012, with a review in the light of national strategy after that date. Funding to be additional to the 2008 base, indexed but non-cumulating</p> <p>This means that by 2012 WELL funding should be \$36m and LLNP funding should be \$114m in constant prices</p>	<p>Funding to be determined in line with recommendations of the LLN national strategy</p>



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<b>7.1</b> <b>Industry/regional cluster program</b>	<p>Establish a national program of industry clusters and/or networks to address the common skills and workforce challenges faced by enterprises in an industry sub-sector or region</p>	<p>Many persistent workforce and skills challenges are common to an industry sub-sector, supply network, or employers in a region, and collaborative action to address these needs is to be encouraged</p>	<p>\$15m per annum with staged funding and employer contributions to individual projects structured similarly to past Skill Ecosystem Program Funding is non-cumulating.</p>	<p>Continuing as per 2010-2012 up until at least 2015. Funding is non-cumulating and should be reviewed in 2015.</p>
<b>7.2</b> <b>Expansion of Enterprise Connect program</b>	<p>Expansion of Enterprise Connect to offer specialist assistance to employers on workforce development (following business diagnostic) and to expand its scope to service industries</p>	<p>Enterprise Connect is a successful program and currently provides the most comprehensive assistance to improve business performance. However it is small-scale and is limited mainly to the manufacturing sector. Expenditure in the program is approx. \$50 mill per annum</p> <p>Building into the program a specialist workforce development advice network linked to training, and expanding its scope to service industries, would be a cost-effective way of achieving the aims of Workforce Futures</p>	<p>\$25m per annum Funding is non-cumulating</p>	<p>Continuing as per 2010-2012 up until at least 2015 Funding is non-cumulating</p>



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<b>7.3</b> <b>ISCs and other intermediaries to promote better skills use</b>	<p>Enterprise-focused training programs need to integrate a stronger focus on workforce development principles including improving the use of skills in the workplace</p>	<p>In public training programs, government funding should leverage change by introducing greater conditionality about WFD-related employment policies and practices (as well as shared funding). They should also avoid perverse incentives and the substitution of public for private effort</p>	<p>Reallocation within existing resources of enterprise-focused training programs</p>	<p>As per 2010-2012</p>
<b>7.4</b> <b>Government contracts to include criteria related to workforce development</b>	<p>Government to pursue ways of encouraging workforce development through the powerful tool of government purchasing. Both accreditation-based and contract requirement-based systems should be considered</p>	<p>Government procurement policy is recognised as an effective tool for stimulating industrial, employment and training practices that are in the public interest. COAG recently endorsed its use in infrastructure stimulus projects</p>	<p>Current government resources</p>	<p>As per 2010-2012</p>
<b>8</b> <b>Encourage tertiary education sector/industry partnerships</b>	<p>Australian governments to encourage greater flexibility in resources and VET provider accountabilities to encourage tertiary education sector/industry partnerships that align training with business strategy. This could include using a proportion of funding to cover non-formal activities in workplaces, such as brokering, mentoring, coaching or advice on skill planning at a whole of business level</p>	<p>Skills Australia is aware of a range of effective industry partnerships that have been developed by education and training providers. Typically these involve a range of activities that support but go beyond training and assessment delivery. Currently VET funding arrangements and accountabilities hinder rather than help teachers to undertake such partnerships, even where industry makes a significant financial contribution</p>	<p>Reallocation within existing resources</p>	<p>As per 2010-2012</p>



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<b>10</b> <b>A tertiary education workforce development strategy</b>	<p>Skills Australia recommends the development and implementation of a workforce development strategy for the tertiary education workforce</p> <p>The tertiary education sector has an ageing workforce with potentially large workforce replacement issues</p> <p>Additionally, to meet the needs of both industry and of individual learners, the tertiary education workforce must be increasingly flexible, innovative and responsive</p> <p>It also needs to explore new ways of working with industry. This includes developing the capability of the higher education and VET workforce to play a broader role in workforce development</p>	<p>The investment recommended is modest given the size of the combined VET /HE workforce. The workforce development strategy should focus on strategic national workforce development issues and funding for the implementation of the strategy should not replace state and territory staff development funding</p>	\$40m each year, indexed, but non-cumulating	Continuing as per 2010-2012 up until at least 2016
<b>11</b> <b>Lead a new partnership approach to workforce development</b>	<p>Skills Australia and the Australian Government to lead a collaborative approach between government and industry to build adaptive capacity in the workforce</p> <p>Skills Australia has drafted a national workforce development reform agreement for endorsement by governments and industry and this is included in Workforce Futures</p>	<p>A unifying theme that underpins Skills Australia's advice is the need for a new partnership approach and a shared agenda between all of the players responsible for workforce development</p> <p>Improving workplace performance is not primarily the responsibility of government, but government can lead and facilitate change in tandem with industry and other stakeholders</p>	Current resources	As per 2010-2012



Recommendation	Description	Rationale	Resourcing 2010 – 2012	Resourcing 2013-2025
<p><b>12</b></p> <p><b>Establish a 'Workforce Development Observatory'</b></p>	<p>The Australian Government to lead a collaborative approach between government and industry to build adaptive capacity in the workforce, including the establishment of a 'Workforce Development Observatory' or centre of excellence</p> <p>The tasks of the Observatory would be to support a network of expertise; to explore, promote and resource new knowledge on workforce development and to disseminate information on how best to harness workforce development to drive sustainable productivity growth</p>	<p>Currently, Australia is recognised as a leader in this field on the basis of innovations that have taken place in different parts of the country</p> <p>However, Skills Australia is aware that efforts are currently fragmented and dispersed, and has received input from stakeholders that the achievements of individual projects are often lost as a result of not being shared or integrated into mainstream practice</p>	<p>Funding is \$3.5m each year indexed but non-cumulating and subject to industry contributions. This estimate assumes costs of some \$980,000 per annum for seven staff; research, survey and data base funds amounting to some \$1.8m with the remainder providing for operating costs, including those required for establishment</p>	<p>Ongoing as per 2010-2012</p>
<p><b>Total B</b></p>			<p>Total for 2010-11 is \$175m, Total for 2011-12 is \$215m</p>	<p>An estimated \$203.5m is required for 2012-13, excluding LLN. Additional funding for LLN to be determined after 2011-12 in line with recommendations of the LLN national strategy</p> <p>Funding for disadvantaged students is cumulating, reaching \$400m by 2020</p> <p>Funding for industry programs to be reviewed in 2015. Funding for the tertiary education workforce development strategy to be reviewed in 2016</p>
<p><b>Funding for new initiatives</b></p>				





# Appendix 2: The consultation process

## The Workforce Futures papers

The consultation process on *Workforce Futures* was facilitated through the release of three background papers in September 2009. These included an overview paper *Towards an Australian Workforce Development Strategy*, Background Paper 1: *What does the future hold? Meeting Australia's skills needs* and Background Paper 2: *Powering the workplace: Realising Australia's skill potential*.

They were distributed to a wide range of peak industry bodies, education and training authorities and representative organisations, Industry Skills Councils, economic and regional development bodies. They can be read on the Skills Australia web-site at [www.skillsaustralia.gov.au](http://www.skillsaustralia.gov.au).

## The consultation process

The consultation process used to refine the proposals put forward in the background papers and to develop the Workforce Futures Strategy involved:

- ▶ a Steering Committee involving educationalists, researchers, and workplace specialists, as well as government officers working in relevant areas
- ▶ consultation with key stakeholders around alternative scenarios for Australia to 2025
- ▶ input from state and territory governments, Industry Skills Councils and peak organisations on workforce development initiatives being undertaken
- ▶ a nation-wide consultation process and written submissions
- ▶ strategic conversations with key agencies to develop recommendations.

The background papers formed the basis of discussion at the variety of stakeholder consultation meetings and roundtables conducted in over twenty sessions around Australia. The consultations were predominantly hosted by Philip Bullock, Chair of Skills Australia and attended by Board members.

The public consultations took place in all states and territories over September to November 2009 with involvement by key stakeholders from enterprises, industry, tertiary education providers, professional associations and others. At each consultation session there was the opportunity for table discussion, plenary sessions and for stakeholders to provide written feedback.

In total over 400 stakeholders were consulted and included:

- ▶ government officials from education, training, industry, regional development and local government agencies
- ▶ education providers – universities, and public and private VET providers
- ▶ professional associations
- ▶ Industry Skills Councils and state-based industry training advisory bodies
- ▶ peak industry association representatives
- ▶ trade union officials
- ▶ researchers and consultants
- ▶ group training organisations
- ▶ career development specialists.

A full list of stakeholder organisations that were invited and attended to the consultations can be found on the Skills Australia website.



## Presentations

Presentations were also made at conferences including the Melbourne Institute Economic and Social Outlook Conference; the Centre for Employment, Education and Training (Monash University) Conference; the Business Higher Education Roundtable; TAFE South Australia Senior Managers' Conference and the Community Services and Health Industry Skills Council Conference (by Dr John Buchanan).

Additionally the following organisations hosted focused sessions for members, staff and other interested parties:

- ▶ Group Training Australia
- ▶ Australian Industry Group
- ▶ Australian Chamber of Commerce and Industry
- ▶ The Australian Council of Trade Unions
- ▶ The Business Higher Education Roundtable
- ▶ Community Services and Health and the Service Skills Industry Skills Councils, and Skills DMC.

## Submissions

Over 40 written submissions were received, complementing the written and verbal feedback provided by participants at state and territory roundtable meetings. A list is available on the Skills Australia website.



# Appendix 3: Specialised occupations<sup>147</sup>

1331*	Construction managers	2544	Registered nurses
1332	Engineering managers	2611	ICT business and systems analysts
1341	Child care centre managers	2613	Software and applications programmers
1342	Health and welfare services managers	2633	Telecommunications engineering professionals
1343	School principals	2711	Barristers (d)
1344	Other education managers	2712	Judicial and other legal professionals(d)
2211	Accountants <sup>(e)</sup>	2713	Solicitors (d)
2212	Auditors, company secretaries and corporate treasurers <sup>(b)</sup>	2723	Psychologists
2221	Financial brokers	2725	Social workers
2241	Actuaries, mathematicians and statisticians <sup>(c)</sup>	3122	Civil engineering draftpersons and technicians
2245	Land economists and valuers	3132	Telecommunications technical specialists
2311	Air transport professionals	3211	Automotive electricians
2312	Marine transport professionals	3212	Motor mechanics
2321	Architects and landscape architects	3221	Metal casting, forging and finishing trades workers
2322	Cartographers and surveyors	3222	Sheet metal trades workers
2326	Urban and regional planners	3231	Aircraft maintenance engineers
2331	Chemical and materials engineers	3233	Precision metal trades workers
2332	Civil engineering professionals	3241	Panel beaters
2333	Electrical engineers	3243	Vehicle painters
2334	Electronics engineers	3311	Bricklayers and stonemasons
2335	Industrial, mechanical and production engineers	3312	Carpenters and joiners
2336	Mining engineers	3321	Floor finishers
2339	Other engineering professionals	3322	Painting trades workers
2341	Agricultural and forestry scientists	3331	Glaziers
2346	Medical laboratory scientists	3332	Plasterers
2347	Veterinarians	3334	Wall and floor tilers
2393	Teachers of English to speakers of other languages	3341	Plumbers
2411	Early childhood (pre-primary school) teachers	3411	Electricians

<sup>147</sup> The revised Skilled Occupation List to be used in the General Skilled Migration Program will be based on these specialised occupations but may well differ in the occupations included. The new Skilled Occupation List will be announced in April 2010. More information can be found on the Department of Immigration and Citizenship web-site at [www.immi.gov.au](http://www.immi.gov.au).

2412	Primary school teachers	3421	Air-conditioning and refrigeration mechanics
2413	Middle school teachers	3422	Electrical distribution trades workers
2414	Secondary school teachers	3423	Electronics trades workers
2415	Special education teachers	3942	Wood machinists and other wood trades workers
2421	University lecturers and tutors	3991	Boat builders and shipwrights
2511	Dieticians	3996	Sign writers
2512	Medical imaging professionals	4112	Dental hygienists, technicians and therapists
2514	Optometrists and orthoptists	4114	Enrolled and mothercraft nurses
2515	Pharmacists	4115	Indigenous health workers
2521	Chiropractors and osteopaths	4231	Aged and disabled carers
2523	Dental practitioners	4233	Nursing support and personal care workers
2524	Occupational therapists	4412	Fire and emergency workers
2525	Physiotherapists	4413	Police
2526	Podiatrists		
2527	Speech professionals and audiologists		
2531	Generalist medical practitioners		
2532	Anaesthetists		
2533	Internal medicine specialists		
2534	Psychiatrists		
2535	Surgeons		
2539	Other medical practitioners		
2542	Nurse educators and researchers		
2543	Nurse managers		

\* The ANZSCO unit group code number

(a) CPA or equivalent

(b) Auditors only

(c) Actuaries only

(d) Legal professionals admitted to practice only



## Criteria and data sources

Criterion	Description	Indicators	Scope	Measure	Source
A. Long lead time	Skills are highly specialised and require extended learning and preparation time over several years.	(i) Average education or training duration	Apprenticeships and traineeships	More than 3 years elapsed time (F/T equivalent) for 50% or more of people training in the occupation to complete an apprenticeship or traineeship	Apprentice and trainee collection (NCVER)
			Other VET-related occupations (ANZSCO 3-8)	More than 1000 hours expected training duration for 50% or more of people training in the occupation	VET collection (NCVER)
			Higher ed-related occupations (ANZSCO 1-2)	4 or more years course duration (F/T equivalent)	Sample of university websites qualified by advice from Universities Australia

Criterion	Description	Indicators	Scope	Measure	Source
<b>B. High use</b>	Skills are deployed for the uses intended (i.e. good occupational 'fit') and most in the occupation have the requisite qualification.	(i) Match between intended versus destination occupation	VET-related occupations (ANZSCO 3-8)	Match is above average (50%) at sub-major occupation group for those students who undertook training for employment-related reasons, six months after completion of training	Student Outcomes Survey (NCVER)
			Higher ed-related occupations (ANZSCO 1-2)	Match between intended and destination occupation is high	Universities Australia appraisal (qualitative)
		(ii) There are relatively few people currently employed in the occupation without the requisite qualifications	All occupations	Majority (60 per cent or more) of people working in the occupation have the requisite level of qualification.	ABS Survey of Education and Work 2008
			Higher ed-related occupations	Most in sub-major occupation group have qualification in comparable field of study (70 per cent or more) five months after completion of study	Graduate Careers Australia survey



Criterion	Description	Indicators	Scope	Measure	Source
<b>C. High risk</b>	The disruption caused by the skills being in short supply; resulting either in bottlenecks in supply chains; imposing significant economic or community costs because a business or organisation cannot operate.	(i) Occupation has a licensing or registration requirement	All occupations	Licensing or registration requirement is in place for people to practise in a particular occupation.	COAG Skills Recognition Taskforce list (some 40 VET occupations); Professional licensing and industry bodies
		(ii) Occupation whose absence means business/organisation can't operate legally.		Occupation is required for business registration, accreditation or government funding.	Industry Skills Council and industry association advice
		(iii) Occupation is needed to deliver priority government policies		Occupation is significant within the industries or strategies the government identifies as important; i.e. to support innovation, industry, sustainability, defence and infrastructure policies.	Resources, manufacturing, defence, space, marine, health, education, ICT, clean energy, energy efficiency and infrastructure policies.
<b>D. High information</b>	The quality of information about the occupation is adequate to the task of assessing future demand and evaluating criteria A to C.	Compelling evidence supports industry claims regarding the special significance of the occupation.		Industry, research and government agencies are able to provide advice about the occupation according to agreed questions.	Industry Skills Councils and industry associations, complemented by ABS data as analysed by DEEWR Labour Market Branch







# Appendix 4: Regional workforce participation

The United States National Foundation for Workforce Solutions (NFWS) is a public-private collaboration formed to address regional workforce development challenges. The core principle is to organise workforce development around industry sectors and to broker connections between employers and workers. The National Fund is focused on moving low-wage workers into higher-paying jobs while providing employers with the skilled employees they need.

This 'dual customer' (that is employer and employee), approach is focused on:

- ▶ employers having access to qualified employees
- ▶ regions becoming economically competitive
- ▶ people who work earning family-sustaining wages

NFWS services extend beyond 'work first' training or education programs into ways in which improvements in systems and programs can be achieved. They work to engage employers and workers in longer term change.

The National Fund is a joint investment by leading corporations including Microsoft, the US Department of Labor, and private foundations including Ford, Rockefeller, and Wal-mart among others. The National Fund for Workforce Solutions works on four principles, derived from a decade of program experiences among member partners:

- ▶ establish regional funding collaboratives that convene leaders with resources to identify, build support, and leverage resources for a shared strategic vision of developing a highly skilled workforce and a competitive regional economy
- ▶ support workforce partnerships that implement 'dual customer' services focused on the needs of both the employers and workers in industry sectors that are of economic significance to their regional economies
- ▶ promote career advancement for all workers—especially low-wage workers and job seekers—through career pathways education and training programs
- ▶ facilitate alignment across programs and systems in support of a comprehensive, easily navigated workforce development system

In 2009 it agreed to combine funds and disburse \$30 million for direct support of regional funding collaboratives, technical assistance, research, evaluation, and policy advocacy. It currently invests in 22 regional funding collaborations across the United States and expects to increase that number to 25 by 2010.

It operates in 20 industry sectors, most commonly in health care, construction, transportation, aviation, and manufacturing. Interest in the model is gaining momentum with regions across the country in the process of developing this approach.

Employed participants in Boston's SkillWorks partnership, one of the National Fund's earliest grantees, earn an average of almost \$4 per hour more than pre-enrolment wages.





# Appendix 5: International examples

Internationally, both market-driven and government-facilitated approaches to increasing skills utilisation are evident. The spread of high involvement, high performance work practices in some industries and corporations globally is seen as evidence of the former, while dedicated programs in Finland, Norway, Ireland among others are examples of the latter. Singapore and Malaysia offer examples where enterprises are encouraged to review their work processes and job design according to blueprints of leading practice in their sector, whilst also being supported with best practice technical and core skills training for their workforce.

## Finland – The Workplace Development Programme

- ▶ in operation since 1996. It is an enterprise assistance program with a twin focus on productivity and quality of working life. Program evaluations suggest the two goals are mutually reinforcing and also support sustainable employment by creating workplaces in which people remain for longer through their life course.

## Scotland – The Scottish Skills Strategy (2007)

- ▶ it aims to ‘encourage employer demand for skills’ by ‘supporting employers to develop ambitious market strategies that clearly articulate what skills they need to achieve their business objectives and how they will use them’.

## Ireland – The National Centre for Partnership and Performance’s Working to our Advantage, a National Workplace Strategy (2005)

- ▶ places primary importance on the workplace as the site of innovation processes. Participatory management practices that motivate staff to develop new ideas are a key element of the Strategy.

## New Zealand—The New Zealand Skills Strategy (2008)

- ▶ emphasises skills utilisation and labour productivity growth. Four priority actions are outlined: literacy, language and numeracy; capability of firms; supply and demand of skills; and young people in work.

## Literacy and numeracy

International examples suggest national adult workplace literacy policy should include a partnership-based national leadership agenda, appropriate funding arrangements and diverse delivery models, evidence-based development, consistent reporting and quality assurance, and teaching developments that are up to date with changing workplace and community contexts. Successful models from comparable countries include the following:

- ▶ New Zealand—More than Words: The New Zealand Adult Literacy Strategy (2001); Tertiary Education Commission Literacy Language and Numeracy Action Plan 2008-2012—Raising the skills of the workforce
- ▶ Scotland—Adult Literacy and Numeracy in Scotland (2001); Scottish Adult Literacy and Numeracy Strategy; the Big Plus Campaign; Skills for Scotland
- ▶ UK—Skills for Life Strategy: Changing Lives (2009)





# Appendix 6: Workforce development case studies

## Sectoral workforce development example: disability services national project<sup>148</sup>

### Context

National Disability Services (NDS) is an employer association covering services that provide care and support to people with a disability who are living at home or are in institutional care. The NDS national workforce project was designed as a program of assistance to service organisations to help them better understand and deal with their workforce issues.

### The workforce development challenge

In 2007 NDS conducted a survey of 40 Queensland non-government disability services. Average staff turnover was 21 per cent and 29 out of 40 organisations said they 'often' or 'always' had difficulty recruiting appropriately trained staff. Most turnover was voluntary. This reinforced NDS's view that their member organisations were facing significant workforce challenges and managers were not well-equipped to address them.

The context of disability work was changing, with organisations needing to care for people with more complex and multifaceted conditions (for example, mental as well as physical disability and drug dependency) and more people remaining in their own homes. Government funding arrangements were exacerbating workforce fragmentation by basing payments on patient outcomes and services – which sometimes may be only one hour long. This was leading to serial servicing, with a succession of workers visiting a home-based patient for short periods over the course of a day and in turn was having a negative impact on staff access to supervision, peer support, and incidental learning and development opportunities.

The engagement of the disability services sector with the formal VET system was diagnosed as being weak, and the sector also suffered from low wages and an unfavourable image.

### Project design

The project aimed to:

- ▶ increase understanding of the workforce capacity challenges facing the disability sector
- ▶ trial a range of strategies to attract and retain skilled staff
- ▶ strengthen the relationships between disability services, VET providers and other stakeholders
- ▶ support disability organisations with information and the opportunity to share their knowledge about what works.

Phase One of the project (in 2007 to 2008) involved data gathering, awareness raising and presentations to services about workforce issues. A range of pilot sites were recruited from the NDS membership. Phase Two, taking place in 2008 to 2009, involved strategy development and implementation by 13 organisations around Australia. Workshops took place where they shared experiences, and the development of tools and resources translated learnings into guidance for the disability services sector as a whole.

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<sup>148</sup> The project was funded through a DEEWR Workforce Innovation Program grant. See all project documents at [www.ndsqldprojects.net/nwp/index.htm](http://www.ndsqldprojects.net/nwp/index.htm).



Participating pilot organisations had to agree to consider:

- ▶ how to strengthen their relationships with other organisations
- ▶ their attraction and recruitment strategies
- ▶ job redesign
- ▶ flexible working arrangements
- ▶ other retention strategies such as salary packaging and staff engagement
- ▶ skill development.

Services were encouraged to do their own diagnosis and strategy development within certain parameters and with facilitator support from National Disability Services and its State and Territory branches. They were also supported to develop key performance indicators and monitor them to evaluate their results. Qualitative evaluation was also undertaken. Many established new systems and processes during the project, which they subsequently saw as being as important as any immediate staff outcomes.

Management capability became a key theme of the project, as in the following quote from one pilot organisation which decided to focus on their care coordinators:

*The lack of clarity around the coordinator's role affects supervision and leadership of direct care staff, i.e. support workers and supervisors. It leads to direct care staff feeling as though they are working in isolation and in turn leads to higher turnover. Lower than desired levels of mentoring, supervising and coaching...results in staff feeling unsupported and undervalued and can lead to ongoing poor practice, a rise in challenging behaviours from clients and lowered job satisfaction, which again contributes to turnover.*

## Outcomes

The following are examples of issues experienced by disability services and the workforce development strategies they used.

### *Management development*

A management development program and objective setting process was put in place in a fast-growing service where managers' behaviour was seen as the key to improving retention. Performance development for managers was linked to progression.

Results from staff feedback survey were positive and in 2009 over 80 per cent of staff rated their induction and 'level of support from managers' as good or very good, compared to 60 per cent and 68 per cent in 2008. Manager participation in the learning strategy was strong and their feedback positive.

### *A whole of workforce approach*

A service organisation undertook negotiation of a collective workplace agreement to redesign roles, implement full-time positions and increase rewards by using salary sacrifice schemes. This was coupled with improved recruitment and management capability strategies. There was a small improvement in overall retention and a 'positive cultural shift within the organisational environment'. Management gained new awareness of issues in the attraction and retention of staff – in particular that they had to: 'create an environment where the needs of staff are being met at higher pay and skill levels.'

### *Recruitment, retention and service quality*

A group house-based service sought to improve the quality of their service, reduce long-term vacancies and their reliance on casual staff. Jobs were redesigned around the needs of the house plus the visa restrictions faced by international students. This allowed





the continuing employment of international nursing students, and recognition by the service organisations that 'job-sharing was doable'.

#### *A new approach to training*

Concern about the number of staff starting but not completing certificate courses led an organisation to trial a structured learning support program and to negotiate with the education provider about how the course was taught.

The university reduced fees to encourage the trainees, and modified the course to provide more work-based delivery. Better results were obtained and the disability organisation now has a continuing relationship with the university captured in a Memorandum of Understanding.

#### *Linking skill gaps to real workplace needs*

An organisation concerned about skill gaps and recruitment difficulties implemented a training bonus; an exclusive relationship with one training provider; an e-learning training program; a new induction program linked to a buddy scheme; and a collective pre-employment training program for new starters into the industry. A goal was to increase the number of staff with tertiary qualifications.

During the pilot, the proportion of staff with a tertiary qualification remained at 50 per cent despite very rapid growth in numbers. Seventy two per cent of staff engaged in training during the year and the organisation understood the need to have systems in place to monitor and record client support needs and link these to skills gap training.

#### *A whole of industry approach*

As part of the national industry-wide work undertaken through the project, the NDS developed a recruitment and retention tool kit encompassing many of the strategies that had been trialled by the pilot sites, and in 2008 also conducted a direct support worker survey to which there were some 1200 responses. The NDS is currently identifying ways to continue to support workforce development across their membership.

## Conclusions

The NDS identified some lessons from the project that were important to its success.<sup>149</sup>

#### *Recognising industry complexity – not just a skills issue*

The multi-stranded approach to the sector's workforce challenges was effective - *'An approach that recognises complexity of the workforce sustainability issue, particularly with regard to the importance of the stakeholders in the disability sector.'*

#### *'Training plus' strategies are needed*

Creating new job roles that allowed people to specialise in advance practice, and be recognised for this, were introduced across several services. *'Workforce reform should start with an examination of the job'*. Skill utilisation needs should be understood before assuming a training response.

#### *Staff engagement*

Service organisations found that it was important to engage staff at *'the idea generation stage of developing strategies'*.

#### *Evidence*

Collecting evidence and making decisions on the basis of it became extremely important during the project. This resulted in some assumptions being overturned. Many service organisations introduced better systems for monitoring staff and organisational performance.

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149 Taken from the National Disability Workforce Project Team Report, July 2009.



*Time – a long term approach is needed*

Sufficient time, rather than large amounts of funding, was critical to the completion and evaluation of strategies that involved multiple stakeholders, different interests and a range of strategies. One year was found to be insufficient for trialling strategies, but many organisations will continue with implementation and evaluation into the future.

## Enterprise workforce development example: dairy food manufacturing

### Context

The project set out to explore opportunities to improve business capacity by addressing operator skill needs associated with emerging products and processes in the dairy industry.

The business context was a large multinational company, Fonterra Australia. Their Darnum plant produces a range of dairy products including whole and skim milk powders for domestic and export markets. Job design at the plant promotes multi-skilling. Operators regularly rotate through all activities on site including roles in both production and warehousing. This is an unusual arrangement, reinforced by application of a common rate of pay across all operators, including the more skilled dryer operator jobs which are the focus of the project.

Within the local labour market the business is reputedly a good employer, sitting in the mid to upper quartile of processing pay rates. The management style favours a consultative approach and was described by one middle manager as ‘open but still old-school’.

### Workforce development challenge

Like many other large milk powder producers, the Fonterra Gippsland plant is transitioning from standard bulk commodity product lines to higher value products such as nutritional, baby food and other specialty product ranges. These high-end products present a number of production challenges, including blockages within the evaporation and drying equipment that remove moisture from milk. Once blocked, it can take hours, days or sometimes weeks to ‘dig out’ dryers and fires or explosions can occur.

Business commitment to pursue high value-add product opportunities was reflected in a decision to invest \$17 million in upgrading plant and equipment with the aim of maximising plant output and reducing downtime. This investment occurred over the course of the project and required a two month site shutdown.

During the upgrade, the challenge was to hone the skills of operators to manage increased product throughput at the same time as adjusting the environmental variables and material inputs affecting production. The company decided to pause staff rotation for 12 months to allow for development and consolidation of dryer operator skills during the transition in product range.

### Project design

The first trial with Fonterra commenced in July 2008 in partnership with Dairy Australia and the National Centre for Dairy Education Australia (a joint industry-TAFE education and training facility). The project aimed to:

- ▶ establish the skill needs for high-end employees in the dairy industry
- ▶ engage employers in becoming partners in the training solution, not just recipients
- ▶ establish key performance indicators that measure outcomes for the individual student as well as performance improvement for the business
- ▶ provide feedback to training providers on effective models for advanced skills training.



### *Approach to developing workforce capability*

A four-stage approach was adopted.

#### *Locate technical expertise*

The first step was to identify a trainer with the required specialist expertise. Industry networks were used to locate a New Zealand-based international expert in dryer technology. The National Centre for Dairy Education Australia (NCDEA) managed this process, facilitating conversations between the consultant and the business to explore processing requirements, operator role and related training needs and options to address these. The NCDEA also engaged a local training consultant retained by the company to assist with collecting production data for performance monitoring and to develop supporting documentation.

#### *Establish key performance indicators*

The next step involved identifying useful performance measures and establishing baseline data. The NCDEA, the management team and project evaluator discussed and agreed that a reduction in equipment blockages was as the main indicator given the relevance and ease of data collection. In the six months prior to training there were seven dryer blockages of an average duration of six hours, equating to some 231 tonnes of product lost over the period. Both managers and staff saw the opportunity to improve dryer plant and equipment, increase dryer operating skills and as a result, offer more satisfying jobs. They also arranged for an evaluator to interview participants to confirm whether these results were achieved and test for other outcomes.

#### *Realise the potential of skills measures*

The link between a range of workplace systems and procedures and skill development was clearly articulated. Previously, the operators had relatively little access to real time operating data. They relied on 'gut feel' and were understandably cautious in the way they managed the process to avoid blocking the dryer. They maintained safe margins of error which resulted in relatively poor yield and high wastage. While this was not necessarily problematic when producing a bulk commodity product it becomes unviable when applied to a high value product.

Consequently, the company decided to upgrade process control systems as well as installing new plant to provide operators with more timely and detailed processing information. The expert technical consultant tailored software he had developed to track the 'stickiness' of the product range. The new systems provided operators with a range of real time data so they could monitor and adjust the process within much more tightly controlled specifications. The external training consultant supported the process of documenting new standard operating procedures.

#### *Facilitate training delivery*

Training was conducted on-site, but off-the-job as two one-day sessions attended by selected operators and managers including members of the process improvement team. An NCDEA teacher attended to confirm that the style of delivery and content level were appropriate to meet the project needs. Management expected to train around 50 per cent of their operators, targeting those who were their 'top' performers. They also decided to include some operators from related work areas that influence dryer performance. The training was not accredited or formally recognised.



## Outcomes

From the enterprise perspective, tangible changes between December 2008 and October 2009 included:

- ▶ record length of operation with no blockages of the dryer. The company estimates savings in the order of \$650,000 over the 10 months period
- ▶ increase in the number of changeovers reflecting increased product variety
- ▶ a changed role for dryer operators who became more technically knowledgeable around the varied nutritional product formulae, and who now oversee much higher throughput rates allowing less scope for trial and error
- ▶ work in the related work areas of mixing and evaporation has intensified as the number of product changeovers increases. The business subsequently committed to upgrade the batch plant to maintain supply to the dryers.

A company manager noted:

*From a business point of view it is always good to be able to provide a tangible measure of the benefits derived from training. Too often, the question is asked as to what value Fonterra has got from our investment in training, and the answers are sometimes very hard to find. Therefore, to be able to....clearly [outline] the benefits attained, is certainly refreshing.*

In addition to upgrading operator skills and knowledge, two factors played a significant role in delivering these outcomes. The first was the plant upgrade. The second was the development of a culture that encourages operators to challenge and push operating boundaries. Driving this type of change takes time and perseverance. The site manager and project champion project reflected:

*[this approach] ... needs company support — you need to provide a place where people can achieve things ... it takes tolerance to see it through.*

The overall response to training from dryer operators was positive although the increased demands of dryer jobs did not suit everyone. After 10 months around 75 per cent of operators have nominated to stay on and deepen their dryer skills. The rest elected to move to another area. Operators said that the following factors attracted them to the work and to participating in training:

- ▶ being recognised and respected for their expertise both by managers and co-workers (experienced operators were involved in commissioning the new dryer)
- ▶ being challenged and engaged by the work which required greater technical complexity *'I like to know how things work — I want to do more than just sit behind a screen'*.
- ▶ having ongoing opportunities to learn from experts and from other factories (some operators had visited plants in New Zealand) *'learning things that will allow you to do a good job'*
- ▶ feeling pride in a job well done well and passion for the work they do *'we export quality nutritional powder for babies all around the world'*
- ▶ working in a company prepared to invest in plant, equipment and systems that can deliver improved performance.

The company sees high end operating skills as primarily plant and process specific. The operators mostly had a Certificate III in Food Processing, but beyond this the company handled skill development by engaging trainers who had a sound knowledge of their plant, an understanding of their workplace culture/communication style, and an ability to provide training directly tailored to their specific processes, products and equipment.



Targeted training about a specific business problem is the best. There's no point giving [operators] a whole lot of information and leaving them to work it out for themselves.

Operators were also asked to comment on the type of training they found most useful. The authority and credibility of the trainer was critical. A number commented on the value of being able to draw on a breadth of practical, real examples: *It's not a theory thing – he doesn't just get it out of a book.*

Other aspects of training identified as important were a preference for face to face training in work time. It was also seen as important that the training happens away from work so people have time to learn.

## Conclusions

From a business and trainee perspective this project achieved:

- ▶ improved productivity and growth for the company
- ▶ more complex and satisfying work for the workers
- ▶ for the education provider, access to a sophisticated technical expert that the NCDEA has now used in 'webinar' sessions delivered by broadcast concurrently into multiple business locations in real time. The NCDEA is also developing a database of industry expertise they can draw on to expand their capacity to respond to the demands of high end technical operator development.

The project also demonstrated workforce development good practice in making the connections between all of the levers needed to lift productivity, from physical plant to employee relations, workplace culture and job design, to skills and knowledge. It supported the business to clearly articulate workforce development needs as well as establishing new initiatives to bring about an improvement and to measure outcomes.

While the training 'event' itself was quite condensed, it was supported by new conceptions of key occupations at the plant and how they fit with others around them to generate better performance and plant sustainability. The training provider played a role in locating and linking specialist technical expertise to address skill development needs of already experienced and knowledgeable workers and was also able to extend access to this expertise to assist other workers and companies.





# Appendix 7: A national reform agreement for Australian workforce development

## Preamble

This agreement outlines a change agenda for governments in directing reform and linking efforts to improve Australian workforce development and the performance of Australian businesses.

Raising education levels and expanding the stock of qualifications across the population is a necessary but not sufficient response to national aspirations of lifting innovation, productivity and economic growth or social participation. Consideration of the relationship between skills and industry productivity, including factors such as job design and work organisation, the nature of management and the extent to which workplace culture encourages learning, innovation and autonomy is equally important. The ability to use skills and knowledge, and to use them well, in the workplace and in communities, is what really matters for productivity and participation — not just the acquisition of skills.

In agreeing to work together, partners to this agreement commit to:

- ▶ promote and communicate a national vision of high skills use across the community and in workplaces
- ▶ establish and accelerate a reform agenda for Australian workforce development
- ▶ agree to work together and link expertise and resources to maximise efforts to drive change in the development and application of skills of the Australian workforce.

## *Vision*

Ensuring Australia has the workforce capability required for a productive, sustainable and inclusive future. Australian enterprises have the capacity to develop and use the skills of their workforce to maximum advantage for industry and community benefit.

## *Defining workforce development*

Those policies and practices which support people to participate effectively in the workforce and to develop and apply skills in a workplace context, where learning translates into positive outcomes for enterprises, the wider community and for individuals throughout their working lives.

## *Objectives*

National objectives for Australian workforce development are:

- ▶ to sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages
- ▶ to lift the workforce participation rate to 69 per cent by 2025 to provide the required workforce and improve social inclusion
- ▶ to lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation
- ▶ to improve productivity, employee engagement and job satisfaction, by making better use of skills in the workplace
- ▶ to position the tertiary education sector to ensure it has the resourcing and workforce capacity to deliver skills for the new economy





- ▶ to lead a new partnership approach to workforce development at government, industry and enterprise level.

#### *Roles and relationships*

This agreement recognises the distinctive and specialised roles of the Australian, state and territory governments, education providers, industry and other partners and commits agencies to joining up initiatives aimed at: business development and innovation; enterprise management and leadership; productive and cooperative workplaces; workplace learning; and business capability to manage the application and development of skills.

Partners agree to:

- ▶ strengthen linkages between skills, employment, workplace relations, business capability and development and regional activities, programs and initiatives
- ▶ establish performance objectives and indicators for workforce development with clearer accountability in state, territory and federal government levels resource agreements
- ▶ support flexibility of resource allocation to promote innovation in workforce development at the enterprise level
- ▶ simplify connections between programs, across industries and regions so they are easier for people to use and silos are overcome
- ▶ expand and devolve workforce development actions to extend the impact at enterprise and community levels.

#### *Priorities for action*

1. Deepen the level of workforce skills
2. Implement a collaborative workforce and skills planning framework
3. Address the skill needs of groups with relatively low participation rates
4. Address the skill needs of vulnerable learners
5. Develop and implement a national adult language, literacy and numeracy strategy
6. Significantly upscale successful approaches to adult language, literacy and numeracy
7. Use government funding to leverage workforce development
8. Encourage tertiary education sector/industry partnerships
9. Enhance education and training provider capacity
10. Develop a workforce development strategy for the tertiary education workforce
11. Provide leadership as part of a coordinated national approach to workforce development
12. Participate in the establishment of a Workforce Development Observatory to foster change.



### *Performance indicators*

Indicators of national, regional and enterprise outcomes are needed in relation to deepening Australia's skill base, participation and making better use of skills at the workplace.

The following are provisional success indicators:

- ▶ annual increase in tertiary education enrolments of three per cent to 2025
- ▶ skill strategies are developed for specialised occupations
- ▶ skill shortages or surpluses in specialised occupations diminish over time
- ▶ workforce participation rate increases from 65 per cent towards the 2025 target of 69 per cent
- ▶ increase in workforce participation rates for men aged 25 to 64, women aged 25 to 34 years and older Australians (55 to 64 years) increase
- ▶ decrease in labour under-utilisation rates
- ▶ substantial reduction in the proportion of adults with low language, literacy and numeracy skills
- ▶ national language, literacy and numeracy strategy in place by mid-2011
- ▶ increased participation of employees in structured education and training
- ▶ reduced performance gap between small and large firms and in terms of access to structured education and training as part of employment
- ▶ improved levels of skills and qualifications use in employment
- ▶ increase in tertiary education sector partnerships
- ▶ workforce development strategy for the tertiary education sector developed and implemented.



