Chapter 7
From TVET to Workforce Development

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Introduction

Australia was fortunate that the impact of the 2008 Global Financial Crisis was less severe than in most other developed economies. Recovery was aided by a resources boom based on exports of coal, iron ore and other commodities to the rapidly developing economies of India and the People's Republic of China (PRC). This boom is, however, having negative impacts on sectors like manufacturing and tourism because of the increasing strength of the Australian dollar. The boom is also often blamed for skill shortages in occupations like electrician and civil engineer that are in strong demand in the vibrant resources sector.

Key Points.

- To maximise the returns from the large investment in skills and tertiary qualifications, it is not sufficient to concentrate solely on the supply of skills. Priority also needs to be placed on employer demand and emphasising better utilisation of skills.

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- The Australian TAFE sector evolved to fulfil two main roles – technical and off-the-job training for apprentices and older workers and offering second chance education to adults.
- Reforms to TAFE over the last two decades have focused on making VET more industry led, competency based along with opening the market to a more diverse range of providers. This has brought challenges in terms of quality and regulation.
- 20% of the Australian Labour Force aged 15–64 were engaged in formal study leading to a recognised qualification in 2011.
- People with a post-school qualification at Certificate 3 or above are less likely to be unemployed and people with higher qualifications earn more.
- Moving away from funding providers to funding the users requires good public information about the labour market and the performance of individual providers. It also requires effective regulation and quality assurance of the training delivery.
- Planning for workforce development is about giving users the tools to respond to changes in the labour market rather than predicting in detail what those changes might be.
- Skills Australia's next National Workforce Strategy will be based on scenarios that describe plausible futures for Australia to 2025 and economic modelling of industry structure, labour market demand and skills supply.
- Skills utilisation is as important to workforce development as skills acquisition and the key critical success factors to achieving better use of skills include good leadership, supportive culture, communication, consultation, participative processes and commitment to harnessing and nurturing the talents and skills of the workforce.

Concentrating on the Supply Side Is Not Enough

Like most OECD countries, Australian Governments have for many years encouraged public and private investment in both higher education (HE) and skills as a means of achieving greater national prosperity (Australian Government 2012; Finn 1991; Leitch Review of Skills 2005, 2006). There is a well-established link between increases in post-school qualifications and improvements in workforce participation and labour productivity both of which have significant returns to national accounts (Productivity Commission 2012, p. 43). Until recently, efforts have largely concentrated on increasing the supply of skills whilst, at the same time, reforming the way the supply side is organised. Though the demand side has not been totally neglected, it has received less attention from policy makers. In Australia, this is changing. Concentrating on the supply of skills is seen as a

necessary but not sufficient condition to maximise the returns from the large investment in skills and tertiary qualifications made by governments, enterprises and individuals. Encouraging employer demand for skills and an emphasis on achieving better utilisation of skills in the workplace are now priorities for Skills Australia, the statutory body established in 2008 to provide independent advice to the Australian Government on Australia's future workforce development and skills needs. In July 2012, Skills Australia will become the Australian Workforce and Productivity Agency to reflect some of these changes.

A Workforce Development Approach Is Needed

These new policy directions are part of a shift to what has been termed as a 'workforce development' approach. Workforce development is defined by Skills Australia 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 (Skills Australia 2010, p. 7).

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. Such a broader approach presents challenges for policy makers. Whilst it is relatively straightforward for governments to increase skills supply by such direct interventions as funding training programmes and establishing training institutions, it is more difficult for governments and peak bodies to influence behaviours and practices within organisations. For example, better utilisation of skills often involves changing job roles and organisational design as well as approaches to leadership and management within the firm. In a democratic, market-based economy, it would be quite wrong and practically impossible to mandate or legislate how companies should run their businesses. Rather changes as to how skills can be better utilised in the workforce can be achieved more indirectly by incentivising good practice and through information and awareness campaigns that emphasise benefits such as improved profitability, productivity and staff morale.

Growth and Reform of the Supply Side in Australia

A well-educated and skilled population is seen as a core competitive advantage in an increasing globalised world economy. Higher overall skill levels across the population give a country the ability to produce more efficiently higher value products and services and thus compete with other counties on factors other than the price of labour. The rewards from this competitive economic advantage trickle down into the population through higher wages and higher tax income that can be spent on infrastructure as well as community building and welfare services.

People with post-school qualifications have lower rates of unemployment than people who do not (National Centre for Vocational Education Research (NCVER) 2009, p. 22). The benefits of higher levels of skills and qualifications are thus social as well as economic.

The Last 50 Years Have Seen Major Change in the Technical and Further Education System in Australia

In terms of Technical and Vocational Education and Training or TVET (which, in Australia, is generally referred to as Vocational Education and Training (VET)), this process began in Australia in a formal way in the 1890s with the establishment of institutions such as Sydney Technical College. It is hardly surprising that in the pre-Federation colonial states of Victoria and New South Wales, these early technical colleges and institutes would be modelled on those found in Victorian Britain (Cobb 2000). In these colleges predominantly younger students studied trade subjects such as boot making, wool classing and carpentry as well as every variety of engineering. Female students were severely under-represented and those that did participate tended to be enrolled in disciplines such as domestic science and what we now term fashion but, in those days, was often thought of as dressmaking or women's handicrafts. Whatever their gender, the vast majority of students were part-time with many attending in the evening after a day at work. Interestingly, courses that prepared young ladies for office careers were taught in private institutions such as Williams Business College.

Much has changed over the past 120 years. But the speed of change has increased significantly in the last 50. A major national review led by Myer Kangan was published in 1974. This expanded the technical colleges' role from just Technical to Technical and Further Education (TAFE). Large amounts of Commonwealth government money were injected into the TAFE colleges that now became part of a national system. Previously, technical colleges were solely funded by their owners, state governments. Whilst this ownership relationship continues, the public funding of VET today is a shared responsibility between state and commonwealth governments. The Commonwealth now provides around 25% of funding, the states around 50% with a further 25% per cent coming from student fees and industry contributions. This adds some complexity to managing the system and is in marked contrast to the Higher Education (University) Sector where generally states provide little funding. Universities are funded largely by the Commonwealth government as well as student fees which are collected through an income contingent loan scheme called the Higher Education Contribution Scheme (HECS). University students pay their tuition fee loans back through the tax system when they reach a certain earnings threshold.

Expanding the Role of TAFE to Include 'Second Chance' Education

The Kangan inspired reforms of the 1970s were deemed to be significant enough for TAFE to be classified as an educational sector in its own right alongside the other sectors of primary, secondary and higher education. The new TAFE sector not only did the 'off-the-job' training for apprentices but now also delivered 'second chance' programmes for men and women and expanded its reach into areas such as numeracy and literacy. Notions of 'access and equity' for learners who had previously missed out on a successful educational experience were central to the mission of the new TAFE. The outputs of these programmes undoubtedly contributed to greater workforce participation by equipping unemployed adults with the basic skills needed to gain employment.

If the 1970s emphasised the individual learner as client, the 1990s were about reshaping the TAFE sector to be more industry led (Australian National Training Authority (ANTA) 2003). The major reforms to achieve this in this period included the establishment of the Australian National Training Authority (ANTA), an industry based statutory authority, along with a move to a competency-based system of training supported by a national qualifications system (the Australian Qualifications Framework (AQF)) and a national quality training framework (the Australian Quality Training Framework (AQTF)) which set the standards for training providers to become registered training providers. These standards, however, were implemented by different state-based bodies across the Commonwealth. The sector was opened up to competition from private training providers so TAFE became redefined as the 'brand' of the public provider within a broader sector called Vocational Education and Training (VET).

The Training System Offers an Expanded Range of Qualifications

'Industry led' meant that training was delivered to achieve occupational competencies defined by bodies known today as Industry Skills Councils (ISCs). ISCs are managed by boards of directors representing employers and trade unions. Different levels of competences were aggregated into a new qualification structure which ranged over four levels of certificate through Diplomas and Advanced Diplomas to Vocational Graduate Certificates and Diplomas. The competencies and associated qualifications are contained in documents known as Training Packages. Even though the Diplomas and Graduate Certificates overlapped with university level qualifications, VET sector credentials did not include degrees indicating a demarcation between VET and Higher Education (HE). A few

institutions like Royal Melbourne Institute of Technology (RMIT) were always 'cross sectoral' teaching both VET and HE programmes. This trend is growing with more public and private institutions becoming 'mixed sector' (Wheelahan and Moodie 2008) as they have become registered and accredited to deliver both VET and HE programmes. This development along with an emphasis on credit and articulation agreements between different qualifications has encouraged talk of a more integrated 'Tertiary Sector' covering both institutionally delivered VET and HE programmes (Wheelahan et al. 2012, p. 16). This move was further encouraged by the latest national report into Higher Education led by Professor Denise Bradley (Australian Government 2008).

A Large Number of Providers Bring Challenges in Terms of Quality and Regulation

The availability of government funds on a competitive basis has attracted many new providers into the training market. As of 2011, there were over 5,000 Registered Training Organisations (RTOs) in Australia, though the 61 public TAFE institutes still account for the largest amount of publicly funded VET. Initially competition was in essence a 'funding market' with public and private providers tendering for government funds. Gradually the sector has moved to system of 'user choice' where students and enterprises are given 'vouchers' to cash in at an institution of their choice.

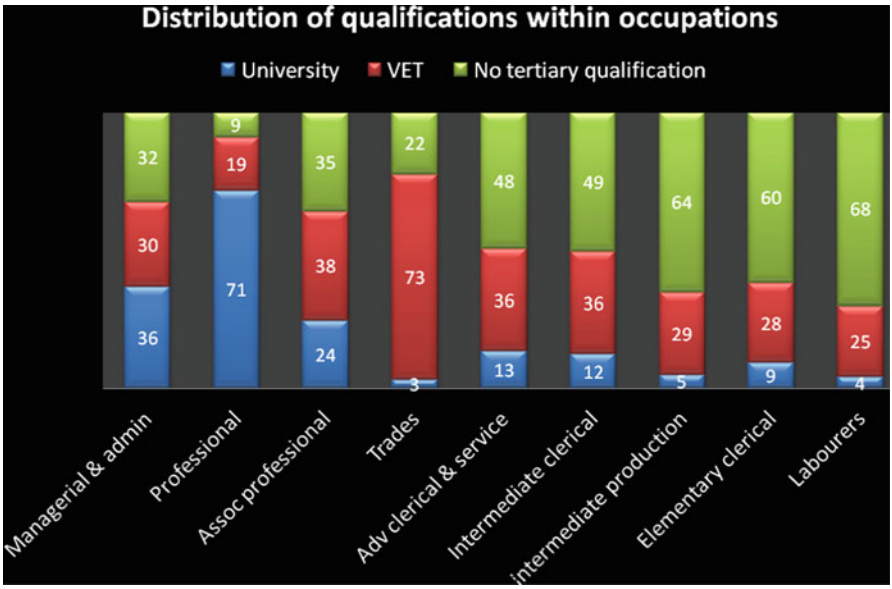
The large number of providers entering the market has presented challenges for regulation and quality. Measures to address this include the formation of a national regulator, the Australian Skills and Quality Agency (ASQA), which has replaced locally based arrangements in all states except Victoria and Western Australia. Bodies like Skills Australia have called for further measures to improve quality and consistency such as establishing a system where all providers have a sample of their student assessments externally verified (Skills Australia 2011, p. 86). Consumer information about the performance of individual RTOs is also being improved with the introduction of a *MySkills* website.

The Australian VET System Today

Today the Australian VET system is well regarded internationally with the OECD stating

> Australia has a very well developed VET system, which enjoys a high degree of confidence (Hoeckel et al. 2008, p. 5).

The system can be characterised as industry led, competency based with public funding increasingly allocated though a demand-based, user-choice mechanism.



Source: Table adapted from Richardson and Teese (2008, p. 12)

Less than 15% of publicly funded students are full-time, the largest group are those studying at the Certificate 3 (apprenticeship level), and the biggest industry areas are business, construction, engineering, hospitality and the caring occupations.

The VET system trains the majority of Australian trade workers. Universities and HE providers train most professionals. Managers, technicians and paraprofessionals are trained by both HE and VET. However, there is a long-term tendency for the training of managers and paraprofessionals to shift from VET to HE Karmel (2011). This is partly due to growing complexity in this work and partly as a result of 'credential creep'. University graduates tend to be paid more than VET graduates in Australia, so employee and professional associations have an obvious interest in shifting the credentials needed to practise from one sector to another.

Results of the Supply Side Push

The development of the supply side has led to over 1.8 enrolments in publicly funded VET programmes and 1.2 million enrolments in HE in 2010 (National Centre for Vocational Education Research (NCVER) 2012, Embargoed until 9:30 am AEST on 18 June 2012). In full-time equivalent, student terms the numbers are 655,000 in VET and 862,000 in HE which reinforces the notion that HE is more of a full-time study occupation than VET. The Australian Bureau of Statistics (ABS)

Survey of Education and Work for 2011 reveals 20% of the Australian Labour Force aged 15–64 were engaged in formal study leading to a recognised qualification.

As a result, over the past decade, the proportion of people aged 15–64 years with a nonschool qualification increased from 47% (2001) to 57% (2011). Over this same period, the proportion of people with a bachelor's degree or above increased from 17% (2001) to 24% (2011) (ABS 2011).

Yet Australian Governments have decided that these levels of participation and qualification completion rates are still not enough. The Council of Australian Governments (COAG), consisting of federal, state and territory governments has set aspirational long-term skills targets to (COAG 2009, p. 37):

- Halve the proportion of Australians aged 20–64 years without qualifications at Certificate III level and above between 2009 and 2020. In 2009, there were 47.1% of Australians without a qualification at these levels.
- Double the number of higher VET qualification completions (diploma and advanced diploma) between 2009 and 2020. This would mean completions at this level would need to rise from 48,000 to 96,000.

In addition, the Bradley Review put forward targets for increases in Higher Education qualifications:

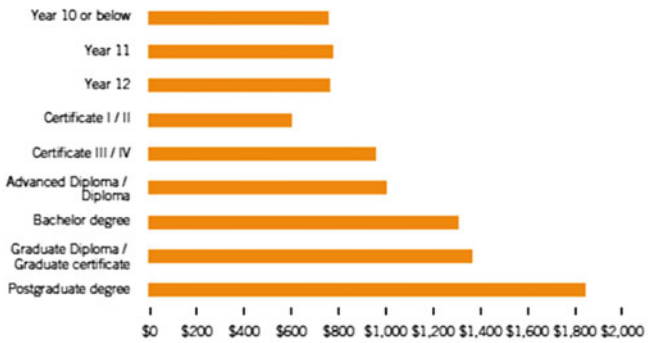
- By 2025, 40% of 25–34 year olds will achieve at least a bachelor level qualification.
- By 2020, 20% of undergraduate enrolments will be comprised of students from lower socio-economic groups.

Impact on Participation, Earnings and Productivity

The rationale for this investment in VET and HE are clear. Surveys by the ABS reveal that people with post-school qualifications are less likely to be unemployed than people without such qualifications. People with a post-school qualification at Certificate 3 or higher have an unemployment rate 5% lower than those who left school at Year 11 or below (see table below) (Australian Government 2012).

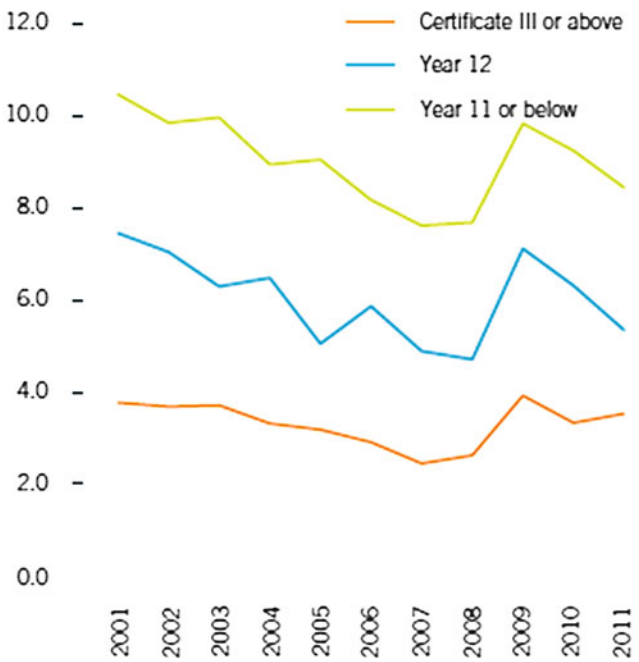
People with higher qualifications earn more.

Whilst people who possess a Certificate 3 qualification earn on average AUD $200 per week more than people who left school at Year 12 whilst the possession of a bachelor's degree increases average earnings by over AUD$500 per week (see table below). A postgraduate qualification can more than double average earnings compared to a Year 12 leaver (Australian Government 2012).



Source: ABS 6278.0 Education and training experience customised report – Employees aged 15 years and over, excluding owner managers of incorporated enterprises

Mean weekly earnings in main job by educational attainment 2009



Unemployment rate by qualification level

Gender Differences in the Labour Market Persist

These figures are averages and hide considerable variation between occupations. Students who complete an apprenticeship at Certificate 3 level in traditional male occupations such as electrician can look forward to a significant wage premium on

completion (Karmel and Mlotkowski 2010). However, whilst the completion of a Certificate 3 in child care or aged care has a benefit in obtaining and retaining employment the wage premiums are far less (Pocock et al. 2011). These are traditionally female occupations. This gender difference in the Australian labour market has led some commentators to conclude that

> . . .. . .for males two paths stand out: Year 12 followed by university study; and Year 12 followed by an apprenticeship. Apprenticeships and traineeships score well for 'satisfaction with life'. For females, the best path is Year 12 followed by university study, and this is true for those with a relatively low academic orientation as well as those with a high academic orientation (Karmel and Liu 2011, p. 13).

Those Who Benefit from Training and Learning Should Contribute to the Cost

Before exploring how to better match supply and demand and how the utilisation of skills might be improved, there is the prior question as to why Australian Government should spend over $6 billion per annum of *public* money on vocational training when many of the benefits and returns flow to individual students and individual enterprises. Should not those who benefit from the increased earnings and the increased productivity that come from training pay the majority of the costs themselves? Australia is currently enjoying a resources boom that is making mining a highly profitable activity – though the resultant high Australian dollar is having an impact on other industries such as manufacturing and tourism. Why is the Government subsidising training in these boom industries and also subsiding individuals who will also see a considerable increase in their wages and salaries?

For individuals, the rationale for public subsidies is that the high cost of unsubsidised courses would be a barrier to entry for many potential vocational learners and could result in both skill shortages and skill gaps. With enterprises, the government will only fund accredited training leading to a nationally recognised credential. The credential is probably more important to the individual employee than their existing employer in that it increases their mobility between firms. In the same vein, it is also potentially significant to the workers' next employer as the credential certifies what the potential employee can do. In this sense, the government is paying for a benefit that is partially external to the benefits that the existing employer receives directly from the training.

A Greater Emphasis on the Demand Side

Until the late 1980s, public funding for vocational training in Australia had largely been allocated to providers. Providers then recruited individual learners into a mix of programmes which the provider specified. Funding training institutions in this

way risks 'provider capture' – that is, providers push what they want to offer because of their existing staff expertise and equipment rather than deliver what customers' actually want and need.

How Australia Is Implementing a Demand-Based Approach to Funding Training

An alternative to funding providers is to fund users who then 'buy' the training they want off providers. This process goes by a variety of names including 'user choice', 'entitlement funding' and 'demand-based' funding. In other counties, but not in Australia, this process can be described as a 'voucher system'.

Demand-based funding does have some risks. It is important that users have the information available about both the labour market and individual provider performance so that they can make an informed choice. Quality and regulation need to be effective to avoid users wasting their government subsidy on poor or inadequate providers.

Demand-based funding is often implemented at the same time as a switch to funding completions rather than enrolments. Skills Australia recommended this in *Skills for prosperity: a road map for vocational education and training* (Skills Australia 2011, p. 106). Whilst some in the sector argued against this on the basis that students are more interested in acquiring skills than credentials, research by the National Centre for Vocational Education Research (NCVER) has concluded that course completions are important in terms of access to jobs and further study. Non-completors do less well in these areas. There are lesser, but still clear, benefits from completion of the whole course to those looking to upskill in their existing employment (Karmel 2012).

Funding users can also be used to change enterprise behaviours and incentivise best practice. Traditionally public funding of VET has been what the English term 'individual responsive'. That is individuals are funded to take an accredited programme at a recognised provider. Theses individual learners' motivations to gain a new credential can be many and varied but can include getting a job, getting a better job and access to a more advanced course or to gain qualifications to maintain their existing employment.

More recently, there has been seen a growth in what is termed 'employer responsive' funding where the employer rather than the individual learner is funded for training. Typically employers use this funding, which normally requires an employer contribution, to upskill existing employees as part of the introduction of new products or processes thus addressing potential skill gaps. As was discussed earlier, most governments only fund accredited training leading to a recognised qualification to guarantee some 'additionality' over what staff development

and internal training an employer might reasonably do themselves. A recent example of this type of 'employer responsive' funding is the National Workforce Development Fund (NWDF) in Australia. As a condition of receiving funding, employers not only have to carry out only accredited training but are also strongly encouraged to submit a workforce development plan that should address issues of how to better use the skills of their employees.

Planning and Forecasting Have Their Limitations

An intermediate step between directly funding users rather than providers is for the funding body to specify what it wants to purchase from providers – rather than letting the providers decide themselves. This intermediate step known as a 'purchaser-provider model' happened in Australia in the 1990s under the aegis of the former Australian National Training Authority (ANTA). It means that funding bodies have to do some research into what they should be purchasing to satisfy individual learner and industry needs. In practice, priorities were often based on the outcomes of computerised models of the national economy such as those produced by Monash-Syntec. This was in some ways similar to the manpower planning that was popular with governments and large employers at that time.

The limitations of such forecasting have been well documented by Professor Sue Richardson and Yan Tan of the National Institute of Labour Studies at Flinders University (Richardson and Tan 2008). Richardson and Tan point out that it is notoriously difficult to predict with certainty how economies are going to perform into the future. Past trends can be influenced by a whole variety of factors such as changes in technology as well as political events and natural disasters. In the labour sphere, people change occupation and industry with increasing regularity, and the graduates of training institutions are only one of a number of sources of supply of skilled labour. People acquire new skills 'on the job', we import skilled migrants and people return from periods of unemployment or family duties such as child rearing. Many now believe that actual users, whether individuals or enterprises, are better at knowing their training needs as central planners using economic models. Another reason to shift to a 'demand-based/user-choice' system of funding.

In a paper commissioned by Skills Australia from the Workplace Research Centre at the University of Sydney, John Buchanan and Justine Evesson suggest:

> Two broad approaches to skills planning exist. The first used to be called 'manpower planning'. It concerns making projections about specific labour requirements at some specified time in the future. We refer to this as the workforce planning system. There is growing recognition that the major challenge concerns more than generating data on projected labour needs. Understanding the forces driving change and gathering data on how to engage with these is also important. We refer to this as the system of planning for workforce development.

Planning for Workforce Development

Planning for workforce development is thus more about understanding and responding to context and trends rather than trying to predict specific future labour market requirements. It is about giving users the tools to respond to changes in the labour market rather than predicting in detail what those changes might be.

Skills Australia in its advice to government adopts a planning for workforce development approach. It is based on three central 'pillars'. These are:

1. The concept and application of what we define as 'specialised occupations'
2. The use of scenarios to test a range of possible futures so that we can develop policy that is sufficiently flexible to cope with a range of potential outcomes
3. That public funding should be allocated to end users rather than providers

The Concept of Specialised Occupations Is Fundamental to Planning for Workforce Development as These Are the Ones with Greatest Risk of Market Failure

The concept of 'specialised occupations' is based on the proposition that policy makers should concentrate on those occupations that have the greatest risk of 'market failure'. In Australia, it takes 3 or 4 years to train and become licenced as an electrician and over 5 years to train and become registered as a dentist. If a shortage were to occur in these and similar occupations, the only ways to avoid a long pipeline of delay would be either to import qualified labour from overseas or attract any qualified personnel who had left or retired back into the profession. It is these types of occupations that we define as 'Specialised Occupations'. In contrast, occupations such as security guard or cook can be trained in a few months and in more generic, cross-industry occupations such as manager, people move around across many different industry sectors. In these 'non-specialised occupations', the market appears to work reasonably effectively. This is not to say non-specialised occupations are not important or that they do not deserve public funding.

Skills Australia has identified a range of criteria to identify specialised occupations. These are:

1. *Long lead time* – those skills which are highly specialised and require extended learning and preparation time, for example, 4 years or more for HE courses and 3 years or more to achieve a VET qualification.
2. *High use* – those skills which are deployed for the uses intended (i.e. there is a good occupational 'fit'). The rule of thumb is that there is more than a 50% match between the training and the destination occupation.
3. *Significant disruption* – where the opportunity cost of the skills being in short supply is high (e.g. registered nurse or doctor).

4. *High information* – where the quality of information about the occupation is adequate.

An occupation is considered 'specialised' if it meets at least two of the first three criteria, as well as the fourth criterion. Around 20% of occupations are classified as specialised.

Skills Australia uses the Specialised Occupation List (SpOL) as a key planning tool for its work on supply and demand in both the domestic and migrant skill supply channels.

Scenarios Create Plausible Future Worlds for Australia Which Can Be Used in Economic Modelling

Given the uncertainties in forecasting the future of national economies, industry structures and labour markets, Skills Australia has adopted the approach of developing a range of future scenarios so that policy can be developed that is flexible enough to deal with a range of possible futures. For its first National Workforce Strategy (Skills Australia 2010), Skills Australia used scenarios from the multinational company, Royal Dutch Shell to inform modelling of the supply and demand for skills in Australia.

The second national workforce development strategy will be published at the end of 2012, and, for this, Skills Australia is developing its own set of scenarios to create plausible future worlds for Australia to 2025. These scenarios will in turn influence economic modelling of the supply and demand for skills to 2025 that will inform the forthcoming 2012 strategy.

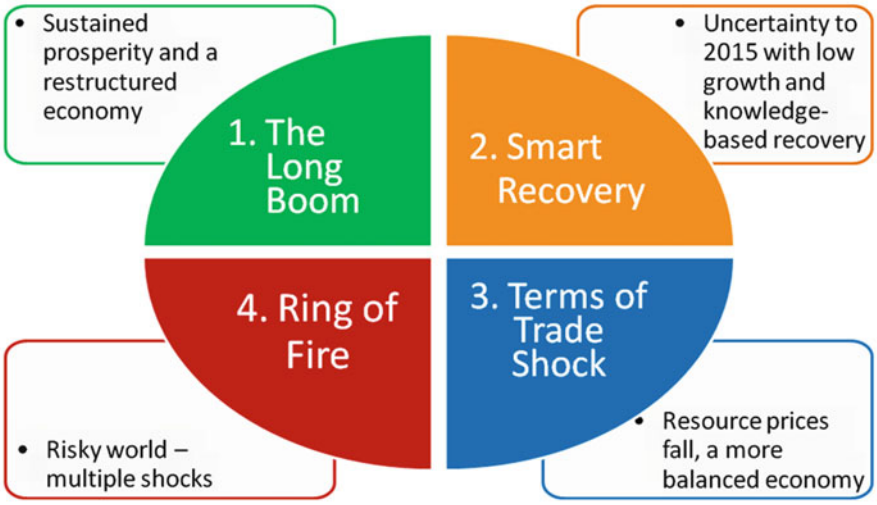
By comparing plausible alternative scenarios, the significance of different uncertainties can be better appreciated. Later a comparison of the model results based on these scenarios will identify how much different possible alternative future developments are likely to make to the demands for different skills and why and what response might then be most appropriate.

The scenarios are based around a number of economic, social, political and cultural drivers. Skills Australia began the scenario development process in 2011 by inviting a series of experts arranged by the Academy of Social Sciences in Australia (ASSA) to present some scoping papers at a seminar. Following consultation, six 'key drivers' influencing the Australian economy emerged. The key drivers and the experts who provided invaluable advice about them are:

1. Economic and financial trends and globalisation (Dr David Gruen)
2. Social, demographic and cultural trends (Professor Graeme Hugo)
3. Labour force, workplace and industrial trends (Professor Sue Richardson)
4. Governance and public policy (Professor Glyn Davis and Dr Michael Keating)
5. Science, technology and innovation (Professor Anthony Arundel)
6. Sustainability (focus on water, energy, population) (Dr Kerry Schott)

The papers are available on the Australian Workforce and Productivity Agency website at http://www.awpa.gov.au/.

Based on our assessment of the six key drivers, Skills Australia has developed four scenarios which describe different plausible paths for Australia that could influence the evolution of the demand and supply of skills between now and 2025.



In the *Long Boom* scenario there is a speedy recovery from the global financial uncertainty of 2012. Asia is becoming the world centre of gravity, and the rapidly urbanising populations of the PRC and India provide a continuing market for Australian resources. Mining and construction thrive, bringing continued prosperity to Australia.

The high Australian dollar maintains the pressure on trade-exposed industries. In a restructured economy, firms adopt productivity-enhancing strategies to remain competitive.

In *smart recovery* scenario, Australia experiences a low-growth economy from 2014 to 2015. The European downturn is protracted and there is continuing instability in global financial markets. Growth in the PRC and Indian economies slows, the demand for Australian resources drops and the terms of trade and Australian dollar move lower. Slowly, global growth resumes from 2014 to 2015, heralding a return to growth for Australia. Our companies and government are challenged to improve productivity and a knowledge-based recovery follows, although the impact of technology means that there are fewer opportunities for those with lower skills.

Terms of trade scenario sees new global sources of mineral and energy resources come on stream, leading to an oversupply of commodities. Prices fall, Australia's terms of trade decline and the dollar loses value. Geopolitical issues in the region undermine the environment for good trade relations with the PRC. Australia uses the crisis as an opportunity to move to a broad-based economy. We re-establish a

viable manufacturing sector and build strong and internationally competitive businesses.

The *ring of fire* scenario is a world of ongoing uncertainty and volatility. Australia and the rest of the world lurch from one crisis to the next. Recovery from the European downturn is slow. Natural disasters and severe weather events occur on a regular basis, damaging industry and costing human lives. Political unrest destabilises parts of Asia. There are ongoing nuclear warfare threats and skirmishes over resources, especially water security. Increased protectionism reduces trade between countries and Australia too is protectionist, but globalisation is the new paradigm and cannot be ignored. In the midst of the doom and gloom, the lower Australian dollar substantially improves the position of trade-exposed industry sectors.

Scenario Modelling

In Skills Australia's first national workforce strategy *Australian Workforce Futures*, the major proposals were to (Skills Australia 2010, p. 9):

- Sustain economic growth and raise productivity by increasing skills and avoiding future skills shortages – a way to achieve this is by increasing Australia's education and training efforts by 3% in 2025 to deepen the level of skills in the workforce.
- Lift workforce participation to 69% by 2025 to provide the required workforce and improve social inclusion – with specific targets to increase workforce engagement of groups with relatively low participation rates. For example, women aged 25–34 years, men aged 25–64 years and older Australian's aged 55–64 years.
- Lift the unacceptably low level of adult language, literacy and numeracy to enable effective educational, labour market and social participation.
- Increase productivity, employee engagement and job satisfaction by making better use of skills in the workplace.

Skills Australia has recently commissioned Deloitte Access Economics to undertake econometric modelling of the four scenarios described earlier to give outputs for such variables as industry structure, labour market demand and skills supply. Working within these parameters, the model identifies the implications for industry and occupations and, as a consequence, the supply and demand of qualifications for each scenario.

After a period of consultation with industry and governments, strategies will be developed that can be incorporated into a new National Workforce Development Strategy. The strategies will be sufficiently generic so that they cope with a range of futures.

Skills Utilisation

Skills Australia is seeking to create greater awareness of skills utilisation as a policy issue and support the promulgation of better skills use in Australian enterprises. To this end, in April 2012, Skills Australia published *Better use of skills, better outcomes: A research report on skills utilisation in Australia*. The report aims to inform policy makers and academics about how skills utilisation occurs in workplaces and contributes to the development of policy and practice in this area. The companion publication *Better use of skills, better outcomes: Australian case studies* aims to inspire employers to think differently about how they organise work, by showcasing 11 small, medium and large organisations across Australia that have put in place tailor-made strategies to ensure that the skills and talents of their workplace are fully utilised.

The Practices that Lead to Effective Skills Management Are Varied and Are Based on Commitment to Understanding the Range of Skills Already Existing in the Workforce

A number of practices were found to promote effective skills use in the 11 Australian organisations. A summary of the types of initiatives identified follows.

An important aspect of skills utilisation is that of job design, which is a work arrangement designed to make full use of employees' skills and abilities. *Job redesign* looks at how work roles have been adjusted, re-visioned and renegotiated to enable better use of employee skills. Aspects of job redesign can include teamwork and flexibility in job descriptions and work arrangements.

Employee participation strategies are intended to empower staff so that they have a say and exercise some control over their day-to-day work, their roles and conditions in the workplace (Poutsma 2001, p. 5). These strategies are crucial for innovation and organisational change (Green et al. 2010, p. 177).

Autonomy is a key indication of job quality and is connected to 'the need to think about as well as to do work' (Green et al. 2010, p. 164). Decision authority (being able to make decisions affecting their work on a daily basis), skill discretion (being able to use and improve one's skills set) and taking discretion (being able to exercise control over one's job) are all features of worker autonomy (Green et al. 2010, p. 168).

Job rotation provides employees with a range of different work experiences and a wide variety of skills, generally by moving employees through various job roles and parts of the organisation over time. By moving employees through different jobs/role/positions, it facilitates learning and use of new skills.

Skills audits are used to identify the skills and knowledge within an organisation and highlight any gaps that might exist between the skills requirements of the organisation and the actual skills of its personnel. In addition to skills matching,

skills audits can also help to identify the skills that are unused within an organisation, as well as those that are missing altogether which are needed within the workforce. Knowing where the gaps exist enables firms to decide how to organise work and make the best use of skills within their existing staff. Skills audits can also be used to identify development and training needs, help with succession planning and recruitment and ascertain whether there are skills within the organisation that remain unused or underutilised (Skills Australia 2010, p. 5). In this respect, skills audits can be useful in supporting workforce development planning.

Closely linked with job rotation is *multi-skilling*, whereby employees are trained in multiple skill sets enabling them to undertake tasks that may fall outside their traditional job description.

Knowledge transfer is another aspect of skills use and development which has shown to help employees gain the confidence to apply their talents and skills in the workplace. Knowledge transfer occurs when the skills and experience of employees are shared within the organisation, thereby contributing to workforce development.

Mentoring involves creating a learning relationship between an experienced person with professional expertise and a less experienced staff member. These associations enable the mentor to share their knowledge with the objective of developing the mentee's skills and understanding of both the subject area and the workplace. In this way, mentoring can promote better skills use by enhancing the learning, enabling knowledge transfer and embedding the skills of employees. Mentors can also provide support, advice and career guidance.

The Critical Success Factors Lie with Management and Their Commitment to Nurturing the Skills and Talents of Their Workforce

Skills Australia identified a number critical success factors from its study of these 11 Australian organisations that had improved their skills utilisation.

The commitment of senior and supervisory staff is essential. Good leaders and managers encourage creativity and innovation in employees by enabling measured risk-taking and providing opportunities for staff to have a say in business processes. Leadership structures are important, but effective leaders also encourage individuals to take responsibility. Delivering on promises or 'doing what you say you are going to' is important. Skills Australia found that following commitments with action is important in establishing integrity as well as developing and maintaining trust. Leaders need to be accountable and transparent. Accountability is important in ensuring that suggestions and ideas provided by employees are handled in a positive way. The development of middle and front-line managers, through training and mentoring, ensures firms have the necessary leadership and people management skills in place for workplace change to occur.

Leaders need to be good at change management. This is essential to effective skills utilisation as it helps leaders to, firstly, identify the organisation's need for change, and, secondly, determine its capability and capacity for change.

The right organisational culture, largely meaning a supportive, inclusive workplace environment, can encourage employees to contribute their ideas. Managers need to ensure that culture and values are consistent across the organisation and that different cultures are not operating in different parts of the organisation. This can be a challenge for larger firms.

It is hardly surprising that the study found communication, consultation and collaboration were important. Actively listening to the ideas of employees is a crucial way of involving them, as is recognising staff contributions within the workplace. Transparency of information gives staff a sense of how their work contributes to the business. This can inspire commitment and contribute to the success of the organisation.

Engaging staff in decision-making and continuous improvement processes brings rewards to enterprises, in terms of both financial and relationship benefits.

There is no 'cookie-cutter solution' to improve skills utilisation. Organisations benefit from treating everyone as an individual and by recognising that everyone's needs are different.

The more employees feel that they are valued and being listened to, the more likely they are to be motivated to participate in workplace initiatives and, therefore, contribute to a company's success.

As a result of the implementation of these strategies, the companies achieved higher staff retention rates in a very competitive economy where unemployment is around 5%. Staff motivation and satisfaction often rose, and through multi-skilling and job rotation, the worst impacts of skills shortages and skills gaps were avoided. New processes were implemented as the result of staff suggestions – one of a number of ways that these strategies contributed to the bottom lines.

Conclusion

Australia has a long tradition of public and private investment in skills development. This investment has paid off as there are clear linkages between the possession of qualifications and higher levels of workforce participation and higher earnings. Higher earnings are often taken as a proxy measure for increased levels of productivity. However, until recently most of these initiatives have been on the supply side – government has 'bought' more courses and places. It has also instigated major reforms of the VET system to make it competency based and industry led. The next stage is to put an emphasis on the demand side and improve how skills are utilised in the workforce. Without this, some of the investment by government, individuals and enterprise might be wasted. This is a far more difficult task as it involves altering behaviours and practices within the workplace. An emphasis on workforce development rather than just the supply of skills will help further these objectives. This is now the priority for agencies such as Skills Australia and its successor body, the Australian Workforce and Productivity Agency.

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