



**Skills
Australia**

Workforce Futures

Papers to Promote Discussion

Towards an Australian Workforce Development Strategy

Skills Australia

Overview Paper

October 2009



Foreword

On behalf of the members of Skills Australia I am pleased to launch *Workforce Futures* to frame national consultations on how to best meet the nation's future skill needs. This paper is part of a suite of material developed to stimulate discussion about key issues that will shape Australia's future workforce and our skills response.

The focus of *Workforce Futures* is on better realising the productive potential of education and skills—for Australia as a whole, and for the individuals for whom education plays a big part in determining their working careers and financial well-being.

Education is our most important investment to equip individuals to thrive in a rapidly changing world. It creates the conditions for Australia to widen its social, economic and industrial potential to develop a creative, knowledge-rich and sustainable economy.

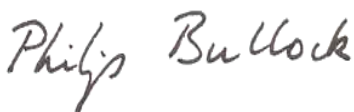
Workforce Futures presents a case for a changed focus in how Australia approaches planning for our future skills and better utilising them to contribute to improved wellbeing.

The material is the culmination of discussion and stakeholder engagement, scenario planning workshops and extensive analysis guided by the expertise of our Steering Group. We have also had significant input from industry through the Strategic Industry Forum and its working group. The intention is to continue discussions to 'reality check' our emerging thinking. This will provide a way forward for a shared framework on workforce development.

Our aim is to use the outcomes from consultations to develop an Australian Workforce Development Strategy that builds on the good work already going on across the country in a wide range of agencies and in states and territories.

We are keen to hear your views and welcome written submissions on *Workforce Futures* by 6 November 2009.

We look forward to working with you on this important area and value your contribution.



Philip Bullock
Chair
Skills Australia

September 2009



Workforce Futures:

Papers to Promote Discussion

Towards an Australian Workforce Development Strategy

How can we best ensure Australia has the workforce capability required for a productive, sustainable and inclusive future?

That question goes to the heart of how our economy and society operates and is the driving concern for the latest program of work at Skills Australia. Skills Australia is an independent statutory body established to provide advice to the Government on Australia's current, emerging and future skills and workforce development needs. This advice includes identifying skills needs to help inform decisions on all aspects of Australia's labour market.

We are addressing the above question in two different ways.

1. What does the future hold?

What futures can be envisaged, what could be the demand for future skills in these futures and what exactly should we plan for?

A detailed consideration of these issues is available in Background Paper No.1, from www.skillsaustralia.gov.au

2. How can we best realise Australia's skill potential?

How can we maximise the value from our skills investment, could the relationship between productivity and skills be improved and, how can we promote more participation in the workforce to meet our future economic and social needs?

A detailed consideration of these issues is available in Background Paper No.2, from www.skillsaustralia.gov.au

We also offer some suggested ways forward for your comment.

Our proposal: a workforce development response

By joining up separate areas of government action, we can adopt a national approach to workforce development with actions at the industry, enterprise and national levels.

These considerations will be discussed with the different sectors and agencies in a National Consultation process.



The case for change

Is there a need to shift the focus from a one-dimensional 'skill' or 'job' solution to a broader workforce development approach?

In the past, policies and programs have primarily offered remedies for workforce productivity or unemployment in terms of either a skill or job solution. This approach emphasises the need to match qualifications with industry needs in such a way that the education and training system is industry led. We adopt that approach, in part, for the first background paper, *What Does the Future Hold? Meeting Australia's Skill Needs*, and consider the short-term and medium-term implications for training, given different economic projections. Gaps and shortfalls are identified in certain skill areas and issues regarding the supply side of the equation are considered.

These considerations lead to the position, first presented in Skills Australia's *Foundations for the Future (2009)*, that we need a more nuanced interpretation about the relationship between skills development and deployment. This thinking is supported by national and international research that shows there are many jobs that are not skill-specific and that national forecasts of the likely growth in employment by occupation are of limited utility for many jobs.

In the second background paper, *Powering the Workplace: Realising Australia's Skill Potential*, we consider, amongst other things, the relation between skills, participation and productivity. There is a strong relationship between qualifications and earnings, reflecting, on average, the greater contribution to production of more skilled workers. At the same time it has been difficult to establish that increased provision of more qualified workers leads directly to increased productivity in the economy as a whole. There have been continuing skill shortages but paradoxically, underutilisation of skills, evidenced by persons working at levels below what could be expected with the qualifications they hold.

These considerations lead to the argument for a broader workforce development approach. The aim is to make more effective use of the skills provided by the education and training system, to enhance skills in the workplace and as a consequence lift the level of productivity. This perspective captures very recent developments that are evolving in response to a need for a more complex and devolved approach to workforce productivity.

A workforce development approach is characterised by 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 has considered the arguments and the evidence in support of this change to a workforce development approach and believes there is a case for change. However, while the evidence is in favour of change, there are many issues that need resolving. To help in our consultations we offer a summary of our alternative considerations in what follows.



What does the future hold?

How can we assess our future skill needs? How can we take account of the dynamic forces in our economy along with the complexities of labour market behaviour? What is the most appropriate response for government policy in planning for the future?

These are the core questions we address in the first background paper, *What Does the Future Hold: Meeting Australia's Skill Needs*. We draw on original analysis and modelling commissioned by Skills Australia to better understand how the forces driving change—such as population growth, globalisation and productivity—are likely to impact on employment and skills demands over the medium to long term. In thinking about planning for the skills of the future workforce we identify anticipated demand across industries and occupations. We also address questions about the type of responses that may be needed in regard to our collective public and private education and training.

Observations

In the short-term

There has been a considerable shift from manufacturing to services over a long period and this trend is likely to continue in the short term at least. The industries that are projected to account for most new jobs in the next five years include health and social services, education and training, retail, and professional, scientific and technical services. Mining and manufacturing are expected to lose jobs, while construction will stabilise after very strong recent growth. Professionals are the stand-out high-growth occupational group, whether we consider the recent past or the five years ahead of us. The relative loss of administrative and clerical, labourer, and trade and technician jobs, observed in recent years, seems likely to continue.

In the long-term

Considering recent trends only partially informs us about where we should be aiming our efforts. Understanding the forces driving the change and gathering broad based intelligence on how to best engage with these forces is another aspect of thinking about the future.

To further inform what we may envisage for the future we have considered three possible scenarios that Australia may plausibly face in fifteen years time—2025. Two of the scenarios—Open Doors and Low Trust Globalisation—envisage 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. The more conservative scenario—Flags—sees a protectionist response and a greater move to domestic self-sufficiency.



Each of the scenarios projects the need for additional qualifications over the next five years or so compared to the just over 500,000 students who currently complete a qualification every year—including overseas students, only some of whom then stay in Australia to work. Under the protectionist scenario the demand for qualifications is projected to fall between 2015 and 2025, back to the present level of around 500,000 completed qualifications.

Under the most expansive, open economy scenario, demand for qualifications is projected to grow much more slowly after 2015 to reach around 830,000 completed qualifications in 2025. Part of this scenario's apparent large increase in demand, from the current 500,000 completions to a projected 770,000 qualifications in 2015, reflects the shortfall in training effort in the past which led to the recent shortage of skilled labour (see Table 1).

Table 1: Three scenarios – difference in qualifications needed (supply of students less labour market demand)

	Open Doors '000		Low-trust Globalisation '000		Flags '000	
To 2015	Demand	770	Demand	645	Demand	540
	Supply	530	Supply	525	Supply	505
	Balance	-240	Balance	-120	Balance	-35
To 2025	Demand	830	Demand	645	Demand	500
	Supply	660	Supply	620	Supply	555
	Balance	-170	Balance	-25	Balance	+55

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

Consistent with government targets and policies, all scenarios project a fairly steady increase in the supply of qualifications. While still substantial, the difference projected for supply between the three scenarios ranges from 555,000 under Flags to 660,000 under Open Doors.

As a consequence of the faster growth in the supply, the projected excess demand for qualifications—or shortfall—over the period up to 2015, is gradually removed. For both the Low Trust Globalisation and Flags scenarios no significant imbalance is projected between the demand and supply of qualifications by 2025. However, under Open Doors a significant excess demand of around 170,000 completed qualifications is still projected in 2025 (Table 1).

In all scenarios we anticipate a significant trend increase in the level of skills emerging. There is a marked move towards graduates and a movement away from Certificate I and II qualifications. This reflects both a continuation of the trend toward skill deepening and the growth prospects for jobs requiring higher level skills. Interesting questions emerge from the modelling around future levels of demand for Certificate III and IV qualifications and their effective articulation into higher-level qualifications.

Migration also plays a significant role in supplementing Australia's training effort, with the qualifications contributed by net migration expected to be equivalent to around 20 per cent of annual student completions in 2010. Under the most



expansive and open scenario this contribution will remain significant, moving down to 18 per cent by 2025. But by then the number of qualifications contributed by migrants projected under Flags will be only around one third of the number projected under Open Doors.

Migration will therefore make a substantial contribution to closing the qualifications gap identified in Table 1 under the Open Doors scenario, although over time migration may help to push the supply of skills above demand for the other two scenarios.

We expect the projected increases in the amount and quality of training will enable an increase in employment participation in each scenario notwithstanding the ageing of the population. The biggest increase in participation would occur under Open Doors, reaching 69 per cent in 2025. At least over the next fifteen years, this increase in participation would be sufficient to offset the projected impact of the ageing of the population, and would have very significant fiscal benefits for all governments.

Furthermore, this liberal, open economy scenario 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. However, the significant demand for qualifications will require policy interventions over and above those that narrowly focus on the increased output of skills.

So what should we plan for?

How far can matching go?

Having identified a need for more and higher qualified workers, the obvious response is to ask how we can best match the need. There is sense in this, to the extent that education providers want to avoid training people in redundant skills, and employers want to avoid shortages of skilled workers who are critical to their profitability. However, on closer investigation, the idea of a match doesn't fit well with the fluid and dynamic way labour markets, employers or individuals behave.

First, almost half of the workforce changes their employer every three years, and many people change not just their employer but also their industry and occupation. So even if there may have been a 'match' at one point it is not likely to be stable.

Second, the relevance of people's first post-school qualifications fades as people progress through their careers, often retraining and increasing skills along the way. Many people work in fields for which they have acquired skills and experience over time, rather than through formal education. This reflects the role of education and training in providing generic preparation for work, as much as imparting specific vocational skills. Less than one-third of managers and administrators have a university degree although management is regarded in many forecasts as a highly skilled occupation with which such a degree is associated.



There are also very significant differences between states and territories. This is well illustrated by the distinctive ‘two-speed’ growth patterns of Queensland and Western Australia, on the one hand, and the southern states, on the other, through much of the 1990s.

Striving for a perfect demand-supply match appears neither possible nor appropriate. Instead, we must be far more cognisant of how employees, employers and labour markets actually behave when developing plans for the workforce.

Different planning for different purposes

In recognition of the complexity of the dynamics in labour markets and the impossibility of addressing all the issues and concerns at a national level, we propose that we use different approaches to planning for different types of occupations and skills. One approach is best suited for educational providers and enterprises and the other for national and state governments.

For example, education providers such as universities and training organisations already gather their own information on labour market supply and demand patterns. Where they have good local information it would seem best to leave the decisions regarding the allocation of training resources to these organisations, within the broad parameters governments set to ensure sufficient overall workforce capacity. Similarly, many larger enterprises plan and make decisions about how to meet their short and long term workforce requirements.

On the other hand, there are occupations with certain characteristics that fall more obviously within the ambit of government responsibility; in particular, where there is most risk of market failure because of the nature of the jobs and the skills employed. We propose that these are the occupations that governments should focus on in their future planning – adopting a risk-based approach.

Identifying the occupations for national planning

We argue that there is need for agreed criteria to guide which jobs/occupations/skills it is most useful to plan for in the future. The criteria would aim to distinguish the skills and occupations that governments are better placed to focus on from the ones labour markets and local planning deal with effectively.

We suggest the following criteria for identifying ‘high-risk occupations’:

- where the skills are specialised and there is a long lead time to develop them
- where there is good fit between what people train for and the jobs they get—that is, the skills are well-used in industry
- where there is significant disruption if the skills are in short supply—eg causing bottlenecks in supply chains, generating significant community costs, or a risk of not meeting government priorities
- where there is sufficient information to assess the future demand for a skill.

Skills Australia has tested these criteria and identified some twenty broad occupations including engineers, nurses, carpenters and joiners that emerge as ‘high risk’ under the criteria. The indicators we used and the results are



described in the first background paper. Consultation with industry and other stakeholders is needed to help determine whether more detailed analysis is needed, and what action, if any, should be taken by governments around skill strategies for the occupations identified.

Questions arising

Factors missing from our projections?

- How can we take the realities of the labour market into better account?
- Have we sufficiently captured the main future skill needs?
- What else should/could we consider?

Risk occupations only?

- What is your response to adopting a risk based approach to planning?
- What types of interventions may this require from government, training organisations and other bodies?

Best use of investments?

- How can we best use current investments to support our emerging workforce demands?
- What types of interventions may this require from government, training organisations and other bodies?

And?

- How might our suggestions impact on your organisation/industry?
- Can you see a downside to our proposals here? What could we do about it?
- What else should we be considering to make our future planning even better?



How can we best realise Australia's skill potential?

How can we capitalise on Australia's investments in tertiary education? How can we link educational and community-based strategies with employment strategies to bring about greater opportunities for participation? Is it timely to take the next step towards a shared Australian workforce development strategy?

These are the central questions considered in the second background paper, *Powering the Workplace: Realising Australia's Skill Potential*. This paper brings together a wide range of recent empirical work analysing workforce and workplace trends. The analysis points to the complexity of skill and workforce dynamics, and the unevenness of skill trends evident across Australia and in comparison to international experience. The evidence also indicates that there are areas where individuals, locations or industries are missing out on the potential gains of higher skills as well as areas where we are travelling well. Most importantly, the paper identifies a national interest in workforce development, the work already underway in this area, and where fresh thinking and new approaches are needed if we are to better realise Australia's skill potential.

Observations

Skills in use

In recent times, Australian governments, employers and individuals have invested strongly in education and training. By 2008, over 60 per cent of employed people had a post-school qualification and the growth in apprenticeship and traineeship training during the 2000s was faster than growth in employment. All parties have seen that greater investment in education and training is needed to avoid a repeat of recent skill shortages.

However, simply raising education levels is no longer seen as a sufficient response to other national aspirations, such as lifting innovation, productivity and economic growth. It may be necessary, but it is not sufficient, as a World Bank review of business competitiveness notes:

'almost everything matters for competitiveness. Universities matter, the roads matter, financial markets matter, the sophistication of customer needs matters, and so on...Improving competitiveness is a special challenge, because no single policy or grand step can create competitiveness. Ultimately all dimensions of the business environment must be improved' (Porter, Delgado and Ketels, Business Competitiveness Report 2007-8).



At the same time as Australia experienced persistent skill shortages for professional, associate professional and trade skills many people with high-level qualifications were employed in jobs that correspond to lower types of qualifications. Data from ABS labour force surveys indicate that some 30 per cent of Australian tertiary education graduates work in jobs classified at a lower skill level than their qualification. Moreover, the proportion has increased over the past decade.

Data also indicate a significant number of people in the workplace report that they do not use the skills and knowledge they possess. A substantial proportion of employers—over 40 per cent in recent years—report that their workforces have in general more skills than the organisation requires, although almost equal proportions report difficulties in recruiting skilled staff.

In all, these data suggest that action to boost employer demand for and use of high skills is needed at the same time as action is taken to boost the supply of skills. They also suggest a more complex consideration of the relationship between skills and industry productivity, noting the relevance of factors such as job design and work organisation, the quality of management and the extent to which workplace culture encourages learning, innovation and autonomy.

The ability to use skills and knowledge, and to use them well, in the workplace is what really matters for productivity: not just the acquisition of skills *per se*.

Workforce participation

In parallel with under-use of skills is the un-realised potential of those who remain outside the labour force and want work. In recent decades Australia's workforce participation rate has increased—from 61 per cent to 65 per cent between 1986 and 2006. However, there are still many people in or on the margins of the labour force who want more work and there are significant imbalances in opportunities depending on where one lives.

In the decade to 2008, employment grew by 25 per cent (or 2.2 million people). But this was accompanied by the rise of part-time and casual work—comparatively high in OECD rankings—as well as growth in the numbers of people wanting to work more hours. Women and young people are specifically affected by both of these trends. Indigenous Australians continue to face profound employment barriers and, despite the buoyant job growth of recent years, a significant number of young people persistently remain in marginal labour market situations.

Participation rates for men of prime working age are still some nine percentage points lower than in 1970, and are low compared to other OECD countries; those with incomplete schooling and no further education are poorly equipped to take up jobs in the new economy.

Currently there is some 16 percentage points difference between states and territories with the highest and lowest participation rates, while place-related disadvantage continues to concentrate in certain big city suburbs.



The economic downturn in 2009 puts at risk past gains and improvements in our labour market profile, raises potential for long-term unemployment and exacerbates the vulnerability of groups already on the margins of employment.

Today, over 1.5 million people are unemployed or want more hours of work. Current evidence suggests young people and recent non-English speaking migrants appear to be bearing a disproportionate impact of the current economic downturn, potentially repeating the pattern of previous recessions.

Literacy and numeracy rates remain stubbornly resistant to improvement, with over 40 per cent of the workforce achieving low measured scores for literacy and numeracy on international measures.

In all, the evidence suggests that Australia's employment potential is not being fully realised by certain groups and in certain locations across Australia. These are complex questions, and much effective work is underway in government agencies and the community sector. Nevertheless, we emphasise the need to remove workforce participation barriers for all Australians as a way of achieving social objectives – such as addressing poverty – *and* meeting Australia's future economic needs.

So what should we do?

Have an integrated approach

Policy and program solutions have in the past tended to conceive of remedies for workforce productivity or unemployment simply in terms of either 'skill' or 'job' solutions. But we believe a more complex and devolved approach is now needed. Such an approach would acknowledge the interdependence of social, economic and ecological factors as well as global market influences affecting regions and industries.

There is often not just 'the one' workforce development problem. Some regions or industry sectors operate in environments of low skill intensity. These characteristics affect the demand for skill and opportunities for skill use, and employer attention will be on workers' generic employability qualities. Elsewhere, regional or local shortages of skilled workers may result from a lack of suitably qualified people or education system shortcomings, while in other cases, they will result more directly from industry practices and choices made by individuals and families. In emerging industries, innovative skill strategies may be needed where mainstream education can't provide technically leading edge training for small or dispersed numbers. Improving the skills of the unemployed or those in jobs will only deliver positive outcomes if the industry context requires the skill. Industry, regional and enterprise capacity also needs to be activated to support and nurture people's skill use.

Workforce development is concerned with the factors that encourage both skill formation and skill use in ways that generate positive outcomes for the person, the enterprise and the community. Workforce development strategies that work with enterprises or clusters of enterprises to address both skill and business performance issues are becoming widely adopted around the world. Similarly,



community-based strategies involving ‘wrap-around’ services are increasingly being used to support people’s engagement with work. Within Australia, State and Territory governments, Industry Skills Councils and industry associations, education providers, research organisations and intermediaries are embracing workforce development. Many of the options proposed in this paper are derived from the policies and projects these Australian organisations are trialling.

A shared national framework for workforce development

Australia has already made a mark with a wide range of workforce development initiatives being pursued across states and territories, within regions and at the organisational level. What has been lacking to date is a comprehensive national understanding that skills on their own are a necessary but insufficient policy response in a time of dynamic economic change and entrenched social inequalities.

The rationale for governments and others engaging in a workforce development strategy is to offer a way of better integrating education and training policies with economic development, social inclusion and sustainability measures. There will not be a single path forward—alternatives will depend on industry, regional and enterprise circumstances. A national approach offers a way to overcome disconnections or missed opportunities to share and strengthen good practice among those involved. These will include agencies concerned with industry and innovation, those concerned with education and training and those that focus on regional development.

Such a national approach has the potential to ensure governments, education and training providers and industry bodies collaborate to offer a better return on investment of public monies in education and training.

It could:

- sharpen the way we think about and plan for future skills
- improve access to development and job opportunities among workers who are currently under-employed
- help ensure better use of people’s skills in Australian workplaces
- maximise the participation of the working age population in the workforce
- increase the demand for high skills
- develop customised and collaborative local solutions
- improve coordination between government programs that focus on enterprise and industry capability.

Questions arising

Need for a national approach?

- How important is the need for a shared Australian national workforce development approach?
- Are there factors that we haven’t considered here?



The impact of a workforce development response

- What might be the impact of this new proposal on your organisation and/or industry?
- How might we take this impact into account? With what import?



Our proposal:

A workforce development response

As a starting point for discussion, Skills Australia proposes the following strategic priorities to guide the development of a comprehensive national workforce development response.

Identifying skill and workforce demands

We need to identify Australia's future skills and workforce needs based on assumptions of sustainable economic growth and preparing for the risks of alternative economic, demographic and social scenarios. Amongst other things this could involve:

- agreement on a national 'risk-based' approach to skills and workforce planning to guide action by governments
- streamlining workforce planning responsibilities and ensuring adequate information and capacity at all levels
- agreement on broad national priorities needing renewed attention, such as literacy and numeracy
- more emphasis on generic skills that provide adaptability and a strong basis for further learning.

Establishing a shared national framework for workforce development

We need a comprehensive strategy to support people to better engage with work, capitalise on our skills and position ourselves for future challenges in the global community. Amongst other things, we will need to consider:

- leading the impetus for change—establishment of a whole of government approach and national agreement on concepts, principles and indicators of success
- resourcing change—adoption of new funding principles to support workforce development initiatives
- guiding reform and catalysing change—support for 'change agents' and hubs such as a centre of excellence and lighthouse projects to build knowledge and expertise and diffuse best practice on workforce development.

Promoting demand for and the full use of higher-level skills

We need to promote the demand for higher-level skills along with the effective use of those skills in the workplace. This will require:

- enabling new industry connections—identification of an industry cluster or regional program through which to support multi-faceted solutions to address



skill demand issues, business performance and to lift capability across a range of workplaces

- addressing skill use directly in enterprises. For instance, where public funds are involved for training, support could be linked to other interventions taken by enterprises to tackle job design, work organisation or organisational performance and to engage workers
- developing the capacity of enterprises—examination of opportunities to build the internal capacity of enterprises as learning organisations by developing leadership and management capacity
- developing the capability of service providers—identification of new skills or capability needed among education providers and other agencies working with enterprises to support more flexible workplace solutions to boost workforce development.

Focusing on workforce participation

We need to address regional and local workforce participation challenges, especially in areas of entrenched disadvantage. This could include:

- identification of opportunities to use skill ecosystem ‘locational approaches’ to develop sustainable solutions to underemployment and unemployment
- ensuring that employers and workplaces are effectively engaged in social inclusion strategies, so that as people acquire skills they have solid opportunities for quality employment.

Questions arising

The strategy?

- What is your response to our proposed strategic priorities?
- What are the implications for your organisation/industry?
- Who might take leadership responsibility for these different elements?

A shared agenda?

- How can we strengthen the linkages between state and federal governments and across government agencies?
- Can you envisage different funding flows?
- What might be a good outcome from having a shared framework?

Improving participation?

- What do we need to include as key elements for best practice?
- Do we need to pay any special attention to the under-employed?

Promoting demand?

- How can we ensure more enterprises develop workplace strategies that encourage use/development of people’s skills to improve performance?



- Is a focus on skills use one way to increase employee engagement in work?

And?

- What would you suggest we need to do next?

To send us your comments

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