

A well-skilled future:

Tailoring VET to the emerging labour market— About the research

The research consortium, *A well-skilled future: Tailoring vocational education and training to the emerging labour market*, comprises researchers from the National Institute of Labour Studies and the Centre for Post-compulsory Education and Lifelong Learning. Managed by the National Centre for Vocational Education Research (NCVER), it aims to investigate future work skill needs and work organisation arrangements, and their implications for VET. Presented here are the key messages of 10 forthcoming reports produced as part of this suite of work.



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Produced on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Department of Education, Employment and Workplace Relations.

Funded through NCVER's Consortium Research Program via a grant under the National Vocational Education and Training Research and Evaluation Program. These grants are awarded to organisations through a competitive grants process.

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A well-skilled future by Sue Richardson and Richard Teese

In 2004, the National Centre for Vocational Education Research (NCVER) contracted the National Institute of Labour Studies, Flinders University, and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne, to undertake a body of work focusing on the relationship between the country's future skill needs and the vocational education and training (VET) system.

A well-skilled future by the co-directors of the consortium synthesises the findings of the twelve projects undertaken. This body of work will be a stimulus to debate about the role of the VET system in Australia's skills development.

Key messages

- Supply and demand for skills are very difficult concepts to pin down and measure, principally because many people learn their vocational skills informally, whilst on the job. While greater local interaction between industry and VET will improve understanding of the market, at the national and state levels, policy-makers must learn to live with uncertainty. They should focus on areas where markets do not work well, skills that take a long time to train or shortages that cause major bottlenecks.
- Higher-level skills are increasingly required by industry, so VET must re-focus on middle-level and advanced training. This should not be at the expense of people needing basic training, because VET plays a vital and unique role in providing opportunities to the many people who are following unconventional life paths, many of whom are relatively disadvantaged.
- In those areas where more and more jobs are casual and less training is occurring in the workplace, the importance of formal VET is likely to grow.
- The ageing of the workforce will increase the stock of vocational skills, especially white-collar skills, as the workforce becomes more experienced and more qualified.
- A well-skilled future means removing barriers to VET participation caused by lack of employment incentives to training, problems of incomplete schooling, and weaknesses in how some providers work.
- The VET system can respond through both community partnerships and market-based models of provision. These multiply industry links, create more employment incentives to training, and have a greater focus on individual need through good inclusiveness strategies.
- A well-skilled future cannot be constructed by the VET sector alone. Improved quality of schooling will create the platform for VET to do its distinctive and value-adding work in skills training, while stronger employer commitment to training will make greater use of the workplace as a site for skills development.

For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

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Future skill needs: Projections and employers' views by Diannah Lowry, Simon Molloy and Samuel McGlennon

To help the VET sector respond to changes in the skills required in the Australian workforce, the National Centre for Vocational Education Research commissioned a program of research from the National Institute of Labour Studies at Flinders University and the Centre for Post-compulsory Education and Lifelong Learning at the University of Melbourne.

This report examines one of the central questions in this research area: how can the VET sector adapt to the fluid environment of the workplace when the dynamic nature of the labour market makes it impossible to predict with any certainty future skills needs?

In tackling this question, the authors had to take into account the growing complexity of the skills being demanded of workers. They did this by adopting the notion of cognitive skills (compiling, analysing, coordinating), interactive skills (serving, supervising, mentoring) and motor skills (handling, driving, precision working), rather than using indirect measures (or proxies) of skill such as qualification or occupation. They concentrated their research on those industries expected to have the main employment growth to 2011: property and business services; health and community services; retail; construction; accommodation, cafes and restaurants.

Key messages

- Proxies for skill such as 'qualifications' and 'earnings' do not always capture the actual skill requirements of jobs because many people with a qualification do not use that qualification directly in their work and others without formal qualifications have the skills to do their job.
- The demand for interactive and cognitive skills is projected to grow, whereas the demand for motor skills is likely to fall. Employers interviewed for this study considered interactive skills to be the key skills required over the next decade.
- A process of 'skill deepening' is occurring as increasing job complexity requires workers to move up the interactive and cognitive skill hierarchies.
- To accommodate the demand for interactive and cognitive skills, training packages and curriculum design need to incorporate consideration of worker functions contained within the interactive and cognitive skill sets.

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Demographic impacts on the future supply of vocational skills by Yan Tan and Sue Richardson

This report examines the effect of an ageing population on the future skills supply. It gives a detailed analysis of projected vocational education and training (VET) employment and VET qualifications by occupation and age group to 2020, highlighting those occupations using VET-acquired skills. It also quantifies the compositional effects of changing demographics on both the quantitative ('how many?') and qualitative ('what type?') dimensions of the supply of vocational skills.

Key messages

- Over the next 15 years, the workforce will continue to grow but its age structure will change significantly. By 2020, people aged between 50–65 years will comprise 45% of the working-age population. However, the age distribution of new entrants will remain constant for males and get a little younger for females.
- By 2020, almost all the non-trade occupations are expected to have more people aged over 55 years than under 25 years. People in the trades have the youngest age profile and this is expected to persist for the next 15 years.
- The workforce will become more qualified as more people with higher levels of formal education and training move through the labour market. There will also be an increase in associate professional and managerial occupations for VET qualified people. 'Skill deepening' will lead to even higher levels of qualifications.
- There will be a growing demand for the VET sector to:
 - assist in improving the skills and hence employability of people currently marginal to the workforce, including older workers
 - provide training that helps people upgrade or enhance their VET qualifications at higher levels (especially advanced diploma and diploma) and in the business/management disciplines
 - offer older workers a quick return on their training investment.

The report is part of suite of research undertaken by the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne. For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

Two other NCVER publications addresses similar issues: *Will we run out of young men?* by Tom Karmel and Koon Ong and *Higher-level vocational education and training qualifications: Their importance in today's training market* by Sue Foster and colleagues.

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Changing forms of employment and their implications for the development of skills by Sue Richardson and Peng Liu

Skills for the future, changing employment patterns and their intersection with the vocational education and training (VET) sector was the broad research area investigated by an NCVER-appointed consortium of researchers from the National Institute of Labour Studies at Flinders University and the Centre for Post-compulsory Education and Lifelong Learning of the University of Melbourne.

This report concentrates on changing employment patterns by examining the shift away from a standard of full-time permanent employment that occurred between 1992 and 2005. It describes the effects of changing employment modes on the amount and type of training received by employees and considers the implications for the VET sector.

The focus of the study was on the ways in which people learn, particularly on the job, to be productive workers. It asked whether part-time, casual and labour hire forms of work have affected the development of vocational skills.

Key messages

- Since 1992, there have been substantial changes in men's employment patterns, with a decrease in the number of permanent full-time jobs (new and existing) and a large increase in casual jobs, both full- and part-time.
- Women have seen strong growth in permanent jobs, both full- and part-time.
- Growth in permanent jobs has been concentrated among both men and women aged 45–59 years, while the absolute number of permanent jobs for men aged 20–30 years has fallen.
- Growth in permanent jobs has been concentrated in occupations that mostly require higher education, rather than vocational education.
- From 2001 to 2005, the total hours of employer-sponsored training fell by 15% for permanent workers and by 27% for casual workers. In total, casual workers get about half the employer-provided internal training and a mere fraction of the employer support for external courses that permanent workers get.
- The shift away from full-time continuing employment is likely to put skill development on the job at risk, placing the onus on VET providers to offer courses that are accessible to full-time, part-time and casual workers.
- The reduced employer support for training means that skills development will increasingly need to be funded by the workers themselves and the taxpayer.

Many of the issues raised in this report are further addressed by other reports produced by the consortium. For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

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Changing work organisation and skill requirements by Bill Martin and Josh Healy

How work is organised is an important factor in determining what skills workers need to do their jobs. It is common to think, therefore, that with today's emphasis on teamwork, employees must be multi-skilled and able to work collaboratively and flexibly, unfettered by traditional hierarchical structures and rigid task separation.

This research, part of a larger body of work addressing issues on changing work and skill needs in Australia, investigated the extent to which the contemporary workplace has changed. It compared practices in several industries (call centres, hospitals, manufacturing plants and mining operations) with a model of high performance. It also considered whether employees needed new sets of skills and the role the vocational education and training (VET) should adopt in providing these skills.

Key messages

- Australian organisations have experimented with elements of the high performance model, including teamwork, decentralisation of authority, increased knowledge-sharing, flexibility in job content, pay for performance, strict recruitment practices, and additional training provision. However:
 - there are few examples of organisations that have sustained teamwork systems. Instead, teamwork has either declined or been used primarily to ensure the social integration of workers or induct them into organisational cultures
 - none of these practices has been used consistently to produce permanent changes in how work is organised, nor to produce a demand for significant new skills (such as communication skills) among employees.
- Cost-cutting and cost-containment have often been the motivation for reorganising work practices. While these have resulted in multi-skilling, such changes are unintended and normally not resourced. They run the risk of high degrees of work intensification and people quitting.
- Nevertheless, employees do need to be able to negotiate workplace changes by developing skills in areas such as cooperation and negotiation, as well as greater abilities in administrative, supervisory and even management skills.
- While it would be unwise of the VET system to design future training on the assumption that high performance practices will become widespread, VET providers do need to remain sensitive to these changes in work organisation among their clients, and to the skills development they can offer employees needing to cope with them.

For a synthesis of the entire program of work conducted by the National Institute of Labour Studies, Flinders University, and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

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Social area differences in vocational education and training participation by Richard Teese and Anne Walstab

Responsiveness is a familiar refrain in vocational education and training (VET) sector. Training providers are being called upon to adapt to emerging skills needs and to build greater flexibility into the system. How they do this depends on how they manage their multiple roles and diverse clientele.

In their study, Teese and Walstab examined population differences in clientele and identified social, economic and cultural barriers some people face in finding employment. Their report and its companion, *Participation in vocational education and training across Australia: A regional analysis* by Anne Walstab and Stephen Lamb, should help the VET sector to find ways to respond to these obstacles and to motivate individuals to take up training options and, where necessary, to reskill in order to find good jobs.

Key messages

- VET providers respond to people's various needs during the different stages of their participation in the workforce.
- The age pattern of participation suggests that the VET sector performs four major roles:
 - a platform-building role for young commencing workers
 - a promotions or skills enrichment role for established workers
 - a reorientation role for older workers
 - a personal enrichment role for older workers or people not in the workforce.
- Basic and skilled (certificates I and II, and certificate III, respectively) VET dominate the activity of teenagers and young adults.
- Skills enrichment, reorientation and personal development become more prominent for established workers and older people.
- VET activity rises as socio-economic status falls. That said, people with lower socio-economic status are not achieving the higher qualifications which reap the greater rewards from the participation in VET.
- These disparities can often be traced back to the type of schooling people received, suggesting that schools have a significant role in shaping aspirations and preparing young people for post compulsory education and employment.

This report is one of twelve produced by a consortium of the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne looking into the relationship between the country's future skill needs and the VET system. For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

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Participation in vocational education and training across Australia: A regional analysis by Anne Walstab and Stephen Lamb

There are wide variations in participation and take-up of vocational education and training (VET) across regions in Australia. Investigating the reasons for these differences was one of the tasks undertaken by a consortium of researchers from the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne in work commissioned by the National Centre for Vocational Education Research.

Walstab and Lamb set out to identify the main drivers of and barriers to participation in regional Australia. Having mapped regional participation rates, they went on to identify 'exceptional' regions—those with unusually high or low rates of participation—and to draw conclusions about what drives regional differences in VET participation.

Key messages

- Economic factors have a strong influence on participation in VET. The composition of industry structure plays a major part. So too do labour market conditions.
- These explanations do not, however, suffice when it comes to participation in the exceptional regions identified in the study, pointing to the significant impact of local policies, community partnerships and other specific factors can have on training rates.
- VET participation is stronger in the rural areas of Australia, particularly for basic- and middle-level VET awards. The reverse is true for participation in diploma-level VET.

This report has a companion piece, *Social area difference in vocational education and training participation*, written by Richard Teese and Anne Walstab. Both form part of a suite produced by the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne. For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

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Current vocational education and training strategies and responsiveness to emerging skills shortages and surpluses by Jack Keating

The Australian vocational education and training (VET) sector receives direction and funding from both the Australian Government and the state and territory governments, as well as being influenced by local social and economic imperatives.

This report examines the system's capacity to adapt to the current and anticipated demand for skills in the workforce, while taking account of the multiple demands imposed by government-determined priorities. Its focus was on the planning processes for publicly funded training.

Key messages

- The planning and funding arrangements for VET in Australia are relatively tight with limited capacity for market responsiveness. Planners have not paid enough attention to how public funding can stimulate fee-for-service demand, and industry and individual investment in training.
- The economic boom has reduced demand for formal VET. In some areas, TAFE institutes have found it difficult to fill their funded places. The system needs to find ways to strengthen the individual demand for training.
- At the same time, the technical and further education (TAFE) institutes retain a role in providing tertiary education pathways for school leavers and is the major provider of second chance education.
- For the system to introduce greater flexibility, there needs to be more interactive and responsive planning which allows for the flow of information from local markets to influence national thinking. This suggests that data collection must have more than a compliance focus.
- Cooperation between providers, both public and private, and other agencies can increase local capacity for planning.
- Funding mechanisms should go beyond allocating student contact hours to financing contestable programs and programs delivered by private registered training organisations.

This report is one part of a program of work conducted by the National Institute of Labour Studies, Flinders University, and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne. For more information about the consortium and to access working papers of its entire program of work, visit <http://www.socsci.flinders.edu.au/nils/>.

Another suite of NCVER-commissioned work examined the role of VET in regional partnerships. This work is summarised in *Regional partnerships: At a glance* by Tabatha Griffin and Penelope Curtin.

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Matching supply of and demand for skills: International perspectives by Jack Keating

Skills for the future, changing employment patterns and their intersection with the vocational education and training (VET) sector was the broad research area investigated by a consortium of researchers from the National Institute of Labour Studies at Flinders University and the Centre for Post-compulsory Education and Lifelong Learning of the University of Melbourne. Included in the suite was an investigation by Jack Keating into what some other countries—Singapore, China, the United Kingdom, Norway and Germany—are doing to match the supply of skills with current and projected skill needs.

Keating's investigation found that Australia's VET system is held in high regard, with many elements copied by other countries. And while comparisons are difficult to make because of the strong influence of historical, cultural and political contexts on national training systems, getting an international perspective can help in considering how to tackle weaknesses in national systems, including Australia's.

Key messages

- Most countries recognise that investments in:
 - high-level skills is an effective contribution to productivity
 - low-level skills reduces social inequities
 - intermediate-level skills addresses unemployment
 - school level VET has the lowest opportunity costs.
- The key variable in national training systems and the associated mechanisms for the planning of training is the degree of autonomy of civil society, in particular industry, from government.
- Most Organisation for Economic Cooperation and Development (OECD) countries have major issues regarding the ageing of the workforce, making adult training and lifelong learning key policy areas. This, and regional economic patterns, have also led to the encouragement of labour mobility and an increased demand for migrant workers.
- Australian secondary education is less vocational than almost all OECD comparator secondary school systems. Its relative absence from the VET planning processes is therefore atypical.
- Comparisons between the international and the Australian VET sectors reveal that one of the Australian system's major strengths is a highly integrated model of national skill standards and a national framework for the awarding of qualifications.
- Weaknesses include the fact that industry-based planning processes are confined to the VET sector; and that there is only limited impact of market principles across the sector.

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Impact of TAFE inclusiveness strategies by Veronica Volkoff, Kira Clarke and Anne Walstab

Given current patterns of employment and demographic projections, the aggregate labour force participation rate is set to decline in coming years. A priority for research in the area of vocational education and training (VET), therefore, is to examine how VET can support greater participation in the workforce. This is especially important for groups whose participation is relatively low; for example, Indigenous Australians, people with a disability, refugees, young people 'at risk' and prime-age and older men and women with low educational attainment and literacy levels.

This report examines the nature and impact of the inclusiveness strategies implemented by technical and further education (TAFE) institutes in Australia. It is part of a larger suite of research undertaken by the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne.

Key messages

- Adopting effective inclusiveness practices can occur within both strongly market-driven and community-based models. These do, however, call for collaboration and expanding relationships with community stakeholders to meet the complex needs of disadvantaged groups.
- Poor literacy and numeracy remain a significant barrier to accessing and completing training.
- It is important that TAFE institutes engage with disadvantaged learners in training that provides skills required by industry at sufficiently high levels to lead to sustainable employment.
- These learners also need a range of support mechanisms beyond the classroom to ensure successful study and employment outcomes. Over a third of TAFE institutes are yet to focus on ways to help their disadvantaged groups get a job.
- The authors argue that strong institute leadership and enthusiasm for the inclusiveness agenda is crucial. If not embraced by mainstream staff, this agenda is at risk of being marginalised.

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