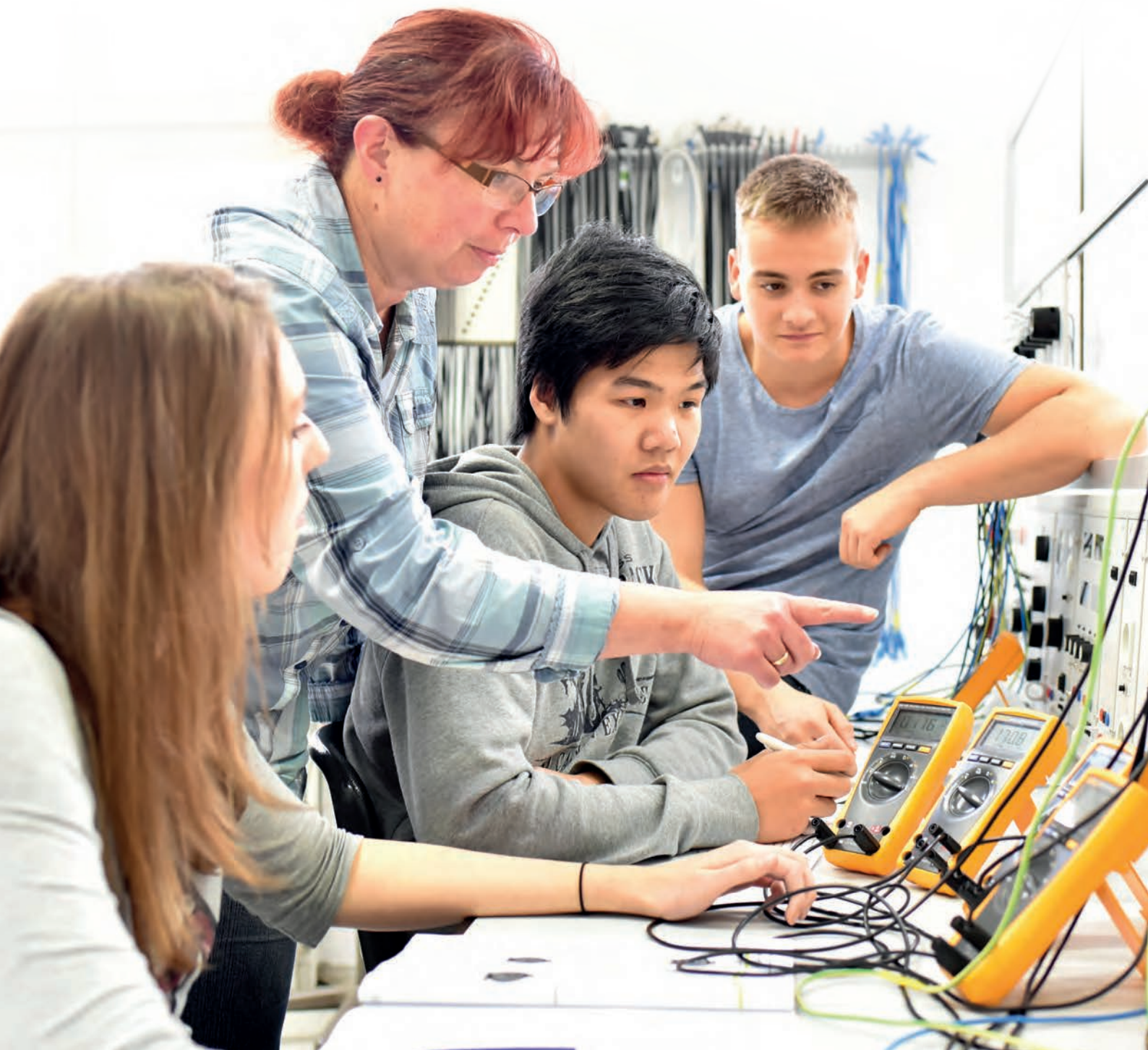


Future Fair?

Securing better quality jobs for young people in Australia

November 2019





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Executive summary

This report sets out to describe major trends in the Australian labour market that are shaping the future prospects of young people, particularly young people from less advantaged backgrounds. It considers current labour market program settings as well as the findings from a review of a number of smaller scale workforce-readiness programs. The goal of this report is to stimulate discussion about what can be done to improve the opportunities young people have to move into jobs that provide economic mobility and the opportunity to continue to learn. It identifies actions for employers, governments and those who develop or invest in workforce-readiness programs.

In recent years there have been many reports about the impact of new technologies on the 'future of work'. Some researchers have predicted that up to half of current jobs will be automated, bringing inevitable and substantial social upheaval. Other researchers have argued that though some jobs will disappear, many more will arise in their place. There is general agreement that what is described as the 'Fourth Industrial Revolution' will change the content and distribution of jobs. As a result, people seeking to enter the labour market will need to be prepared to keep adapting their skills. Meanwhile, people who already have work will need to acquire new skills and be equipped to move into new occupations if needed. It's almost certain many people will lose their jobs due to changes in the labour market. However, the size and impact of this displacement will be influenced by government policies and corporate and social decisions about how to manage and respond to structural change.

Young people, whether currently in work or entering the workforce over the next decade, have the most to lose or gain from workforce change. Already, young people's pathways both into and within work look very different from those of their parents. While young people have always borne the brunt of economic downturns, over the last decade young people's employment rates, in particular rates of full employment, have not rebounded as strongly when the economy improves. Even the most educated young people are taking longer to find full-time work. In addition, the pay gap between younger and older workers is widening and underemployment among young people is on the rise. Many young people end up in work that doesn't make use of their skills. At the same time there are skills shortages in many parts of Australia, and many employers argue that young people seeking employment are not adequately prepared for 'the world of work'.

Young people today are more educated than those in previous generations. However, entry-level job opportunities that offer career progression have declined. In addition, a closer look at post-secondary education and training highlights the risks for many young people in a

labour market that favours those with higher level skills. University participation rates have increased markedly over the last decade, yet the overall rate of participation in post-secondary education has declined. Participation in the vocational education sector (VET) has been affected by a 'perfect storm' of changing community attitudes, poor policy decisions and lack of strategic investment. Even though the prospects for many VET-qualified workers are good, young people are not participating in VET education at a rate that reflects emerging employer demand. Creation of new apprenticeship and traineeship opportunities has fallen behind overall employment growth. Employer investment in skills training for existing employees has also declined, with those who start off with lower levels of education most likely to miss out. The risk is that existing inequities in access to training will be entrenched and exacerbated by labour-market change.

Schools and tertiary institutions have been asked to do more to teach 'employability' skills and to prepare their students for work. However the usefulness of teaching employability skills in the abstract – that is, in a way that is divorced from specific occupational or industry content – has been questioned. While it is clear that these skills are critical, there is little evidence that employability skills programs make a difference on their own. What is most important for many young people – particularly those who are more marginalised – is the opportunity to integrate learning with work.

Apprenticeships, provided they are well supported, offer a model for work-based learning that could be applied to many more emerging domains of work. This requires greater action from employers to create opportunities. Fragmented supply chains, use of more insecure forms of employment, and reduced investment in training have all made it much more difficult for young people to secure a foothold in the labour market and to develop skills in the workplace. While employers demand higher skill levels and experience from prospective employees, many appear to be doing less of the 'heavy lifting' regarding skills development themselves. In addition, wages have stagnated and the financial rewards to individuals from time spent acquiring skills on or off the job have become less certain.

This report recognises the work being done by many Australian governments to revitalise and renew the VET sector. It recommends greater investment in Technical and Further Education (TAFE) because of the critical role TAFE plays as an 'anchor' institution in local labour markets. Effective vocational education and training will also need greater involvement and support from employers through work placements and increased use of apprenticeships and traineeships.

This report notes that several State Governments have done important work to stimulate creation of new training pathways through mandatory training requirements in major infrastructure projects. It recommends that consideration be given to extending these types of training requirements to other suppliers and contractors. It also recommends that all levels of government ensure they provide young people from disadvantaged backgrounds with opportunities for career entry and progression.

In recent years there has been a recognition that Commonwealth Government investments in labour-market programs are not working as well as they could be for people who face more significant obstacles to employment. To date, the employment services reform process has not seriously addressed either problems of underemployment or the need to prioritise skill formation. Many of the jobs that unemployed people find through employment services are casual and offer limited prospects for skill or career progression. Fewer employers are using government employment services and there is a risk that these programs may contribute to, rather than work against, job polarisation.

This report recommends that Commonwealth-funded employment programs be reformed so they better support the development of a highly skilled workforce with the resilience to manage structural change. This includes ensuring that programs have an increased focus on placement into higher quality jobs. Programs also need to be able to respond to specific local challenges in regional communities affected by structural change.

Recognition of the inadequacies of current universal labour-market programs has sparked investments by philanthropic, community and government organisations in a range of complementary programs aimed at supporting young peoples' transitions into employment. While many of these programs have been funded, not much is known or reported about their effectiveness. Social Ventures Australia (SVA) reviewed some of these programs, gathering insights from providers, participants and employers involved. Many of these programs focused on trying to convince employers to increase their provision of both work experience and work opportunity. While there were some successes, there were also considerable challenges. Program proponents need to be given time to build a clearer picture of the support needs of young people and the size of the gap between employer expectations and young peoples' immediate capabilities. Given the diversity of young people, the pathways available to them and the set of available supports, SVA believes the most effective programs will be those that are long-term and tailored to specific local labour markets.



This report supports continued investment in this type of complementary program where their design reflects the elements likely to promote success. Critical among these is the inclusion of young peoples' voices in program design and improvement. The report recommends that funders provide multi-year grants, be flexible in their requirements so that programs can adapt, and ensure they capture and share what is learned.

While we may not be able to predict what types of jobs and opportunities will be available in the future, we can take steps to improve the odds that future risks and benefits are more fairly shared. We recommend that current systems of labour market regulation and social protection be reviewed and strengthened to ensure that structural labour market change improves, rather than reduces, income security and recognition of skills.

While government action is critical, it is employers who must decide how they structure employment opportunities, how they reward those who bring their skills to the workplace, and how much they invest in the future skills of their employees. If young people are to thrive in the changing world of work, employers must be willing to invest in providing opportunities for them to get their first job within their organisations, to continue to learn over time, and to share the economic and social gains from technological change. This report recommends that employers step up their efforts to nurture young people, particularly those who are disadvantaged in the labour market, both within their own enterprises, and through their supply chains.

The current dilemma: youth unemployment and skills shortages

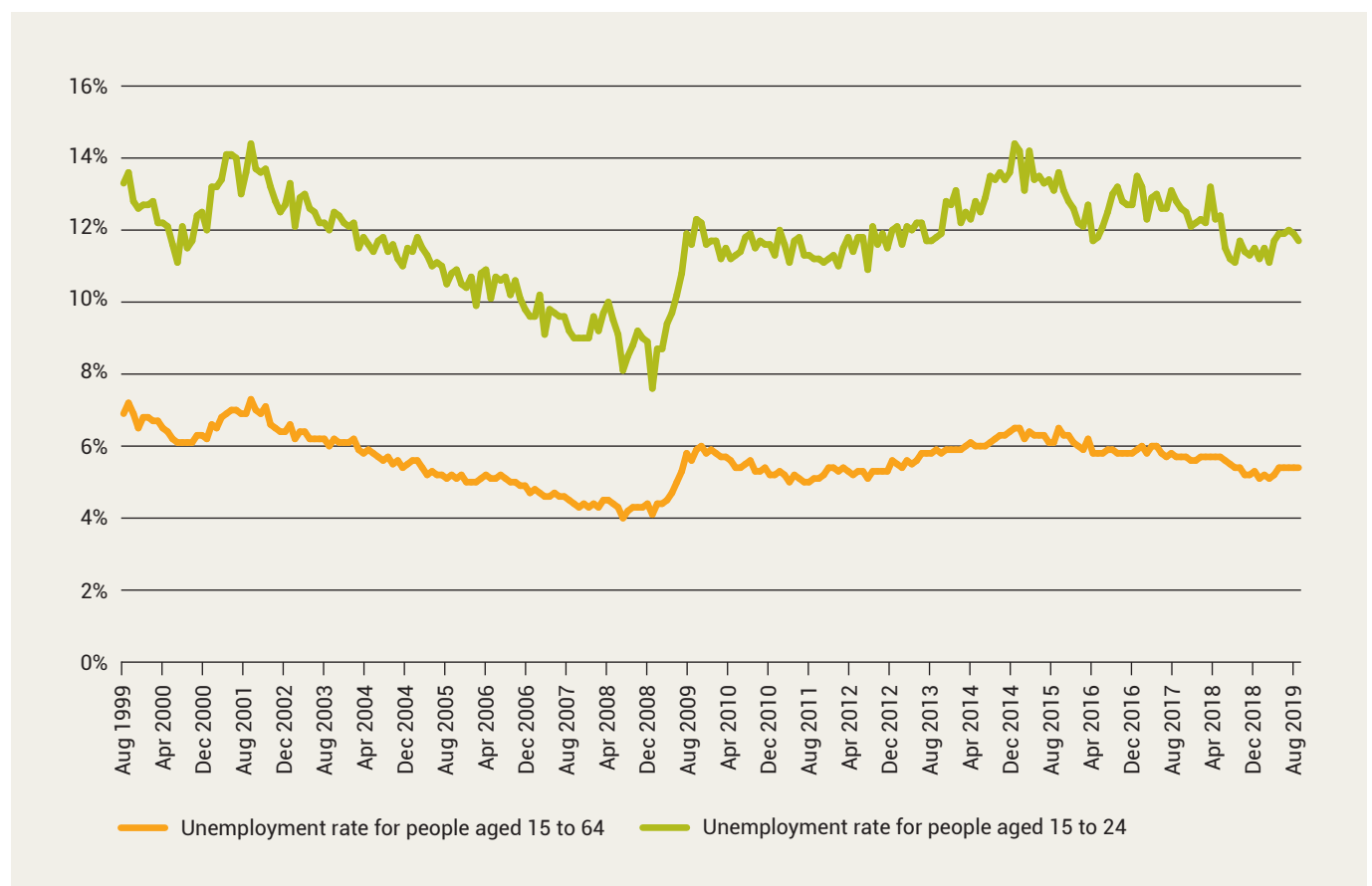
We are often reminded that Australia has enjoyed over two decades of continuous economic growth. During the 2008 Global Financial Crisis (GFC) growth slowed, but the economy did not contract. Australia's current unemployment rate of just over 5% is close to what the Reserve Bank has historically considered 'full employment'.

In Australia, as in most countries, young people's unemployment rates tend to change with the fortunes of the overall economy, but they do so more sharply. Young people have generally been the first to feel the effects of economic downturns, but their employment has usually rebounded with economic growth. However, since the

GFC the gaps have grown between the unemployment and underemployment rates of young people and those of the overall workforce. Immediately before the GFC, youth unemployment reached a low of 7.6%. In the decade since it has averaged over 12% (Figure 1).

In August 2019 the national unemployment rate was 5.3%, while for young people it was 11.7%. For teenagers the unemployment rate was 17.1%. While Australia has historically outperformed other Organisation for Economic Co-operation and Development (OECD) countries on rates of youth unemployment, Australia's youth unemployment is now slightly above the OECD average.

Figure 1: Unemployment rate by age

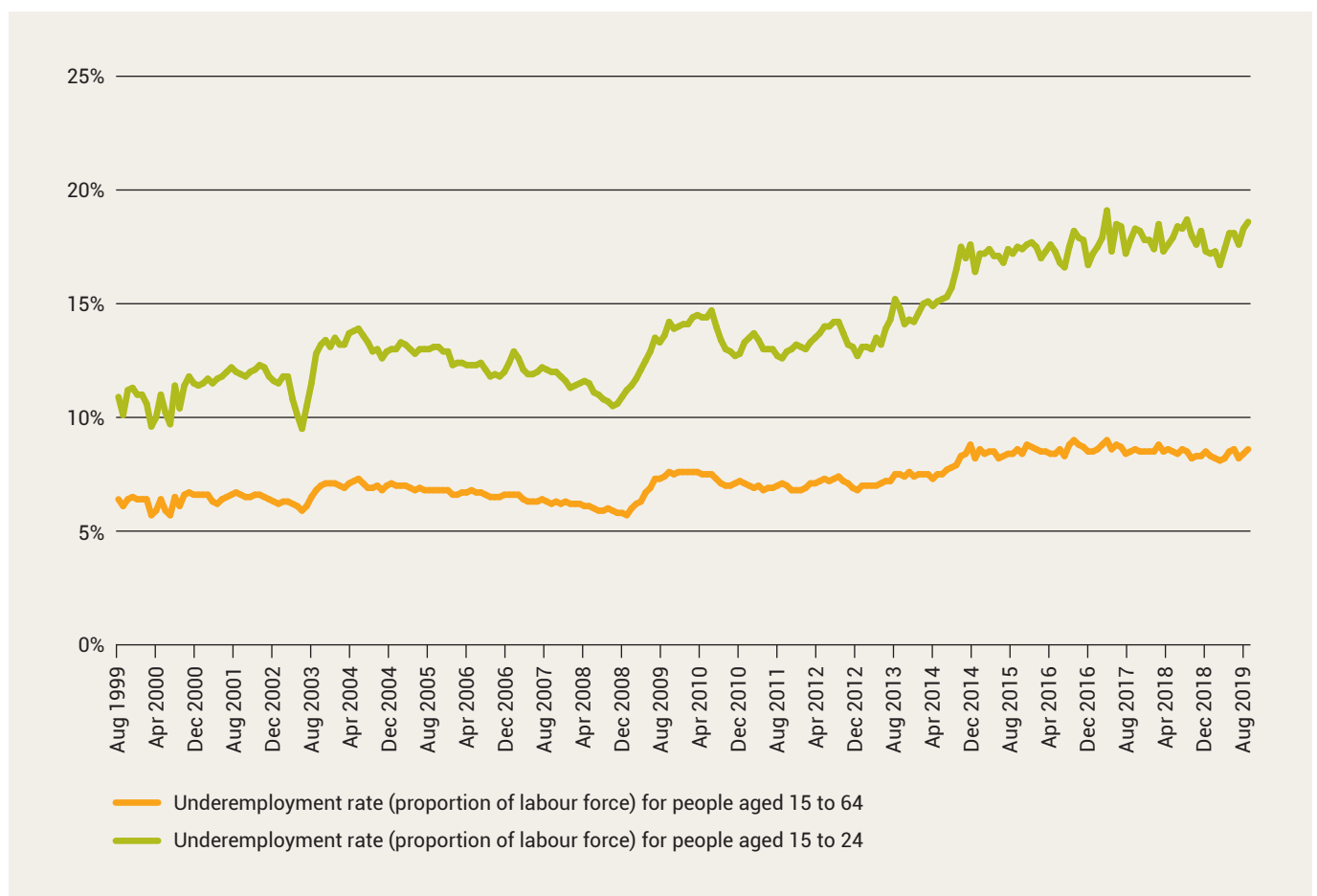


Source: ABS 6202.0, Labour Force, Australia, August 2019 (seasonally adjusted figures)

Along with the 259,400 people aged 15 to 24 who were unemployed in August 2019, another 414,300 were underemployed.¹ That is, they had some work but were looking for more. Of the 1.9 million people aged 15 to 24 who were working in August 2019 more than a fifth were underemployed.

While underemployment is a problem across the Australian workforce, the gap between the youth underemployment rate and that of the wider labour force rate has been growing (Figure 2).

Figure 2: Underemployment rate by age



ABS 6202.0, Labour Force, Australia, August 2019 (seasonally adjusted figures)

1. ABS 6202.0, Labour Force, Australia, August 2019 (seasonally adjusted figures)



Young people are much more likely to work in part-time and casual jobs than others. In 2016, 25% of the overall workforce was in casual work, while 76% of employees aged 15 to 19 years and 41% of employees aged 20 to 24 years were casual employees.² Young people are more likely to work in sectors with high rates of casualisation like the hospitality and retail sectors. In some cases this reflects a preference, for example where they are combining study and work. But high rates of underemployment, and recent increases in the numbers of young people who are long-term unemployed, show many young people are becoming trapped in low wage, intermittent work after finishing school or further education. The Foundation for Young Australians (FYA) has reported that, on average, young people are taking more than two and a half years to find their way from full-time education to full-time work.³

In the short term, some young people who are unemployed or underemployed face risks of poverty and homelessness. For example, households where the main source of income is Youth Allowance have a poverty rate of 64% or more.⁴ Reductions in weekend penalty rates since February 2017 have disproportionately affected young people. The gap between median youth wages and those of workers aged 35 to 44 has widened since the GFC.⁵ Youth homelessness has risen over the last ten years, with nearly 60% of those identified as homeless in the last census under 35 years old.⁶ Over the long term, a person who is disengaged at age 24 is at greater risk of unemployment, low pay, and employment insecurity.⁷ In addition, both unemployment and poor quality work are associated with poor mental health.⁸

2. Geoff Gilfillan, 2018, *Characteristics and use of casual employees in Australia*, Parliamentary Library Research Paper Series 2017–18, p.5

3. Foundation for Young Australians, *New Work Reality*, June 2018, p.9

4. ACOSS, 2018, *Poverty in Australia*, p.48

5. Zoya Dillon & Natasha Cassidy, 2018, 'Labour Market Outcomes for Young People', *Reserve Bank Bulletin*, June 2018, p.17

6. ABS, Report No. 2049.0, 'Census of Population and Housing: Estimating homelessness', 2016; www.abs.gov.au/ausstats/abs@.nsf/mf/2049.0

7. Stephen Lamb & Shuyan Huo, 2017, 'Counting the cost of lost opportunity in Australian education', Mitchell Institute Report No. 02/2017, p.15

8. Peter Butterworth, et al., 2011, 'The psychosocial quality of work determines whether employment has benefits for mental health: results from a longitudinal national household panel survey', *Occupational and Environmental Medicine*, 68 (11), pp.806–812

Young people are taking longer to find a secure foothold in the labour market, and this is having an impact on their wellbeing. Despite higher levels of educational attainment the Foundation for Young Australians summarised the position as follows:

By the age of 25, only half of young Australians have been able to secure more than 35 hours of work per week, which classifies them to be full-time employed (ABS definition). On the journey to reach full-time work, an estimated 21% work full-time hours in casual employment, and 18% do so through multiple jobs.

Prolonged periods of unemployment and underemployment have serious implications on a young person's self-esteem and general mental health as they transition to adulthood. Today 40% of young people identify as having low levels of social and emotional wellbeing. Among 18 to 24-year-olds who are looking for work, 28% reported anxiety in the previous year and 41% said they were affected by stress.⁹

The paradox is that while young people in Australia are finding it harder to find a secure foothold in the labour market, many employers are saying that they can't find

people with the right skills. In 2018 there were over 80,000 temporary skill shortage visa holders in Australia of whom over 23,000 were technicians and trade workers, and over 1,000 were community and personal care workers.¹⁰ Skills and labour shortages exist across many parts of the economy.

This is both a significant problem and an opportunity. Bridging the gap between employer needs and the skills and aspirations of young people will unlock economic potential and increase the likelihood that the next generation will be able to achieve what Nobel Prize winning economist, Amartya Sen, describes as 'lives they have reason to value'.¹¹ But we need to know more about how we've arrived at this point, and what we need to do to assist more young people to move into better quality work.

Key points

- Youth unemployment and underemployment rates have increased relative to those of the general population, and relative median incomes for young people have fallen.
- Australia's position has worsened relative to other countries in the OECD.
- At the same time there are reported skills and labour shortages, suggesting that structural problems in the labour market, not just overall labour demand, are having an effect.



9. Foundation for Young Australians, *New Work Reality*, June 2018, p.7
10. Steven Joyce, 2019, *Strengthening Skills*, Commonwealth of Australia, p.10
11. Amartya Sen, 1999, *Development as Freedom*, Anchor Books, New York, p.74



The ‘future of work’

Over the last few years there has been a proliferation of reports into the ‘future of work’. This intense interest has been sparked by what has been called the ‘Fourth Industrial Revolution’ – technological developments in areas like artificial intelligence, robotics and the ‘internet of things’ that promise to radically transform the way we work. Many routine and predictable tasks – whether physical or cognitive – are, or will soon be, readily automated.

Technology is not the only driver of change. Climate change, global migration and ageing populations in countries like Australia will all play a role in the structuring of future supply and demand for labour and skills.¹²

Some predictions about the future of work are dramatic, particularly those that attempt to look forward a number of decades. International studies have forecast future unemployment rates of above 20% across Europe, with a half of current jobs disappearing.¹³ Other studies have argued that while automation will affect the nature of many

jobs, fewer than 10% of current jobs are likely to be entirely replaced.¹⁴ The current consensus appears to be that in most cases it will be specific tasks within jobs rather than whole jobs that will be automated. If this is correct, there is enormous potential for displacement. However, wide-scale unemployment could be prevented by implementing the right social and economic settings to equip people for change.

In 2015 the Office of the Chief Economist estimated that the tasks of 44% of Australian jobs are susceptible to automation over the next couple of decades.¹⁵ In the same year, the Committee for Economic Development of Australia (CEDA) suggested that 40% of existing jobs were at a high risk of automation in the next 10 to 20 years.¹⁶ McKinsey & Co. have predicted that between 1.8 and 5 million Australians will need to change occupations by 2030.¹⁷ The OECD has suggested that fewer of Australia’s jobs are at high risk of automation than in other countries across

12. Thereza Balliester & Adam Elsheikhi, ILO, ‘The Future of Work: A Literature Review’, March 2018, p.1

13. *ibid.*, p.9

14. *ibid.*, p.11

15. Office of the Chief Economist, 2015, *Mechanical boon: Will automation advance Australia?*, Department of Industry Innovation and Science, Canberra, p.1

16. CEDA, 2015, *Australia’s future workforce?*, p.58

17. McKinsey & Company, 2019, *Australia’s Automation Opportunity*, p.14

the OECD, with an estimated 10.6% of Australian jobs at risk of automation, and 25.1% at risk of significant change.¹⁸

While in the past, manual labourers performing routine tasks have borne the brunt of technological displacement, developments in machine learning mean that an increasing number of white-collar roles, ranging from clerical workers to lawyers, will be able to be performed by machines. However, the technical feasibility of automating tasks does not necessarily mean that it will occur. Uptake of automation will be affected by issues like cost and cultural preferences (for example, for human customer services officers over machines). It will also be shaped by the decisions of governments and corporations over issues like the degree to which they support the use of technologies to augment or replace human capabilities, and how this process occurs.¹⁹

As has occurred in previous periods of technological change, job destruction is likely to be accompanied by the creation of new jobs. The number of new jobs, their nature and distribution is difficult – maybe impossible – to predict. Some analysts have argued that the ability of new technologies to perform both physical and cognitive tasks means that the 'Fourth Industrial Revolution' is less likely to create jobs than previous technological transformations.²⁰ Others are more optimistic. Deloitte Access Economics, for example, suggests that creation of new jobs will outweigh job losses, arguing that: 'For every problem there's a job, and we're not running out of problems.'²¹

Demand for health and caring services is expected to continue to increase, opening up many more roles in what Deloitte describes as 'work of the heart'.²² However, the ability of governments or individuals to address these problems will be determined by the way the economic benefits of change are distributed. Currently, many jobs in growth sectors like aged and disability care are associated with poor pay, underemployment and limited access to skills-based progression. Because these sectors are so heavily reliant on public funding, addressing this will require greater taxpayer investment. In the long run, the number and quality of jobs available, and the extent to which opportunities are shared, will depend as much on the choices we make as a society about how much we invest in our social and other infrastructure and how income and wealth are distributed, as on technological or other trends.

Even the most positive forecasts suggest that structural unemployment will emerge with changes in the nature and distribution of jobs, as David Peetz explains:

...the jobs that are lost will involve different skills to the jobs that are created, and the people who lose jobs may not have, or live in an area where they can obtain, the skills that are needed to occupy the new jobs that are created.²³

Regional areas which are highly dependent on specific industries are at particular risk.²⁴ Both public and private investment in structural adjustment will be necessary in order to reduce both the magnitude and duration of unemployment that arises.

Key points

- The impact of technological, environmental and social change on future demand for labour in Australia is unclear, but not entirely outside our control. There are potential jobs that could be created to respond to social and environmental challenges but paying for them will require social investment.
- It is clear that many jobs will change significantly and that the impact of this will be felt more by some people and communities than others. Employer and government action will be needed to avoid short-term unemployment becoming long-term displacement and to avoid increasing regional disparities.



18. OECD, 2019, 'The Future of Work: How does Australia compare?', *OECD Employment Outlook 2019*, Paris: www.oecd.org/australia/Employment-Outlook-Australia-EN.pdf

19. World Economic Forum, 2018, *Future of Jobs Report 2018*, p.23

20. op. cit., ILO, 'The Future of Work: A Literature Review', p.14

21. Deloitte Access Economics, 2019, *The Path to Prosperity: Why the future of work is human*, p.2

22. *ibid.*, p.13

23. David Peetz, *The Realities and Future of Work*, ANU Press, 2019, p.97

24. Kim Houghton, 2019, *The Future of Regional Jobs*, The Regional Australia Institute, Canberra, p.24

Today's opportunities

Long-term job forecasts are important for those making decisions about what policies, institutions and infrastructure might be needed in the future. But their highly speculative nature means they are of limited value to young people entering the workforce in the short term.

There is a body of work that uses analyses of current workforce structures and trends to project the shape of the workforce within a 2- to 5-year timeframe. One of the most respected and comprehensive sources of this information is the Commonwealth Government's annual Australian Jobs report, key features of which are summarised in Table 1.

This shows that the health and community services sector is expected to continue to grow, adding nearly 300,000 new jobs. Despite the highly 'automisable' nature of many retail jobs and the impact of online shopping, this sector is forecast to remain the second highest employment sector in 2023.

The growth of jobs in different sectors is only part of the picture. More than half of job openings to 2024 are expected to emerge from the need to replace existing workers, rather than from net growth.²⁵ For example, despite a long-term decline in employment in the manufacturing sector, it will continue to generate new job openings as older workers retire, in addition to jobs created as the sector rebounds.²⁶

Table 1: Expected employment growth by industry to 2023

Industry & number employed	Top employing occupations	Expected growth to 2023	15 to 24 year-olds	Job quality indicators
Health care and social assistance 1,685,100	<ul style="list-style-type: none"> Registered nurse Aged and disability carers Child carers 	+14.9%	9%	21% casual 45% part-time Median weekly earnings: \$1000
Retail 1,272,000	<ul style="list-style-type: none"> Sales assistants Retail managers Checkout operators/cashiers 	+3.7%	32%	36% casual 51% part-time Median weekly earnings: \$700
Construction 1,166,900	<ul style="list-style-type: none"> Carpenters and joiners Electricians Construction managers 	+10%	16%	25% casual 15% part-time Median weekly earnings: \$1280
Professional, Scientific and Technical Services 1,082,100	<ul style="list-style-type: none"> Accountants Software and applications programmers Solicitors 	+10.2%	10%	14% casual 23% part-time Median weekly earnings: \$1380
Education and Training 1,035,400	<ul style="list-style-type: none"> Primary school teachers Secondary school teachers Education aides 	+11.2%	9%	18% casual 39% part-time Median weekly earnings: \$1150
Manufacturing 965,000	<ul style="list-style-type: none"> Structural steel & welding trades workers Packers Metal fitters & machinists 	+0.9%	12%	19% casual 16% part-time Median weekly earnings: \$1150

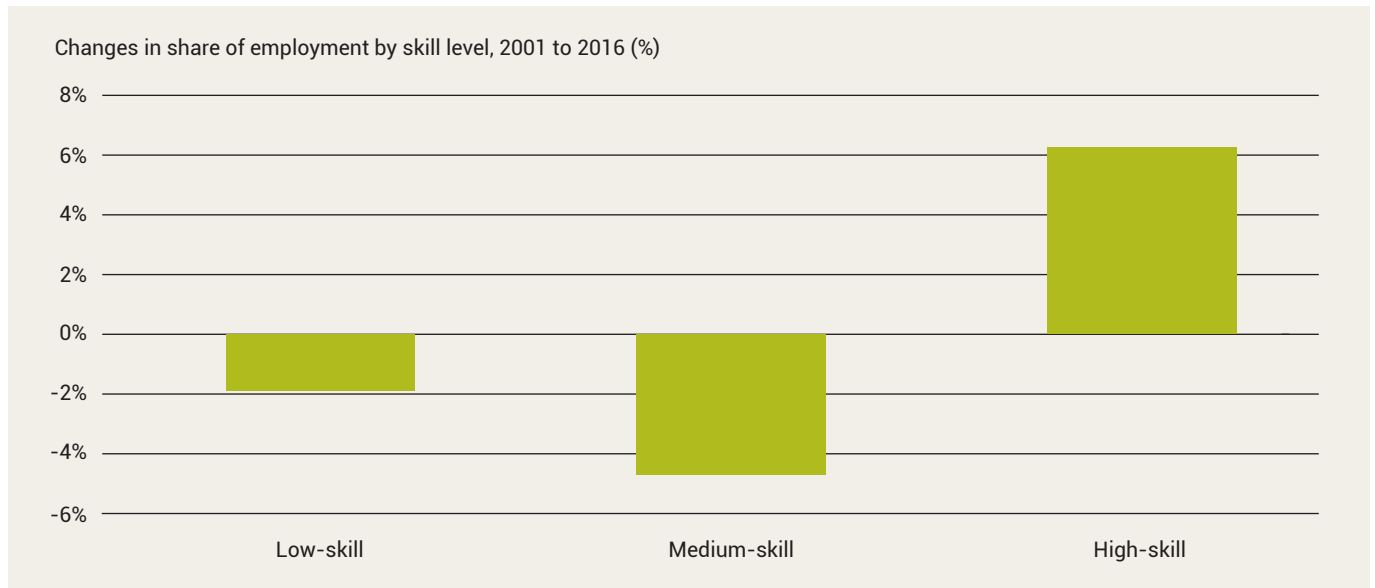
Sources: DESSFB Australian Jobs, 2019; Geoff Gilfillan 2018, Labour Market Information Portal²⁷ Note: median earnings \$1066, share of full-time 68.3%

25. Chandra Shah & Janine Dixon, 2018, *Future job openings for new entrants by industry and occupation*, NCVET, p.11

26. *ibid.*, p.40

27. Geoff Gilfillan, 2018, *Characteristics and use of casual employees in Australia*, Parliamentary Library, p.9

Figure 3: Changes in share of employment, by skill level



Source: Department of Jobs and Small Business, *Australian Jobs 2019*

Over the last two decades there have been changes in the skill profile of jobs in the labour market (Figure 3). There are proportionally more jobs requiring higher skill levels – like degrees – while jobs at lower and middle levels have declined. Projections of future growth suggest that, whether they emerge from net growth in jobs or from replacement of existing workers, there will continue to be proportionally more job openings for those with higher skills. Middle-skill jobs are forecast to decline, but it is important to recognise that jobs in this middle band will continue to play a critical role, particularly for young people, in providing good long-term jobs or pathways into higher skill jobs.²⁸

The strongest growth in jobs is forecast to be in professional occupations, including in areas like health care, information and communication technologies (ICT), and teaching.²⁹ The next highest growth is expected to be among managers and trades and technical workers. In some of these areas, like traditional trades, there are already significant, long-running skills shortages. In others they are only beginning to emerge. And while jobs may be available, there are, as Table 1 highlights, substantial differences in the quality of jobs that are emerging. Personal care work, for example, is often characterised by low wages, underemployment and poor job security. People who work in the ICT sector are more likely to enjoy higher wages and conditions.

While forecasts of likely growth sectors and occupations are valuable for those attempting to plan for the future of institutions and communities they are, in our view, less useful for individual young people trying to plan their own careers. The Australian Jobs report warns against too much reliance on predictions, advising its readers:

It is important to remember that the labour market can change quickly. It isn't easy to forecast future labour-market conditions and it isn't advisable to base employment and training decisions solely on predicted shortages. It is better to train in an area in which you have an interest and aptitude than to choose a career solely based on expectations about future conditions.³⁰

While labour market information may have some value for young people, careers advisers and families, what is likely to be more critical is access to material and – even more importantly – experiences, that allow exploration of a wide range of job options. Regardless of what industry or occupation young people move into, we can expect that most jobs will require ongoing adaptation as a result of technological, social and environmental change.

Key points

- It is expected that the strongest growth will be in jobs at higher skill levels.
- Jobs will also be available in lower and middle skill levels but, particularly at the lower end, wages and conditions are often poor.
- Labour market data is useful for policy makers and educators, but exploration of a range of pathways that reflect individual interests and abilities is probably of more value to young people.

28. Sara Lamback, Carol Gerwin & Dan Restuccia, *When is a job just a job – and when can it launch a career?*, JFF, p.17

29. Department of Jobs and Small Business, *Australian Jobs 2019*; Chandra Shah and Janine Dixon, 2018, Future job openings for new entrants by industry and occupation, NCVET, pp.11–12

30. Department of Jobs and Small Business, *Australian Jobs 2019*, p.2

The future of skills

Alongside predictions about the types of jobs available in Australia in the future (and whether some will have them at all) there has been considerable discussion about what skills might be needed by future workers, particularly so they are equipped to adapt to changing workplaces.

(i) STEM skills

The need to boost science, technology, engineering and mathematics (STEM) skills in young people in Australia is often raised in the context of preparing them for the future world of work. In Australia this is occurring against a backdrop of declining participation in higher level STEM subjects by school students, and a lack of improvement in proficiency in maths, ICT, and science in schools over the past decade. STEM skills are seen as critical to research and innovation as well as drivers of economic growth. The rise in the use of automation, of information technologies, and the increasing demand for health services are all driving demand for expertise in STEM disciplines. In 2019, for example, the Commonwealth Department of Employment, Skills, Small and Family Business reported that between November 2013 and November 2018, employment in STEM occupations grew by 16.5%, which was 1.6 times higher than the growth rate in non-STEM jobs.³¹ It forecast that this trend was likely to continue, with expected growth of over 271,000 jobs in the 108 job categories identified as STEM jobs.

It's important to note that the links between STEM qualifications and employment opportunities are not straightforward. Many university science graduates struggle to find work following graduation.³² Only 52% of information technology graduates from the VET system are employed 6 months after training.³³ 72% of those graduating with university ICT qualifications found full-time employment after graduation.³⁴ While a range of factors are involved, employers have expressed concern about a lack of real-world experience among graduates. The CareerTrackers initiative (see case study) is one attempt to address this issue through a paid internship model. Another issue has been the neglect, at least in some discussions, of the importance of VET-qualified workers in STEM. According to the Office of the Chief Scientist there are about 2.3 million Australians in the workforce with STEM qualifications, with 32% of them having university qualifications, and 68% holding VET qualifications. The

same report, however, went on to focus almost entirely on university-qualified workers. Public discussion about VET, on the other hand, has tended to focus on construction and other traditional trades.

The STEM debate also highlights the need to focus on both labour supply and labour demand. Private sector capital investment and investment in research and development have declined, as has public funding for research and development. Future demand for STEM qualifications in many areas will depend on innovation and growth in export sectors. For young workers, the prospects of future, high-quality employment in this sector are inextricably linked to efforts to diversify and strengthen Australia's economy.



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31. Department of Jobs and Small Business, 'STEM jobs are growing faster than other jobs', 27 March 2019 www.employment.gov.au/newsroom/stem-jobs-are-growing-faster-other-jobs
32. Anna Patty, 'Not enough jobs for science graduates challenges STEM hype', Sydney Morning Herald (online), 14 April 2019, www.smh.com.au/business/workplace/glut-in-demand-for-science-graduates-challenges-stem-hype-20190327-p517zj.html
33. Department of Jobs and Small Business, *Australian Jobs 2019*, Australian Government, Canberra, p.32
34. Social Research Centre, 2019, *2018 Graduate Outcomes Survey: National Report*, p.2

Case Study: CareerTrackers



CareerTrackers is a national non-profit organisation which seeks to create pathways and support systems for Aboriginal and Torres Strait Islander young adults to graduate from university with high marks as well as high-quality employment experience. Recognising the need for young people to establish work skills and a desirable resume alongside academic learning, CareerTrackers established a paid internship model to facilitate real work opportunities for people during breaks between university semesters. These internships provide these young adults with experience and a chance to transition into employment once they complete their studies.

Operating for over a decade, the program's close links to corporate partners have enabled the completion of 5,397 internships that align with the academic and future work aspirations of CareerTrackers participants. The internships include the establishment of a development and work plan for each intern with real projects and deliverables. The program receives funding from philanthropic and corporate foundations, as well as payments from corporate partners via a user-pays model. Corporate partners benefit from participating in the program through the creation of development opportunities for their existing staff and the opportunity to develop a pipeline of future employees. Their commitment to the program has enabled sustained growth and success over many years.

Young people are referred to the program via universities and referral partners. They are then assessed for the program on the basis of their level of commitment and drive to be part of the program. Interns are taken through a pre-employment training process; a series of activities that test behaviours employers look for. To prepare interns for an interview they complete a minimum of 20 hours of pre-employment training, including participating in a series of workshops to develop interview and other work skills. Where necessary, pre-employment support is longer, depending on when a participant is ready to undertake a placement. Every participant has an advisor who supports them throughout the program's duration.

Through the program, interns are provided opportunities to engage with the world of work while studying. University students share their experience of what it's like to work through peer-to-peer role modelling, and industry professionals run workshops where participants learn about the workplace, how to navigate and build relationships within the workplace, and survival tips for 'fitting in'. The final step supports young people to consider and understand the financial elements of employment, including starting salaries.

Results have shown that CareerTrackers students complete their university courses at higher rates than their non-Indigenous peers and that 95% are in full-time employment in their field of expertise within three months of graduation.



(ii) Employability skills

A lot of recent analysis emphasises the importance of a range of broad employability or 'generic' skills. In 2017 the Foundation for Young Australians released an analysis of over 4 million 'early career' job advertisements over a three year period. They found that there were substantial increases in demand for digital literacy (up 212%), critical thinking (up 158%), creativity (up 65%) and problem solving (up 26%) over the three years.³⁵

A 2017 review of key frameworks and evidence identified nine key skills that were most commonly identified by those attempting to identify '21st-century skills'. These were:

- critical thinking
- creativity
- metacognition
- problem solving
- collaboration
- motivation
- self-efficacy
- conscientiousness, and
- grit or perseverance.³⁶

In its examination of efforts to embed the development of these skills in schools, the report noted that while there was substantial activity, reliable mechanisms for measuring or assessing many of these skills were scarce.

Efforts to assess and to teach employability skills have also been included in many post-school, pre-employment programs. However, the similarities in words used to describe what makes people 'employable' mask underlying differences in what different employers actually want when they try to recruit employees. In the recruitment process, the difficulties in describing and measuring some of these 'employability skills' mean that there is significant potential for their application to entrench socio-economic and other biases.³⁷

Rather than being 'generic', some experts argue that employability skills are learned and applied in specific industry or occupational contexts.³⁸ The Core Skills for Work Developmental Framework outlines the core non-technical skills identified by Australian employers and industry as important for successful participation in the workforce. However, while it seeks to describe performance of core skills in ways which are applicable across different work and educational contexts, it states that:

35. FYA, *The New Basics: Big data reveals the skills young people need for the New Work Order*, p.4

36. Stephen Lamb, Quentin Maire & Esther Doeke, 2017, *Key Skills for the 21st Century: An evidence-based review*, NSW Department of Education, p.3

37. Alison Taylor, 1998, 'Employability skills: From corporate 'wish list' to government policy', *Journal of Curriculum Studies*, 30:2, 143-164; David B. Bills, et al., 'The Demand Side of Hiring' *Annual Review of Sociology*, 43, pp. 291–310

38. John Buchanan, et al., 2018, *Future Frontiers Analytical Report: Preparing for the best and worst of times*, NSW Department of Education, p.20

...performance is not automatically transferrable to new contexts, as application of skills, knowledge and understandings in a new context requires an understanding of that context. Hence, an individual who has only ever applied their skills in a classroom setting will need to learn about the protocols and expectations of a work situation, and gain practical experience in applying their skills in a work environment before they can demonstrate their skills at the same stage of performance within that work context.³⁹

John Buchanan, et al. argue that employability skills can only be developed in context, and in conjunction with specific technical knowledge, saying:

...the development of specialist expertise of some kind is essential for the development of more generally applicable capabilities like problem solving. Furthermore, such specific expertise would bolster key aspects of self-determination, autonomy and competence, which foster enhanced performance, persistence and creativity.⁴⁰



Questions about the value of attempting to teach employability skills in isolation were reinforced by a recent systematic review of youth employment programs that found no consistent evidence for the efficacy of programs to develop 'soft skills' on employment outcomes.⁴¹

This does not mean there is no value in highlighting the importance of employability skills. However, it suggests they are best learned and measured in the context of particular occupational and/or industry settings. Essentially, young people will need to develop a combination of vocational and 'soft' skills to succeed, and it is likely these two qualities need to be developed together. While educators are important, they cannot make up for a lack of opportunity to learn employability skills within workplaces. Experience with employers and employment is critical to help young people build the skills they need for the world of work.⁴² This is likely to mean increased and more consistent investment in schools and the TAFE sector, to support employer engagement.



39. Departments of Industry, Innovation, Climate Change, Science, Research and Tertiary Education; and Education, Employment and Workplace Relations, 2013, *The Core Skills for Work Developmental Framework*, Australian Government, p.6
40. op. cit., John Buchanan, et al., *Future Frontiers Analytical Report: Preparing for the best and worst of times*, p.31
41. Jochen Kluge, et al., 2019, 'Do youth employment programs improve labor market outcomes? A quantitative review', *World Development*, 144 (2019) pp.237–253.
42. Education and Employers, 'What is a meaningful encounter with the world of work?', 18 September 2019. www.educationandemployers.org/wp-content/uploads/2019/09/What-is-a-Meaningful-Encounter-with-the-world-of-work-final-1.pdf

(iii) Skills mismatch, adaptability and vocational streams

While many employers report skills shortages, there is also a plethora of people working in jobs they are overqualified for or that do not use their skills. One view of the reason for this is the structuring of vocational qualifications around narrowly defined workplace competencies at the expense of broader definitions of skills that foster adaptability across multiple settings. To that end, some researchers have argued that vocational education should be reoriented towards 'vocational streams' which reflect families of job types that share common practices, knowledge, skills and attributes.⁴³ This would link, for example, work in aged care with that in the disability sector – acknowledging a shared practice of 'care work'. While the specific skills required in particular jobs may change, the purpose of many jobs – whether they involve maintaining electrical systems or providing care – is likely to remain the same. The idea of vocational streams seeks to prepare workers to adapt their skills, while recognising the importance of domain-specific skills and experience.

The Foundation for Young Australians (FYA) has started to grapple with these issues through identifying job clusters which have overlapping needs for both technical and 'enterprise' skills. In its work with TAFE and industry partners in South West Victoria, it has started to explore the combinations of qualifications, career navigation tools and micro-credentials that can equip young people to change and adapt with changing labour market opportunities (see the New Work Mindset in Action case study).

Key points

- Development of a STEM workforce is inextricably linked to diversification and innovation within the Australian economy. While the focus has been on university qualifications, most of the people who work in STEM roles are VET qualified, and many of these skills are in short supply.
- The focus on employability skills is important, but they should not be seen in isolation. Employability skills are best developed in context. Educators, particularly schools and TAFE, need to be funded to maintain active relationships with employers.
- Future-oriented vocational qualifications should be built around technical and soft skills that can be applied across similar occupations, so that employees are not locked into narrow roles.



43. Leesa Wheelahan, John Buchanan & Serena Yu, 2015, *Linking qualifications and the labour market through capabilities and vocational streams*, NCVER Adelaide, p.10

Case Study:

New Work Mindset in Action – South West Victoria



With funding through the Victorian Government's Workforce Training and Innovation Fund (WTIF), South West TAFE, FYA and three industry partners Lyndoch Living, Western District Health Service and Eventide Homes embarked on an ambitious collaborative project to engage current and future workers and the institutions, organisations and systems that support them to learn, gain and succeed in the new world of work.

The South West region of Victoria is undergoing a period of change in its economy, industry and local work landscape. While agriculture remains the largest employer in the region and is central to the local economy, there has been significant growth in the health care and social assistance sectors, with further growth projected. The expansion of these sectors, along with an ageing local population, is creating employment opportunities and the chance for job seekers to gain a foothold in growth industries with rewarding career prospects.

FYA analysed job advertisements across South West Victoria to map changes to skill requirements for roles advertised within the region. The resulting 'New Work Mindset in Action: South West Victoria' report detailed the most prominent skill and capability clusters. The research captured both technical skills and what it describes as 'enterprise skills' (similar to employability skills), looking for areas of overlap. These clusters were then mapped to skills gaps which could be filled through training or other experiences, identifying challenges and opportunities to support young people in the region to gain and refine crucial enterprise skills. In identifying the growth sectors in the region, the skills clusters which were most important for those entering health and aged care roles were established.

In response to the research, the 'New Work Mindset in South West Victoria' place-based initiative presented an opportunity for the region's aged care and related sector to take a hands-on, innovative approach to local talent development, establishing a platform to support the development of staff to deliver the highest levels of care. South West TAFE, which has strong connection to industry, was well positioned to prepare workers for evolving roles in these growth industries through innovative approaches to skill development.

The project was used to develop, test and trial a number of new career development and management tools to help young people gain appropriate skills, while also working to change the mindsets of employers and job seekers from one focussed on job-specific skills to supporting a wider portfolio of transferable skills within what might be called a vocation. The learning products created through the initiative were:

- An online career navigation tool named 'Pivot' that helps people identify the skills that they already have and how these link to emerging job opportunities in the region, thought of in terms of job clusters. This portal is supported by a workplace support guide for educators and employers.
- A series of micro-credentials for TAFE students and industry employees delivered by South West TAFE, which are designed to help people bridge gaps between occupations by adding to existing domain-specific qualifications and skills.
- A workforce planning model that maps transferable skills of existing workers (against the New Mindset clusters and skills) to determine the training needs for the jobs of today and tomorrow within a particular sector.

Job quality

Along with questions about how many jobs and what types of work will be available to people, the quality of that work – its ability to offer people a secure income and good quality of life – is frequently raised in discussions about the future of work. The emergence of the 'gig' economy or digital platform work has generated increased attention to a decline in what was once 'standard employment' – that is, full-time, permanent work. Companies like Airtasker and Uber use digital platforms to connect people who are seeking services from individuals who perform work on a 'piecework' basis, often supplying their own tools and equipment. In many cases services are delivered at rates that are significantly below rates in the regulated sector, often below the minimum wage.⁴⁴

The size and significance of the gig economy itself is highly contested.⁴⁵ In Australia a recent survey found that 7.1% of respondents had accessed work through digital platforms but only 15% of these relied on this work to meet their basic financial needs.⁴⁶ Most workers reported that they were happy with the flexibility the work offered, but were less satisfied with the income they earned or the fees charged by the platform. But, as Jim Stanford from the Centre for Future Work has pointed out, the working arrangements of platform workers are not really new. They reflect a resurgence of old forms of work in which employers paid workers when they needed them, or on a piecework basis, and avoided long-term employment obligations.⁴⁷ New technologies have coincided with the weakening of labour-market regulation to enable this resurgence to occur.

Gig work is a prominent example of a wider rise in insecure or non-standard work. Less than half of Australia's workforce are now in 'standard' employment.⁴⁸ Around 12% are in permanent part-time employment. In some cases this is their preference, but the steady increase in rates of underemployment shows that, for many, it is not. Around 25% of all employees are in casual work.⁴⁹ Casual employment has risen most among the young – from 47% to 54% over the last decade.⁵⁰ A study of mental health effects of employment and unemployment found that while unemployment was associated with poorer

mental health, moving from unemployment to a poor quality job was 'more detrimental to mental health than remaining unemployed'.⁵¹

Non-standard work is not the only form of job insecurity. David Peetz points to the emergence of what he calls 'not there' employment: arrangements in which a central entity (for example, a company or government entity) contracts with other dependent entities which, in turn, employ workers (or sub-contractors) to do the work.⁵² Control is retained by the central entity, while risks and responsibilities, including to employees, shift to other firms. As well as these arrangements being associated with greater insecurity for workers, increased uncertainty and reduced scale tend to reduce the likelihood of investment in the training of new workers or the upskilling of existing workers. Companies that once would have engaged hundreds of apprentices or trainees each year now outsource much of this work. Middle-skill jobs that once provided a stepping stone to career progression have disappeared. Restructuring of work has been accompanied by a reduction in labour markets within organisations, so instead of promoting from within, companies look outside to recruit.⁵³



44. Paula McDonald, et al., *Digital Platform Work in Australia: Preliminary findings from a national survey*, June 2019, p.19., available at https://engage.vic.gov.au/download_file/view/16340/2303

45. ILO, *The Future of Work a Literature Review*, pp.18–20

46. op. cit., Paula McDonald, et al., *Digital Platform Work in Australia: Preliminary findings from a national survey*, p.5

47. Jim Stanford, 2017, 'The resurgence of gig work – historical and theoretical perspective', *Economic and Labour Relations Review*, Vol. 28 Issue 3, pp.382–401

48. Inga Laß, & Mark Wooden, 2019, 'Non Standard Employment and Wages in Australia', paper presented at the 2019 RBA Conference, Sydney, 4–5 April 2019

49. ibid.

50. Greg Jericho, 'We should be concerned about the casualisation of fulltime work', *The Guardian* (online), 16 January 2018, www.theguardian.com/business/grogonomics/2018/jan/16/we-should-be-concerned-about-the-casualisation-of-full-time-work

51. Peter Butterworth, et al., 'The psychosocial quality of work determines whether employment has benefits for mental health: results from a longitudinal national household panel survey ref note that insecure employment was one of a number of factors used to define poor quality jobs in this study', *Occupational Environmental Medicine*, 2011, 68:806e812, p.5

52. David Peetz, *The Future of Work and Workers*, ANU Press, 2019, p.159

53. David B. Bills, et al., 2017. 'The demand side of hiring: employers in the labour market', *Annual Review of Sociology*, 43, pp.291–310



These work structures – the use of non-standard employment and the shift away from direct employment by larger organisations – have substantial implications for individuals, for the economy and for our social institutions. Even though casual employment attracts a loading that is meant to compensate for lack of traditional employee entitlements such as holiday and sick pay, there is clear evidence that casual employees are paid less than their permanent counterparts, and that in many cases this wage penalty persists over time.⁵⁴ Lack of permanency makes it harder to borrow money, accumulate retirement funds or find a place to live. There is evidence that job insecurity contributes to stress. While many employees are at risk of displacement as their jobs change, it is those in insecure jobs or working in organisations that rely on others to secure work who are most vulnerable. Importantly, when considering the likely need for higher-skilled workers, these insecure forms of work are associated with lower employer investments in training and a lack of opportunity for workers to develop expertise in particular domains.

Restructuring and casualisation also make it more difficult for workers to unionise. Combined with changes to industrial relations laws that increase employer flexibility and reduce the power of unions in the workplace, workers have less ability than they once did to bargain for improvements in job quality, including the provision of training. Poor bargaining power contributes to low rates of pay for workers, even

when they invest in their own training. Wage stagnation and increasing wage inequality are emerging as key issues in the Australian economy. While many argue that the Fourth Industrial Revolution promises prosperity, current trends provide little confidence that these will be equitably shared. Young people entering an increasingly insecure and fragmented labour market are particularly at risk.

Key points

- While 'gig work' is a recent development, it is a small part of a larger trend towards fragmentation of work, so that a large proportion of the workforce are now in jobs that are poorly paid and insecure.
- Labour market deregulation and restructuring of organisations have made it more difficult for workers to bargain. This has affected access to training and the ability for employees to achieve benefits from their skills.
- Current trends are to increased polarisation, the effects of which will be particularly felt by young people from less advantaged backgrounds.

54. Irma Mooi-Reci & Mark Wooden, 2017, 'Casual employment and long-term wage outcomes', *Human Relations*, Vol. 70(9), pp.1064–1090

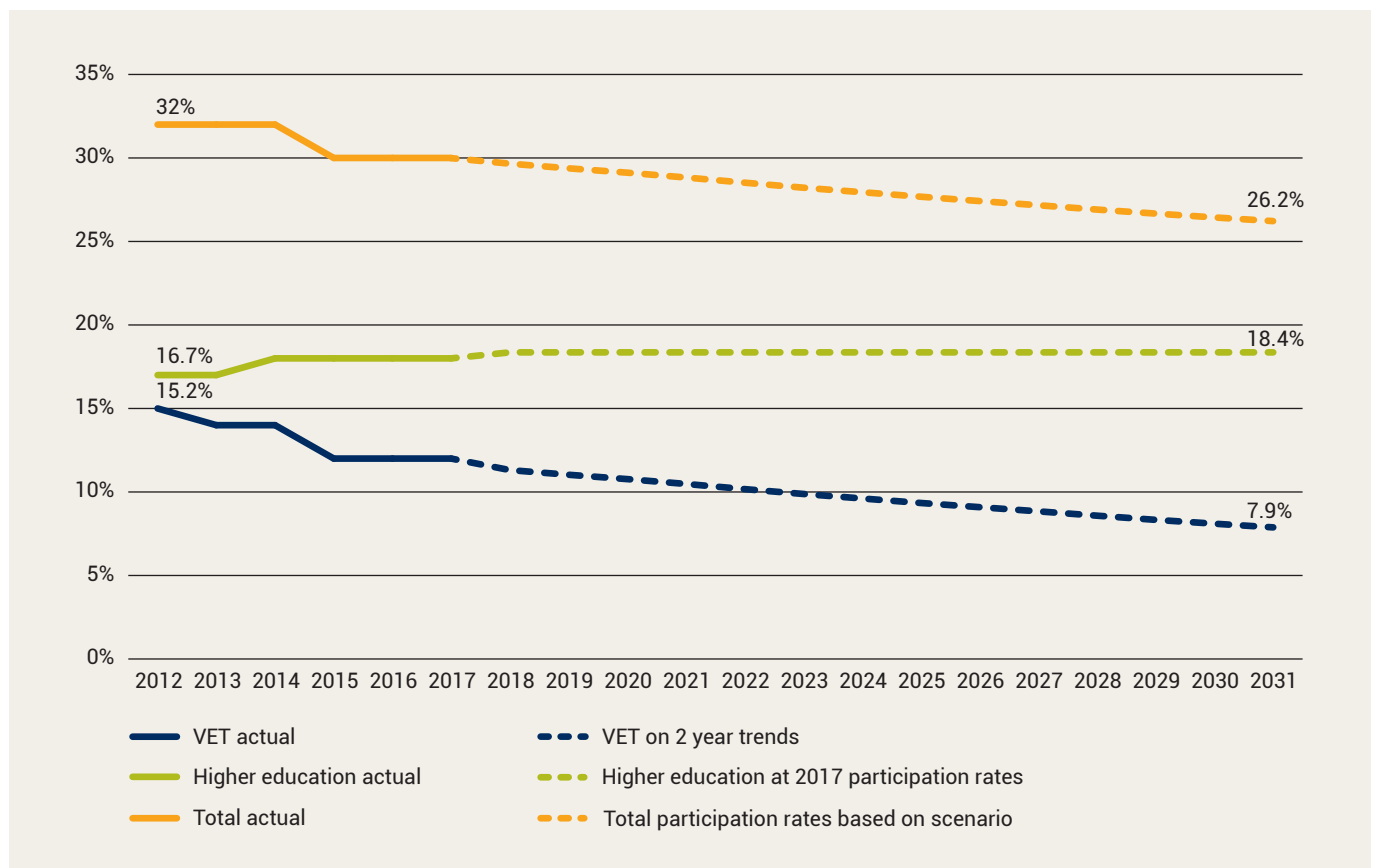
Skills formation in decline

It is clear that many emerging jobs will require higher levels of skill. However, there are worrying signs that many Australians are not participating in post-school education, and employer investment in skills training has declined.

The good news is that there has been a significant increase in the number of young Australians going to university, and that this growth has been highest amongst those from lower socio-economic backgrounds.⁵⁵ Over half of young people who left school in 2017 applied to do university courses straight out of high school.⁵⁶ From 2012 to 2017

university enrolments of people from low socio-economic backgrounds increased by 29.8%, exceeding the overall growth in the number of university enrolments of 17.7%.⁵⁷ Despite the growth in university education, a recent Mitchell Institute report has warned that overall rates of tertiary participation are in decline (Figure 4).⁵⁸ This is due to a decline in participation in VET. Participation in VET peaked in 2012, with 7.06% Australians participating.⁵⁹ By 2017 that figure had fallen to 5%.

Figure 4: Tertiary education participation rates: 15 to 24-year-olds, actual and projection



Source: Peter Dawkins, Peter Noonan & Peter Hurley, 2019, *Rethinking and Revitalising Tertiary Education*, Mitchell Institute, Melbourne. p. 7.

55. Peter Dawkins, Peter Noonan & Peter Hurley, 2019, *Rethinking and Revitalising Tertiary Education*, Mitchell Institute, Melbourne, p.9

56. Andrew Norton & Ittima Chersatidtham, 2018, *Mapping Australian higher education*, Grattan Institute, p.18

57. Paul Koshy, 2018, 'Equity Student Participation in Australian Higher Education: 2012 to 2017', National Centre for Student Equity in Higher Education (NCSEHE), Curtin University, Perth, p.7

58. op.cit., Peter Dawkins, Peter Noonan & Peter Hurley, p.1

59. ibid., p.8



While the problem of shortages of vocationally qualified workers is not unique to Australia, our VET sector has faced particular challenges. The Australian VET sector is highly responsive to policy change, and such changes have been frequent and, on occasion, destructive. Confidence in the VET system was undermined by the actions of private training organisations which inappropriately enrolled thousands of students in order to access government funding. Some employers appear to have enrolled workers in traineeships with limited value in order to access incentives or pay trainee wages. The complex regulatory and funding arrangements for VET – which are shared across Commonwealth and State jurisdictions – have contributed to a system that is widely regarded as too slow to adapt to emerging industry trends. The sector's health has not been assisted by a decline in funding of 7% in real terms over the past decade, at a time when government funding for universities increased by 28%.⁶⁰

Many of these challenges were canvassed in the Joyce Review of the VET sector, which was commissioned by the Commonwealth Government.⁶¹ The Commonwealth is currently implementing some of the Joyce Review's key recommendations, including establishing a new National Careers Institute and a National Skills Commission to develop a new national funding model for VET education. Some State Governments have also moved to increase their investment in public VET provision through TAFE. At a policy level there is public support for the revitalisation of vocational education and training from major political parties, business and trade unions. However, years of disinvestment, TAFE campus closures and retrenchment

of skilled TAFE teachers are expected to have a long-term deleterious effect. The revitalisation of TAFE is particularly important to young people facing disadvantage and those in regional and rural areas.

Alongside the structural and systemic barriers that have had an impact on vocational education delivery, young people who experience disadvantage can face other barriers to accessing VET pathways. Interviews with young people for a joint report by NSW Youth Action, Uniting, and Mission Australia found that many struggled financially while trying to study.⁶² Tuition fees and the low rate of income support were key factors that led to some being unable to complete their qualification. The financial disincentives to VET participation were also highlighted by the Mitchell Institute which found that:

In the current tertiary education system, the VET student often ends up paying similar or more money, for a course that receives less public subsidy, to end up in a job that pays less than the university equivalent.⁶³

While many State Governments offer full or partial fee waivers for some students, these are inconsistent and often change, making it extremely difficult for young people and their families trying to choose between different pathways.

60. Steven Joyce, 2019, *Strengthening Skills*, Commonwealth of Australia, p.28.

61. *ibid.*

62. Vocational Education and Training in NSW, Report into access and outcomes for young people experiencing disadvantage. Youth Action, Uniting, & Mission Australia, p.4.

63. Peter Dawkins, Peter Noonan & Peter Hurley, 2019, *Rethinking and Revitalising Tertiary Education*, Mitchell Institute, Melbourne, p.15



The enormous response to the Victorian Government's recent decision to offer free TAFE courses in a number of high-demand sectors highlights the level of pent-up demand for skills acquisition. The initiative was announced in the Victorian Budget 2018/19 as part of a \$644 million package to strengthen TAFE and apprenticeships and provide 30,000 extra government-subsidised training places.⁶⁴ Newspaper reports suggested that enrolments almost doubled.⁶⁵ However, at least some of those attempting to enrol in key skill shortage areas – like mental health and disability services – were prevented from doing so by a lack of availability of work placements with employers.⁶⁶

Damian Oliver has noted that some of the pressure on the VET system arises from employers' increased reliance on the sector to deliver skills that were once acquired on the job. He argues that increased job precarity means that 'individuals are more reliant on the VET system to provide a solid foundation of not just technical skills but also contextual knowledge and ways to make sense of work, occupation and career'.⁶⁷ The Victorian experience highlights the importance of employer support for the VET sector and its students. A key recommendation from the Joyce Report was that, over time, all VET qualifications should include a work-based component.⁶⁸ This is an important and useful recommendation, but its implementation will be challenging without more active engagement of employers.

While employers are demanding higher levels of skill, their investment in the skills of their own workers has

declined. Figures from the Australian Bureau of Statistics (ABS) show that the number of people participating in work-related training has dropped from 35.9% in 2005 to 21.5% in 2016-17.⁶⁹ What training takes place is not evenly distributed. Participation in work-related training is highest amongst those who live in areas of higher socio-economic advantage, and who have higher levels of post-school education.⁷⁰ In other words, the gap is widening between those who have higher skills and better prospects in the labour market and those who don't.

Key points

- The importance of the VET sector to students and the economy has been recognised by Commonwealth, State and Territory Governments, but the task of rebuilding the sector – particularly TAFE – is substantial.
- Young people from disadvantaged backgrounds are more likely to rely on this sector to build their employment prospects, but inequitable and confusing fee structures, combined with inadequate levels of income support, can make it difficult to participate.
- Employers need to do more to support the VET sector and to invest in the skills of their own workforces. This must include investing in those who start with lower skills.

64. Victorian Department of Premier & Cabinet, *Free TAFE expanded*, www.premier.vic.gov.au/free-tafe-expanded-as-latest-tech-school-opens/

65. Henrietta Cook, 'TAFE suspends mid-year enrolments amid student influx', *The Age* (online), 9 July 2019

66. *ibid.*

67. Damian Oliver, 2016, *VET: Securing Skills for Growth*, CEDA, p.38

68. Steven Joyce, 2019, *Strengthening Skills*, Commonwealth of Australia, p.33

69. Australian Bureau of Statistics, 4234.0 – *Work-Related Training and Adult Learning, Australia, 2016–17*, 'Work-related training' is defined here as training that is not leading towards a formal qualification.

70. *ibid.*

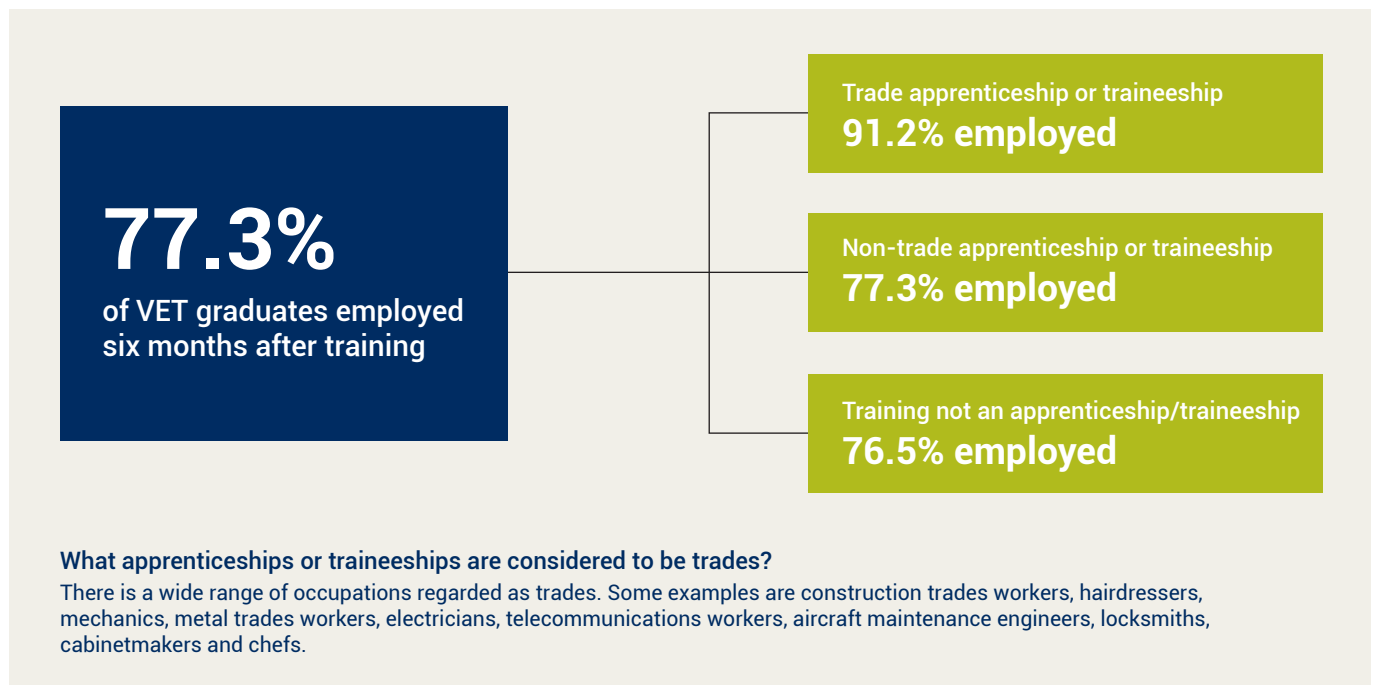
Lessons from apprenticeships

One part of the solution to supporting young people to find quality skilled jobs lies in one of our oldest labour-market institutions – apprenticeships. Apprenticeships can be seen as a tripartite arrangement between the apprentice, the employer and the training provider. International evidence suggests that in countries with stronger apprenticeships systems, young people have smoother transitions from school to work, and tend to have lower youth unemployment rates.⁷¹

In Australia, 'apprenticeships' are generally associated with traditional trades (e.g. plumbing, electrical), while traineeships are more common across the services industries. Traineeships are based on a similar tripartite model, involving earning while learning. They cover a wider range of industries and occupations, can be studied part-time, and can often be completed more quickly than apprenticeships. Traineeships have been important in extending work-based training to more sectors and occupations, although the value of some lower-level traineeships has been questioned. For simplicity, references to apprenticeships in this paper include traineeships.

The apprenticeship model enjoys strong support from those employers who use it, but the regulatory, policy and funding arrangements surrounding apprenticeships are seen as holding back employer uptake and limiting the extension of apprenticeships and traineeships to new areas.⁷² Despite skills shortages and strong employment outcomes following training (Figure 5) apprenticeship placements have been stagnant or in decline. While much commentary has focused on 'supply side' factors – that is, the level of interest and capacity of young people to take up opportunities – Tom Karmel's analysis of training rates across key occupations suggests that the problem is largely one of employer demand.⁷³ He shows that while training rates have matched employment growth in some trades (like electrotechnology), in most areas they have not. It is employer interest in creating opportunities rather than the enthusiasm of potential applicants that is driving declining commencements.

Figure 5: VET graduate employment outcomes



Source: 'Education Employment Outcomes', Australian Jobs, Australian Department of Employment, Skills, Small and Family Business

71. ILO, 2013, *Apprenticeship Systems – what do we know?*, (adapted from Michael Axmann & Christine Hofmann, 'Overcoming the work-inexperience gap through quality apprenticeships – the ILO's contribution', ILO Skills and Employability Department, www.ilo.org/beirut/media-centre/fs/WCMS_214722/lang--en/index.htm)

72. Margo Couldrey & Phil Loveder, 2017, *The future of Australian apprenticeships: Report of the Stakeholder Forum*, NCVET, Adelaide, p.12

73. Tom Karmel, 2017, *Factors affecting apprenticeships and traineeships*, 'Part II Demand side factors affecting apprenticeships and traineeships'. Research Report 3/2017 for the Fair Work Commission, February 2017, p.54



This issue of poor commencement rates into apprenticeships has been compounded by poor rates of completion. Of those who started their apprenticeship or traineeship in 2014, only 56.7% completed – down by 2.3% from those starting in 2013.⁷⁴ Major drivers of poor completion rates are workplace based, including problems with co-workers and supervisors, or disliking the work itself. Larger employers of apprentices typically have better support and supervision structures in place and achieve better completion rates.

Recent evidence has shown that Group Training Organisations (GTOs) have been effective in achieving better apprenticeship and traineeship completion rates, particularly for younger and more disadvantaged groups.⁷⁵ Group Training Organisations act as employers for apprentices and trainees, placing them with host employers. One of the reasons for the development of GTOs was to manage the risk associated with fluctuating workloads in small to medium employers. GTOs assist in ensuring that apprentices have enough work to complete their training. They also provide pastoral care and conflict resolution. In 2018, 8.3% of apprentices were employed by GTOs.⁷⁶

The benefits of apprenticeships are not simply the provision of employment to apprentices. John Buchanan et al. have also highlighted how the structure of apprenticeships can offer young people informal social support that is often missing in more precarious work environments.⁷⁷ The apprenticeship structure, when it is done well, provides mentoring and nurturing of both technical and soft skills in

a way that is integrated into day-to-day work – rather than being delivered externally, for example through a formal mentoring program. Apprenticeships can set young people up to be resilient and healthy workers in a labour market where these things will be increasingly important.

A range of demand-side factors have shaped the rate of apprenticeships. These include privatisation and corporatisation of public utilities that once employed large numbers of apprentices, and changes in the construction sector which have resulted in much of the work being devolved to sub-contractors who have less capacity and appetite to take apprentices on. Recent jobs growth has been in part-time, rather than full-time, employment and much of it has occurred in labour hire and casual employment – forms of employment in which commitment to long-term training is less likely.⁷⁸

Several State Governments are responding to declining skills by setting targets for apprentices and trainees in companies involved in major infrastructure projects. One successful example has been the workforce development strategy deployed for Sydney Metro – a large, multi-year public rail project. Minimum targets for training and employment were embedded in contracts, including:

- Specific apprenticeship targets, set on the basis of the specific program of work in each location;
- 20% of jobs set aside for the local workforce, with workers employed for a minimum of 26 weeks;
- 20% of the workforce must undertake upskilling accredited training. Training required to be above business as usual standards to support workforce transferability and mitigate skill shortages/gaps;
- Employment and training targets for under-represented groups, including Indigenous workers, women, young people, long-term unemployed, humanitarian program entrants, and people from culturally and linguistically diverse backgrounds.⁷⁹

In addition to setting targets, Sydney Metro established a stakeholder advisory group which included employers, industry bodies, government and training providers to ensure that long-term employment and training outcomes were met. This stakeholder engagement enabled the organisation to identify and respond to emerging issues – for example, by developing arrangements with a lead GTO to assist in engaging and supporting apprenticeships. As of July 2018 the project had exceeded its targets for apprenticeships, diversity and inclusion of people who are disadvantaged in the labour market.⁸⁰

74. NCVET, 2019, *Completion and attrition rates for apprentices and trainees*, 2018, NCVET Adelaide, p.5

75. Lisel O'Dwyer & Patrick Korbel, 2019, *Completion rates for group training organisations and direct employers: How do they compare?*, NCVET, Adelaide, p.7

76. *ibid.*, p.9

77. John Buchanan, et al., 2016, *Beyond mentoring: social support structures for young Australian carpentry apprentices*, NCVET, Adelaide, p.9

78. Peter Noonan & Sarah Pilcher, 2017, *Finding the truth in the apprenticeships debate*, Mitchell Institute, Report No. 03/2017, Mitchell Institute, Melbourne, www.mitchellinstitute.org.au/reports/finding-the-truth-in-the-apprenticeships-debate/

79. OECD, *Engaging Employers and Developing Skills at the Local Level in Australia*, OECD, Paris, pp.79–91

80. *ibid.*, p.84

Case Study:

Apprenticeship Employment Network: Multi-Industry Pilot



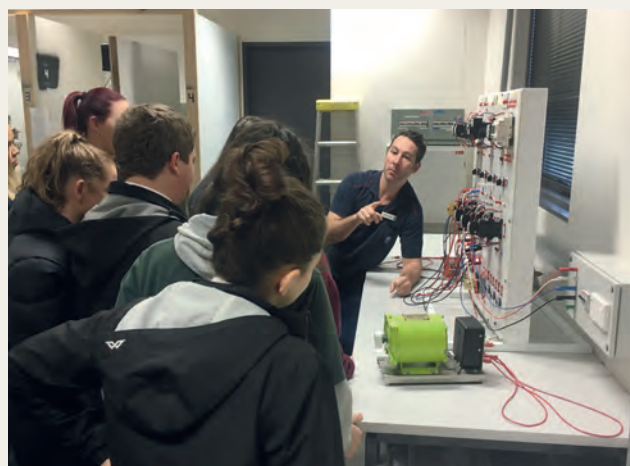
In Australia, around 40% of apprentices and trainees do not complete their qualification and almost 30% cancel within the first 12 months. One of the factors that affects completions is poor matching of the young person's needs and aspirations with the apprenticeship placement.

Past studies of pre-apprenticeship programs have shown that they have the potential to improve rates of entry into and completion of apprenticeships.⁸¹ However, there are wide variations in the types of pre-apprenticeship programs that have been implemented, and funding for these programs has been ad hoc.

To show the value of pre-apprenticeships and start to codify good practice in delivery, the Apprenticeship Employment Network (AEN) developed a pre-apprenticeship pilot program called the Multi-Industry Pilot (MIP) with funding from the Commonwealth Government. The aim of the pilot was to provide support to both potential employers and participants through three to four industry-themed short-term work experience placements. The industries involved included engineering and automotive, building and construction, land, food and fibre, and business and community care services. Providing young people with a range of industry experiences helped them make informed choices about further study and employment pathways in apprenticeship industries. With more knowledge and experience of skilled pathways, unemployed young people are more likely to commit to and complete apprenticeships, traineeships and work because they are pursuing a career that suits them.

Between 2016 and 2018, MIP projects provided over 2,500 participants – 1,258 school-based and 1,328 unemployed youth – across New South Wales, the ACT, Victoria and Tasmania with the opportunity to trial multiple industry experiences. Group Training Organisation-designed courses provided participants with a range of work experiences. These were based on local employment opportunities and crafted to meet employer needs. GTOs were funded through the MIP project.

At the beginning of the program, young people spent time with the GTOs and Field Officers to discuss what they would like to do and what they already knew about the different industries.



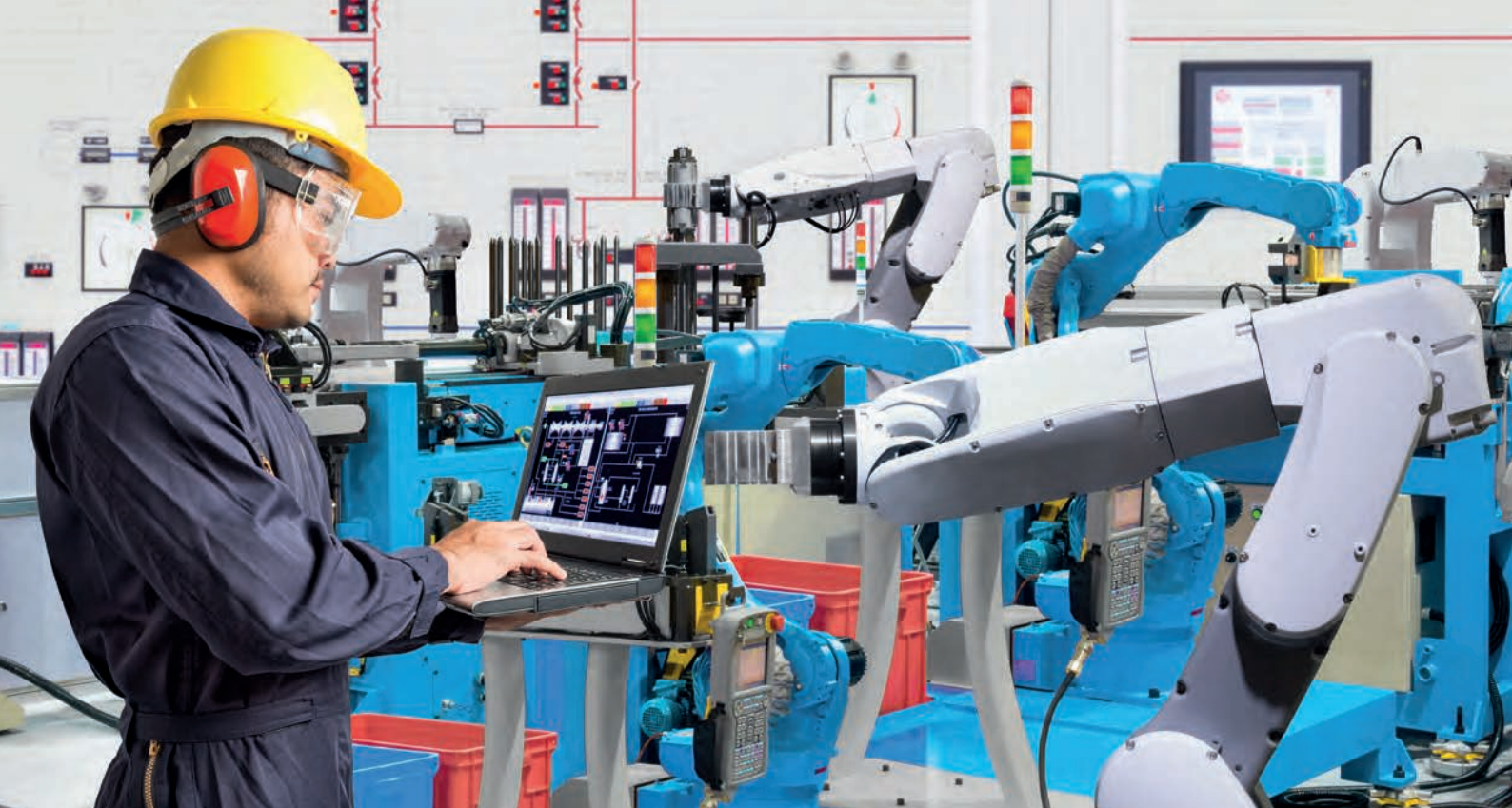
They then went into training and work experience which included modules of either a Certificate 1 or 2, or unaccredited training and a block of work experience based on the industry they had chosen. The GTOs designed various structures for this component, but most programs ran for 3 to 4 days per week for 12 weeks. Accredited training modules were usually delivered by TAFE. In this component a minimum of three trades were introduced. Young people were taught work-ready skills including language, literacy and numeracy skills, resume-writing skills, and training in interview technique.

Some of the key successes from the pilots include:

- 92% of participants reported the program helped them to make a career decision
- 66% of participants' work readiness was rated 4.5 out of 5 by employers
- 72% of unemployed youth said they would definitely pursue an apprenticeship or traineeship
- 56% of participants changed their preference of career by undertaking the pre-apprenticeship program
- 83% of participants enjoyed the practical workshops and work experience the most.

A key focus of the program was to ensure that work experience placements aligned with local employment opportunities. Because of their ongoing engagement with employers who host apprentices, GTOs were well placed to identify emerging opportunities and to advise young people on pathways into careers.

81. Phillip Toner & Chris Lloyd, 2012, *A study into pre-apprenticeship delivery models and their labour market outcomes*, Group Training Australia, Sydney, pp.12–14



In addition to boosting traditional apprenticeships and traineeships, there has been recent interest in the development of 'higher apprenticeships' that is, apprenticeships aimed at Diploma or Associate Degree level, rather than the usual Certificate 3 or 4 level.

In September 2016 the Commonwealth Government provided funding to two higher apprenticeship pilot projects. One of these involves a collaboration between the Australian Industry Group, Siemens Limited and the Swinburne University of Technology and focuses on developing advanced technology skills, with an initial vocational qualification design to articulate to a Bachelor's Degree. The second pilot project, which focuses on the professional services sector, is being run by PricewaterhouseCoopers and aims to provide an alternative to university pathways into that sector.

The National Centre for Vocational Education Research (NCVER) recently published a report which looked at the emerging interest in higher apprenticeships in Australia, and some of their complexities.⁸² It identified three types of objectives:

- To develop technical skills of a higher level than those developed through current apprenticeships
- To add skills other than technical skills, such as management and supervisory, project management, problem-solving, and facilitation skills
- To provide a bridge between VET and university education, either by combining elements of the two sectors into a higher apprenticeship, or by providing a pathway from VET to university.⁸³

The report noted that the ability already exists to employ people in higher level apprenticeship pathways in many industry sectors, but take up by employers has been limited. It found a degree of confusion in discussions about higher apprenticeships as to what they might entail – for example what degree of regulation of employer obligations might be expected, or how these higher apprenticeships might relate to industrial awards.⁸⁴ Nonetheless, the interest in higher apprenticeships is a positive sign of employer interest in equipping employees for higher skill work.

Key points

- The apprenticeship model is a proven model for supporting school-to-work transitions and provides a pathway for young people into quality, skilled work.
- Pre-apprenticeships contribute to increased take up and completions. But, despite the evidence, funding for these pathways remains ad hoc and poorly integrated with labour market assistance.
- The Group Training Organisation model can be harnessed to increase use of apprenticeships and to respond to the demands of an increasingly fragmented labour market.
- Higher apprenticeships have the potential to address the need to increase skills of existing workers and to provide new pathways into non-traditional areas. However, delivery at scale is some way off.

82. NCVER, 2019, *Higher apprenticeships in Australia: What are we talking about?*, NCVER, Adelaide.

83. *ibid.*, p.8.

84. *ibid.*, p.18.

Current national labour-market program settings

It seems clear that young people will need to be able to acquire and update their skills over time if they are to find and maintain a secure foothold in the labour market. However, placing people into skilled employment, or into jobs that offer skills development, are not current objectives of our major labour-market programs.

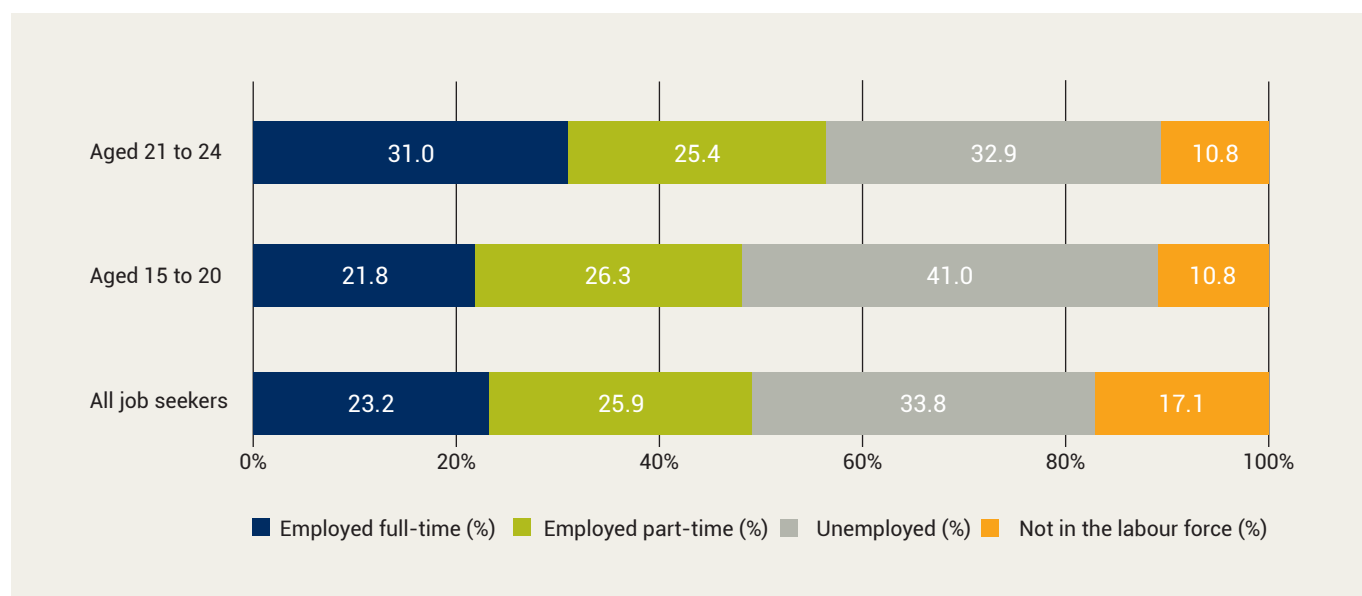
Since 1997, Australia's labour-market assistance programs have been based on the principle of 'work first'. That is, rather than focusing on training or skills development, programs are designed to provide light-touch assistance and keep people actively looking for work in order to move them into employment as quickly as possible.

Australia's largest labour-market program is jobactive. Participation in jobactive is mandatory for people who are in receipt of unemployment benefits.⁸⁵ Its focus is on moving people quickly and efficiently into sustainable employment – where 'sustainable' is defined as 26 weeks of continuous employment. A key feature of the program is its emphasis on job search activity. Participants in jobactive who are able to work full-time are required

to apply for twenty jobs each month. Failure to do this triggers a 'demerit point' for the participant and can lead, eventually, to loss of income support. Providers have a small employment fund they can draw on to invest in training but this training tends to be short term, often targeting a specific job requirement like a workforce health and safety certificate. Because the emphasis of jobactive is on placing people quickly, referral to longer-term training – for example training required to achieve a qualification – can reduce providers' performance ratings. Similarly, the system encourages placement of job seekers into immediately available jobs rather than allowing job seekers to wait for a higher quality job or one that better suits their skills and aspirations.

In April 2019 there were just over 620,000 people in jobactive, of whom 115,000 were under 25.⁸⁶ Relative to others in jobactive, young people are more likely to move into employment following participation. However over a third remain unemployed three months after assistance (Figure 6).

Figure 6: jobactive employment outcomes



Source: DESSFB 2019 Employment services outcomes report, July 2017–June 2018 (outcomes measured around three months later).

85. Unemployed people with a disability may be referred to Disability Employment Services. Young people may also be referred to the Transition to Work program, (see further below).

86. DESSFB, 'Transition to Work Caseload Cohorts by Employment Region, Provider and Site', 30 April 2019

While jobactive emphasises employment that is sustained over 26 weeks, program arrangements do not place any greater value on jobs that are ongoing over those that are casual or temporary. Nor is there any weighting for jobs that involve the application or acquisition of skills – like apprenticeships or traineeships. As Table 2 shows, most jobactive participants are placed in casual or seasonal work.

Table 2: jobactive employment outcomes – by employment status

jobactive employment outcomes by employment status, 1 July 2017 to 30 June 2018			
	Permanent employee (%)	Casual, temporary, or seasonal employee (%)	Self-employed (%)
Streams A–C	35.2	55.0	9.8
Stream A	36.8	53.7	9.5
Stream B	33.3	56.7	10.1
Stream C	30.4	58.6	11.0

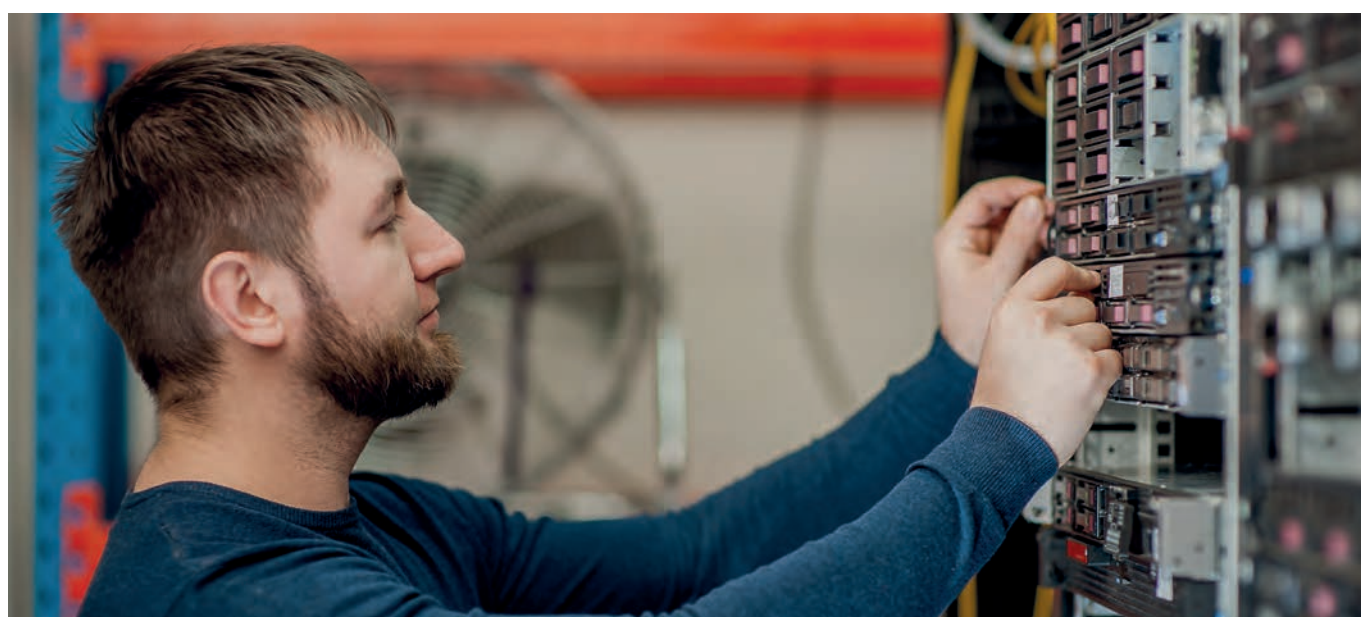
Source: DESSFB 2019 Employment services outcomes report, July 2017–June 2018

Nearly half of the participants placed in work in the scheme are still looking for work three months following assistance. Many are part-time and underemployed (Table 3).

Table 3: jobactive employment outcomes – underemployment

jobactive Employment Outcomes: Underemployment 1 July 2017 to 30 June 2018			
	Employed, seeking more work (%)	Full-time employed, seeking more work (%)	Part-time employed, seeking more work (%)
Streams A–C	46.7	19.4	63.1
Stream A	45.5	18.7	67.4
Stream B	48.2	20.5	57.1
Stream C	50.6	24.5	63.6

Source: DESSFB 2019 Employment services outcomes report, July 2017–June 2018



A key justification for the 'work first' approach is the idea that even though initial employment may be in jobs that are poor quality, these will provide a 'stepping stone' to better work. Evidence for this theory is limited. The most recent publicly available Commonwealth Government analysis was a 2008 report which looked at outcomes for participants in its employment programs at both 3 months and 16 months after participation.⁸⁷ It reported improvements in wages and hours over time, although there was no net improvement in the skill level of jobs people were employed in. Those who were Indigenous, who had been unemployed longer, people with disabilities and men were less likely to have stayed in employment over the period. Even though permanency rates improved between 3 and 16 months, more than half of those who were classified as more disadvantaged were still in casual employment at 16 months. Of the entire sample, only 30% had received structured training internally or externally to their employer organisation during their employment. In 2008 there was only limited evidence that people who faced greater labour market disadvantage were able to use poor quality jobs as a 'stepping stone'. In the decade since, increased labour market polarisation and reduced workplace training have made upward mobility even less likely.

Critics of the 'stepping stone' theory argue that people who take on poor quality work – including work that is casual or does not use their skills – tend to get trapped in this work over time. This is not the case for young people who participate in casual or part-time work while still in education – in fact, for these young people, this work is positively associated with future employment. However, a report by Tom Karmel and others found that young people who start out in low-skill jobs after leaving full-time education tend to have lower wages than their counterparts over the longer term.⁸⁸ 'Scarring' effects from low-skill and casual work tend to have more impact on men. Karmel et al noted that, after a year without work, prospects for young people weaken – in other words it is important that job entry is not delayed too long. However, in the short term finding a job at a higher skill level, that uses or develops skills, is likely to be better than taking the 'first available' job. Jobactive is likely to be doing a disservice to young people by prioritising placement speed over job quality.

William Mitchell and Riccardo Welters argue that the chances of getting trapped in poor quality jobs is greater in sectors with industries that have high rates of casualisation and in small to medium-sized firms that offer limited internal mobility.⁸⁹ Again, this raises questions about how well jobactive is serving the long-term interests of young people. The Government has estimated that only 4% of employers use jobactive for their recruitment, down from 18% in 2007.⁹⁰ Around 30% of jobactive placements are in the accommodation and food services or retail sectors –

characterised by high rates of casualisation and relatively low rates of post-school qualifications.⁹¹ 14 of the top 20 employers that unemployed people were placed in were labour hire firms, while the top two employers were Woolworths and Coles.

In other words, the current jobactive system tends to place people in a relatively narrow range of jobs and industries, and in jobs that are precarious and do not provide enough work for those placed. As noted, these precarious jobs are less likely to provide workplace training or the opportunity to acquire a post-school qualification. The increasing prevalence of higher skill jobs is likely to make transitioning from low quality jobs even more difficult.

Transition to Work and the National Youth Employment Body

While most unemployed young people participate in jobactive, in 2016 the Commonwealth Government established a new program called Transition to Work for young people who were assessed as more disadvantaged. This program still has an emphasis on employment, but outcome payments are also available for education and training, and there is less focus on speed to placement.

In 2018 the Brotherhood of St Laurence was funded to establish a National Youth Employment Body which was designed to capture and foster good practice amongst those delivering these services. It is engaging with employers, providers and government decision makers to mobilise efforts to address youth unemployment.

87. Department of Education, Employment and Workplace Relations, 2008, *Labour Market Assistance Long Term Outcomes*, Commonwealth

88. Tom Karmel & Damian Oliver, 2013, *Starting Out In Low-Skill Jobs Longitudinal Surveys of Australian Youth*, Research Report 64, NCVER, p.10

89. William Mitchell & Riccardo Welters, 2008, 'Does casual employment provide a "stepping stone" to better work prospects?', Centre for Full Employment and Equity, University of Newcastle, p.13

90. Australian Government, 2018, 'I want to work', Employment Services 2020 Report, p.8

91. Australian Government, 2018, *The next generation of employment services discussion paper*, appendices, p.98. (NB: calculation excludes 'other services' category)



In 2018 the Commonwealth Government announced planned changes to employment services to be implemented from 2022. Under these changes, job seekers who are considered 'job-ready and digitally literate' will interact with employment services online. They will 'access assistance such as an online jobs board, job matching and training modules'. Those identified as needing additional support will have access to a level of face-to-face assistance, which might include training to use the digital service. The most disadvantaged will participate in an 'enhanced' service that provides individualised assistance. Key features of the proposed arrangements are currently being trialled in two regions. While the changes have been put forward as a means to redirect program funds to those who are most in need, they bring with them considerable risks for young people attempting to find work, including young people being exposed to an even narrower range of career and training options; and, in the absence of intervention by human intermediaries advocating for the candidate, employers may be even more reluctant to consider those without experience.

After more than two decades of experience of active labour market programs, the international evidence is that work-first approaches may have a positive effect on short-term employment, but programs that combine skills training and employment assistance have stronger outcomes over the long term.⁹² Given what we know about the importance of skills for future work, this effect will only become

more important. Unless there is change, labour-market assistance programs will entrench the position of many young people in poorly paid, low-skill jobs which offer little prospect of long-term security.

Key points

- Australian employment assistance is focused on moving people into work, regardless of the quality of the work or whether it allows for the development or use of skills.
- The assumption that poor quality jobs will be a stepping stone to better work is not well supported by available evidence. The polarisation of the labour market that is already occurring, and is expected to accelerate, appears to make these transitions less likely.
- Analysis of international experience suggests that approaches that combine investment in human capital with employment assistance are most effective in the long run.

92. David Card, Jochen Kluge & Andrea Weber 2015 (revised 2017), *What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations*, NBER Working Paper No. 21431.

Approaches to assisting young people experiencing disadvantage to secure better quality jobs



Alongside large-scale national programs attempting to assist young people into work, there have been, and continue to be, many smaller initiatives, often framed as pilots or 'innovation projects'. Among these have been the Commonwealth's Empowering Youth Initiatives, which operated from 2016 to 2019, and a number of projects funded through the Commonwealth Try Test and Learn Fund that were focused on young people. State Governments have also implemented youth programs, like the NSW Smart Skilled and Hired Innovation Challenge. While evaluation strategies have been established for these initiatives, very few findings, and no systematic evidence, from these projects have been released to date.

Philanthropic foundations have also been active in funding workforce-readiness initiatives for young people. Social Ventures Australia reviewed several such initiatives which received funding from the JP Morgan Chase Foundation. In each case the programs aimed to assist young people to access jobs in growth areas of the economy (like ICT and professional services) and that provide an opportunity to develop and apply higher level skills.

SVA gathered insights from program providers, program partners, participants, educators, employers, and other stakeholders. Through this work SVA identified a number of factors that had affected past performance, and should be considered by those designing and funding future programs. SVA's recommendations are as follows:

- 1. Programs need to be designed with input from the stakeholders who will be involved in the program. The design of programs needs to be reflected in project lead times.**
 - Program stakeholders – including delivery partners, industry, employers, and program participants – should be engaged and involved at key points throughout the scoping, design and implementation of the program.
 - Effectiveness of program design for workforce-readiness programs can be increased through strategic engagement of key stakeholders and the alignment of activities and outcomes with the needs of these stakeholders.
 - There is a need for a clear understanding of the size and nature of the 'gap' between the learning and support needs of the participants of the programs and the expectations of relevant employers and/or an ability to adjust program arrangements if issues arise.
 - During the design phase it is important to draw on the personal experiences and perspectives of people with lived experience or expertise.
 - Creating a shared understanding of the roles, accountabilities and value-add of each program partner is imperative.
- 2. Teaching cycles, holiday periods and recruiting cycles are critical considerations when designing and implementing a workforce-readiness program.**
 - The school calendar is extremely busy, especially for Year 12 students, so programs which involve discussions of study and career pathways need to be planned and implemented well in advance.
 - Similarly, apprenticeship intakes often occur at set times of the year, to align with TAFE schedules. Funding cycles need to be aligned to these schedules.
 - Building trusting relationships between program partners and participants takes time and cannot be established in shorter delivery periods.



3. School-based learning and post-school training curricula need to reflect industry needs.

- Industry, future-focused, and cohort-appropriate content is imperative to ensure students are equipped with the skills and capabilities needed by industry.
- Delivery of program activities needs to be flexible enough to adapt to participant and industry needs.
- Employers have noted the need for candidates to possess soft skills, hard skills and enterprise skills.
- If qualifications or certifications are included, these need to be at the appropriate level to meet the needs of employers.
- Early engagement with employers is important in managing expectations.

4. Program outcome targets and KPIs need to be informed by market needs and minimum requirements.

- Establishing a market need is critical to informing both the design of training programs and in determining the appropriate target for placements into employment.
- Difficulties in engaging employers willing to hire entry-level jobseekers with minimal work experience or post-school education was common in programs which sought to connect school leavers to ICT and STEM roles.
- Programs that involved employers with diversity targets, for example Indigenous recruitment targets, had less difficulty in engaging employers and in illustrating the value to business of participating in these programs.

- Service providers should provide feedback to employers on whether their expectations are reasonable and achievable, both within the scope of their program activities and in reference to the wider candidate pool, to ensure the expectations of both parties can be appropriately met.

5. Projects should provide work experience or, at a minimum, experience of relevant workplaces.

- Work placements create the chance for candidates to test their skills and determine whether their aspirations align with the industry.
- One of the common reported outcomes from pre-apprenticeship programs in the trades is that many participants realise they are not interested in a specific type of work, so they don't go on to do the apprenticeship. This insight should be incorporated into future programs to save stakeholders' money and time.
- The ability of participants to function in a workplace is often untested until they start work or work experience. Building in a work experience element allows general work readiness to be tested.
- Employers of entry-level jobseekers reported that participants lacked evidence of the basic work readiness skills that would give employers the confidence to recruit them. A period of work, or work experience, even outside the industry, could have improved outcomes.
- Work experience is important for young people who do not have strong family or personal networks with employers.

- 6. There needs to be a match between the target job/sector and the interests and skills of individual participants.**
- Jobseekers need to be matched with a program, educational/development pathway or employer appropriate for their skillset, strengths, capabilities, personal circumstances and aspirations.
 - Screening of candidates can be a useful tool for determining motivation and interest levels of candidates before they are referred to a program, pathway or employer.
 - By understanding the capabilities and capacity of the individual, the gap between their current state and the requirements of the program or employment opportunity can be determined.
 - Understanding the gap between an individual's current state and future requirements allows the person's support needs to be identified so they receive the appropriate intervention and support services to help them meet these requirements. A mismatch between the size of the 'gap' and the program length and/or structure sets both the program and participants up to fail.
- 7. Some young people will need more than training/classroom support. Support strategies for those with more complex needs should be part of the program design.**
- The delivery partner or partners need to be equipped and resourced to provide the level of support that is needed by the specific cohort.
 - This risk can be mitigated by:
 - careful selection and/or research of the participant group; and/or
 - recruiting additional partner agencies to address more complex support needs.
 - There is a need to acknowledge that the period of support needed by participants will vary.
- 8. Employers need to be adequately equipped to support the relevant young people to succeed.**
- Preparing the workplace and staff to support candidates from diverse or disadvantaged backgrounds can increase the likelihood of the candidate meeting employer expectations and in boosting retention rates.
 - Setting clear expectations and providing ongoing support to key stakeholders in any education and employment pathway creates empathy, shared understanding and accountability.
 - Information sessions with key staff of employers who are hosting participants can ensure they are adequately prepared to support participants. These sessions should ideally include an explanation of program requirements and additional topics like cultural awareness.
- 9. Opportunities may be substantially affected by wider policy settings, and programs should be designed with this in mind.**
- Federal and State Governments are responsible for different components of both the education and employment systems, which can complicate the ability to implement education and employment programs.
 - Uptake of a program by employers can be influenced by initiatives like Closing the Gap and Reconciliation Action Plans.
- 10. The program-learning cycle indicates that even with good design, it should be expected that the first attempt at an approach may encounter unexpected challenges.**
- The review of programs illustrated the extent to which knowledge, insights and experiences from facilitating similar programs was an indicator of the likelihood of program success.
 - Programs with established networks of committed employers achieved significantly higher success rates than newly established pilots which were establishing relationships while delivering program activities.
 - Models which were delivering variations on core business achieved success because these functions already existed within the organisation.
 - Provision of multi-year funding is beneficial to organisations seeking to improve their practices and increase their impact through action research and iteration of program design.
- 11. Sound measurement and evaluation practices are imperative to iterating innovative program models, informing practice improvements and understanding impact.**
- Programs which included a mechanism for collecting data, measuring outcomes and iterating models during the implementation phase were able to improve practice and impact throughout delivery.
 - Notably, all of the programs used user feedback in the form of surveys, interviews or both, to inform practice which provided benefits for the organisations and their participants.

A well-supported pathway seeks to provide guidance through learning and program activities. Support for people is critical through the crucial transition points which present a risk of derailing participants whose capacity, capabilities and life circumstances may interfere with their progress. Engagement of employers in the design and ongoing support of these pathways can increase the potential for people to transition directly into employment. Linking learning outcomes with employer needs can increase the potential for people moving into job opportunities.

Findings from this work reinforced findings from the international literature reviews.⁹³ They highlight the diversity of the challenges faced by young people and the complex training and employment pathways they must navigate. There is clearly no single best approach. The more able project proponents are to tailor their strategies to local circumstances and to young people's aspirations, the better their chances of success. The reflections of US research organisation Manpower Demonstration Research Corporation (MDRC) are also relevant here:

No one program or model is the answer for all young people who are struggling. First, most programs tend to be relatively short. A 6- or even 12-month program is not enough to remove barriers to employment and education that have been years in the making. Second, any given program can only do so much. If progress toward success is viewed as a ladder, the most successful programs typically move young people up only one or two rungs.⁹⁴

Key points

- Philanthropically funded projects, as well as those supported by government 'innovation' funds, have great potential to respond to local or sectoral needs, and to highlight new approaches.
- The best programs will be designed after a period of working with young people and employers who are expected to participate, and will be given time to evaluate and adapt their practices over time.
- More needs to be done to share the findings from these projects so that sector practices can be improved.
- SVA has started to do some of this work through its Review project, which aims to help providers of these programs measure and improve their practices.

Review for Outcomes project

The ten characteristics of effective youth employment programs

In 2018 SVA conducted a project to identify the features of effective community-led employment programs. It reviewed available research, interviewed program providers and experts and, based on this work, identified 10 characteristics of program that were likely to improve program effectiveness.



- 1 A way of recognising a young person's strengths and aspirations



- 2 A way of identifying personal goals; employment specifically and life goals if relevant



- 3 A way of identifying, and responding to, the range of issues that may be affecting the young person



- 4 A way of developing trusted relationships



- 5 Inclusion of activities that develop employability/personal skills (relevant to the young person and employer), e.g. resilience and confidence



- 6 Inclusion of activities (that might include training) that develop technical skills that meet employer/job needs



- 7 The provision of high quality, relevant information that supports the search for employment



- 8 Provision of practical experience of the world of work (e.g. work experience)



- 9 A way of extending a young person's network of contacts and connecting them with employers



- 10 Active support of the young person for the amount of time that is required to meet their goals.

The project was supported by Citi Foundation, Lord Mayor's Charitable Foundation and The Jack Brockhoff Foundation.

reviewforoutcomes.com.au

93. Jochen Kluge, et al., 2019, 'Do youth employment programs improve labor market outcomes? A quantitative review', World Development, 144 (2019) pp.237–253.

94. Dan Bloom & Cynthia Miller, 2018, *Helping Young People Move Up: Findings from Three New Studies of Youth Employment Programs*, MDRC, www.mdrc.org/sites/default/files/Youth_Employment2018_1.pdf

Role of employers

In 2019 Anglicare Australia released its latest snapshot of entry-level jobs,⁹⁵ which showed that only 18,200 of the jobs advertised in May 2019 were likely to be available to someone without qualifications or work experience. At the time, over 113,000 people under the age of 25 were registered as looking for work with jobactive. The Department of Employment, Skills, Small and Family Business has reported that only 25% of employers are willing to consider applicants without workplace experience – with higher rates among those recruiting for roles like cashiers, kitchenhands and labourers.⁹⁶ Young people without qualifications or work experience face competition from their more qualified peers as well as older workers who have been retrenched or need more work.

Reduced availability of entry-level work reflects a shift to the services sector, technological change and shifts in the organisation of work. These organisational changes include the dismantling and restructuring of large public utilities and of corporate entities that once recruited large numbers of school leavers into apprenticeships, clerical and junior roles. Governments, too, have reduced their intake of young people, particularly those without university qualifications. For example, the percentage of Commonwealth Government employees under 30 declined from 18.3% in 2000 to 12.5% in June 2019.⁹⁷ Only 1.3% of employees were identified as trainees or graduates, the majority of whom were university graduates.

The loss of internal training pathways across the private and public sectors has had a significant effect on young people from disadvantaged backgrounds. Even when university qualifications are not required for a role, they may be used to select for other characteristics.⁹⁸ The use of unpaid internships presents a barrier for young people who need to work to sustain themselves, while hiring processes can disadvantage people whose profile doesn't match those already employed.⁹⁹ The lack of entry-level pathways into employment with larger employers and the public sector means there are fewer opportunities for people from more disadvantaged backgrounds to prove themselves in the workplace. Instead they must try to navigate recruitment channels that often favour those who are already advantaged.¹⁰⁰ Employers, in turn, may find their ability to nurture the development of young workers has been diminished by such things as a lack of supervisors with the skills and experience to provide training and support. Persistent trades shortages, for example, mean

that it can be difficult for large employers to provide the required level of supervision, even when the employers want to employ apprentices.

So, while many discussions about the future of work focus on what young people (labour supply) might need to do to prepare for workplaces, there is much to be done on the demand side to ensure that employers are creating opportunities that will support skills for our economic future. This includes employers considering both direct engagement and pathways throughout their supplier and other networks (see Microsoft Traineeship Program case study). Governments are large employers in their own right – some could be doing more to provide pathways for young people from less advantaged background. As noted in the earlier discussion of Sydney Metro, governments can use their purchasing power to increase availability of training pathways. The Victorian Government's ambitious social procurement program – which extends across all of its agencies – suggests a possible way forward.

Key points

- Supply-side measures can have little impact on young peoples' ability to secure good quality work if employers do not create opportunities.
- Employers have a critical role in developing the skills of young people both through direct employment and, in some cases, in fostering skills development through their supplier and contractor networks.
- Governments can affect the creation of opportunities through procurement policies and through direct employment.
- Models like Talent Rewire's Rewire Lab may be useful in bringing employers together to develop initiatives in their organisations.

95. Anglicare Australia, 2019, *Jobs Availability Snapshot 2019*, Canberra, p.10

96. Department of Jobs and Small Business, *Australian Jobs 2019*, p.39

97. Australian Public Service Commission, 2019, *The Shape of the APS 2019*, Commonwealth Government Canberra, www.apsc.gov.au/section-2-size-and-shape-of-aps

98. David B. Bills et al., 'The Demand Side of Hiring', *Annual Review of Sociology*, Vol. 43, pp.291–310

99. *ibid.*

100. *ibid.*

Case Study:

The Microsoft Traineeship Program



The Microsoft Traineeship Program was launched in November 2018 with the dual aims of creating a new, diverse pipeline of information communication technology (ICT) talent while also addressing the technical skills shortages in Australia. For Microsoft customers and partners, this presents an opportunity to gain access to new and emerging talent from a diverse pool of candidates. For aspiring trainees, it provides an alternative to traditional university pathways, a foot in the door to a meaningful and rewarding career in a growth sector, and an opportunity to earn an income while learning.

By 2024, Australia will face a shortfall of 100,000 workers in the ICT sector. As industry leaders, playing a more direct role in growing and nurturing talent will be one of the ways to solve this problem.

*Steven Worrall, Microsoft Australia
Managing Director*

Microsoft partners are organisations that provide Microsoft-related products or services, or the support for such. In Australia, Microsoft's 10,000+ partners are diverse in both their core business model and size, ranging from smaller specialist ICT companies to multinational organisations. Many businesses within this network understand the pressing need to establish pathways into skilled employment, in order to meet the demands of the growing ICT sector and the digitisation of a diverse range of industries. With a significant predicted skills shortage for trained workers with ICT expertise, the need to act is driving organisations to support alternative approaches to training and recruitment in order to attract talent.

Working in partnership with the non-profit group training organisation MEGT, Prodigy Learning and TAFE, the Microsoft Traineeship Program combines structured learning via a Certificate IV in Information Technology (IT), with paid employment during the traineeship. The broad and foundational information technology content of the Certificate IV is delivered by TAFE, offering trainees knowledge and experience across multiple systems and software. Trainees also work towards achieving Microsoft Certified Solutions Associate certification, which includes seven Microsoft certifications and in-demand specialisation areas like Microsoft Azure (cloud computing). The length of the traineeship is approximately two years, with support and mentoring provided throughout.

Creating a pathway to employment which provides a broad, base-level qualification, a series of industry-relevant certifications, and experience in a workplace that allows these skills to be applied and for additional skills to be gained, equips trainees with



a unique toolkit to prepare them for employment now and into the future in the rapidly evolving world of work. Catering to those entering the job market or those looking for a career change, the program links learning outcomes to real employment prospects. Recruitment processes have been designed to support and encourage the participation of culturally diverse groups, Aboriginal and Torres Strait Islander applicants, candidates with disability, and to create a gender balance to increase the number of women in ICT. For employers, this provides an opportunity to hire from cohorts which best represent their business ambitions.

Acting as the legal employer nationally for the trainees, MEGT manages the recruitment and placement support for the hosting companies involved. Microsoft customers and partners are given the opportunity to access and interview this pre-screened pool of talent for their traineeship roles and support is available from MEGT throughout the traineeship. The additional support and guidance that this model enables provides peace of mind for employers, in particular SMEs or those which haven't previously hired trainees.

The Microsoft Traineeship Program's objective is to support over 150 people to take their first steps into a technology career. With more than 4,000 applications submitted in the first six months, the program is attractive to people seeking a paid learning pathway within an organisation with global brand recognition and gaining a transferable skillset. Programs have now been established in Sydney, Canberra, Adelaide and Melbourne, with ambitions to expand to more cities and regions in 2020.

Case Study:

Talent Rewire: Rewire Lab



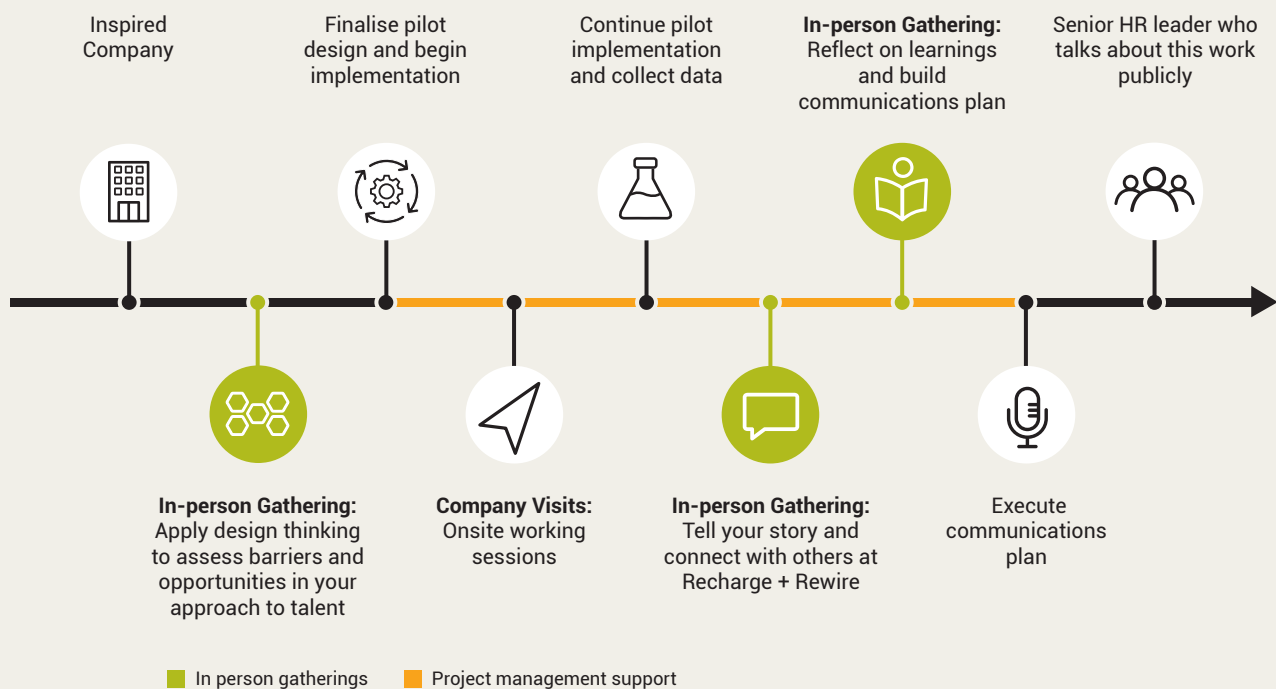
While not specifically targeting skills, a United States approach to supporting employers' inclusive employment initiatives offers an interesting model that might be applied to this approach. Talent Rewire recruits companies that are interested in piloting innovative and evidence-based approaches to 'Opportunity Employment' – the hiring, supporting, retaining and advancing of people from marginalised groups. Examples include projects targeting ex-offenders, young people and people from ethnic minority groups. Companies assign managers from across human resources, corporate social responsibility departments and/or operational areas to participate in a year-long Lab to support the design, implementation and assessment of these approaches. The intention is that by the end of the pilot these companies will go on to expand their pilot projects and/or embed changed practices across their organisations, as well as communicate about their pilots externally at conferences and in the media to inspire other employers to adopt these practices.

Rewire Lab employers commit to the following activities:

- Active participation of three staff members over a 12-month timeframe, which includes three in-person gatherings lasting three days each
- Designing and implementing a small-scale pilot to test an inclusive talent strategy that addresses a business need within the company
- Tracking and sharing data and/or impact stories related to the pilot with the aim of contributing to the broader business case for 'Opportunity Employment'
- Sign-off from senior leadership to participate in order to ensure organisational buy-in.

One of the key features of the Rewire Lab is the development of an internal business case for change and/or scaling up of initiatives. Companies are encouraged to calculate their turnover costs using a calculator tool developed by Talent Rewire which uses direct costs, indirect costs and loss of productivity to help determine the total costs of churn for entry-level staff.

Figure 7: Rewire Lab



Continued overleaf...

Case Study:

Talent Rewire: Rewire Lab *...continued from previous page*



Since Talent Rewire started offering the Rewire Labs in late 2016, all of the companies that have completed the program have scaled or are in the process of scaling their pilot programs. Additionally, the experience from having participated in the pilot program has helped identify and generate wider practice changes across their organisations and beyond.

Take Caterpillar Inc., for example. To meet their growing talent needs as well as improve outcomes for their community of Peoria, IL, Caterpillar partnered with

Peoria Public Schools to pilot a new program, 'E4Life', with the aim of attracting and retaining new technical talent. Not only is E4Life creating a pipeline of diverse, young talent for Caterpillar, it's also providing Peoria students an opportunity to acquire new skills while earning a good wage (in some cases, higher than what their parents are making). The program is also improving educational outcomes within the district, inspiring neighbouring school districts to adopt and scale the model.



Moving forward: Recommendations from Social Ventures Australia

Projections of the likely shape of future employment are necessarily speculative. However, if there is a consensus it is that there will be significant change in the way many people work, and that there is a high risk of short-term job displacement. Low-skill jobs will continue to grow, but new opportunities are likely to favour those with more skills. Technological change will allow new ways of distributing and allocating work among workers, increasing the opportunity for use of contract labour and piecework.

Many of these developments are simply extensions, or more extreme versions, of existing trends. And if our current experience is a guide, there are reasons to be worried about what the future of work holds for many young people. Already many young people are becoming stuck in poor quality jobs without job security, with insufficient hours and with limited prospects of skills development. Governments are starting to try to reinvigorate vocational education, but any efforts will be fruitless without employer willingness to invest in the skills of future generations. Through this report SVA has identified some promising initiatives, but we need a wider, more inclusive program of action. SVA's recommendations are as follows:

Reinvigoration of VET institutions and structures

The need to reinvigorate the VET sector has been identified as a priority for Commonwealth, State and Territory Governments. This must include a program to rebuild and renew key institutions that have proven their value in fostering social mobility:

- TAFE needs to be recognised as a critical and unique institution that has the capacity to anchor initiatives bringing together employers, schools and community members. Realising this capacity will require greater investment in its people and infrastructure.
- Vocational qualifications should include work placements, as proposed by the Joyce Review. This is likely to require investment in TAFE to rebuild its industry linkages, as well as a broader program of work to secure employer support.
- The importance of ensuring continued relevance and take up of apprenticeships and traineeships cannot be underestimated. The use of government purchasing power to increase employer investment in these pathways should be extended beyond infrastructure projects into other sectors, including professional services. Young people need to be consulted about the barriers they face to taking up VET pathways and be involved in their reform.

- Group Training Organisations have proven their ability to engage and support young people into and through apprenticeships and traineeships both in their ordinary operations and through programs like the Multi-Industry Pre-apprenticeship program. Additional, ongoing support should be offered to GTOs to allow them to extend their work to new employers and to increase engagement with young people experiencing disadvantage.

Realignment of labour market assistance

- Labour market assistance should support the development of a highly skilled workforce that has the resilience to manage structural change. The Commonwealth Government should develop a framework for its new employment services that encourages placement into jobs that offer economic stability and the opportunity for people to apply or develop skills.



- In addition to assistance with job entry, consideration should be given to establishing additional services to assist people whose jobs are changing or who need advice and assistance to move into better, high-skilled employment.
- Specific labour market and economic investment strategies will be needed in areas affected by structural change.

Better practices for learning within and from community-led workforce-readiness programs

- Smaller, tailored work-readiness programs can play an important role in responding to specific needs. They are particularly important for emerging cohorts and in working to address issues specific to particular geographical areas. Governments and philanthropic investors should continue to support these efforts.
- More needs to be done to capture learning from these smaller-scale efforts and to embed effective practices more widely. Any evaluations of particular programs should be made public.
- Among the practices that funding bodies should encourage through their practices are inclusion of young people in project design, providing adequate time for project learning, and ensuring that projects focused on employment connect young people directly with employers.

Employers need to do more

- The consequences of restructuring large workplaces and of increasingly precarious employment can be seen in declining skills investment and chronic shortages in key occupations. Too many employers expect other employers or educators to provide young people with technical and employability skills, or rely on availability of skilled labour from other countries.
- More employers need to nurture young people, particularly those who are disadvantaged in the labour market, within both their own enterprises, and in organisations in their supply chains.
- Governments can do more to support these efforts, not just by using social procurement, but by ensuring that they nurture young workers – particularly those who face employment barriers – within their own organisations.

The need to rethink how risks and rewards of change are distributed.

Changes in both labour-market regulation and in systems of social protection will be needed to arrest current trends in income inequality and instability. The risks of future uncertainty should not be borne by individuals, or governments, alone. Similarly, social dialogue and proactive investment are needed in communities that are likely to be significantly affected by change.



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