

Ai GROUP SUBMISSION

Inquiry into School to Work Transition

House of Representatives Standing Committee on

Education and Employment

AUGUST 2017



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About Australian Industry Group

The Australian Industry Group (Ai Group) is a peak industry association in Australia which along with its affiliates represents the interests of more than 60,000 businesses in an expanding range of sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other industries. The businesses which we represent employ more than one million people. Ai Group members operate small, medium and large businesses across a range of industries. Ai Group is closely affiliated with more than 50 other employer groups in Australia alone and directly manages a number of those organisations.

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1. Terms of Reference

The terms of reference for the inquiry are:

The Committee will inquire into and report on how students are supported from school to work including the following matters:

- 1. Measurements of gain in school and how this contributes to supporting students to prepare for post-school education and training;*
- 2. Opportunities to better inform and support students in relation to post-school education and training, including use of employment outcomes of students who undertake school-based vocational education or post-school tertiary pathways;*
- 3. Other related matters that the Committee considers relevant.*

2. Structure of the Response

This response addresses the terms of reference as a set through a focus on the following:

- Context of the changing nature of work
- Youth and the labour market
- School system interventions

3. The Changing Nature of Work

There has been a range of reports that have highlighted the rapid and extensive change in this area. The CSIRO's latest report on megatrends for Australia's future workforce in the next 20 years highlights the need for a paradigm shift of mindsets for workers, employers, education sector and governments to accommodate for the predicted jobs of the future. While there may be a focus on the types of technology that may arise that produce jobs where specialised skills will be advantageous, an underlying message is that foundational skills as well as new capabilities will become more important than ever before in the wider workforce of the future. As the report notes, creativity, problem solving, advanced reasoning, complex judgement, social interaction and emotional intelligence will become highly important in these roles; equally, literacy, numeracy and digital literacy will need to be just as critical for these future jobs.¹

Other reports have focused on the impacts of technology and subsequent effects on employment. CEDA has estimated that 5.1m jobs are at risk from digital disruption over the next 10 years², PwC has reported that 44 per cent of jobs are at risk³ and that 79 per cent of Chief Executive Officers are concerned by the

¹ Tomorrow's Digitally Enabled Workforce, CSIRO, January 2016.

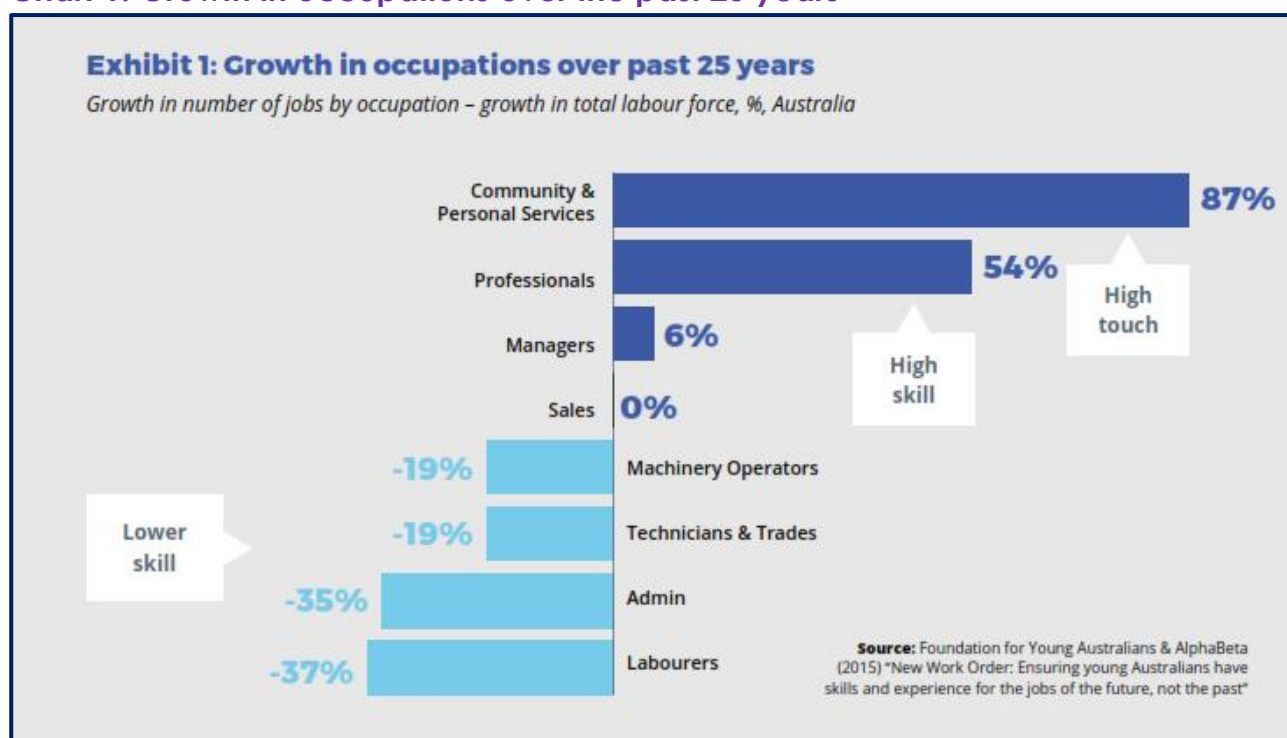
² Committee for Economic Development of Australia, Australia's future workforce?, 2015.

³ A Smart Move, PwC, April 2015.

impact of changes in core technology. The Productivity Commission has focused on what governments need to do in this area⁴.

These changes in the nature of work are associated with a significant shift in the skill composition of workforce. The CEDA report notes that the share of high-skill jobs are significantly increasing while the share of low-skilled jobs are decreasing.⁵ Similarly the OECD has reported on the long-term movement away from low -skilled occupations to higher skilled occupations in the context of the expanding knowledge economy.⁶ The Foundation For Young Australian research has characterized this as a growth in ‘high skill’ and ‘high touch’ occupations and a decline in lower skill occupations.⁷

Chart 1: Growth in occupations over the past 25 years



Further research as a part of this New Work Order report series reveals seven new job clusters based on an analysis of job advertisements.⁸ These clusters are:

- The Artisans: jobs requiring skills in manual tasks in construction, production, maintenance or technical customer service.
- The Designers: jobs using skills and knowledge of science, mathematics and design.
- The Generators: jobs requiring high level interpersonal interaction in retail, sales, hospitality and entertainment.

⁴ Digital Disruption: What do governments need to do?, Productivity Commission Research Paper, June 2016.

⁵ Committee for Economic Development of Australia, Australia's future workforce?, 2015.

⁶ OECD Skills Outlook 2013.

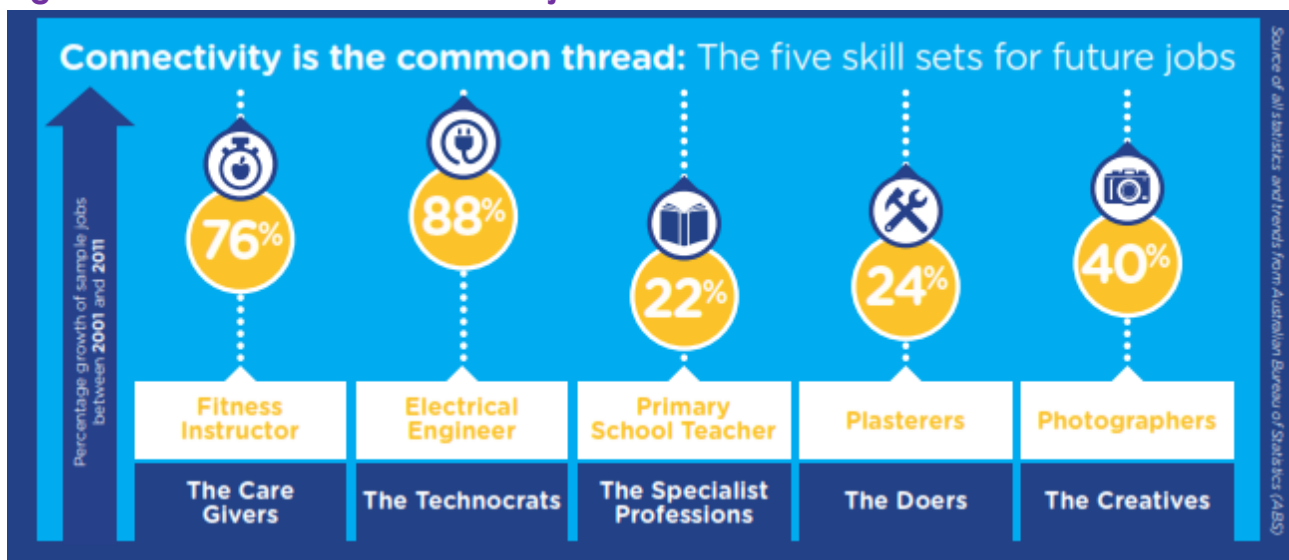
⁷ The New Basics: Big data reveals the skills young people need for the New Work Order, Foundation For Young Australians, 2016.

⁸ The New Work Mindset, seven new job clusters to help young people navigate the new work order, Foundation For Young Australians, 2016.

- The Informers: jobs that involve professionals providing information, education or business services.
- The Technologists: jobs requiring skilled understanding and manipulation of digital technology.
- The Coordinators: jobs involving repetitive administrative and process or service tasks.
- The Carers: jobs seeking to improve the mental or physical health of others including medical, care and personal support services.

Another take on this kind of information is provided in the report Super Connected Jobs, Understanding Australia’s future workforce.⁹ This indicates five key skill sets for future jobs and adds what are the fastest growing groups between 2001 and 2011 – The Technocrats (88 per cent) and The Care Givers (76 per cent).

Figure 1: The five skill sets for future jobs



In addition, McKinsey’s has categorised the jobs developing as a result of technology and global supply chains into Interaction jobs, Production jobs and Transaction jobs.¹⁰ The Interaction jobs, involving more complex interactions and judgement, represent almost half the jobs in the economy but are the source of all employment growth. They suggest that a focus on these types of jobs will be a key to Australia’s competitiveness. The ability to exercise critical thinking and contribute to society will be paramount. The jobs that experience growth will require high level thought and judgement. The concept of teamwork and social skills will be broader – not just within a workplace but across countries.¹¹

Another key component of the future workforce will be the acquisition of Science, Technology, Engineering and Mathematics (STEM) skills. A number of reports have highlighted the importance of STEM skills to the economy and that these skills are needed for the fastest growing occupations.¹²

⁹ Super Connected Jobs, Understanding Australia’s future workforce, nbn, 2015.

¹⁰ McKinsey Australia, Compete to Prosper: Improving Australia’s global competitiveness, 2014

¹¹ John Lydon, David Dyer, Chris Bradley, McKinseys, Compete to Prosper: Improving Australia’s Global Competitiveness, 2014.

¹² See for example Strengthening School -Industry STEM Skills Partnerships, Australian Industry Group, June 2017; STEM Country Comparisons, Australian Council of Learned Academies, May 2013; The case for STEM Education, R. Bye, NSTA Press, 2013; and Science, Technology, Engineering and Mathematics: Australia’s Future, Office of the Chief Scientist, September 2014.

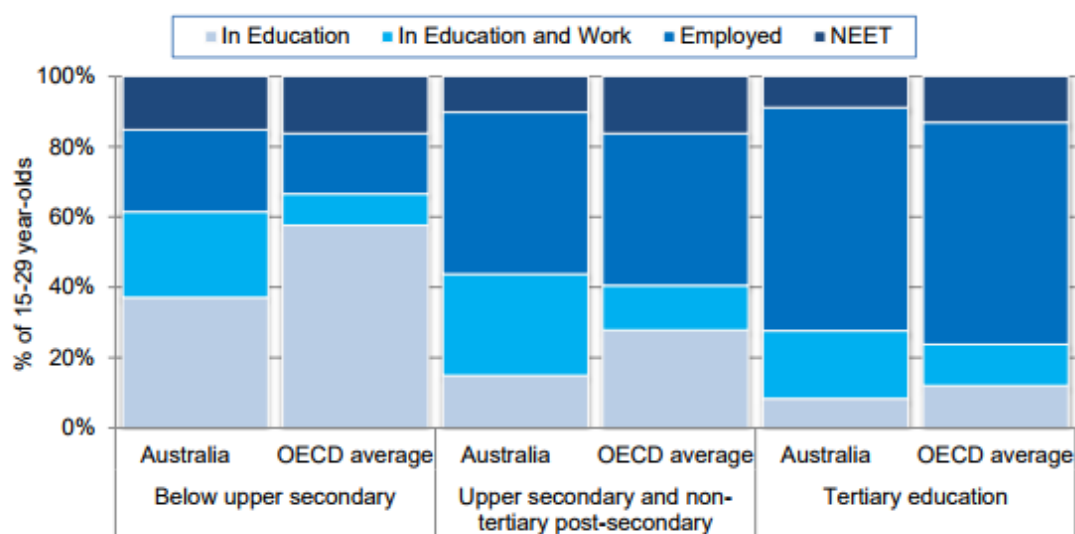
An important structural change to the economy and the workforce is the growth of the gig economy.¹³ There is an increased demand for more flexible and autonomous work leading many to engage in freelancing. In the United States for example, it has been forecast that contingent workers will exceed 40 per cent of the workforce by 2020.¹⁴ In Australia over four million people, or 32 per cent of the workforce, had freelanced between 2014 and 2015.¹⁵ The largest categories for this type of work are web, mobile and software development (44 per cent), design and creative (14 per cent), customer and administrative support (13 per cent), sales and marketing (10 per cent) and writing (8 per cent).

4. Youth and the Labour Market

4.1 Youth Unemployment

Youth unemployment in Australia (15 – 29 year-olds) is 11.5 per cent. While this is lower than the OECD average it is twice the general unemployment rate.¹⁶

Chart 2: Percentage of 15 – 29 year-olds in education and not in education, by educational attainment and work status, 2011



NEET: Neither Employed, nor in Education and Training

Source: OECD (2013), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2013-en>.

The ABS has reported that labour market conditions for youth (15 to 24 years) have improved in recent years, however this cohort remains disadvantaged. The youth unemployment rate has fallen from the peak of 13.9 per cent in December 2014 to 12.2 per cent in January 2016. The ABS also notes that this is double

¹³ The Emergence of the Gig Economy, Australian Industry Group, August 2016.

¹⁴ Intuit 2020 Report: Twenty trends that will shape the next decade, Intuit, October 2010.

¹⁵ Australia's freelance economy grows to 4.1 million workers, study finds, Frank Chung, 27 October 2015.

¹⁶ Education Policy Outlook: Australia, OECD, June 2013.

the national rate.¹⁷ CEDA has reported that global youth unemployment is almost three times higher than the adult unemployment rate.¹⁸ This is despite the increase in young people with tertiary education.

Chart 3: Australian Youth Unemployment Rate



Recent reports have the youth unemployment rate even higher at 13.1 per cent in June 2017. Since July 2016 the rate has not fallen below 12.3 per cent and has been as high as 13.7 per cent (November 2016).¹⁹

Young people who are neither employed nor in education and training (NEETs) are at considerable risk of being left behind in the labour market. In Australia about 12 per cent of 15 – 29 year-olds are NEETs.²⁰

4.2 Growth of Part-Time Employment

A further key change in the economy is the rapid expansion of part-time employment. Between April 2016 and April 2017 two-thirds of the jobs created were part-time²¹ and part-time employment has increased three-fold since the 1970's²².

The Foundation For Young Australians has drawn attention to the growth in part-time employment for young people. In 2013 part-time employment was at its highest rate of 26.7 per cent for 15 – 19 year-olds and 18.3 per cent for 20 – 24 year-olds.²³ At the same time full-time employment has decreased for both age cohorts. In 2013 full-time employment for 15 – 19 year-olds was 42.1 per cent and for 20 – 24 year-olds it was 59.2 per cent. This has been a long term trend since 1986.

¹⁷ Australian Jobs 2016, Australian Government, Department of Employment.

¹⁸ Committee for Economic Development of Australia, Australia's future workforce?, 2015.

¹⁹ <https://tradingeconomics.com/australia/youth-unemployment-rate>.

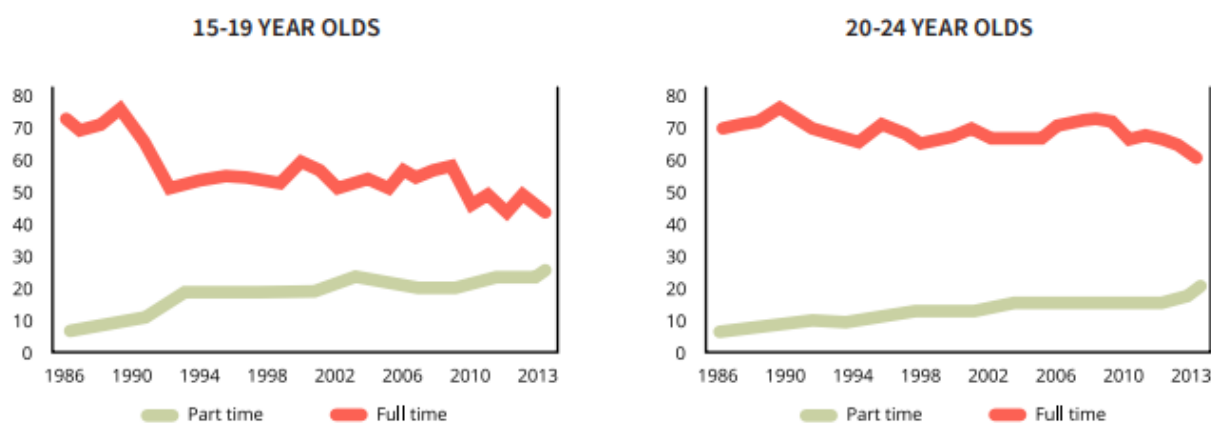
²⁰ OECD Employment Outlook 2016, How does Australia compare?, July 2016.

²¹ Australian Bureau of Statistics (ABS) 2017, The labour force, Australia, cat No. 6202.0.

²² Committee for Economic Development of Australia, Australia's future workforce?, 2015.

²³ How Young People Are Faring in the Transition from School to Work, Foundation For Young Australians, NCVER, September 2014.

Figure 2: Young people in full-time and part-time employment (for those not in full-time education) 1986 – 2013 (%)



4.3 Underemployment

Nearly one in three young Australians are currently unemployed or underemployed. The rate of underemployment is increasing significantly, especially for young people. This is currently 18 per cent of the youth labour force and is now the highest in 40 years,²⁴ despite a record period of economic growth.

In February 2017, there were more than 650,000 people aged between 15 and 24 looking for work or underemployed. This reflects a rapid growth in insecure and non-permanent employment. The rise in the percentage of casual and part-time jobs has mainly been among young workers who are not studying. By 2014, 39.3 per cent of non-students were in casual work and 35.8 per cent in part-time jobs.²⁵

4.4 'Dying' Occupations

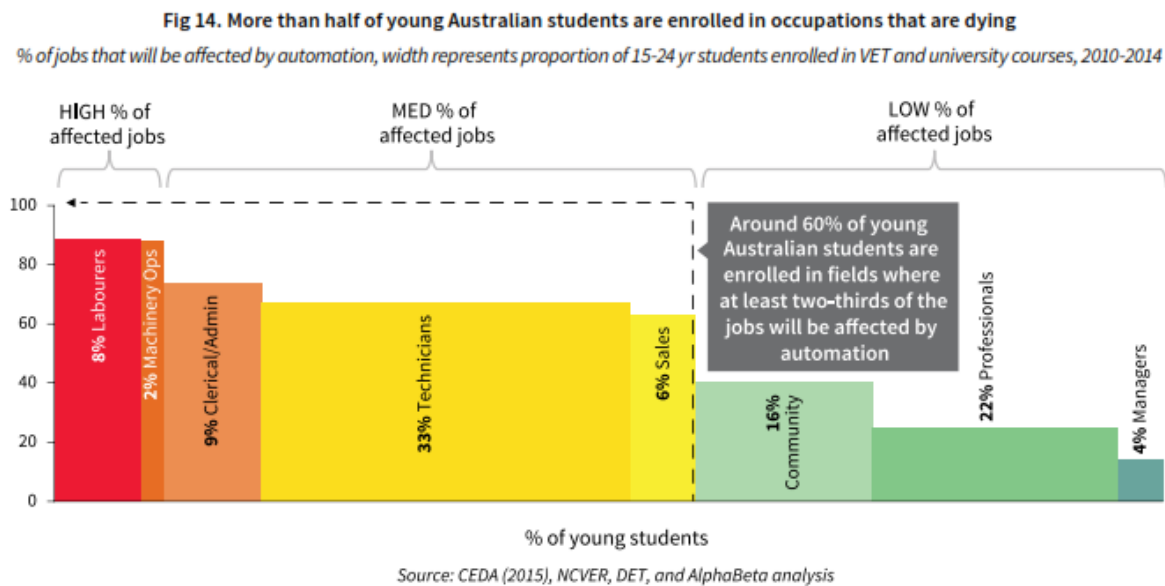
A further consideration in the transfer of youth into the labour market is the nature of occupations and industries into which the transition occurs. The Foundation For Young Australians has analysed the impact of automation on the jobs young people obtain. Around 70 per cent of young people (15 – 24 years) obtain occupations that will be highly affected by automation in the next 10 to 15 years.²⁶ These include occupations such as retail, administration and labourers. Less than 20 per cent of young people obtain employment in more secure occupations. In relation to VET students, the proportion of young people being trained in at-risk occupations increases to 71 per cent. Technicians, for example, are forecast to be radically affected by the impact of automation.

²⁴ Generation stalled: young, underemployed and living precariously in Australia, Brotherhood of St Laurence, 2017.

²⁵ <https://www.theguardian.com/business/2017/mar/27/third-of-australian-youth-have-no-job-or-are-underemployed-report-finds>.

²⁶ The New Work Order, Foundation For Young Australians, 2015.

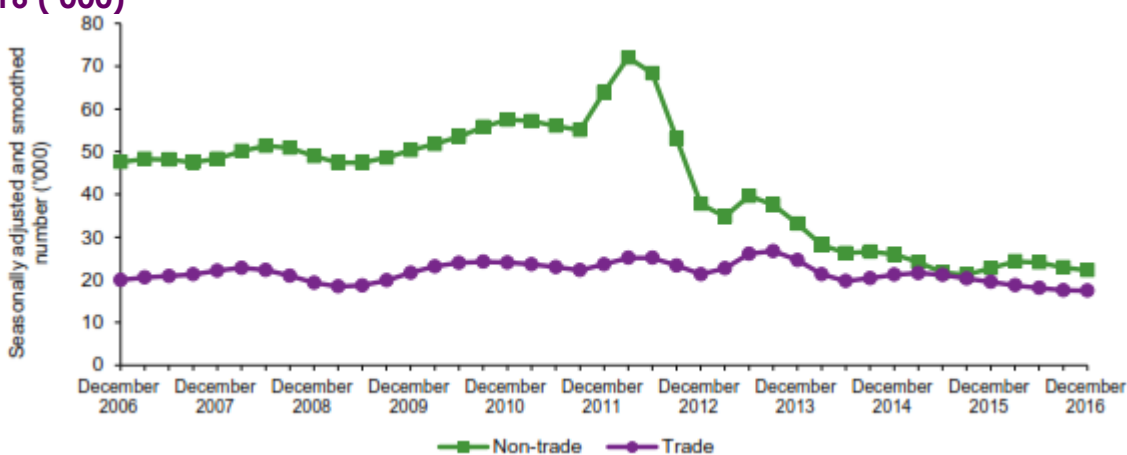
Figure 3: Percentage of jobs that will be affected by automation and proportion of 15 – 25 year students enrolled in VET and university courses, 2010 - 2014



4.5 Youth decrease in the apprenticeship system

Participation by young people in the apprenticeship system has traditionally been a secure path in the school to work transition process. This pathway is now under severe threat as the numbers participating have significantly reduced to now be the lowest for a decade. The number of apprentices and trainees in training in 2016 was 264.9k and apprentices and trainees as a proportion of total employment has fallen to 2.2 per cent, again, the lowest for a decade. The most recent data from the NCVET indicates that commencements have decreased by 2.9 per cent.²⁷

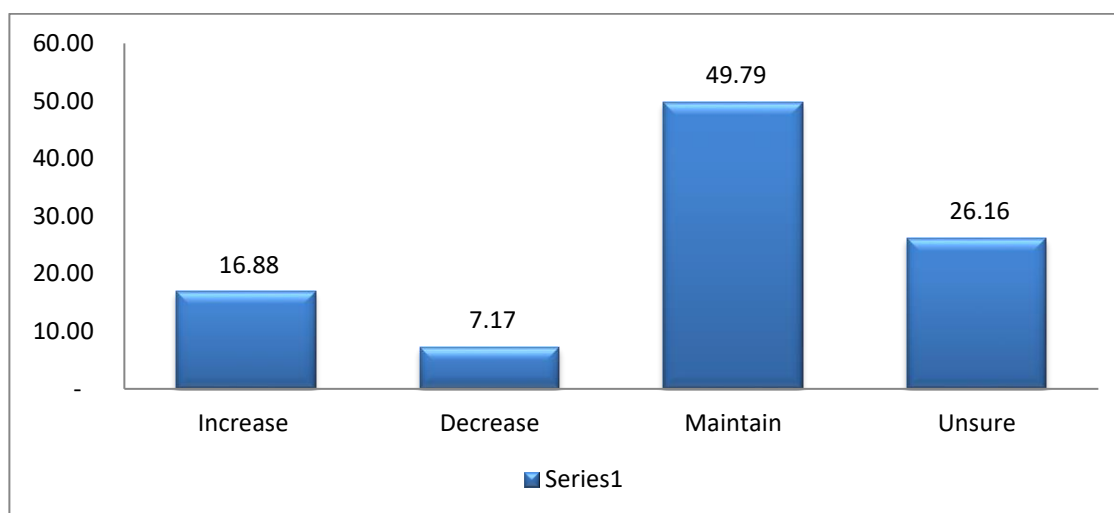
Chart 4: Quarterly commencements for Trade and Non-Trade Occupations, 2006 – 16 ('000)



²⁷ Apprentices and trainees 2016, NCVET, Commonwealth of Australia, 2017.

In a recent Ai Group survey on workforce development needs, only 17 per cent of employers intend to increase apprentices and trainee numbers over the next twelve months. A further 50 per cent will maintain their numbers, while 33 per cent intend to decrease numbers or are unsure about their intentions.²⁸

Chart 5: Employment intentions for apprentices for the next 12 months



Source: Australian Industry Group Workforce Development Needs Survey 2014

In terms of the age cohorts there have been decreases in youth participation. While the 19 years and under category remains the largest group, commencements have fallen from 109.6k in 2006 to 76.8k in 2016. This is the second lowest for the whole period. There has also been a fall in the 20 to 24 years group from 46.3k to 35.5k over the same period.²⁹

Figure 4: Apprentice and trainee commencements by selected training characteristics, 2006 – 16 ('000)

| | | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|-----|--------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| Age | 19 years and under | 109.6 | 114.5 | 117.4 | 101.1 | 115.8 | 111.5 | 107.3 | 85.5 | 79.0 | 75.1 | 76.8 |
| | 20 to 24 years | 46.3 | 48.2 | 48.6 | 45.6 | 54.4 | 56.6 | 57.1 | 45.0 | 39.5 | 36.5 | 35.5 |
| | 25 to 44 years | 78.1 | 80.4 | 86.1 | 85.8 | 100.2 | 105.7 | 114.2 | 81.1 | 54.4 | 46.4 | 43.2 |
| | 45 years and over | 32.4 | 32.7 | 36.6 | 39.3 | 44.7 | 46.9 | 52.0 | 34.1 | 17.3 | 14.1 | 11.5 |

Data is also available for the percentage of young apprentices and trainees (15-19) as a proportion of employment for 15 – 19 year-olds overall. Over the last decade this has fallen from 16.7 per cent to 12,2 per cent. The 2016 figure is the second lowest for the decade.³⁰

²⁸ 2014 Survey of workforce development needs.

²⁹ Apprentices and trainees 2016, NCVET, Commonwealth of Australia, 2017.

³⁰ Apprentices and trainees 2016, NCVET, Commonwealth of Australia, 2017

Figure 5: Apprentice and trainee training rates by selected characteristics, 2006 – 16 (%)

| Year | Total apprentices and trainees as a proportion of total employment | Full-time apprentices and trainees as a proportion of full-time employment | Trade apprentices and trainees as a proportion of trade employment | 15 to 19-year-old apprentices and trainees as a proportion of employment for 15 to 19-year-olds |
|------|--|--|--|---|
| 2006 | 3.8 | 4.3 | 11.7 | 16.7 |
| 2007 | 3.8 | 4.2 | 12.1 | 16.7 |
| 2008 | 3.8 | 4.2 | 12.2 | 17.3 |
| 2009 | 3.7 | 4.1 | 12.7 | 16.8 |
| 2010 | 3.9 | 4.2 | 12.6 | 17.3 |
| 2011 | 3.9 | 4.3 | 12.2 | 17.1 |
| 2012 | 3.9 | 4.3 | 12.3 | 15.7 |
| 2013 | 3.3 | 3.8 | 12.2 | 14.2 |
| 2014 | 2.7 | 3.0 | 10.7 | 13.0 |
| 2015 | 2.3 | 2.7 | 10.1 | 11.9 |
| 2016 | 2.2 | 2.5 | 9.9 | 12.2 |

4.6 Slower Transition

In the face of these substantial barriers to the full participation by young people in the labour force, the school to work transition is taking longer. In 2008 the average age of the transition to full-time employment was 21.8 years. In 2013 this had increased to 23.4 years.³¹ As indicated the proportion of young people not engaged in employment, education or training (NEET) is an important factor in the school to work transition. While the Australian rate of around 12 per cent is better than the OECD average, it is still unacceptably high.

5. School System Interventions

In the face of this very difficult process of school to work transition it is necessary to consider what the school systems can do to assist in the process. There are many interventions that could assist in this process including:

- The implementation of STEM-related initiatives for students
- A renewed emphasis of the language, literacy and numeracy standards of school students
- A reconsideration of career education
- The formation of partnerships with industry

5.1 Implementation of Science, Technology, Engineering and Maths (STEM) initiatives

Ai Group acknowledges Commonwealth initiatives to address issues related to the acquisition of STEM skills. These include the endorsement of the National STEM School Education Strategy by the Education

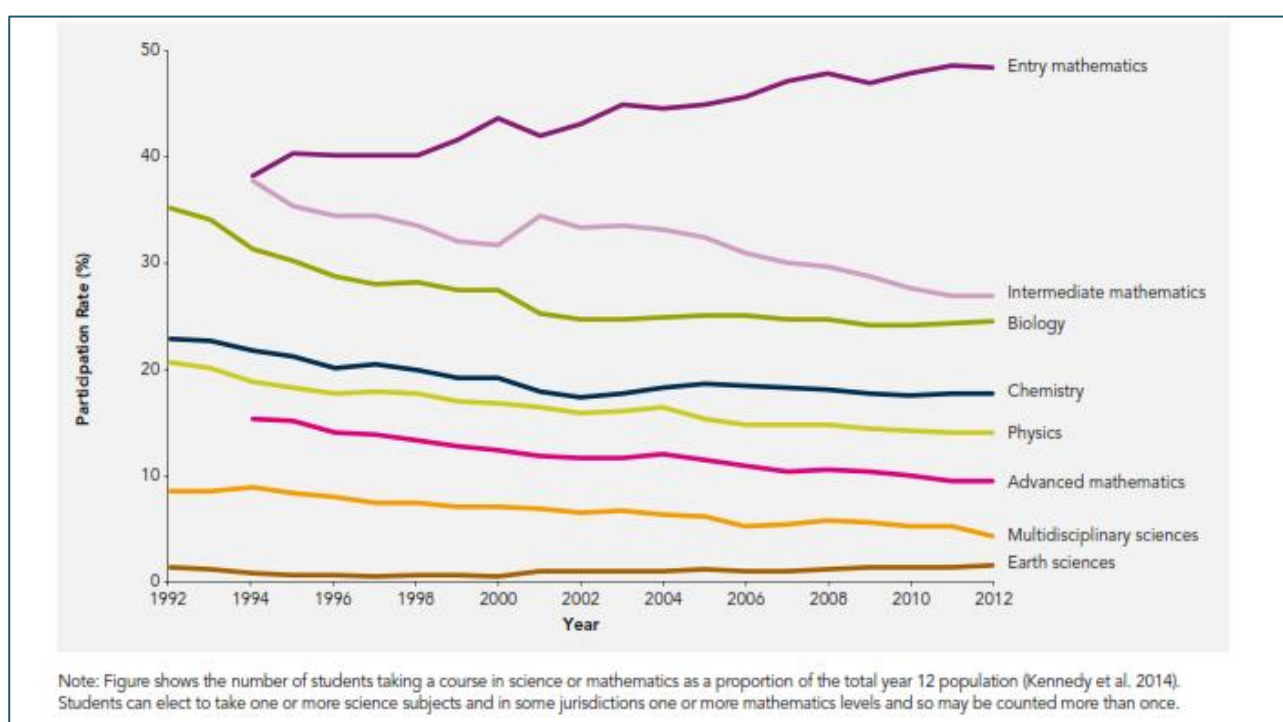
³¹ How Young People Are Faring in the Transition from School to Work, Foundation For Young Australians, NCVER, September 2014.

Council³² and the inclusion of STEM components in the National Innovation and Science Agenda³³ released by the Australian Government, both in December 2015.

The Education Council strategy is naturally focused on schools although one of the five areas for national action addresses “facilitating effective partnerships with tertiary education providers, business and industry.”³⁴ While the National Innovation and Science Agenda is broader in scope, the \$48 million to be devoted to STEM initiatives is focused on schools.³⁵

Ai Group’s long-standing concerns about the state of STEM skills and the impact on the economy are well documented. The Office of the Chief Scientist has documented the decline in the proportion of Year 12 students undertaking STEM-related studies in science and mathematics.³⁶

Chart 6: Year 12 Mathematics and Science Participation Rates 1992 - 2012



Despite increasing levels of Year 12 enrolments during this period the participation rates in physics, chemistry and biology all declined. Participation in entry mathematics increased however there have been steady decreases in both intermediate and advanced mathematics. This decreasing level of participation has flow on effects to both the VET and higher education sectors.

This is only one measure of concern about school-based STEM. A related concern is the poor performance by Australian school students in international tests of mathematics and science. The most recent Trends in Mathematics and Science Study (TIMSS) indicates that Australia’s performance has stagnated over the last decade. Of particular concern is the result that 30 per cent of Australian Year 4 students were achieving

³² National STEM School Education Strategy, Education Council, December 2015.

³³ National Innovation and Science Agenda, Commonwealth of Australia, 2015.

³⁴ National STEM School Education Strategy, Education Council, December 2015, page 10.

³⁵ National Innovation and Science Agenda, Commonwealth of Australia, 2015, page 13.

³⁶ Progressing STEM Skills in Australia, Australian Industry Group, February 2015.

only at the low international benchmark.³⁷ The results are no better in the Programme for International Student Assessment (PISA) of the mathematics skills of 15 year-olds. Australia’s mean mathematical literacy performance declined significantly between PISA 2003 and PISA 2012 by the equivalent of more than a half year of schooling.³⁸

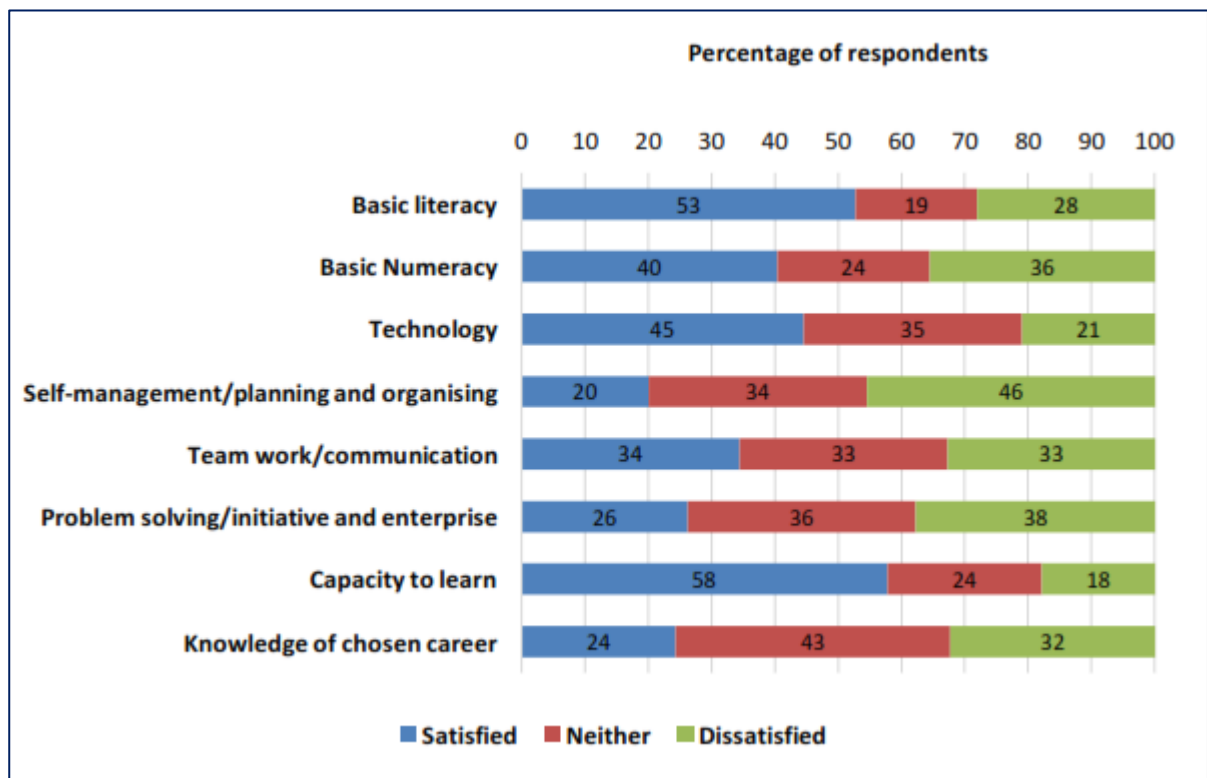
Recent research by the Ai Group piloted a number of approaches for school – industry STEM partnerships. Models of partnership have been identified as well as the need for education systems to provide more professional development and support for teachers to implement school-based STEM initiatives in conjunction with employers.³⁹

Initiatives such as these need to be implemented to enable school students to prepare for the workforce with an increased emphasis on STEM skills.

5.2 Emphasis on Literacy and Numeracy

A major requirement for a successful transition from school to employment is an adequate command of literacy and numeracy. Ai Group regularly surveys employers about a range of skill issues including the literacy and numeracy levels of those seeking employment. In the most recent survey employers expressed dissatisfaction with the levels of literacy and numeracy of school leavers as well a number of broad employability skills.⁴⁰

Chart 7: Levels of satisfaction with school leavers



³⁷ Sue Thompson et al., Highlights from TIMSS and PIRLS 2011 from Australia’s perspective, Australian Council for Educational Research, 2012.

³⁸ Media Release, 3 December 2013, Latest PISA results ‘cause for concern’, says ACER.

³⁹ Strengthening School-Industry STEM Skills Partnerships, Australian Industry Group, June 2017.

⁴⁰ Workforce Development Needs Survey report, Australian Industry Group, December 2016.

The levels of dissatisfaction are much higher across a wider range of skills compared to the Higher Education and VET sectors. The level of dissatisfaction is high with both basic numeracy (36 per cent) and basic literacy and the use of English (28 per cent).

In addition, dissatisfaction was reported for a range of employability skills including self-management, planning and organising (46 per cent); problem solving, initiative and enterprise (38 per cent) and team work and communication (33 per cent).

This concern is further highlighted through the release of the most recent preliminary summary results of the 2017 National Assessment Program – Literacy and Numeracy (NAPLAN) tests. This year's results are particularly interesting as they represent 10 years of national testing. The results show that the performance of students has only improved marginally over the last decade. There has been a 3.5 per cent increase in reading and a 2.5 per cent increase in numeracy over the decade. However, in relation to writing introduced in testing in 2011, there has been a 2 per cent decline. There has been no significant difference in achievement in any domain (reading, writing, language conventions, numeracy) or year level (3,5,7 and 9) in the last year.⁴¹

The trajectory of these results indicates concerns about the preparedness of our school students for the workforce when they complete their schooling. This is particularly so given our well documented poor performance in international tests such as PISA and TIMSS.

5.3 Reconsideration of Career Education

Notwithstanding the considerable difficulties associated with providing appropriate career education for the emerging workforce, there is a need to review the provision of career education.

The Commonwealth Government initiated a process during 2017 to develop a National Career Education Strategy (the Strategy) to make career education a priority in schools. This has been supported with \$3 million of funding under the *Quality Schools, Quality Outcomes* policy to improve career education by working with industry and schools to develop this strategy and to improve the measurement and tracking of students' progress against 21st Century skills.

The resulting draft Strategy acknowledges many of the transition issues already discussed. These include the awareness of the challenges and needs of the Australian and worldwide economy, the likelihood that a young person will have some 17 jobs in five different industries throughout their working life⁴², and that employment is growing in the 'non-routine' industries that require innovation, creativity, problem solving, relationships and responsiveness to changing circumstances⁴³. Similarly, there is recognition based on The Foundation for Young Australians *New Work Order* report series of the need for the education system to support young people for these emerging industry needs and for greater entrepreneurial skills. This will require schools to shift away from preparing students for traditional and linear career paths. Young people will need a portfolio of skills and capabilities, including skills to make career decisions throughout life.⁴⁴

⁴¹ <http://www.nap.edu.au/results-and-reports/national-reports>.

⁴² The Foundation for Young Australians (2017): <http://www.fya.org.au/2017/06/15/future-future-education-must-acing-test/>.

⁴³ Torii, K. and O'Connell, M. Preparing Young People for the Future of Work. Mitchell Institute Policy Paper No. 01/2017. Mitchell Institute, Melbourne.

⁴⁴ The Foundation for Young Australians, *The New Work Mindset: 7 new job clusters to help young people navigate the new work order*.

The draft Strategy further acknowledges that there is evidence that the education system is not meeting the challenges of the changing workforce. Despite the Australian Curriculum’s incorporation of general capabilities and the provision of specific Work Studies content for years 9 and 10, a number of reports have questioned whether students are finishing school with the requisite knowledge and skills to thrive in the workplace. The OECD, for example, advocates the need for education systems and school curricula to prioritise the development of creative, critical thinking and collaborative skills and personal attributes of mindfulness, curiosity, courage and resilience.⁴⁵

An over-emphasis on academic success in traditional subjects to gain entry to university means many students are not considering employer-valued vocational education and training options. Even when these options may be better suited to students’ talents and interests, and have better job outcomes. Vocational learning pathways tend to result in better employment outcomes.⁴⁶ Within this context, it is timely for such a Strategy to review the way schools regard the Australian apprenticeships system. For some time there has been a concern that careers teachers do not adequately understand or promote this pathway compared to university options.

The report on the PwC Young Workers Index highlights that high performers on the Index have a common theme of promoting vocational education and training.⁴⁷ The same report advances the notion of linking vocational and academic learning such as in the Degree Apprenticeship programs in the UK. Indeed, one approach revolves around attracting a greater diversity of apprentices and encouraging and supporting high achievers to undertake trade careers.⁴⁸ A key aspect of this approach is to more formally link apprenticeship training to higher level qualifications including higher education degrees.

A further model worthy of consideration is the combination of apprenticeship training with a higher education degree that is available in the dual-system countries of Europe such as through the Universities of Applied Science in Germany. Notwithstanding the cultural differences, these settings provide a dual study program which transfers the principle of practice-oriented learning to university studies.

A different approach implemented overseas is the introduction of the so-called “higher apprenticeships” in the United Kingdom, France and the United States. These approaches have the twin benefit of increasing the level of qualification awarded for apprenticeships as well as extending the scope to non-trade and more para-professional occupations. In the UK the higher apprenticeship framework covers qualifications from level 4 to 6 and includes a wide range of occupations, over 47, not usually associated with apprenticeships including: accounting; advertising and marketing communications; banking; care leadership and management; construction management; facilities management; information security; legal services; life sciences; power engineering; and supply chain management to name a few.⁴⁹

⁴⁵ Schleicher, A. (2015). Educating for the 21st Century.

⁴⁶ Torii, K. and O’Connell, M. Preparing Young People for the Future of Work. Mitchell Institute Policy Paper No. 01/2017. Mitchell Institute, Melbourne.

⁴⁷ Empowering a new generation, PwC Young Workers Index, October 2016.

⁴⁸ Higher Apprenticeships, Victoria University, September 2012.

⁴⁹ Employer Guide to Higher Apprenticeships, National Apprenticeship Services, 2014.

Ai Group is currently conducting an Industry 4.0 Higher Apprenticeships pilot program that links an apprenticeship with an associate degree. There is a range of innovative programs that can link applied learning models and the VET system to higher education. These developing options need to form part of the career education provided to secondary schools.

The Strategy has made a number of recommendations to the Australian Government concerning the further development and implementation of initiatives. It will be important for all governments, in consultation with other stakeholders, to consider these and move to widespread implementation.

5.4 Formation of School – Industry Partnerships

It is clear that stronger employer, industry and school collaboration based on mutually beneficial relationships enables young people to connect with businesses, and local employers. This was identified in the draft National Career Education Strategy. While this has been recognised, Australian and international research indicate industry and employer engagement is difficult to do. In the VET sector, for example, research shows the most successful programs are driven by strong relationships between employers, industry, registered training organisations and schools.⁵⁰

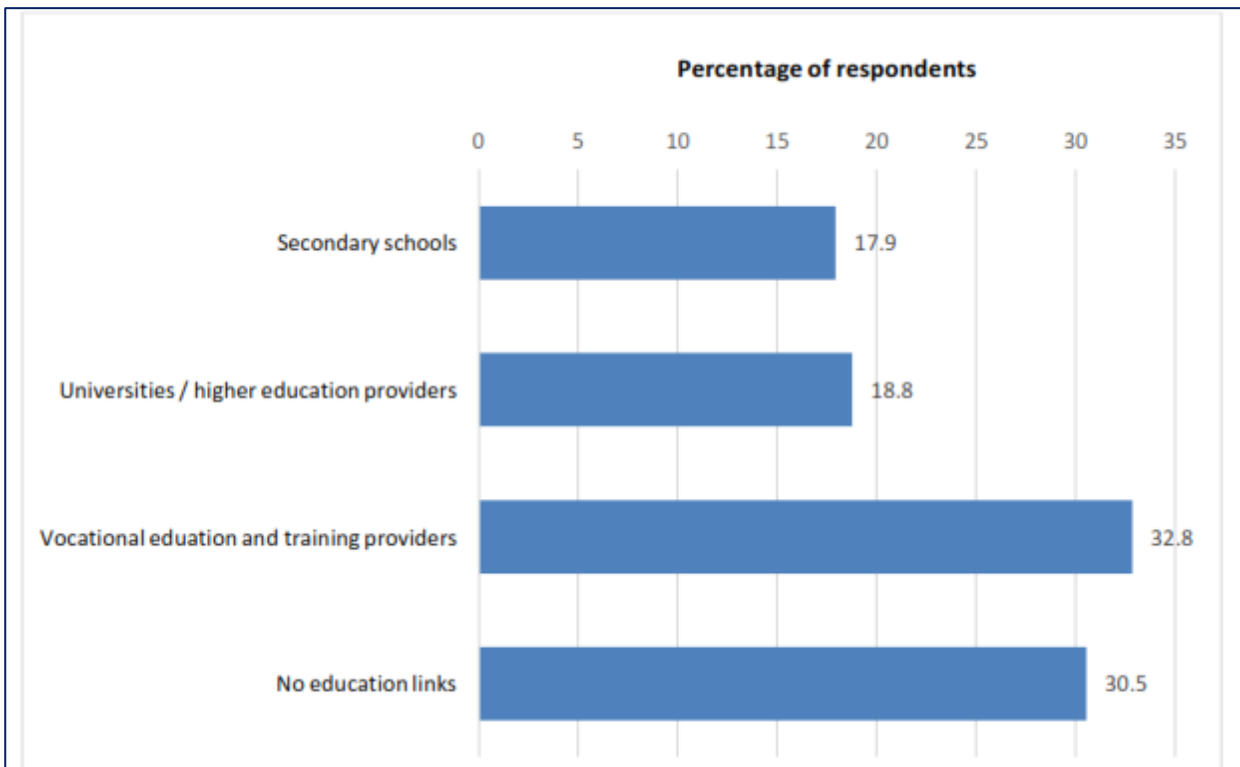
There has been a series of initiatives which indicate the importance of school – industry partnerships. The VET in Schools initiative and the introduction of school-based apprenticeships have long depended upon close collaboration between schools and industry. More recent initiatives such as the Trade Training Centres and the Pathways in Technology (P-TECH) program utilise similar approaches.

Recent experience from the Strengthening School – Industry STEM skills Partnerships project suggests that this is difficult to do. Schools seem to be relatively unskilled in the formation of mutually beneficial and enduring partnerships. The development of practical guidelines would be useful in this context.

Similarly, Ai Group survey research reveals a relatively low level of industry school links.

⁵⁰ Ithaca Group (2016) Everybody's Core Business - Research into the non-technical capabilities needed for successful participation in work or further study: Final Report, prepared for the Department of Education and Training.

Chart 8: Industry links with all education providers



Only 17.9 per cent of surveyed employers had links with secondary schools which was less than both VET providers and higher education providers. In terms of the nature of their links with schools, most employers reported that the provision of work experience (34.9 per cent) and work placements (33.2 per cent) was the predominant form of the relationship. Only 19 per cent of employers reported established, long term relationship with schools.

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