Averting an Escalating Labour Market Crisis for Young People in Australia: A Proposed National Job Cadet Program.

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with a Foreword by Innes Willox, CEO Australian Industry Group

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About us

The Mitchell Institute for Education and Health Policy at Victoria University is one of the country's leading education and health policy think tanks and trusted thought leaders. Our focus is on improving our education and health systems so more Australians can engage with and benefit from these services, supporting a healthier, fairer and more productive society.

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Foreword

The Australian Industry Group welcomes this very valuable contribution to policy from the Mitchell Institute. We are very supportive of this proposal and confident that industry would play its part in helping young people to get a foothold in the labour market, enabling them to apply and further develop their skills in the context of meaningful work.

The negative impacts of economic downturns are disproportionally borne by youth. This has happened in previous recessions and every indicator points to an even more concerning situation as a consequence of this COVID-19-triggered recession. This year's school leavers, and those graduating from vocational or university qualifications, are facing into the worst labour market since the great depression. Not only will they be competing for scarce jobs, they will also be competing against other displaced workers who have the benefit of previous skills and employment.

We know how this will play out if we do not intervene. We will watch our youth struggle to gain a foothold in the workforce and may well experience long term labour-scarring. Simultaneously, industries will not have the necessary pipeline of skills that will be required well into the future. Skill development aligned with employment will be a central strategy for our economic recovery. It will enable young people to undertake productive and engaged roles in order to better contribute to renewal and innovation in the workplace.

Without initiatives such as this Job Cadet plan there will be a further deepening of the serious crisis already being experienced in the youth labour market. The best way to help young people into work is to provide incentives to employers to create real jobs that develop their skills and lay the foundations for long term sustainable employment. Government support for the Job Cadet program will help prevent young people being the biggest economic casualties of the current pandemic-driven recession.

Mr Innes Willox

Chief Executive

The Australian Industry Group

Executive Summary

In this paper, we make the case for a *National Job Cadet Program* to avert an escalating labour market crisis for young people in Australia.

Since the global financial crisis (GFC), young people have been facing a particularly challenging labour market compared with other age groups, characterised by higher levels of unemployment and underemployment than in the previous decade and relative difficulty in obtaining jobs. The COVID-19 recession has escalated this problem. Both the National Skills Commission (2020) and the Productivity Commission (de Fontenay, Lampe, Nugent, & Jomini, 2020) have highlighted this problem earlier this year.

While the huge early impact of COVID-19 on the youth labour market has eased a little in recent months, there are reasons to believe that the problem will get worse again early in 2021. In this paper, we propose a policy intervention to support young people to get a combination of employment, and education and training that will help to insulate them from the likelihood of being badly scarred by what we expect to be an increasingly challenging period.

What is a cadetship?

There is a lot of evidence that shows combining an employment contract with formal education and training results in better employment outcomes (OECD, 2014, 2018). This can occur in many different ways and described by many different terms, including apprenticeships and traineeships.

We use the term cadetship because we think it best captures the program we are describing. Fundamentally, a cadetship combines formal training at post-secondary level with practical work experience that includes some form of paid employment. These cadetships are like apprenticeships and traineeships but broader and with more possible variations. The cadetships are also aimed at occupations with skill levels aligned to diploma level and above, whereas trade level occupations are predominantly aligned to certificate III and certificate IV. The final form of the cadetships depends on further discussion and may vary by state and territory. Ultimately, the aim is to build a program that better combines learning and workforce participation that meets the aims of employers and young people, and supports better labour market outcomes.

Youth unemployment and the problem of 'NEETs'

The employment of young people was hit hard by the onset of the pandemic, and the fall in the employment of 15-24 year olds in the period March to May was huge, because it impacted most on industries that employ a large number of young people. The number of young people

not in education, employment or training (NEET) increased by 120,000 in that period. This was a very alarming statistic.

This problem, while still severe, has eased somewhat in recent months as the early lock-downs have been relaxed in most jurisdictions, but as leading labour market economists Jeff Borland and Andrew Charlton have pointed out that:

> while the deterioration in young people's labour market conditions may have reversed somewhat, it is important to note that the stage of recession during which young people are most adversely affected has not arrived yet. In past recessions, the negative impact on young people comes progressively as cohorts ending their education seek to make the transition to work and find that – with lower rates of job creation – they are less likely to find employment. Hence, any short term recovery in employment of the young due to reopening of economic activity is likely to be followed by a second wave of impact as young people completing their full-time education struggle to find employment in a depressed labour market. (Borland & Charlton, 2020, pp. 308-309)

In particular, we expect the number of young people to be not in education, employment or training (NEET) is at risk of increasing significantly again from its already alarming level in the early months of 2021. Historical evidence suggests at the start of the year large numbers of young people typically come on to the labour market following the completion of their studies, whether that be school, vocational education and training (VET) or higher education.

Scarring

There is substantial evidence that when young people fail to gain employment for long periods it can have a 'scarring' effect on them, causing a depreciation of their skills and an impact on their self-confidence. This is one of the biggest risks associated with recessions, which have a disproportionate impact on young people who come onto the labour market during or shortly after the recession when job prospects are weak. This can cause serious long-term impacts on the trajectory of young people in the labour market and cause substantial fiscal and resource costs for the government and the economy at large, as well as social problems. Indeed, there is increasing evidence that shows 'scarring' effects are substantial (Borland, 2020).

Underutilisation of skills

Not only is it increasingly difficult for young people to find paid work but evidence shows that it is also increasingly challenging for young people who obtain qualifications to move readily into employment that takes full advantage of the knowledge and skills they developed during their studies. There is evidence that this problem is ameliorated in circumstances where young people gain relevant employment experience alongside their education and training.

Work-integrated learning

There are many existing examples of work-integrated learning, including apprenticeships, traineeships, nursing and teaching placements during study and medical internships etc. In VET, this is very common and in higher education, it is also significant, though in some areas more so than others. There is an extensive literature about work-integrated learning enabling students to move effectively into the world of work and to test whether they have chosen the right career path (OECD, 2014, 2018).

The OECD (2018) emphasises the importance of work-integrated learning being "systemic". While there is systemic approach to work-integrated learning in some occupations, there is considerable scope for making it more systemic in others. Indeed, for most young learners in tertiary education it is only a minor part of their experience, if at all, and in many cases the work experience component would benefit from better integration into formal teaching and learning. Especially at this time of a serious recession, when employers are even less likely to hire young people into skilled jobs, government needs to find ways to support young people to gain helpful work experience and to support employers to provide work experience and job opportunities for young people.

The National Job Cadet Program – An employer incentive combined with education and training

Like the apprenticeship system, a key feature of the proposed cadetships is that they would combine an employment contract with formal education and training. The Cadetships however, would substantially increase the range of occupations and industries in which such arrangements apply.

The apprenticeship system typically specifies a ratio of 80% work time and 20% formal education and training. This same ratio could apply to the cadetships, or they could be varied from that down to say 50% work time and 50% education and training, depending upon the nature of the work and the associated education and training.

Whatever the ratio it will be important for the appropriate wage to be paid as determined under the relevant award and agreements. In the apprenticeship system, there is an agreed training wage, which increases as the apprenticeship reaches completion. Similar arrangements could apply to cadetships under the proposed Stream 1 below.

Just like the apprenticeship system, the government would provide a financial incentive for employers to take on cadets. These incentives could vary depending on the labour market conditions that apply over time and across industries.

Table 1: Overview of National Job Cadet Program

	Stream 1: Expanded apprenticeship/traineeships system	Stream 2: Supported employment
Target jobseekers	Unskilled jobseekers or those with lower level qualifications.	Jobseekers with a completed qualification, or close to completed, at diploma level and above.
Mix of study and work	Mixture of at least 20% formal training and up to 80% work-based learning. Use of flexible resources to encourage greater work-integrated learning.	Shorter form courses, such as micro-credentials or graduate certificates, using flexible delivery modes.
Short-term benefit	Increased employment and creation of more pathways into highly skilled occupations and growing industries.	Increased employment and access to new pathways into highly skilled occupations and growing industries. Increased job readiness
Long-term benefit	Increased skills and extra professionalisation of workforce.	Increased productivity and practical skills of new employees.
Duration	1 to 4 years (similar to apprenticeships and traineeships)	6 months to 1 year.
Employer incentive details	Wage subsidy up to $28,000 per year per cadet (rate based on Supporting Apprentices and Trainees initiative)	Wage subsidy up to $14,700 per year per cadet (rate based on JobSeeker allowance, excluding the coronavirus supplement, for a single person with no dependents).

Stream 1 – Using the apprenticeship/traineeship system for a broader range of occupations

The proposed Stream 1 involves the extension of the apprenticeship/traineeship pathway into new occupational areas. It will be important for government and industry and education and training providers to work together to decide which industries and occupations to focus on. This could include industries and occupations where there is a clear demand for labour and some degree of skill shortages, despite the recession. Equally it could include industries where demand is weak at present, but where there is expected to be a strong growth in demand as

we recover from the recession (e.g. construction – beyond traditional trades, advanced manufacturing and the information technology sector). We have identified a wide range of potential occupational groups for the program.

Steam 2 – Supporting employment and customised training for already qualified candidates

Stream 2 would focus on supporting employers to hire new entrants into semi-skilled and skilled jobs who already have qualifications and/or experience that qualify them for the job, but where without a financial incentive and top-up co-created education and training (e.g. short course, micro-learning etc.) the employer would be unlikely to hire a young person.

Minimising substitution and deadweight loss

In evaluating which occupations and industries to choose and at what level to set the wage subsidy, care will need to be taken to minimise substitution and deadweight loss. Substitution is where hiring the cadet results in the employer choosing not to employ another worker who may already be qualified. Deadweight loss is where the cadet would have been hired anyway without the wage subsidy. It is impossible to avoid some substitution and some deadweight loss. Given the huge problem in the youth labour market, and the long-term impact of the current situation scarring the careers of young people, some degree of substitution and dead weight loss should be tolerated. The goal would be to keep this at a low level.

The expected benefits and the costs of the National Job Cadet Program

The OECD estimates the cost to the Australian Economy of the NEET problem is about 1 per cent of GDP or about $19 billion per year (OECD, 2016). This means that if we could reduce the number of young people not in employment education or training by 50,000 that would be worth about $2.2 billion per year.

The cost of the program combines the costs of employer incentives and the cost of education and training. For $2.2 billion that implies it would be worth spending up to $44,000 per young person to stop them being not in education employment or training. A maximum employee incentive envisaged is $26,000 per year, and there would be associated savings in the form of reduced youth allowance payments. This suggests that there is a strong potential for the benefits of this proposal to outweigh its costs.

Older Workers

This paper focuses on young people, because of their particular labour market challenges. This is not to deny that many older workers also face challenges, and there may be many more retrenchments, especially when JobKeeper payments cease. The ideas outlined in our stream two for young people, could be adapted to older workers, albeit with some modifications. The Mitchell Institute intends to publish a further paper on this subject.

The importance of federal-state and industry-union cooperation to implement the program

The implementation of the apprenticeship system involves substantial federal-state cooperation. While there is a national framework and national subsidy for the system, state governments and regulators are central to its implementation. We see the same being true of the national job cadet program.

State and territory governments need to work with employers, unions and their tertiary education and training providers to determine the industries and occupations in their jurisdictions, to bring them into the program and ensure their regulators make the necessary approvals.

Ideally, some of the co-created education and training would be joint higher education/VET products to suit the skill needs of the employers and their employees. It will be important for federal and state governments and their regulators to work with tertiary providers to make this work.

Just as there will need to be effective cooperation between federal and state government, there will also need to be effective cooperation between employers and unions, to ensure that appropriate employment and wage regulations are followed, for the mutual benefit of employers and employees.

Section One: Introduction

Key points

- Young people, and particularly those that are not studying, have been hardest hit by the coronavirus (COVID-19) pandemic. Of those 15 to 24 year olds who are not studying, there are 100,000 fewer in jobs than before the coronavirus.

- Of particular concern are young people who are not in employment, education or training (NEET). This category is an indicator of disengagement and is associated with poor long-term outcomes.

- In early 2021, a forecast 120,000 extra young people will become NEET and try to find employment in a weak labour market. This suggests a looming 'bottle-neck' effect where a queue forms behind waves of young people looking to enter the labour market when there are fewer jobs.

- The current crisis compounds pre-existing problems of deteriorating labour market outcomes for young people who have been subject to occupational 'scarring' and difficulty getting a foothold on the jobs ladder.

- To avert a looming crisis, Australia should invest in a National Job Cadet Program to help young people to enter growing industries and jobs.

- The National Job Cadet Program has two streams. The first stream is a pathway that uses the current apprenticeship and traineeship arrangements for a broader range of jobs that require more skills development. The second stream supports young people in non-apprenticeship/traineeship contracts to enter the labour market with targeted education and training.

- To support the program, the government should invest in employer incentives to encourage employers to hire young people and to offset the cost of the new hires.

Outline of the paper

This proposal outlines the National Job Cadetship over a number of sections. In Section Two, we outline the problem. This section describes the nature of the challenge and the need for action.

In Section Three, we look more closely at what a successful program looks like. We highlight the importance of 'additionality', and argue that the more a Job Cadet Program can get young people into jobs without displacing others, the more Australia should be willing to subsidise it. We also examine Australia's businesses and show that, with their involvement, we can help young people get the training and employment they need to set themselves up for a successful career.

In Section Four, we outline the features of the proposed National Job Cadet Program. We explain how the program might work and outline how Australia can leverage off existing infrastructure to implement the program.

In Section Five, we analyse the expected costs and the benefits and argue that there is a very strong case for substantial government investment.

Finally, in Section Six we present a summary and our conclusions. We argue that the National Job Cadet Program will leave a legacy beyond the shorter-term response to the coronavirus pandemic. The National Job Cadet Program will help strengthen pathways to higher-level occupations and growing industries. This partnership model with industry has closer alignment to the German system of vocational training, which has proven to be effective in raising the employment outcomes of young people.

Section Two: The problem

What has happened?

The labour market conditions for young people have deteriorated significantly since the start of the coronavirus pandemic. It is also likely that the worst aspects of the crisis on the youth labour market lie ahead. As Borland and Charlton (2020, pp. 308-309) write, "while the deterioration in young people's labour market conditions may have reversed somewhat, it is important to note that the stage of recession during which young people are most adversely affected has not arrived yet."

The initial employment shock was unprecedented. Between March 2020 and May 2020, total youth employment decreased by 330,000. While there was a rebound to July 2020, this recovery plateaued between July and August. In August 2020, there were approximately 186,000 fewer young people in employment than in March 2020 (ABS, 2020b).[1]

As the National Skills Commission shows, young people have borne a disproportionate share of the employment losses:

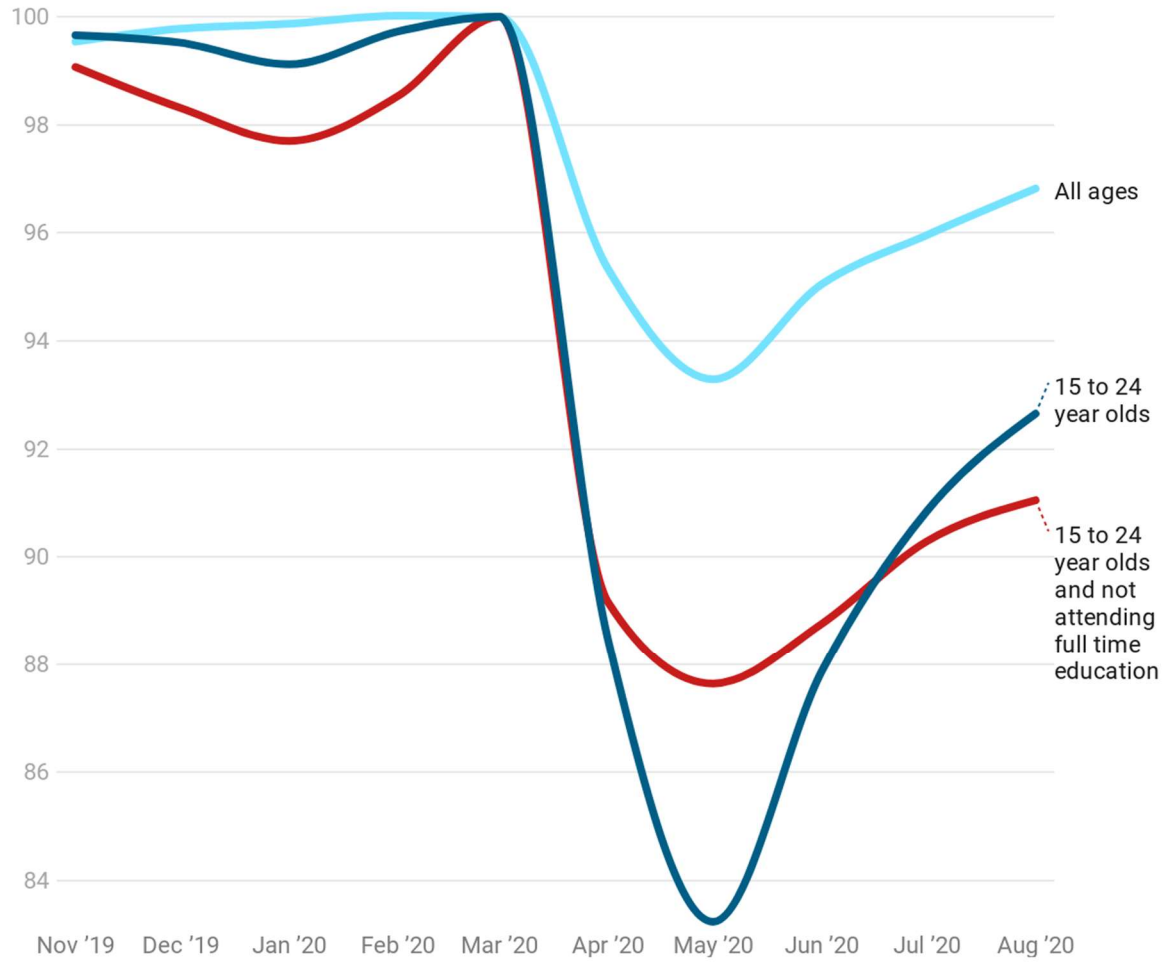
> The impact of COVID-19 on young people has been unprecedented... Young people accounted for around 45 per cent of the total decline in employment in May, despite comprising just 16 per cent of the population. As a consequence, the youth employment to population ratio fell by 9.9 percentage points between March and May, to 50.5 per cent, its lowest rate since the inception of the monthly ABS Labour Force Survey in February 1978.(National Skills Commission, 2020, p. 15)

Data from the Australian Bureau of Statistics (ABS) Labour Force Survey shows the employment challenges facing young people, and particularly those moving from education to the workforce.

Figure 1 shows the changes in total employment since the start of the pandemic, where the size of total employment in March 2020 equals 100. This figure shows three categories. The first is total employment for 15 to 24 year olds, which includes all young people such as those at school, or university, or those not attending education institutions. The second total employment for 15 to 24 year olds who are not studying full time. This category is the group most likely to be making the transition from education to the workforce. It will include school leavers, and graduates from VET and higher education courses. The third category is total employment for all Australians regardless of age.

[1] The total employment figures discussed here have not been seasonally adjusted, and refer to data from ABS series ID A84433496F.

Figure 1: Index of total employment by age group (March 2020 = 100)



Source: (ABS, 2020b). Data have been seasonally adjusted. 15 to 24 year old data seasonally adjusted using SEATS method.

The above figure shows that the loss of jobs has been much greater for young people compared to the average. There has been a recovery since May 2020 in total employment across all categories shown in this figure. However, 15 to 25 year olds who are not attending full-time education have had the weakest recovery. This suggests that young people who are making the transition from education to the workforce continue to be some of the hardest hit by the coronavirus pandemic.

Compounding the unprecedented problems facing young people are pre-existing issues of occupational 'scarring'. Occupational 'scarring' describes the negative impacts on an individual's career trajectory caused by economic shocks.

What is occupational 'scarring'?

Occupational scarring occurs "when an adverse experience for a worker – associated with macroeconomic conditions - has negative long-term impacts on their labour market outcomes" (Borland, 2020). For instance, if young people try to enter the labour market during a recession, fewer opportunities would mean they would have to take lower level jobs or part-time work.

This phenomenon demonstrates how the consequences of economic downturns can stretch long after the labour market has recovered. Numerous reports have noted that even though the global financial crisis (GFC) did not cause a recession in Australia, it had substantial and long lasting impacts on the employment outcomes of young people (Andrews, Deutscher, Hambur, & Hansell, 2020; de Fontenay et al., 2020; Stanwick, Forrest, & Skujins, 2017). Scarring effects can also cause a depreciation of skills and affect an individual's self-confidence.

A recent Australian Treasury report also highlighted the deterioration in the labour market outcomes of young people. This report analysed the effects of labour market conditions at graduation on an individual’s work-life over the following decade. The report found that those graduating into a state and year with a 5 percentage point higher youth unemployment rate can expect to earn roughly 8 per cent less in their first year of work and 3½ per cent less after five years (Andrews et al., 2020).

Australia's young people consequently face two major labour market challenges. One is a reduction in the quantity of employment (total employment) and the other is a reduction in the quality of employment (such as skills underutilisation and underemployment).

What does it mean to climb a 'jobs ladder' slower?

An individual's occupational status can change over their career. Once in the labour market, many individuals will move up the 'jobs ladder' acquiring positions that have greater prestige and pay higher wages (McMillan, Beavis, & Jones, 2009).

A recent Productivity Commissions report shows that, since the GFC, young people were increasingly graduating onto lower levels of the 'jobs ladder' (de Fontenay et al., 2020). There were fewer and poorer employment opportunities at the time of graduation meaning young people ended up employed in jobs below their skill level, working part-time and experiencing slower wage growth when compared to other age groups.

This shows it is taking longer for young people to reach the same occupational level as previous generations, and it is getting harder to get a foothold in growing industries.

The red flag of NEET

Education researchers and policymakers often focus on a category known as 'NEET' when analysing school-to-work transitions. NEET stands for *not in employment, education or training* and is an indicator of disengagement.

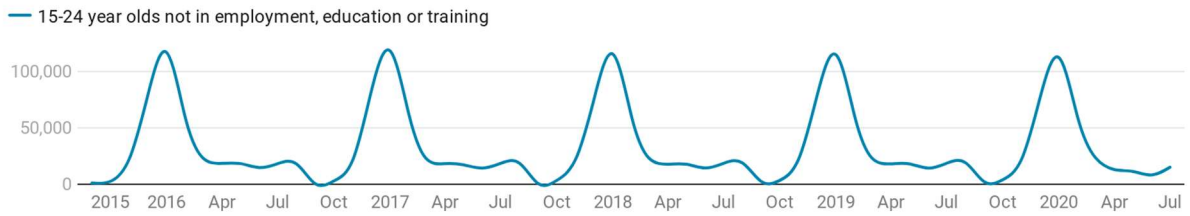
NEET is of particular interest as a category because it is the red flag of school-to-work pathways. These school-to-work pathways are important because they set young people on the trajectory they will follow in later life.

Those who are persistently NEET, defined as longer than six months 'not in employment, education or training', have poorer outcomes when compared to other parts of the population. There is an association with being NEET at a young age and experiencing higher rates of long-term unemployment, underemployment, and a lifetime engagement with the workforce characterised by insecure work. People who are persistently NEET at a young age also record higher lifetime incidences of health problems and welfare dependence (Powell, Salignac, Meltzer, Muir, & Weier, 2018; Stanwick et al., 2017).

Without viable pathways, young people can end up NEET when they transition from education to the workforce. Indeed, research has shown that previous economic downturns had significant impacts on the number of young people who are NEET, as the reduction in pathways mean there are fewer opportunities to enter the workforce (Stanwick et al., 2017).

There is also a very strong seasonal aspect to NEET. This is particularly true following completion of secondary school and university. Figure 2, derived from the ABS Labour Force survey (ABS, 2020c), shows the seasonality of NEET across various months where September is the base month with the lowest number of young people who are NEET (ABS, 2020b).

Figure 2: Seasonality of young people not in employment, education or training



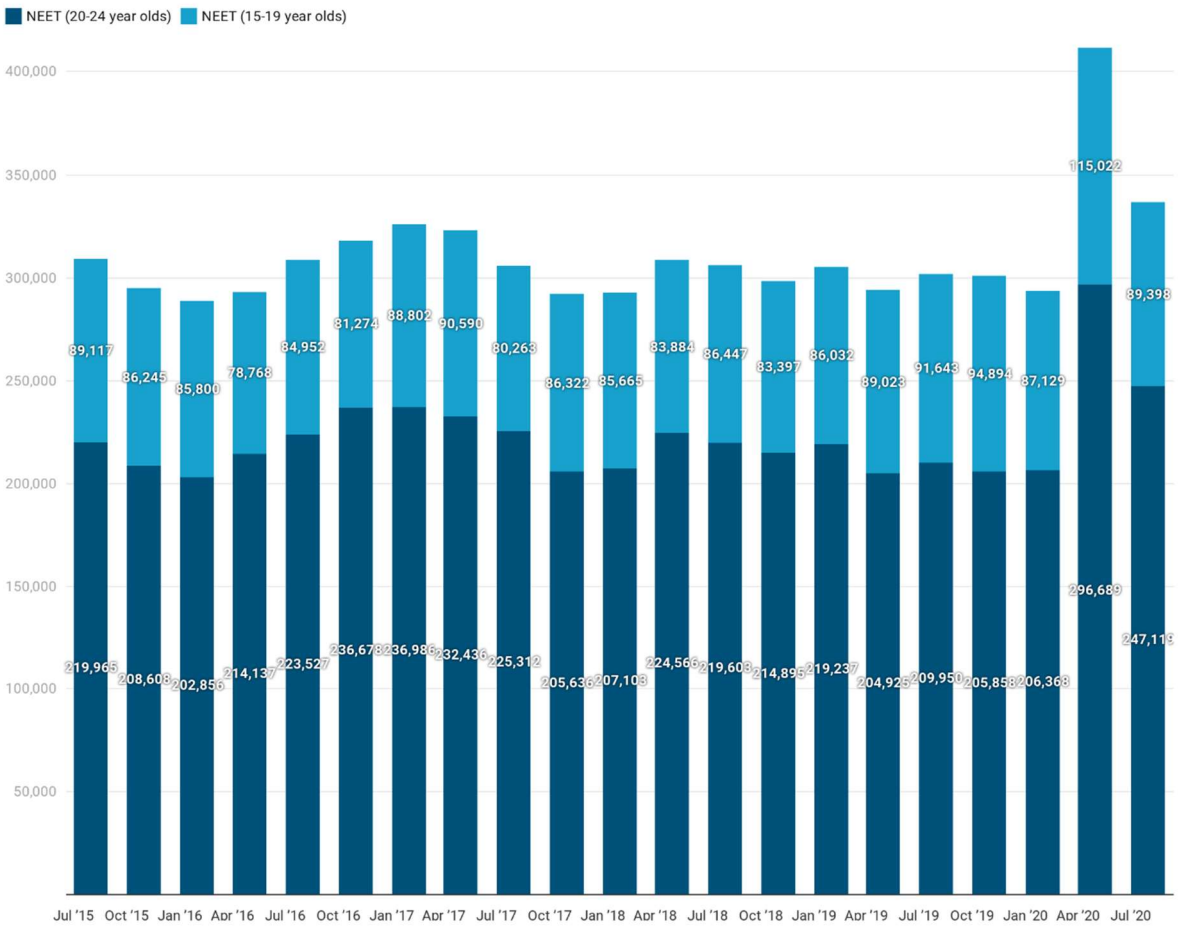
Source: Mitchell Institute analysis of ABS (2020b) data.

This figure shows the number of young people who meet the definition for NEET peaks in December and January before falling as graduating cohorts enter new jobs or enrol in further

study. The seasonality of NEET means there are usually about 120,000 extra young people who are NEET at the start of the year when compared to September.

However, the coronavirus pandemic has caused a major disruption in what would normally occur. Figure 3 shows the overall number of NEETs since 2015, split into two age groups, 15-19 year olds and 20-24 year olds.[2]

Figure 3: 15-24 years who are not in employment, education or training (NEET), 2015-2020



Source: Mitchell Institute analysis of ABS (2020d). Data have been seasonally adjusted.

This figure shows that at the start of the pandemic, approximately 120,000 extra young people became NEET than would normally be the case. The most recent data shows there has been a reduction in the number of NEET. However, it is important to situate these movements within a wider context.

[2] This ABS series captures individuals studying part-time whereas some other ABS data do not. This may result in differences in the reported number of NEET.

The labour force data suggests that the labour market remains weak for young people. Between May and August 2020, the total employment for 15 to 24 year olds who are not attending an education institution increased by only 7,800 (ABS, 2020b).[3]

However, there has been a much larger change in the educational status of 15 to 24 year olds. Table 2 below shows the number of 15 to 24 year olds who are not studying in August in each year from 2017 to 2020.

Table 2: Number of 15 to 24 year olds not attending an education institution

Date	Number of 15 to 24 year olds not attending an education institution	Year on year change
Aug-2017	1,212,100	
Aug-2018	1,215,500	3,400
Aug-2019	1,208,300	-7,200
Aug-2020	1,158,100	-50,200

Source: (ABS, 2020b). Note: Data have not been seasonally adjusted.

This table shows that in August 2020 there were 50,200 fewer 15 to 24 year olds not attending an education institution than at the same time in 2019. This suggest that a significant proportion of the decrease in NEET that has recently been recorded is from young people either staying engaged in education or choosing to enrol at an education institution. This supports other observations that during an economic downturn, education is an attractive option because there are fewer opportunities to enter or progress in the labour market. For instance, Karmel and Oliver (2011) note that in the aftermath of the GFC, apprenticeship completion rates went up as more apprentices chose to stay connected with their employer.

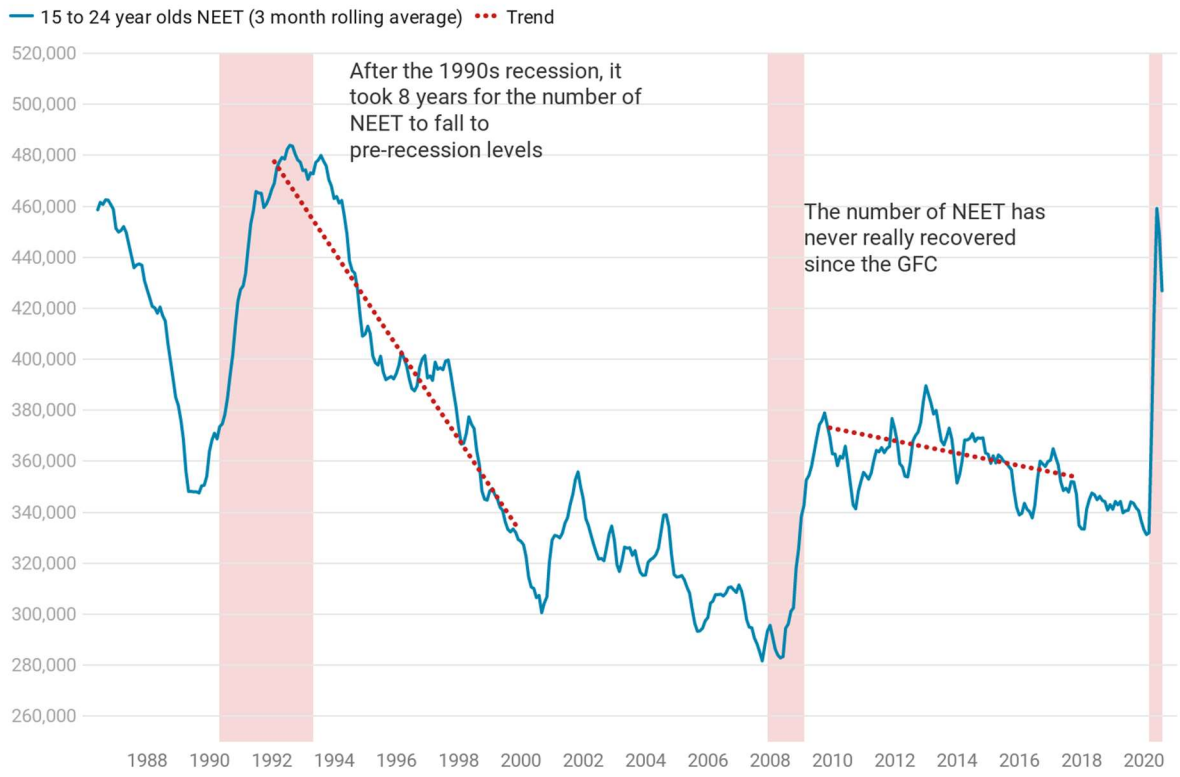
This is important to understand in the context of different stages of a recession. Australia is currently experiencing the early economic impact of the coronavirus pandemic. As Borland and Charlton (2020) note, based on previous recessions, the most negative effects on young people will come "progressively as cohorts ending their education seek to make the transition to work and find that – with lower rates of job creation – they are less likely to find employment" (Borland & Charlton, 2020, p. 309).

Indeed, data from previous economic downturns show how the negative impacts on youth unemployment can linger long after an economic downturn has passed.

[3] This figure has not been seasonally adjusted and refers to data from ABS series ID A85092098C.

Figure 4 shows the historical incidence of 15 to 24 year olds who have been NEET since 1986, using a three-month rolling average. Highlighted in red are the economic downturns caused by the 1990s recessions, the GFC and the coronavirus pandemic.

Figure 4: Number of young people identified as NEET, 1986-2020 (economic downturns are highlighted in red)



Source: Mitchell Institute analysis of ABS (2020b) data. Data have been seasonally adjusted.
Note: The definition of NEET can include young people who are studying part-time and this time series from the ABS does not include young people who are studying part-time.

The above figure shows that the number of young people who are NEET rises sharply during an economic downturn and lingers long after the economic downturn has finished. In the 1990s, it took approximately seven years for the number of young people who are NEET to return to pre-recessions levels. After the GFC, the number of young people who are NEET never returned to pre-economic downturn levels.

This figure also suggests that Australia may need to tackle the problem of a 'bottle-neck' forming in the youth labour market. This is when waves of young people attempt to transition from the education system into the labour force, as shown in Figure 2. However, when there are fewer available jobs, young people are unable to find employment and a 'queue' forms. This queue manifests itself in higher incidences of NEET that, as Figure 4 shows, can take some time to dissipate.

What does data tell us about possible labour market interventions?

Labour force data helps clarify the policy response needed to meet the challenge of deteriorating employment outcomes for young people.

Figure 5 shows the total employment for young people who are not studying using data from the past years. This figure also shows the difference between the average total employment for the same group over the past five years (approximately 930,000) and levels of employment since the pandemic began.

Figure 5: Total employment for 15 to 24 year olds who are not studying

Source: Mitchell Institute analysis of ABS (2020d) data. Data have been seasonally adjusted using SEATS method.

Since the coronavirus, the total number of employed 15 to 24 year olds who are not studying has decreased by approximately 100,000.

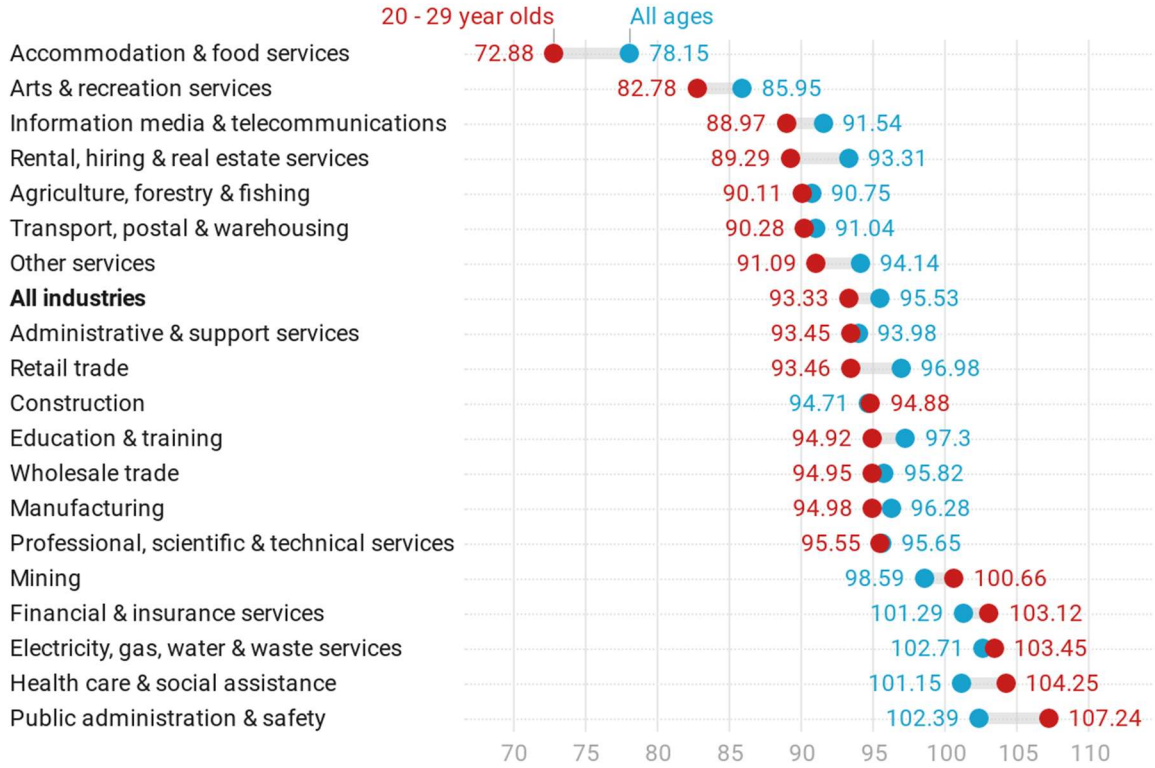
Total employment, however, is only one part of the challenge and relates primarily to the quantity side of the problem. There is a need to explore the quality side of deteriorating labour

market outcomes for young people. To do this, it is important to understand the role of different industries and occupations.

Generally speaking, younger people are more likely to be working in industries such as accommodation & food services, and retail trade. These industries have been hard hit by the coronavirus.

Figure 6 compares the loss in jobs by industry for young people (20-29 year olds[4]) and for individuals of all ages since the start of the coronavirus pandemic. The data displayed here relates to payroll data reported in the week ending September 5th 2020.

Figure 6: Index of changes in payroll jobs since start of coronavirus by industry (March 14th 2020 = 100)



Source: ABS (2020a).

This figure shows that more young people have lost their jobs than average in the majority of industries.

[4] This ABS series does not use the 15-24 year olds age category and instead this figure uses the age group of 20-29 year olds to understand the impact of the coronavirus pandemic on young people.

This is important to understand in the context of different jobs available to young people who are studying versus jobs available to young people attempting to enter the workforce after completion of their study. While many young people are working in accommodation & food services and in retail trade, many of these young people are students. Indeed, according to the ABS census data (2016) over 57% of young people who are both employed and studying, work in the two industries of accommodation & food services, and retail trade. By comparison, only 30% of employed people who are employed but are no longer students work in accommodation & food services, and retail trade.

This matters because a major concern relating to young people is not that they might not be able to get a part-time job while studying, but that they may not be able to get a job when they complete study. Consequently, it is the labour market conditions for young people in industries other than accommodation & food services and in retail trade that are of most concern.

Figure 6 suggests that the problems young people are facing because of coronavirus do not relate only to retail and hospitality. Indeed, this figure helps illustrate the widespread nature of the labour market problems facing young people across many industries.

In terms of a policy response, the above labour market data and the recent research into youth employment outcomes suggest that a successful labour market intervention will have two main characteristics.

The first is an increase in the available jobs for 15 to 24 year olds. This will stimulate demand for young people in the labour market and increase the quantity of available jobs.

The second is the creation of opportunities for young people to get a better foothold on the 'jobs ladder'. This will help reverse the gradual deterioration in labour market outcomes that recent Productivity Commission and Australian Treasury reports highlight (Andrews et al., 2020; de Fontenay et al., 2020) and increase the overall quality of jobs that young people acquire.

Section Three: Building an effective response

Creating extra jobs and pathways

One of the unique challenges of any labour market intervention is creating extra employment and new pathways. This is because a policy needs to add to what already exists, instead of simply replacing something or using public funds to support something that would have happened anyway.

Creating extra jobs is known as 'additionality' and using public funds in a way that does not replace what is already there is referred to as avoiding 'deadweight' loss.

They are two important terms to consider when designing any labour market program, and when measuring its effectiveness.

What is 'additionality' and 'deadweight loss'?

'Additionality' is a term used to describe the net impact of a project or policy. It is used to understand the extent that something adds to the value of what already exists. Ultimately, something that is additional results in a greater aggregate. In the case of labour market policies, this often means understanding whether any intervention creates extra employment.

The related term 'deadweight loss' refers to a cost caused by an inefficient allocation of resources. In terms of labour market policies, 'deadweight loss' can refer to whether a subsidy or support simply replaces what would have happened anyway (Borland, 2016). For example, if governments provide a payment to an employer to cover the cost of hiring an employee, but the employer would have hired the employee anyway, this can be termed a 'deadweight loss'.

Overall, it is likely that no policy would achieve full 'additionality' or avoid all deadweight loss. It is also very difficult to measure both 'additionality' and deadweight loss. However, it is possible to understand which policy approaches are likely to be more successful.

Other aspects of a National Job Cadet Program also represent worthwhile investments. For instance, providing young people with experience in certain industries and jobs will help them get a foothold in the labour market. Such an intervention would improve the quality of employment outcomes for young people but may have less of an impact on aggregate employment.

When outlining the National Job Cadet Program we will discuss how the proposal represents a good public investment and how features of the program mitigate risks associated with 'additionality' and 'deadweight loss'.

Before doing so, it is important to understand aspects of the labour market and businesses involved in a National Job Cadet Program. This is so the program can better target gaps and areas with the most likelihood of success.

Work-integrated learning

Work integrated learning refers to educational activities that integrate academic learning of a discipline with its practical application in the workplace. Work integrated learning usually occurs as part of a formal education and training program, and can attract 'credit' towards meeting the requirements of a course. The Federal Government's Job Ready Graduates Program, currently being debated, includes a provision to allow some of the government's funding support for universities to be applied to some work placements of this kind.

The OECD has identified quality work-integrated learning with "strong connections between education institutions and employers" as one of the key lessons from the GFC that will help improve school-to-work transitions (Schoon & Mann, 2020). The OECD identifies that:

> Especially attractive are degree apprenticeships that are developed by employers, universities and professional bodies, and attract high calibre school leavers. More generally, programmes rich in work-based learning give young people the experience, contacts and confidence they need to succeed in tight labour markets.
>
> Post-coronavirus, education systems will have to overcome the likely challenges in engaging employers to deliver work-based learning in a world defined by social distancing. It will be essential to overcome barriers to ensure that young people gain authentic experiences of work as they develop the knowledge and skills demanded by the labour market. (Schoon & Mann, 2020)

Alongside work-integrated learning, 'learning-integrated work' is also an interesting concept to consider. By learning-integrated work, we are referring to a situation where an employee has already gained skills though education and training and/or work experience and is therefore 'qualified' to take on a skilled job, but when they do so, they continue to receive top-ups to their education and training, through short courses, additional certificates/diplomas etc.

In the case of new graduates of vocational or higher education courses, we consider that their job prospects in this current challenging environment would be enhanced both by financial incentives for employers to hire them, coupled with co-designed education and training to enhance and accelerate their employability.

We recognise that such learning opportunities could also be helpful to groups such as retrenched workers or others displaced by coronavirus, who may be mature aged workers, though the learning needed to support "job changers" are likely to be different. This issue warrants further investigation and the Mitchell Institute intends to explore this area in more detail in an upcoming paper.

Pathways into areas of growth

One of the most important considerations of a National Job Cadet Program is the 'jobs' the program supports. The type of jobs the program helps young people access will greatly influence the program's overall success.

The jobs need to be in areas where there is forecast growth and in occupations that have been increasingly out of reach for young people. These jobs are in 'higher-level' occupations such as those with a skill level aligned to a post-secondary qualification.

Further consideration needs to be given to avoiding the duplication of existing pathways. For instance, occupations with a pre-existing apprenticeship or traineeship pathway may not lend themselves to this program because it would replicate something that is already there.

Proposed criteria for inclusion in the National Job Cadet Program appear in more detail in Table 3 below.

Table 3: Criteria for occupations that are suitable for a National Job Cadet Program

Criteria	Overview
Areas of growth	Young people have a lifetime in the labour force ahead of them. Providing access to occupations that we know are in areas of future growth mean that any investment will have longer-term benefits.
'Higher level' occupations	There are over 1,000 different jobs according to the ABS classification of occupations (ANZSCO). Not all of these are suitable for a National Job Cadet Program. Jobs that need more skills development represent better investments because supported pathways can help facilitate employment and overcome barriers that may exist between employers and potential employees. Usually these jobs require a post-secondary qualification such as a diploma or bachelor's degree.
Where fewer supported pathways into a job exist	Many programs already support entry into jobs. Apprenticeships are a prominent example. These programs are well established and often are connected to industrial relations instruments. Occupations where there are not established programs represent a better investment because a National Job Cadet Program will help create new pathways.

Jobs with fewer regulatory and licencing requirements	Many jobs need a licence to work in them, for example the roles of doctors and nurses in the health professions'. Occupations where regulatory requirements do not preclude cadets gaining experience, or where there are fewer occupational licensing regimes, are better suited to a National Job Cadet Program.

Ultimately, an aim of the program is to target occupations where Australia's education and employment system has gaps in providing effective pathways into employment.

The Federal Department of Employment releases forecasts on five-year occupational growth. The Mitchell Institute has analysed these occupations to determine those that are most suitable for a National Job Cadet Program. We have selected occupations that require a post-secondary qualification, that have high levels of forecast growth, and where there are fewer pre-existing regulatory requirements.

These occupations are listed in Appendix 1.

Case study: Management and organisation analysts

Management and organisational analysts assist organisations to achieve greater efficiency and solve organisational problems, and study organisational structures, methods, systems and procedures (ABS, 2009). In 2019, there were approximately 83,000 Management and organisation analysts employed in the workforce. The Australian Government forecasts a need for a further 20,500 Management and organisational analysts by 2024, or a 25% increase (Department of Jobs and Small Business, 2019).

Management and organisational analysts work across a range of industries. This is because the work they undertake assists businesses to increase their productivity regardless of the industry or business speciality.

The management and organisation analyst occupation is suitable for the job cadet program because:

- There is forecast demand for management and organisation analysts.
- Cadets are less likely to displace trained workers because they do not already possess the skills necessary to undertake the job.
- Industry will benefit from the expertise that cadets will bring.
- It is an occupation where it is possible to adapt existing resources and courses to a structured training program embedded in industry.

Engaging industry

A central feature of the National Job Cadet Program is that it involves employers and employment in the education and training delivery. The apprenticeship and traineeship model has shown the success of linking education and training to employer/employee relationships.

Industry is vital in the success of any program that has a workplace focus, so it is important to understand Australian businesses.

We think that, in the first instance, medium to large enterprises are the best sites for a National Job Cadet program. This is because the size of their operations mean they are more able to provide supervision and work in suitable occupations.

Once the program is established, it will be possible to extend the program to smaller enterprises.

In 2019, Australia had almost 55,000 medium sized businesses (20 to 200 employees) and over 4,000 large businesses (more than 200 employees). Together, medium and large business employed almost 6.7 million Australians (ABS, 2020c).

If these businesses employed just an extra 1% of their workforce as cadets, this would result in 67,000 extra employed positions for young people. Considering the scope of jobs outlined in Appendix 1 this seems like a viable proposition. Indeed, with an extra 67,000 cadet positions Australia would go a long way to meeting the challenge of the newly NEET caused by the coronavirus.

Australian industry varies by region, and it is important to understand these local variations. For instance, agriculture is often the largest employer in rural areas and the health industry is likely to grow the most in many regional areas.

Case study: Regional Victoria

Employment data show that across eight areas in regional Victoria, there are about 2,835 medium sized employers and 108 large employers, with over 2,900 companies having a turnover in excess of $5 million. The biggest employing industries are health, agriculture and retail trade.

Region (SA4)	Number of businesses			Industries with largest number of employees		
	Medium	Large	> $5 million turnover	Largest	2nd Largest	3rd Largest
Ballarat	317	9	327	Health Care and Social Assistance	Retail Trade	Education and Training
Bendigo	304	12	262	Health Care and Social Assistance	Retail Trade	Education and Training
Geelong	578	21	558	Health Care and Social Assistance	Retail Trade	Construction
Hume	317	9	297	Health Care and Social Assistance	Retail Trade	Manufacturing
Latrobe – Gippsland	434	21	465	Health Care and Social Assistance	Retail Trade	Construction
North West	328	18	380	Agriculture, Forestry and Fishing	Health Care and Social Assistance	Retail Trade
Shepparton	267	6	316	Health Care and Social Assistance	Agriculture, Forestry and Fishing	Manufacturing
Warrnambool and South West	290	12	261	Agriculture, Forestry and Fishing	Health Care and Social Assistance	Retail Trade

ABS (2020b) data shows that there are an extra 9,000 15 to 24 year olds in regional Victoria who are either unemployed or not in the labour force in August 2020 compared to August 2019. A National Job Cadet program focused on existing employers using occupations that help their businesses grow would ensure a targeted program in a way that meets the needs of all stakeholders. For regional Victoria that may mean a greater focus on supporting businesses in the health and agriculture industries to hire young people.

Even a program that managed to provide only a fraction of the jobs required to employ young people displaced by the coronavirus would alleviate problems in the wider employment market. This is because new employment would create new pathways into growing industries for some young people while at the same time freeing up further positions in the labour market for other young people.

Section Four: The National Job Cadet Program

National Job Cadet Program

Like the apprenticeship system, a key feature of the proposed cadetship program is that it combines an employment contract with formal education and training. The cadetships, however, would substantially increase the range of occupations and industries in which such arrangements apply.

There are two streams to the program. The first more closely aligns to a 'higher apprenticeship' model. In this stream, there is effectively a three-way relationship between an employee, an employer and a third party such as a state/territory apprenticeship board. As part of this arrangement, certain provisions outlined in industrial instruments, such as training wages, may be applicable.

The second stream more closely aligns to a traditional employer and employee relationship. This stream involves a subsidy to an employer to employ an individual along with the provision of wraparound support in the form of education and training.

Each of these streams have different characteristics and requirements. Each stream also warrants different levels of investment. Consequently, these streams are discussed separately below.

It is also important to note that these streams complement or improve existing pathways into the workforce, and are not intended to create mandatory or licensed pathways into occupations.

National Job Cadet Program	
Stream 1	**Stream 2**
• Extension of apprenticeship/traineeship into new occupational areas. • An employer and employee relationship paired with a formal training contract. • Use of apprenticeship/traineeship provisions in relevant awards. • Longer form program of one to four years. • Courses at AQF level 5 to 7 (diploma to bachelor's degree). • Targeted at unskilled individuals, or those who hold different skills from the ones required in the designated occupations.	• Supported employment in areas of growth. • Standard employer/employee relationship with scaffolded support from education providers. • Shorter form program of between 6 months and 1 year. • Courses aligned at micro-credential or graduate certificate level. • Targeted at individuals with some training or experience who may need further support to enter the labour market.

Stream 1: Using the platform of the apprenticeship/traineeship system for a broader range of occupations

According to NCVER (2019b, p. 11):

> an apprenticeship is a law-regulated system of training that combines on-the-job training and work experience gained while in paid employment with formal training (usually off the job). It involves a contract of training or training agreement between the apprentice and the employer that specifies obligations on both parties. Legislation and administration for apprentices and trainees fall constitutionally under state and territory powers. Historically, Australian apprenticeships were in traditional trade occupations and were typically of four years' duration, but possibly shorter.

Our proposal is to extend the apprenticeship/traineeship pathway into new occupational areas. These areas can be drawn from broad occupational groups as identified in Appendix 1.

There are three major aspects of this stream, which pose different challenges. These are areas relating to employment, governance frameworks and education and training, and their challenges are summarised in the below table.

Table 4: Overview of Stream 1

Stream 1: Higher apprenticeship/traineeship pathway		
Employment (on-the-job training)	**Governance framework**	**Formal training**
Policy challenges		
• Lack of demand for new employees. • Avoiding substitution effect, deadweight loss and displacement effect.	• Complicated and pre-existing state and federal regulatory requirements. • 'Framework and structure to administer program effectively is needed'.	• Lack of previous exposure in HE sector to apprenticeship system. • Current course structures preferences traditional on-campus modes of delivery.
Policy responses		
• Extend wage-subsidy program to encourage uptake of new employees. • Extend occupational quotas in procurement guidelines/requirements to include higher-level apprentices.	• Use existing state and territory governance framework and extend to include new occupations/qualifications. • Use existing architecture to manage program, such as the Apprenticeship Network and Group	• Adapt HE/VET qualifications to deliver in flexible modes. Implementation support from the proposed National Priorities and Industry Linkage Fund (NPILF).

• Design program to ensure wage subsidy targets 'additionality'.	Training Organisations (GTOs).	• Utilise existing wraparound support at provider level (careers counselling, student group support, etc.) and create services to manage matching of students to employers.

It is important to note that while Stream 1 proposes the use of the platform of the apprenticeship and traineeship system, it would be adapted as appropriate. For example, we do not envisage a cadetship as a mandatory pathway into occupational groups, or there being any occupational licensing involved.

In terms of employment challenges, the National Job Cadetship Program should stimulate extra demand for jobs. This is so that there are additional employment opportunities that increase the quantity of aggregate employment.

We believe that targeting occupational areas that require higher levels of skill will help mitigate issues relating to 'additionality', substitution effect and deadweight loss. This is for two reasons.

The first is that these occupations are not in areas where there are currently large apprenticeship/traineeship pathways. This means that any program of support will not be replacing something that is already there. Second, by targeting areas that require more skills, programs that incentivise the hiring of unskilled workers are less likely to displace the current stock of skilled workers.

Other measures that can help with 'additionality' include extending quotas in large-scale government procurement programs. For instance, currently many state governments require companies who successfully tender for government construction projects to hire a certain number of apprentices. Extending these requirements into non-trade areas will assist in creating demand in new occupational areas.

In terms of governance frameworks, both federal and state/territory governments perform regulatory and oversight functions. The Australian Government has responsibility for the Australian Apprenticeship Support Network (AASN). The Australian Government also has oversight for aspects of the VET system that determine the course standards for the education component of apprenticeships/traineeships.

State/territory governments play an important role in determining what counts as an apprenticeship or traineeship. State/territory governments nominate what qualifications count as part of an approved training scheme, the nominal duration of an apprenticeship and traineeship as well probationary periods. In designating certain qualifications as

apprenticeships and traineeships, state and territory governments allow the application of provisions relating to apprenticeships and traineeships in relevant industrial instrument. Consequently, the designation of certain qualifications/occupations as apprenticeships and traineeships by state and territory governments is very important to the success of the National Job Cadet Program.

While there is a convention of designating qualifications from the vocational education and training (VET) sector as apprenticeships/traineeships, approved qualifications can come from either the higher education or the VET sector. States and territories are also able to select qualifications/occupations that are appropriate to their workforce needs and policy objectives. This means there is considerable flexibility in a National Job Cadet Program for states and territories to design cadetships according to their needs and regulatory environments.

In terms of formal training, it is important to consider how the education system can best support a program that embeds learning and assessment in the workplace. VET does have advantages in this regard, because it utilises a competency-based training framework that more directly specifies tasks and occupational performance in competency standards. Higher education, however, may be more suitable for the delivery of certain theoretical bodies of knowledge aligned to higher-level occupations. Indeed, it is possible to adapt higher education qualifications, particularly at associate degree level, for the purposes of a National Job Cadet Program.

Designing customised programs that facilitate workplace learning and align with stages of an individual's employment may be the best option for the National Job Cadet Program. Governments can fund the development of these resources, which education providers can access and adapt. A tailored set of resources are beneficial in that they:

- Guarantee quality assurance of the process
- Enable input from stakeholders such as industry and unions
- Ensure consistency and best practice delivery
- Harness the strengths of subject matter experts to embed training and assessments into workplace delivery
- Overcome unequal access to course development
- Assist employees and employers to understand their role and adapt to the cadetship.

These resources can be developed along the broad occupational areas outlined in Appendix 1. For instance, this could include developing a set of resources focusing on business fields with certain sub-specialities. Providers can then adapt these resources to their areas of need.

Currently in the post-secondary sector, providers generally create teaching, learning and assessment materials. This arrangement could continue for a National Job Cadet Program. However, the benefit of centralised and customised development of resources is that they will ensure the formal education and training component of the program can guide both employers

and employees through the cadetship, while at the same time ensuring the delivery of high quality skills and knowledge in the workplace.

Stream 2: Supported employment cadetships

The second stream of the National Job Cadetship Program focuses on supporting employers to hire new entrants into the workforce, or individuals seeking to enter a new industry or occupation.

The targeted groups include recent graduates of VET and higher education, school leavers, and young people displaced by the coronavirus.

This stream will assist employers and employees in the early stages of employment and combines employment with targeted education and training.

Unlike Stream 1, Stream 2 does not involve utilising the training provisions in relevant industrial instruments. Instead, the stream focuses on facilitating supported employment relationships between young people and employers using incentives and customised training.

Table 5: Overview of Stream 2

Stream two: Support employment pathway		
Employment (on-the-job training)	**Governance framework**	**Formal training**
Policy challenges		
• Lack of demand for new employees. • Avoiding substitution effect, deadweight loss and displacement effect.	• Need framework and structure to administer program effectively.	• Current course structures preferences traditional on-campus modes of delivery and longer-form courses. • Matching education and training to more specific skills and knowledge required in occupations.
Policy responses		
• Extend wage-subsidy program to encourage uptake of new employees. • Extend occupational quotas in procurement guidelines/requirements to include higher-level apprentices. • Design program to ensure wage subsidy targets 'additionality'.	• Use existing architecture to manage program, such as the Apprenticeship Network and Group Training Organisations (GTOs).	• Adapt HE/VET qualifications to deliver in flexible modes. • Extend funding of micro-credentials to enable flexible workplace delivery.

As the above table shows, many of the same challenges that exist in Stream 1 also exist in Stream 2. However, there are important differences.

First, there are fewer issues with governance and regulation because there is no need to designate certain occupations/qualifications as apprenticeships or traineeships. Instead, the governance challenge involves the construction of a framework to administer the program successfully. This includes designing the criteria for access to any incentives, as well as determining the appropriate bodies to administer the program. Similar to Stream 1, organisations such as the AASN are well placed to undertake an administrative role.

Second, the education and training for this cohort is different to that of Stream 1. While Stream 1 targets more unskilled employees who need longer form training, Stream 2 is more appropriate for a range of groups who may already have some experience or formal qualifications, including those who are recent higher education or VET graduates. Consequently, a shorter form course that more specifically targets both potential gaps in skills and knowledge, as well as assisting in the transition into the workforce, is more appropriate. Micro-credentials or graduate certificates (from either the higher education or VET sector), may be more appropriate to meet this aim.

The Adaptability of this policy idea to mature age workers

This paper focuses on averting an escalating crisis in the youth labour market. While we have identified a particular looming crisis for young people, this does not deny that there is also a potential looming crisis for mature aged workers too, especially after the end of JobKeeper payments.

Of the two streams we have proposed, Stream 2 seems most closely aligned to the needs of potentially retrenched mature aged workers. Upskilling or re-skilling retrenched workers attempting to move into new occupations and industries could benefit from micro-credentials along similar lines to those proposed for Stream 2 of the cadet program. However, a program for mature age and/or retrenched workers would need to be co-designed with industry to meet the needs of this cohort of 'job-changers', which are likely to be different from the needs of young people with little labour market experience.

Research in this area produced by Peter Noonan (2007) provides guidance on how to design such programs, which could also involve wage subsidies. Such an approach may take some of the pressure off the employment benefits system, such as JobSeeker and encourage quicker and more effective labour market re-entry for older workers displaced by the coronavirus. The Mitchell Institute intends to release a follow-up paper to help policy-makers think about how to address this problem.

Section Five: Costs, benefits and what needs to be done

Costs and benefits

A National Job Cadet Program will come with costs to the public. These costs will vary depending on the amount governments invest in the program. However, the price of inaction will also be substantial.

Table 6 outlines some of the long-term costs associated with being NEET. These costs impact public finances through lower tax revenue and higher spending on social services such as welfare and health. Other costs include those to the wider economy caused by lower individual earnings.

Table 6: Costs of NEET

Type of cost	Estimated cost
Public finance costs in the form of lower tax revenue, higher spending on welfare, and small increases in health and criminal justice expenses.	A UK report estimated the cost of NEET at an early age to public finances at $115,000 per individual over their lifetime (Coles, Godfrey, Keung, Parrott, & Bradshaw, 2010).
Resource costs in the form of losses to the wider economy caused by lower incomes.	The same UK report estimated the broader costs of NEET at $220,000 per individual (Coles et al., 2010). Before the coronavirus, the OECD estimated the cost of NEET per year at 1% of Australia's GDP or $19 billion per year to the Australian economy (OECD, 2016).

Normally, the best way governments can help create sustainable jobs, and lower the number of young people who are NEET, is by promoting labour demand via economic growth. However, the current circumstances are not normal and we believe a National Job Cadet Program warrants substantial public support.

In terms of what would be the most effective investment, the research suggests that an employer incentive, sometimes referred to as a wage subsidy, will most assist in the uptake of cadetships. According to Borland (2016, p. 133) a wage subsidy:

> has the objective to motivate an employer to hire an unemployed jobseeker by lowering the cost of employing that jobseeker. For example, a profit-maximising employer

operating in competitive product and labour markets will hire all workers whose value added to revenue is greater than or equal to their cost (wages and non-wage costs). In this case a wage subsidy, by lowering the cost of employing a worker, should make employers willing to hire extra workers – specifically, workers whose value added to revenue is lower than they would be willing to hire in the absence of the subsidy.

The research literature shows wage subsidy programs increase the employment rate of participants, however, the size and design of any subsidy will affect its efficacy and cost to government (Borland, 2016).

Australia already does invest significantly in employer incentives. For instance, employer incentives are a feature of the apprenticeship/traineeship system. While there can be debate on their overall effectiveness, particularly in increasing the aggregate number of apprentices/trainees (Productivity Commission, 2020), employer incentives are nonetheless an important part of how Australia supports certain programs that link employment and education.

In fact, the Australian Government used to spend much more on employer incentives than it currently does. In 2012, funding of employer incentives was about $800 million higher than 2018 levels (NCVER, 2019a; Noonan & Pilcher, 2017). Beginning in 2012, the Australian Government changed the eligibility for access to employer incentives, particularly for some traineeships, because it was not thought to be an effective investment. We believe that the time is right for the Australian Government to put that money back into an employer incentive program because the unique situation facing Australia's young people warrants substantial investment while the labour market remains weak.

As the previous discussion showed, different aspects of the National Job Cadet Program may warrant more government support. For instance, cadetships more likely to result in the creation of extra jobs should have higher levels of funding. Businesses without large human resources departments, like small and medium sized enterprises, may benefit from greater support.

Table 7 considers the rationale for funding based on a set of features.

Table 7: Rationale for investment

Feature	Rationale for investment
Industry	Some industries are forecast to grow faster than others do and some industries have been hit harder by coronavirus. States and territory governments also have priorities specific to their economies. Identifying certain industry areas may assist with directing support where

	governments believe they will have the most long-term impact.
Employer	Employers are crucial to the effectiveness of a National Job Cadet Program. However, larger employers generally have more resources than small and medium sized businesses. Smaller and medium size businesses may need greater support to ensure they can facilitate the skills development that needs to occur in the workplace.
Region	Like industries, some regions have been hit harder by the coronavirus than others. It can also be harder to stimulate employment growth in some regions, particularly rural areas. Directing higher levels of investment to some regions may help overcome some of these barriers.
Stream	The two streams of the National Job Cadet Program may warrant different levels of support. Stream 1, with its longer form courses may require more investment. However, because Stream 1 can target unskilled workers it will also facilitate more skills development. Consequently, there may be a rationale to direct more support to Stream 1.
Potential cadet	Cadets will face different barriers to learning and employment. It is possible to direct further support according to these barriers. For instance, those who have been NEET for a longer period may attract a higher subsidy.

Level of investment

Determining the amount required to fund the National Job Cadet Program needs further exploration because the design of the program will heavily influence resourcing requirements. Nevertheless, it is possible to discuss broad costs particularly those concerning employer incentives.

In terms of the proposed amount of support for cadetship, two government programs provide models. The first is JobSeeker, which is the main form of support provided to unemployed Australians looking for work. For an eligible single person with no dependents, this payment is approximately $566 per fortnight ($14,700 per year) with a $250 per fortnight ($6,500 per year) coronavirus supplement that is valid until December 2020.

The second relevant government program is the Supporting Apprentices and Trainees initiative. This payment is a wage subsidy to small and medium sized businesses to support the retention of currently enrolled apprentices and trainees. The initiative subsidises up to 50 per cent of the wages of an apprentice or trainee, with up to $7,000 per quarter, per eligible apprentice or trainee, reimbursed in arrears. This is effectively a subsidy of up to $28,000 per year.

The research shows that employer incentives are effective but it is likely that any program will have some deadweight loss, substitution and displacement effects (Borland, 2016; Martin & Grubb, 2001). We believe that stream one will have fewer negative impacts on other parts of the workforce because it targets individuals who are less likely to displace the current stock of skilled workers. Support provided to stream two cadetships may need to take into account that the targeted cadets are likely to have more skills and, therefore, there is less of a need to offset hiring costs and investment in skills development.

In a well-designed program, cadetships from either stream will have positive impacts on overall employment. Moreover, jobs created through this program will save the government in other areas. For instance, without jobs many young people will end up on the JobSeeker payment. Directing expenditure into a cadetship is, in this regard, a better investment because it means young people will be receiving a wage and acquiring skills instead of being unemployed.

There is a need for more work to understand fully the costs and benefits of a National Job Cadet Program. Nevertheless, we believe an employer incentive of $14,000 to $28,000 per cadet per year represents a good investment on behalf of the Australian Government.

Case study: Quantifying the cost of employment incentives

To estimate the annual costs of the National Job Cadet Program, we assign an employer incentive of up to $28,000 for stream one cadetships and up to $14,700 for stream two cadetship.

In the first instance, support provided to 50,000 (full-time equivalent) cadetships would create significant opportunities for young people to enter the labour force.

Employer incentives for 50,000 cadetships, split evenly between the two streams, would then cost approximately $1 billion annually.

These costs are likely to be offset by savings in other areas (such as higher tax revenue and savings in expenditure on social security benefits). There are also long-term benefits associated with ensuring that young people stay engaged with the workforce, as the literature on NEET demonstrates.

It is also important to point out that employer incentives totalling approximately $1 billion is similar to the amount that Australia used to spend on employer incentives in 2012. The extraordinary challenges facing Australia's young people sharpens the argument for restoring funding levels to what they were previously. This is especially so because, as this report demonstrates, the benefits of a cadetship program are likely to wide ranging.

What needs to be done and who should it?

The impetus for the National Job Cadetship Program arose through discussions with various stakeholders, including a roundtable held by the Mitchell institute with the Federal Minister for Education, the Hon. Dan Tehan on August 7th 2020.

Through discussions and feedback, the National Job Cadet Program has received widespread support as a concept. This support has come from government and industry as well as unions.

There are number of possible options to make the program a reality. The allocation of resources and the focus of policy development depends on priorities for different state, territory and federal governments. For instance, some states and territories may prefer to prioritise certain occupations and industries. As a provider of employer incentives, the Australian Government may also determine that certain employers (for instance, medium-sized companies) warrant higher rates of support.

The table below outlines some areas where further work is required. The table also outlines who might take the lead.

Table 8: What needs to be done and who can do it

Task	Who can do it?
Selecting occupations and industries	States and territories are ideally placed to identify the occupations and industries suitable for their jurisdiction.
Designing course materials	Bespoke courses that combine training and employment using a flexible delivery mode will mean the program can target skills acquisition in the workplace. Shorter form micro-credentials are already available but there would still be benefit in investing in resources for shorter form courses that integrate education and training into the workforce. For longer form courses, governments can fund the creation of learning resources based on broad occupational areas. Providers can adapt these resources according to the cohort and to their specialities.
Implementing apprenticeship/traineeship governance	State and territory governments will need to 'declare' certain occupations and courses to enable cadetships to access the apprentice/trainee provisions in industrial awards and agreements.
Funding of incentives	Employer incentives will assist employers to offset the cost of new hires. Federal government can use the AASN

	system to deliver incentives and to quality assure the program. The federal government would need to determine the size of, and criteria for accessing, incentives, with the option of state/territory governments providing further financial support to employers.
Identifying course funding responsibility	Course delivery can occur through either the higher education or VET systems. State/territory or federal governments can take the lead in funding the education component of the program.
Embedding cadetships in procurement guidelines	Extending the skills and training policies for major government projects to include new occupational areas will stimulate demand for cadetships. This can occur at both a state/territory and federal government level.

Section Six: Summary and conclusion

In this paper, we have argued that Australia should create a National Job Cadet Program to help young people into work. We argue that utilising parts of Australia's apprenticeship platform in new occupations, not covered by the current system, could create the tens of thousands of jobs needed to avert a major crisis in the youth labour market.

This is because the evidence shows that combining an employment contract with formal education and training improves employment outcomes. Moreover, the job cadetship program could help reverse the long-term deterioration in youth employment outcomes that the pandemic has intensified.

We have shown that school leavers and recent graduates have been hardest hit by the coronavirus pandemic. While there has been a small improvement in other parts of the labour market, recent graduates have missed out with 100,000 fewer jobs available than before the pandemic.

Most concerning is the increase in young people who are not in employment, education or training (NEET). NEET is an indicator of disengagement and is associated with higher rates of long-term unemployment and underemployment, and a lifetime engagement with the workforce characterised by insecure work and low pay.

Without action, Australia faces an explosion in the number of young people who are NEET. The next wave will come at the start of 2021 when an additional 120,000 young people graduate from education with gloomy job prospects to say the least.

We outline two streams of a cadetship program. The first stream is a longer form 'higher apprenticeship' program of one to four years, which extends current apprenticeship arrangements into higher-level occupations. The second stream is a shorter program of six months to one year aimed at young people who already have some skills or training.

The implementation of the apprenticeship system involves substantial federal-state cooperation. While there is a national framework and national subsidy for the system, state governments and regulators are central to its implementation. We see the same being true of the National Job Cadet Program.

It is also important to remember that young people are not the only group facing labour market challenges. Older workers who have been retrenched and displaced by the coronavirus are also at risk of extended periods outside of work. These challenges, and possible policy solutions for this group, warrant closer attention and the Mitchell Institute intends to examine the needs of this cohort more closely in an upcoming paper.

The importance of federal-state and employer-union cooperation

State and territory governments need to work with employers, unions and their tertiary education and training providers to identify the industries and occupations for these cadetships, and to ensure their regulators make the necessary approvals. To the extent that the education and training associated with cadetships is provided within existing state/territory funded programs, this may not impose any additional pressure on state budgets.

In some cases, however, it may be appropriate to design new courses of study, which would require some additional funding. Where the higher education sector is involved, again some of the education and training component of the cadetships could operate within the current funding system. However, given the caps on Commonwealth funding of higher education, there may be the need for some extra funding to support the development of co-created flexibly designed courses, along with some additional funded places.

Ideally, some of the co-created education and training would be joint higher education/VET products that suit the skill needs of the employers and their employees. It will be important for federal, state and territory governments and their regulators to work with tertiary providers to make this work.

Just as there will need to be effective cooperation between federal and state/territory governments, there will also need to be effective cooperation between employers and unions, to ensure that appropriate employment and wage regulations are followed. This is for the mutual benefit of employers and employees.

Having discussed these issues with a number of federal and state government officials and advisors, as well as employer and union representatives, we are confident that these issues can be dealt with. We consider that a good place to start the national conversation about these issues, between governments, would be in the National Cabinet.

Tackling a current crisis and leaving a legacy

Our proposals have been sparked by a current crisis in the youth labour market caused by the COVID-19 recession. We have noted, however, that even before COVID-19 the positon of young people in the labour market had deteriorated after the global financial crisis.

There is a strong case for a more systemic approach to work-integrated learning to enhance the employability skills and job opportunities for young people, and bring the education and training system closer to the employment system. There is a strong argument that the National Job Cadet Program should be retained after the current crisis albeit with lower costs because the size of financial incentives required for employers to hire cadets should be significantly lower in a more buoyant labour market.

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Appendix 1: Proposed occupations for a National Job Cadet program

Occupation Code	Occupation	Employment level May 2019	Projected employment level May 2024	Projected employment growth five years to May 2024	Projected employment growth five years to May 2024	Area of study
2613	Software and Applications Programmers	134,979	166,596	31,617	23.4%	Information Technology
1311	Advertising, Public Relations and Sales Managers	161,181	184,264	23,083	14.3%	Business and Commerce
2247	Management and Organisation Analysts	83,062	103,611	20,549	24.7%	Business and Commerce
2251	Advertising and Marketing Professionals	81,648	99,388	17,740	21.7%	Business and Commerce
3121	Architectural, Building and Surveying Technicians	76,990	91,978	14,988	19.5%	Building and Architecture
2231	Human Resource Professionals	78,842	91,243	12,401	15.7%	Business and Commerce
2332	Civil Engineering Professionals	56,097	68,402	12,304	21.9%	Engineering
2631	Computer Network Professionals	42,347	53,437	11,091	26.2%	Information Technology
2726	Welfare, Recreation and Community Arts Workers	35,971	46,116	10,145	28.2%	Social Science
3131	ICT Support Technicians	65,275	74,442	9,167	14.0%	Information Technology
2621	Database and Systems Administrators, and ICT Security Specialists	49,223	58,218	8,995	18.3%	Information Technology
1323	Human Resource Managers	57,083	65,917	8,834	15.5%	Business and Commerce
2249	Other Information and Organisation Professionals	33,410	41,594	8,184	24.5%	Business and Commerce
1331	Construction Managers	86,606	94,592	7,986	9.2%	Building and Architecture
1411	Cafe and Restaurant Managers	69,418	76,977	7,559	10.9%	Business and Commerce
2324	Graphic and Web Designers, and Illustrators	55,698	63,254	7,556	13.6%	Information Technology
1493	Conference and Event Organisers	40,277	46,888	6,611	16.4%	Business and Commerce
1336	Supply, Distribution and Procurement Managers	49,958	55,893	5,934	11.9%	Business and Commerce
2611	ICT Business and Systems Analysts	43,691	49,348	5,657	12.9%	Information Technology
2321	Architects and Landscape Architects	37,104	42,288	5,184	14.0%	Building and Architecture

1322	Finance Managers	53,914	58,686	4,772	8.9%	Business and Commerce
2339	Other Engineering Professionals	15,628	20,365	4,737	30.3%	Engineering
1499	Other Hospitality, Retail and Service Managers	72,029	76,629	4,599	6.4%	Business and Commerce
1399	Other Specialist Managers	54,446	59,023	4,577	8.4%	Business and Commerce
1342	Health and Welfare Services Managers	23,935	28,399	4,464	18.6%	Business and Commerce
2244	Intelligence and Policy Analysts	30,731	34,632	3,900	12.7%	Social Science
3112	Medical Technicians	32,852	36,734	3,881	11.8%	Science
2223	Financial Investment Advisers and Managers	51,768	55,502	3,734	7.2%	Business and Commerce
3129	Other Building and Engineering Technicians	25,096	28,820	3,724	14.8%	Engineering
2346	Medical Laboratory Scientists	24,077	27,484	3,407	14.2%	Science
2632	ICT Support and Test Engineers	11,688	15,064	3,376	28.9%	Information Technology
2253	Public Relations Professionals	23,171	26,424	3,253	14.0%	Business and Commerce
2323	Fashion, Industrial and Jewellery Designers	15,348	18,429	3,081	20.1%	Creative Arts
2212	Auditors, Company Secretaries and Corporate Treasurers	25,757	28,493	2,736	10.6%	Business and Commerce
2343	Environmental Scientists	21,101	23,728	2,627	12.5%	Science
1324	Policy and Planning Managers	22,106	24,496	2,389	10.8%	Social Science
2113	Photographers	17,092	19,401	2,310	13.5%	Social Science
1332	Engineering Managers	17,669	19,937	2,268	12.8%	Engineering
2326	Urban and Regional Planners	14,255	16,223	1,969	13.8%	Building and Architecture
1321	Corporate Services Managers	12,755	14,662	1,906	14.9%	Business and Commerce
2254	Technical Sales Representatives	30,714	32,529	1,814	5.9%	Business and Commerce
3611	Animal Attendants and Trainers	16,498	18,226	1,727	10.5%	Agriculture
2325	Interior Designers	9,234	10,922	1,688	18.3%	Creative Arts
2330	Engineering Professionals nfd	13,151	14,832	1,681	12.8%	Engineering
2633	Telecommunications Engineering Professionals	11,201	12,762	1,562	13.9%	Information Technology
1491	Amusement, Fitness and Sports Centre Managers	14,156	15,601	1,444	10.2%	Business and Commerce
2341	Agricultural and Forestry Scientists	9,908	11,350	1,442	14.6%	Agriculture
2252	ICT Sales Professionals	16,890	18,327	1,437	8.5%	Business and Commerce
2114	Visual Arts and Crafts Professionals	11,019	12,167	1,149	10.4%	Social Science
1325	Research and Development Managers	11,187	12,304	1,117	10.0%	Social Science

2336	Mining Engineers	11,134	12,197	1,063	9.6%	Engineering
1333	Importers, Exporters and Wholesalers	18,402	19,436	1,033	5.6%	Business and Commerce
2612	Multimedia Specialists and Web Developers	10,038	10,963	925	9.2%	Information Technology
1413	Hotel and Motel Managers	25,655	26,449	794	3.1%	Business and Commerce
2241	Actuaries, Mathematicians and Statisticians	7,202	7,902	700	9.7%	Business and Commerce
2122	Authors, and Book and Script Editors	8,753	9,414	661	7.5%	Social Science
2344	Geologists, Geophysicists and Hydrogeologists	11,905	12,546	641	5.4%	Science
1344	Other Education Managers	10,919	11,552	633	5.8%	Business and Commerce
2121	Artistic Directors, and Media Producers and Presenters	14,094	14,724	630	4.5%	Social Science
2123	Film, Television, Radio and Stage Directors	13,252	13,869	617	4.7%	Social Science
2342	Chemists, and Food and Wine Scientists	9,313	9,927	614	6.6%	Science
1351	ICT Managers	48,388	48,993	604	1.2%	Information Technology
2333	Electrical Engineers	16,592	17,084	493	3.0%	Engineering
2242	Archivists, Curators and Records Managers	9,985	10,455	470	4.7%	Business and Commerce
1419	Other Accommodation and Hospitality Managers	9,294	9,763	470	5.1%	Business and Commerce
2222	Financial Dealers	16,749	17,176	426	2.5%	Business and Commerce
3126	Safety Inspectors	4,344	4,739	395	9.1%	Engineering
2340	Natural and Physical Science Professionals nfd	3,916	4,300	384	9.8%	Science
2349	Other Natural and Physical Science Professionals	8,781	9,149	368	4.2%	Science
2331	Chemical and Materials Engineers	6,479	6,827	349	5.4%	Engineering
1334	Manufacturers	22,833	23,163	330	1.4%	Business and Commerce
3125	Mechanical Engineering Draftspersons and Technicians	8,874	9,185	311	3.5%	Engineering
2124	Journalists and Other Writers	19,655	19,947	292	1.5%	Social Science
3124	Electronic Engineering Draftspersons and Technicians	7,183	7,467	284	4.0%	Engineering
3120	Building and Engineering Technicians nfd	3,469	3,716	247	7.1%	Building and Architecture
2345	Life Scientists	7,486	7,699	213	2.8%	Science
3123	Electrical Engineering Draftspersons and Technicians	8,238	8,451	212	2.6%	Engineering

1421	Retail Managers	236,261	236,469	208	0.1%	Business and Commerce
3114	Science Technicians	16,948	17,147	198	1.2%	Science
2246	Librarians	8,905	9,074	168	1.9%	Social Science
3132	Telecommunications Technical Specialists	5,729	5,864	135	2.4%	Information Technology
1412	Caravan Park and Camping Ground Managers	3,635	3,746	112	3.1%	Business and Commerce
1494	Transport Services Managers	15,596	15,693	98	0.6%	Business and Commerce
3122	Civil Engineering Draftspersons and Technicians	10,635	10,707	72	0.7%	Engineering
2334	Electronics Engineers	6,433	6,502	69	1.1%	Engineering
2110	Arts Professionals nfd	1,055	1,122	68	6.4%	Social Science
1391	Commissioned Officers (Management)	2,232	2,298	66	2.9%	Business and Commerce
2232	ICT Trainers	2,364	2,426	62	2.6%	Information Technology
1300	Specialist Managers nfd	1,066	1,118	52	4.9%	Business and Commerce
2120	Media Professionals nfd	1,561	1,604	43	2.8%	Social Science
3110	Agricultural, Medical and Science Technicians nfd	791	827	36	4.5%	Agriculture
1320	Business Administration Managers nfd	391	426	35	9.0%	Business and Commerce
2243	Economists	4,807	4,842	34	0.7%	Business and Commerce
2720	Social and Welfare Professionals nfd	231	264	34	14.6%	Social Science
2240	Information and Organisation Professionals nfd	496	525	29	5.9%	Business and Commerce
1210	Farmers and Farm Managers nfd	10,079	10,095	15	0.2%	Agriculture

Source: Department of Jobs and Small Business (2019)

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