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OPPORTUNITIES IN CHANGE:

Responding to the Future of Work

Australian National University

CENTRE FOR SOCIAL RESEARCH & METHODS

iag

NOVEMBER 2019

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OPPORTUNITIES IN CHANGE:

Responding to the Future of Work

BY A/PROFESSOR NICHOLAS BIDDLE AND EDWARD CAVANOUGH

NOVEMBER 2019

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FOREWORDS

There are few more elemental issues for government, organisations and the Australian public than the nature of our work.

The aspiration to secure a stable, well-paying and meaningful job is common one. And, despite real headwinds, the Australian economy has had a long history of allowing generations of Australians to achieve this goal.

However, technological change and the emergence of more tenuous and unstable forms of employment threaten to disrupt the very nature of how we work, how we produce, and even how we live.

When we talk about the future of work, we at times gravitate towards the negative: we see forecasts of mass job losses resulting from the rise of automation, or the rise in insecure work thanks to gigging and piece work, and instinctively fear the worst. These forces are real and the challenges they pose for the public and policymakers are significant.

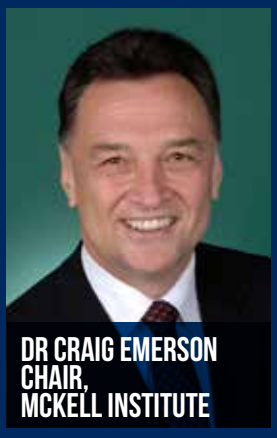
But the changing nature of work, driven by technology, brings opportunities, too. Modern workplaces are often safer and more productive thanks to technological innovation, and a wave of previously unimaginable occupations has emerged just since the turn of the century.

The reality is the nature of future economy and the jobs it delivers cannot be predicted with precision. But by exploring the existing trends that are shaping the nature of work and employment today, we can begin to prepare Australia for change – whatever that change may look like.

This report provides a snapshot of today's Australian labour market, the forces that are shaping it, and the blind-spots that need to be addressed if we are to succeed in a competitive and disruptive 21st century global economy.

At its heart is the idea that a focus on people, as well as jobs, is key. It also sees disruption as an impetus to reassess our current policy settings, and to drive a conversation about today's forces of change with the Australian public.

The future of work can be bright, as long as governments, industry and the community understand the nature of disruption, and prepare accordingly.



DR CRAIG EMERSON
CHAIR,
MCKELL INSTITUTE

SAM CROSBY
CEO,
MCKELL INSTITUTE

The way we work, and how we live, is rapidly changing.

As a large private employer, and provider of products and services, IAG has a keen interest in the changing nature of work and its impact on Australians and our communities. We have a role to play in helping to contribute to our country's productivity and building a society that provides opportunities for Australian workers.

Opportunities in Change: Responding to the Future of Work links to our purpose to *make your world a safer place* and our intent to help people be safe, secure and confident at work.

IAG has been preparing for the future for some time now. We've put in place training and development programs to help our people think about the future and begin the transition. We've also introduced flexible work options, ranging from an on-site school holiday program to a new app that helps our contact centre employees change their working times to better suit how and when they want to work in order for them to accommodate life's needs.

While we are preparing our people, more needs to be done. The transition we are all experiencing is a broader economic and social phenomenon affecting governments, companies and communities, beyond IAG. And, that is why we have commissioned this report. We are quickly reaching a point, where a collective understanding is needed, and a broader discussion required, to help all Australians be ready for their futures.

PETER HARMER, CEO
INSURANCE AUSTRALIA GROUP

EXECUTIVE SUMMARY

The nature of work around the world is changing, and Australia is not immune. With the increase in automation in Australia and globally, some fear the worst – that in the future, human workers themselves will be replaced. However, while automation has displaced many jobs, it has also created new industries, made many jobs safer, increased efficiency, and enhanced economic prosperity.

The worst-case scenarios about the future of work may not have yet materialised and may never do so, but the changing nature of work presents a real challenge to governments and organisations. Avoiding the worst-case scenario demands creative responses from policymakers and industry leaders to ensure that the workforce of tomorrow is equipped for an uncertain future. This report explores this long-term challenge, and puts forward ideas aimed at navigating a path forward.

PART ONE begins by exploring what the 'future of work' really means. The emergence of new technologies has dramatically impacted the way we live, work and produce, and has been referred to as the Fourth Industrial Revolution, or Industry 4.0. Estimating how many jobs are to be impacted by these forces of disruption is challenging. At a *minimum*, 9 per cent of jobs in the Australian labour market today are at risk of being fully automated in the foreseeable future, with more than half of all jobs likely to be subject to varying degrees of automation. The scale and pace of change is truly unprecedented.

But it's not just technology impacting the future of work. The nature of employment is also changing. Today, over one million Australians are employed as independent contractors. More than 100,000 of those full time in the 'gig economy'. Even more shift between jobs, with labour mobility at an all-time high, and more than 40 per cent of millennials report having engaged in some form of freelance work.

If the future of work builds on these trends, the Australian labour market of tomorrow will be more flexible, more mobile, and more technologically-attuned than in the past. However, it may also be subject to higher rates of job insecurity, and reduced access to basic entitlements like superannuation and paid leave, if reforms are not delivered.

PART TWO outlines the current state of Australia's labour market, identifying the underlying trends – such as a high underutilisation rate and modest wage and productivity growth. Unemployment is typically low and participation high. These stats, though, conceal some concerning trends, such as the modest decrease in the male participation rate, and the large number of Australians who are underemployed. These phenomena have pushed jobseekers towards new types of work – like freelancing or platform work - that don't offer the type of job security many Australians currently receive.

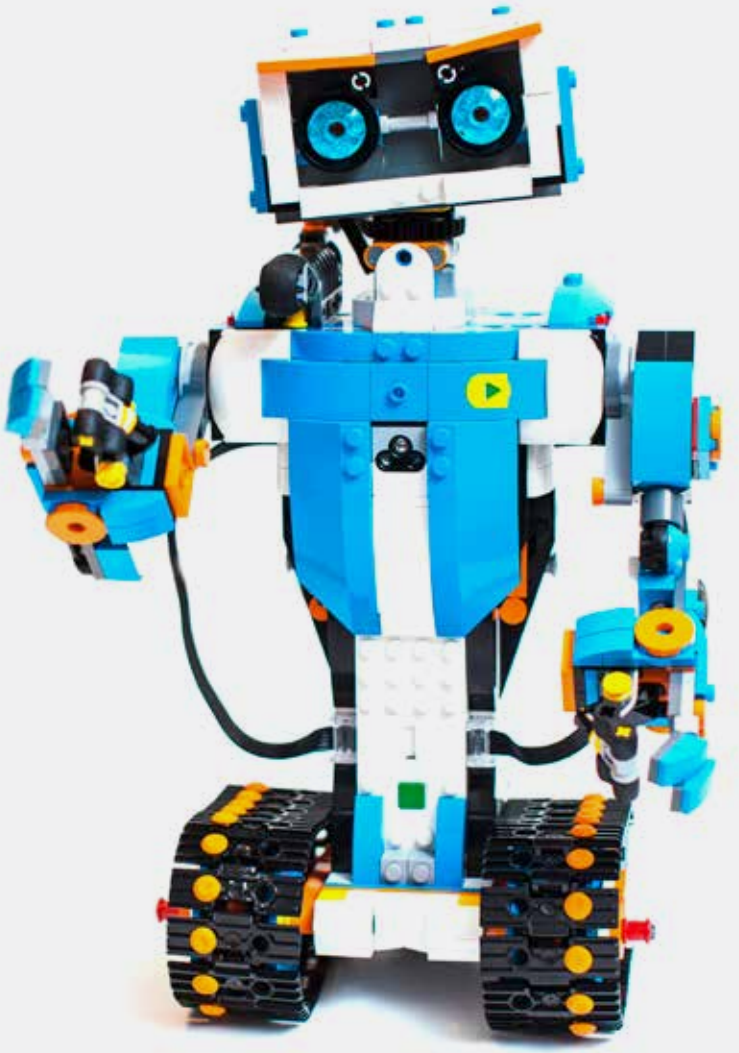
PART THREE explores the challenges facing Australia's non-permanent workforce. While traditional forms of employment remain

dominant in Australia, an increasing number of workers find themselves in non-permanent work. Independent contractors and gig workers regularly miss out on superannuation and workers' compensation. This leaves these individuals uninsured and exposed to the financial consequences of workplace accidents and illnesses. Part Three then looks at how the existing system of workers' compensation can be improved to cover more Australians who are finding the nature of their employment disrupted.

PART FOUR paints a picture of Australian perspectives on the labour market and their own job prospects through an analysis of extensive survey data produced by the Australian National University (the ANUPoll survey). Some of the findings are positive: most Australians don't feel insecure in their job. But neither do many Australians believe *their* job is likely to disappear anytime soon, at least not because of automation. This suggests a degree of complacency, or at least a lack of awareness, among the Australian workforce about the disruptive forces shaping future work. This may lead to the workforce being less inclined to engage in life-long learning, leaving today's workers ill-prepared for unforeseeable disruptions to their industry.

PART FIVE tables international responses to the changing nature of work. While every economy is unique, there are lessons to be learned from how other economies are dealing with disruption. We can also learn from the policy advice offered by major multilateral bodies such as the Organisation for Economic Co-Operation and Development (OECD) and World Economic Forum (WEF). Some countries are leading the way in trying to identify pathways forward. Germany, in particular, has been successful in facilitating widespread consultation, bringing labour, business and government together to identify policy priorities. These priorities enable innovation and growth while securing workers interests. National strategies in New Zealand and Thailand, and ideas floated in the United Kingdom and the United States provide useful insights for Australian policymakers.

PART SIX puts forward recommendations to government and industry. This section argues for enhanced access to life-long learning, investment in early childhood education, equipping Australians with the appropriate key skills of adaptability and creativity, facilitating portability of entitlements, modernising the way we categorise work and harmonising workers' compensation. It is also recommended that the government develop a White Paper with the intention of constructing a long-term strategy for the Future of Work, with collaboration and input from a broad range of stakeholders.



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KEY FINDINGS

1. **Australian workers, industries and governments will continue to be** challenged by technological disruption for the foreseeable future.

2. It's not *just* the gig-economy that's driving change: while platform work has emerged and is here to stay, **traditional employment relationships still dominate the Australian labour market.**

3. **A focus on people, not only jobs is key.** Government policy should reflect this reality. People need to be invested in from early childhood education through to retirement to ensure Australia's labour force is engaged in lifelong learning. This will equip them with key skills to adapt with change.

4. Around 8 per cent of Australians are employed as 'independent contractors', with **slightly over 100,000 workers employed full-time in the 'gig economy'. Almost 2.6 million Australians, around 20.6 per cent of the workforce, are employed on a casual basis.**

5. Those who do work as **contractors often miss out on basic workplace entitlements,** such as leave or superannuation. Australia's entitlement framework and industrial relations system needs improvements to remain relevant in the future – as labour markets change and become more flexible.

6. An increasing number of independent contractors are not adequately covered by workers compensation, nor the types of insurance usually attached to superannuation accounts. **Government should work towards strengthening and harmonising Australia's complicated and multi-faceted workers' compensation framework in response to the rapidly changing nature of work.**

7. Australian workers are underutilised, with many engaging in freelance work in addition to their main occupation. **More than 40 per cent of millennials are believed to have freelanced in some capacity.**

8 Despite predictions of widespread workplace disruption, **more than a quarter of Australian workers believe their job will continue to exist in 50 years' time.** This risks leaving Australian workers complacent, and may affect their participation in life-long learning and upskilling.

9 The Australian workforce is increasingly mobile: the Department of Jobs and Small Business estimated that **there are more than 4 million movements into, out of and between jobs in the Australian economy every year**.

10 **Government has a key role to play – but industry must step up to the challenge, too.** Both Government and industry need to explore how to embrace innovation while ensuring workers don't get left behind. Australia could be doing more to innovate and respond to the changing nature of work.

RECOMMENDATIONS

Recommendations to Government

RECOMMENDATION 1
Commission a 'Future of Work White Paper', which solicits input from a wide range of participants from labour, industry, academia, and the public.

RECOMMENDATION 2
Develop a national life-long learning strategy.

RECOMMENDATION 3
Ensure existing forms of employment categorisation are fit for a modern labour market.

RECOMMENDATION 4
Work towards expanding access to workers' compensation, and harmonising workers' compensation systems nationally.

How industry and Government can work together

RECOMMENDATION 5
Industry and Government should collaborate to explore pathways to the increased portability of existing entitlements.

RECOMMENDATION 6
Industry and Government should collaborate to ensure that workers have adequate access to life-long learning and enhanced opportunities for upskilling and training.

Research needs and opportunities

RECOMMENDATION 7
Attitudes towards the future of work, and how these relate to other policy issues should be monitored.

RECOMMENDATION 8
Cost-benefit analyses should be considered on new policy interventions geared toward improving employment outcomes, or mitigating the effects of automation.

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PART ONE: THE CHANGING NATURE OF WORK

Key Points:

- Labour markets have always evolved – this continues today but is expedited by technological change.
- Technological change impacts all forms of employment, but doesn't always lead to mass unemployment.
- The 'megatrend' of technological change and automation will affect the quality and quantity of jobs available in the future.
- At least 9 per cent of today's jobs in Australia will be automated– this could be as high as 46 per cent. This is not unique to Australia, with 14 per cent of jobs in the OECD expected to see a similar fate.
- Not every skill can be automated – there remains a suite of human or "soft" skills that technology cannot replicate.
- As new tech emerges, new opportunities are created. But as many occupations become more precarious, Government and the private sector will have a key role to play in navigating the transition for workers.

Industry 4.0 is here

> THE FOURTH INDUSTRIAL REVOLUTION, ALSO KNOWN AS INDUSTRY 4.0, IS AFFECTING ALMOST EVERY INDUSTRY WORLDWIDE. IT IS RAPIDLY TRANSFORMING HOW BUSINESSES OPERATE

AUSTRALIAN DEPARTMENT OF INDUSTRY, 2018.[1]

INDUSTRY 1.0
1780-1870

- The invention of mechanical processes change how we work and produce

INDUSTRY 2.0
1870-WW2

- Electricity and telecommunications emerge
- Assembly lines increase production

INDUSTRY 3.0
POST WW2-2000

- ICT gradually disrupts the workplace
- Production ineasingly automated

INDUSTRY 4.0
2000-TODAY

- The internet changes industry
- Pace of technological change transforms old industries and facilitates new ones

Technological innovation has always been central to global economic growth, but the pace of change in recent decades has caused new and unprecedented challenges. The 'megatrend' of technological progress, combined with the forces of globalisation and demographic change are 'likely to affect the quantity and quality of jobs that are available', as well as 'how and by whom they will be carried out'.[2]

Today's period of transformation is now commonly referred to as the 'Fourth Industrial Revolution'[3] or 'Industry 4.0'.[4] The CSIRO concludes that:

'...workforce transitions – how individuals move from one job to another and how industries move from one labour market structure to another – are crucial. Although change is inevitable, future destinations are not. Based on this narrative of the future, individuals, communities, companies and governments can identify and implement transition pathways that achieve better outcomes.'[5]

Technology is changing the way all of us work

Labour markets continually change and adapt. They respond to, and create, social change, are affected by policy shifts and macroeconomic conditions.

The current transformation of work will be more comprehensive, and more rapid than transformations that have occurred in the past.

This is being driven by a rapid and uniquely modern confluence of technological, political and economic phenomena, such as increased computing speed; decreased computing costs; greater network speed and capacity; increased availability of data; the lessening of some barriers to international trade; and political and economic change in countries with large skilled and semi-skilled workforces.

FIGURE 1.1 THE CHALLENGES & OPPORTUNITIES POSED BY INDUSTRY 4.0[6]

Opportunities in Industry 4.0	Challenges of Industry 4.0
Better connectivity between customers and supply chains	Job losses resulting from shift away from 'brick-and-mortar' consumption
Ability to compete in a global economy	Remote and online employment allows industry to shift operations to low-income jurisdictions
Opportunities for businesses to 'produce differentiated products and services to tap unmet consumer demands'.	Decline of certain industries, devaluing of existing skills
Safer workplaces	Automation displacing repetitive tasks
Increased flexibility for workers and industry	Fewer workers receiving established workplace entitlements, heightened sense of job insecurity

It is challenging to precisely predict just how many jobs will be lost or altered due to technological change.

In Australia, 9 per cent of today's jobs could be automated in the foreseeable future – but that could be much higher. The OECD predicts at least 14 per cent of jobs across advanced countries will disappear due to automation, with at least double that predicted to 'change significantly'.[7]

Even the jobs that will remain will be significant altered: McKinsey believe that 60 per cent of existing jobs will have 'at least 30 per cent of activities technically automatable'.[8] Therefore, the question is not whether this is occurring, but how to constructively react and adapt to whatever change looks like.

Technology doesn't always lead to mass unemployment

Technological innovation over the past two centuries has not resulted in mass unemployment on the whole. Increased productivity means that workers have found jobs in new sectors, and increased their earning potential. However, this is a long-term perspective. In the short-run, and within certain industries or regions, technological change can result in structural (or technical) unemployment.

For the most part, this short-term unemployment has been addressed through the welfare system as with any other kind of unemployment. The sudden and often localised nature of technical unemployment poses unique social and political challenges.

But while there are stresses on many jobs, new occupations are constantly emerging. Jobs that rely on creativity or human-to-human interaction are being developed or are expanding in their share of the labour market, while those that are based on routine tasks, even complicated ones, are employing fewer and fewer workers.

Automation is a challenge, but worst-case predictions often exaggerated

Labour markets have always adjusted to new circumstances and there are some that argue that the depth or impact of predicted changes this time around are exaggerated. In a highly cited article David Autor argues that:

> 'Automation does indeed substitute for labour—as it is typically intended to do. However, automation also complements labour, raises output in ways that leads to higher demand for labour, and interacts with adjustments in labour supply'.[9]

It is important not to overstate threats to employment (not only from automation, but also from globalisation and other disruptive forces). Nevertheless, it could reasonably be argued that the current transformation of work will be more comprehensive, and more rapid than transformations that have occurred in the past.

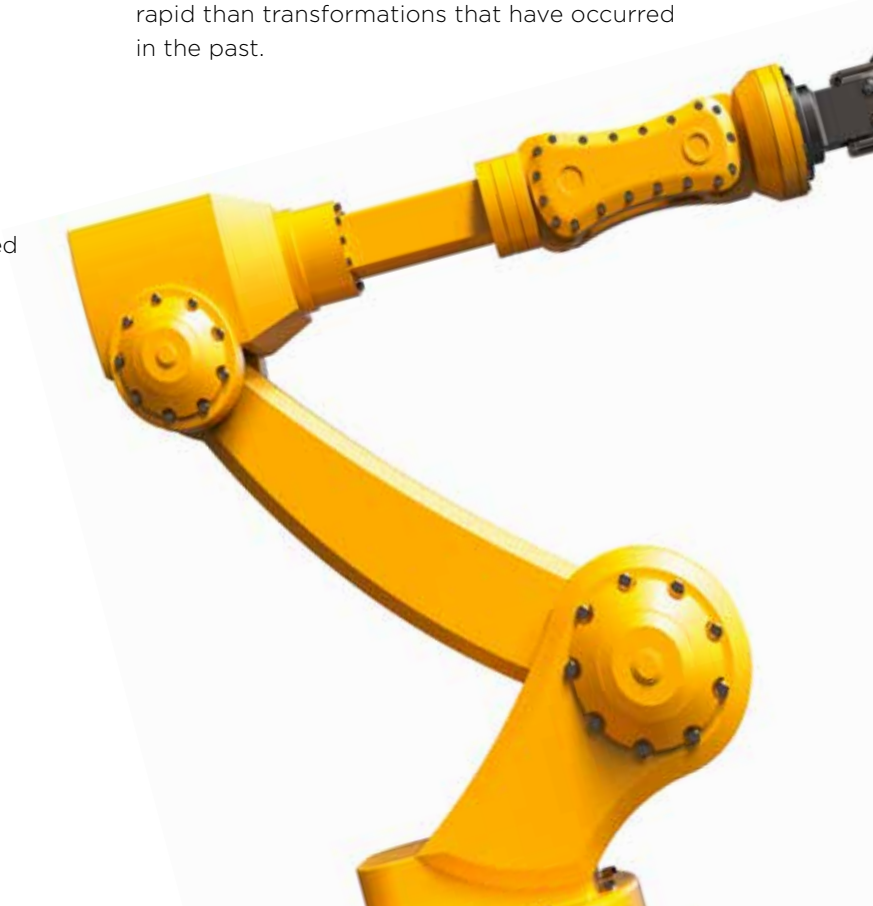
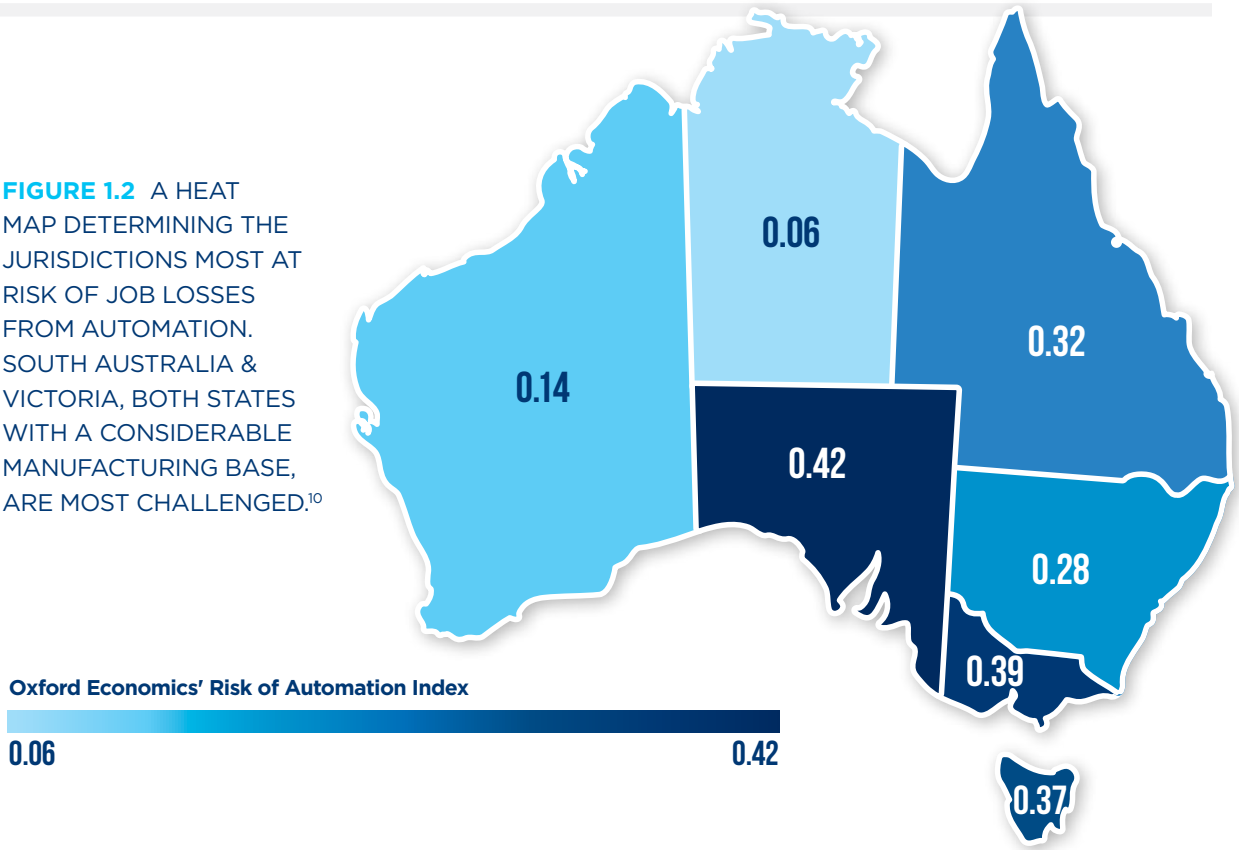


FIGURE 1.2 A HEAT MAP DETERMINING THE JURISDICTIONS MOST AT RISK OF JOB LOSSES FROM AUTOMATION. SOUTH AUSTRALIA & VICTORIA, BOTH STATES WITH A CONSIDERABLE MANUFACTURING BASE, ARE MOST CHALLENGED.[10]



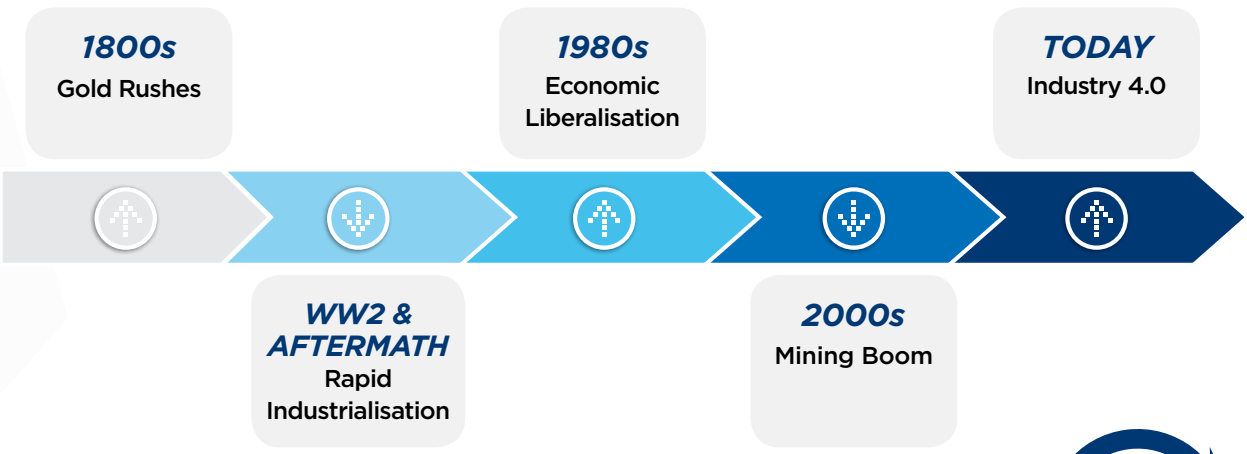
Labour market transitions and shocks have occurred in the past

Labour market shocks aren't new, even if the specifics vary. There have been a number of episodes of labour market transitions in Australia's history

The most obvious parallel to today's disruptive forces is first industrial revolution, occurring in the late 18th century with the introduction of mechanised production. In Australia, the labour market has also been disrupted by various gold rushes; post World War II industrialisation; the floating of the dollar and tariff reduction in the mid-80s; and the early 2000s mining boom. Other countries have experienced similar shocks at various points in time, sometimes concurrently.

Technological innovation over the past two centuries has not resulted in mass unemployment on the whole. Ever increasing productivity has resulted in workers finding jobs in new sectors, and earning higher skill premiums due to the complementarity of capital and labour.

FIGURE 1.3 A TIMELINE OF LABOUR-MARKET SHOCKS IN AUSTRALIAN HISTORY.



People are affected by labour market transitions in different ways

In the debate on the positives and negatives of automation and the future of work, time scale matters. In the short-run, and within certain industries or regions, technological change can result in structural (or technical) unemployment (i.e. unemployment resulting from shifts in the economy which make it difficult for people to find work).

Current changes to the labour market and economic systems have tended to benefit the wealthy and highly skilled in developed and developing countries, the low skilled in developed countries, and the semi-skilled in developing countries.

The hardest hit tend to be the semi-skilled in developed countries who haven't gained from the increasing returns to human capital, but have at the same time seen increased competition from low-wage competitor countries.

There is of course significant variation at the individual level. Increasingly, research has shown that there are a cluster of skills and attitudes that are both highly predictive of success in times of transition and potentially amenable to interventions across the life course.[11] These are referred to in different contexts and different disciplines as executive function; non-cognitive ability; grit; or perseverance. Arguably an investment in these skills would assist people during times of transition and beyond – this is something that government, industry and individuals must consider.

Losses loom larger than gains for many workers

Attitudes towards the future of work will help determine the effect of labour market change (perceived and actual) on the subjective wellbeing of the population. Importantly, at a time of uncertainty, perceived losses have been shown to have a greater effect on such measures than perceived gains.[12]

Those who are optimistic about the future of the labour market will view new developments positively. They may be more likely to invest in the types of qualifications and skills that take advantage of new jobs and industries that are being created. Those who are more pessimistic may be more likely to experience anxiety and fear towards the future.

In addition, attitudes to job security and the future of work may impact on the receptiveness of the population to related policy proposals. Those who are relatively optimistic about their own prospects or the prospects of others may be more open to policy proposals that accelerate the changes and less receptive to those that attempt to slow or mitigate the effects. Those who are anxious or pessimistic are likely to have a very different policy attitude.

Not every human skill can be automated

The concept of a skill has historically been disputed and is difficult to define.[13] It is also a concept which continues to evolve as we experience changes to traditional ways of working. There appears to be a widespread trend to re-label as skills what in the past would have been considered personal attributes, dispositions or behaviours.[14]

Arguably, there is merit in moving beyond a traditional and rigid definition of a skill, particularly as we continue to experience changes in ways of working.[15] This shift takes places in the context of an increasingly service-dominated economy, where many more jobs involve face-to-face or voice-to-voice interaction. This type of interaction is said to require a new appreciation of the social and interpersonal skills used in service work.[16]

FIGURE 1.4
THE HUMAN TASKS THAT CANNOT SIMPLY BE AUTOMATED.

What can't be automated?		
Social Intelligence	**Creative Intelligence**	**Perception & Manipulation**
Understanding peoples' reactions within social contexts	Coming up with original ideas	Tasks focused on unstructured work
Caring for others	Innovating and imagining	Tasks focused on complex situations

Encouragingly, not every human skill can be automated. There remains a key suite of human skills or "soft skills" – social intelligence, creativity, and the ability to perceive and interact in complex, unstructured environments - that technology remains far behind.

Re-focusing an Australian education and training system to equip all Australians with these key "soft" skills is imperative.[17] It will help foster a workforce that is ultimately adaptable, and harder to automate out of relevance.

Embracing 'Worker 4.0'

> "WITHOUT RETRAINING FOR VULNERABLE WORKERS AND THOSE IN VULNERABLE REGIONS, INCOME INEQUALITY COULD WIDEN BY UP TO 30%."
>
> TAYLOR ET AL, 2019[18]

While many predictions about the potential of job losses are arguably overstated, the magnitude of change is still considerable. But the challenges posed by the fourth industrial revolution can be harnessed to push for change at government, industry and individual levels. While the economy is coming to terms with the arrival of 'Industry 4.0', it should begin doing everything it can to facilitate the emergence of the 'Worker 4.0' – an archetypical Australian worker characterised by a high level of proficiency in the uniquely human attributes listed above. The recommendations put forward in this report – particularly around lifelong learning – are aimed at this outcome.

Australia's current approach to disruption

While there's more Australia can do to embrace the future of work, it is important to acknowledge that the Australian Government has begun exploring various approaches. In 2017 a series of policies, cognisant of the need to capitalise on the opportunities brought by digital disruption while also investing in the Australian workforce, were unveiled. Despite the Government's considerable focus on innovation, there remains room for a more holistic and collaborative approach that builds on existing Government initiatives.

National Innovation and Science Agenda

Arguably, Australia's most comprehensive single policy initiative aiming to capitalise on Industry 4.0 technologies is the 2015 National Innovation and Science Agenda. This $1.1 billion policy program was designed to boost Australia's capacity, across all industries, to innovate and 'seize the next wave of economic prosperity'.[19]

THE AGENDA HAS FOUR PILLARS:

1. **Culture and Capital**
   - Encouraging Australians to embrace risk, pursue new ideas and learn from mistakes.
2. **Collaboration**
   - Identifying ways in which universities can develop deeper partnerships with industry.
3. **Talent and Skills**
   - Encouraging more Australian students to learn science, technology, engineering, mathematics and computing skills.
   - Attracting more global talent to Australia.
4. **Government as an Exemplar**
   - Government leading on innovating, not following.

The National Science and Innovation Agenda was an important step in the Australian Government acknowledging the challenges and opportunities associated with change.

It was heavily oriented towards 'start up' culture. It also focused primarily on realising the opportunities associated with economic and technological change without focusing on the corresponding disruptive forces such an embrace will bring.

SKILLING AUSTRALIA FUND

The Skilling Australian Fund is another initiative of the Australian Government. The Fund is designed to support more placements for Australian trainees in Vocational Education and Training (VET) education. While the scheme has seen more than 50,000 individuals placed into VET education, overall VET participation has considerable room for improvement. Completion rates in the VET sector are down as much as 43.5 per cent since 2013.[20] Alarmingly, more students withdrew from VET education courses in 2018 than those who completed them.[21] This suggests that incentivising more individuals into the system is only one piece of the puzzle.

INDUSTRY 4.0 TESTLABS

In 2017, the Prime Minister's Taskforce on Industry 4.0 released its vision for the introduction of 'Industry 4.0 Testlabs' in Australia. The test labs are designed to explore innovative, pre-market technologies and solutions in academic settings prior to their commercialisation. The Testlabs model is replicated on the German experience. In 2019, however, the Australian Government invested just $6 million in grants to established six individual Testlabs in Australian universities. While there is merit in the concept, the scale of the investment has been modest.

State and industry wide responses

Major initiatives which seek to address issues relating to disruption have come from state and industry levels, notably around the portability of entitlements. The concept of portable entitlements was driven by the disruption evident in certain industries with a high rate of contracting and project turnover.

This is evident in the construction industry, where portable entitlements schemes - particularly portable long-service leave schemes - operate around the country. Within these industries, it was clear that many workers would not work a single job long enough to accrue long-service leave. The result was the creation of portable funds, which meant that construction workers could receive long-service leave that recognised their tenure in the industry, not just with a single employer.

In 2019, Victoria become the first state to introduce a portable long-service leave framework state-wide for contract workers previously unable to claim long service leave. The scheme was modelled on those seen in the construction industry around the country, and could be explored further by other industries and governments around Australia.

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PART TWO:
DISRUPTION & THE AUSTRALIAN LABOUR MARKET

Key Points:

- Headline statistics look good – but Australian workers are underutilised and economic growth is driven largely by immigration, not innovation.
- Productivity and wage growth have both slowed in recent years.
- Labour mobility is high, with millions of Australians shifting in and out of jobs every year.
- More Australians than ever are engaging in 'gig work' and freelancing.
- Over 1 million Australians are categorised as 'independent contractors'.

Australia has a high wage, high employment labour market, supported by a highly skilled workforce and significant natural resource endowments. Australia is also well placed geographically to take advantage of projected continued growth in the Asia-Pacific region, whether it be through services or primary produce.

As a country with a high migrant population – where 23.4 per cent of the population speaks a language other than English at home – the Australian workforce has growing ties and language capabilities with many countries in the region.

However, while strong, the Australian labour market is not without its challenges or policy concerns. The unemployment rate is relatively low, but there is significant underemployment and a high number of discouraged job seekers (those who would take a job if offered, but are no longer actively looking).

Wages are high by global standards but are not growing at a pace expected by Australians. Finally, many Australians are currently employed in sectors or occupations that are highly exposed to automation and globalisation.

Economic growth largely driven by immigration

While the economy continues to grow, this growth has been supported to a large extent by a growth in the overall size of the population. The Australian population grew by 395,100 people between September 2017 and September 2018, for example, with much of that growth occurring amongst the working age population. Per capita measures of GDP or GNI growth have been far less impressive than aggregate measures.

In their 2018 review of income inequality, the Productivity Commission make the point that:

'What matters more than economic growth for understanding trends in inequality are the sources of income growth (labour, capital and transfers). These fluctuate in ways that sometimes favour those on high incomes and sometimes favour those on low incomes. For example, the mining boom was a period that favoured high income earners and capital income, lifting measures of inequality. In contrast, the post-Global Financial Crisis period has benefited lower income groups, despite weak overall growth in labour income. Among the various forces acting on inequality and poverty, the one constant that matters is having a job.'[22]

Productivity growth is low

Productivity growth, which is the key to increasing long term living standards in Australia, tells a more mixed picture. Treasury Economists Simon Campbell and Harry Withers argue that:

'Despite concerns, Australia's labour productivity growth over recent years is in line with its longer term performance. In the five years to 2015 16, labour productivity in the whole economy has grown at an average annual rate of 1.8 per cent. This compares to an average annual rate of 1.4 per cent over the past 15 years and 1.6 per cent over the past 30 years'.[23]

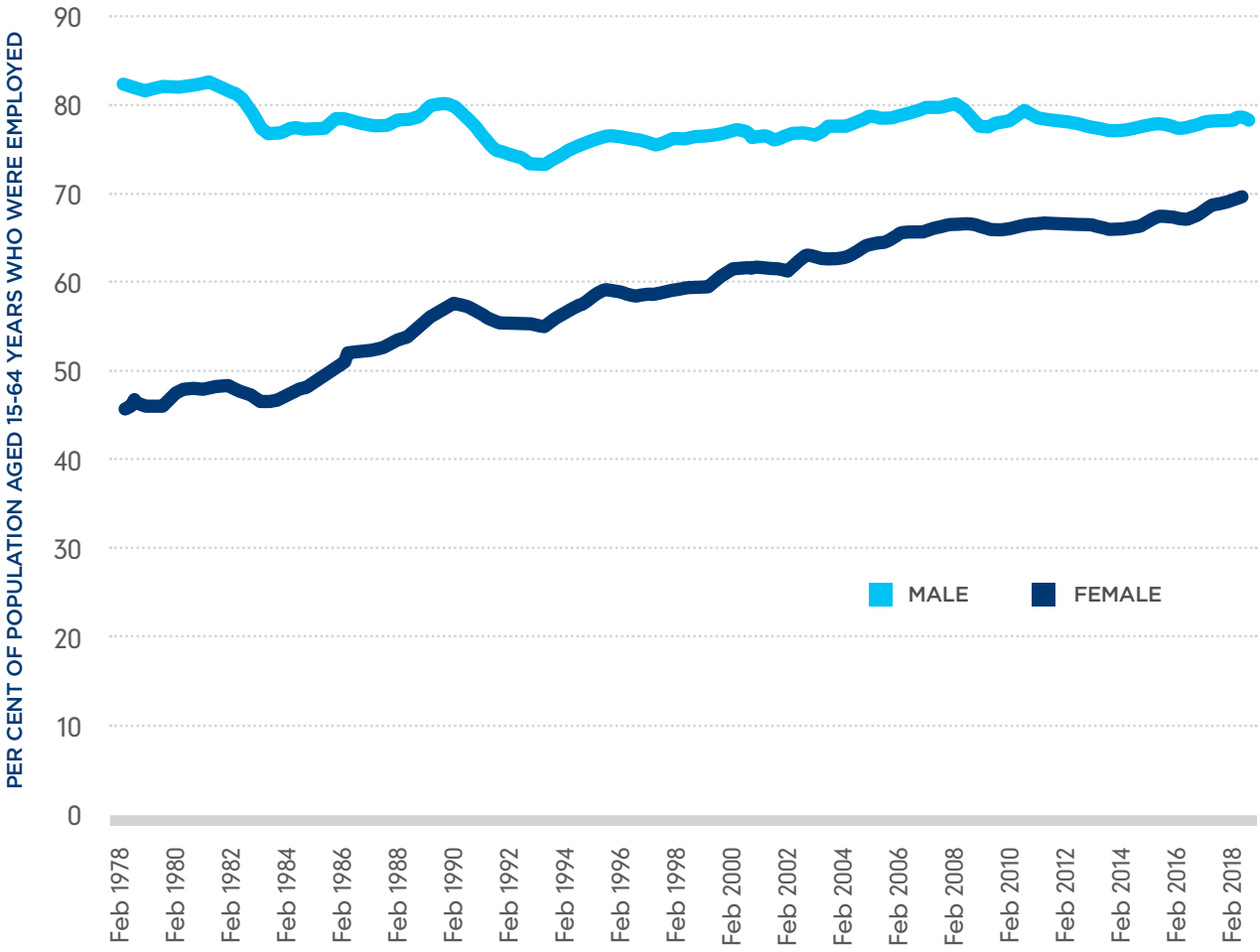
There are concerns as to whether productivity is going to continue to grow, and perhaps more importantly whether the gains from that productivity growth will be spread fairly between labour and capital, and within labour at different points on the income distribution. Part of the reason for this concern is the ways in which tasks previously undertaken by humans can now, and will soon be able to be completed by machines much more cheaply.

Australian workers are underutilised

There are a number of measures of labour utilisation that researchers use to analyse labour market trends in a country like Australia. One of them being the *employment to population ratio*, or the per cent of those aged 15 to 64 years who were employed for at least one hour per week in the reference period.

As shown in Figure 2.1, there has been a small but consistent decline in the per cent of working age males, with those falls usually occurring at times of economic slow-down but not recovering to their previous levels. For females, employment-to-population ratios have increased substantially over the period, though they are still far from parity with males.

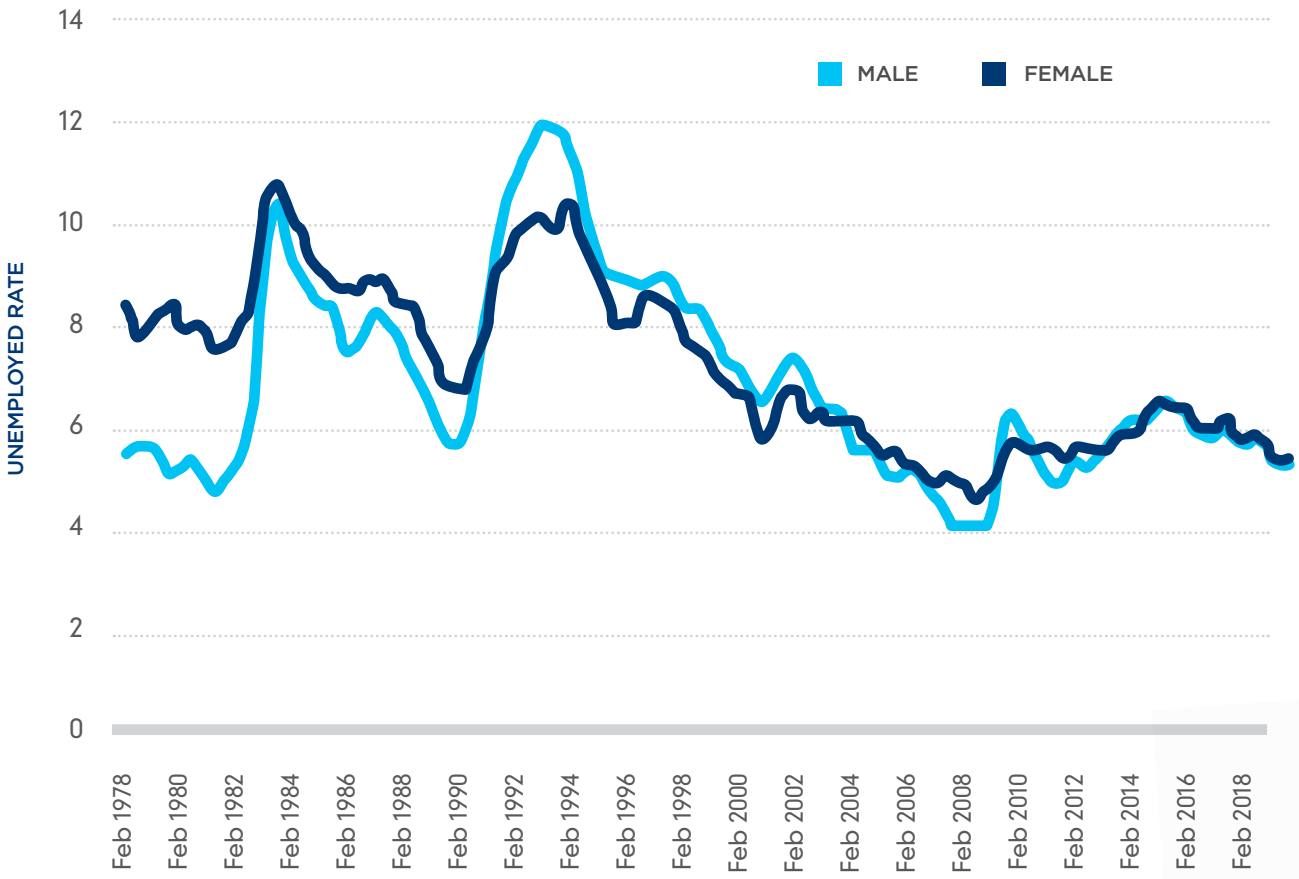
FIGURE 2.1 TREND EMPLOYMENT TO POPULATION RATIO BY SEX, 1978 TO 2019[24]



While the employment to population ratio measures labour market utilisation, the unemployment rate is the headline measure for labour market underutilisation. Specifically, it looks at those who are currently in the labour force (either working or actively seeking work and able to commence work if a job was available) and gives the per cent who did not work for at least one hour in the reference period.

The unemployment rate for females is currently relatively low by historical standards, though not as low as just prior to the Global Financial Crisis. There is more dramatic cyclical variation in unemployment for males, as males are less likely to exit the labour force during times of economic downturn.

FIGURE 2.2 TREND UNEMPLOYMENT RATE BY SEX, 1978 TO 2019[25]



Many Australians want to work more

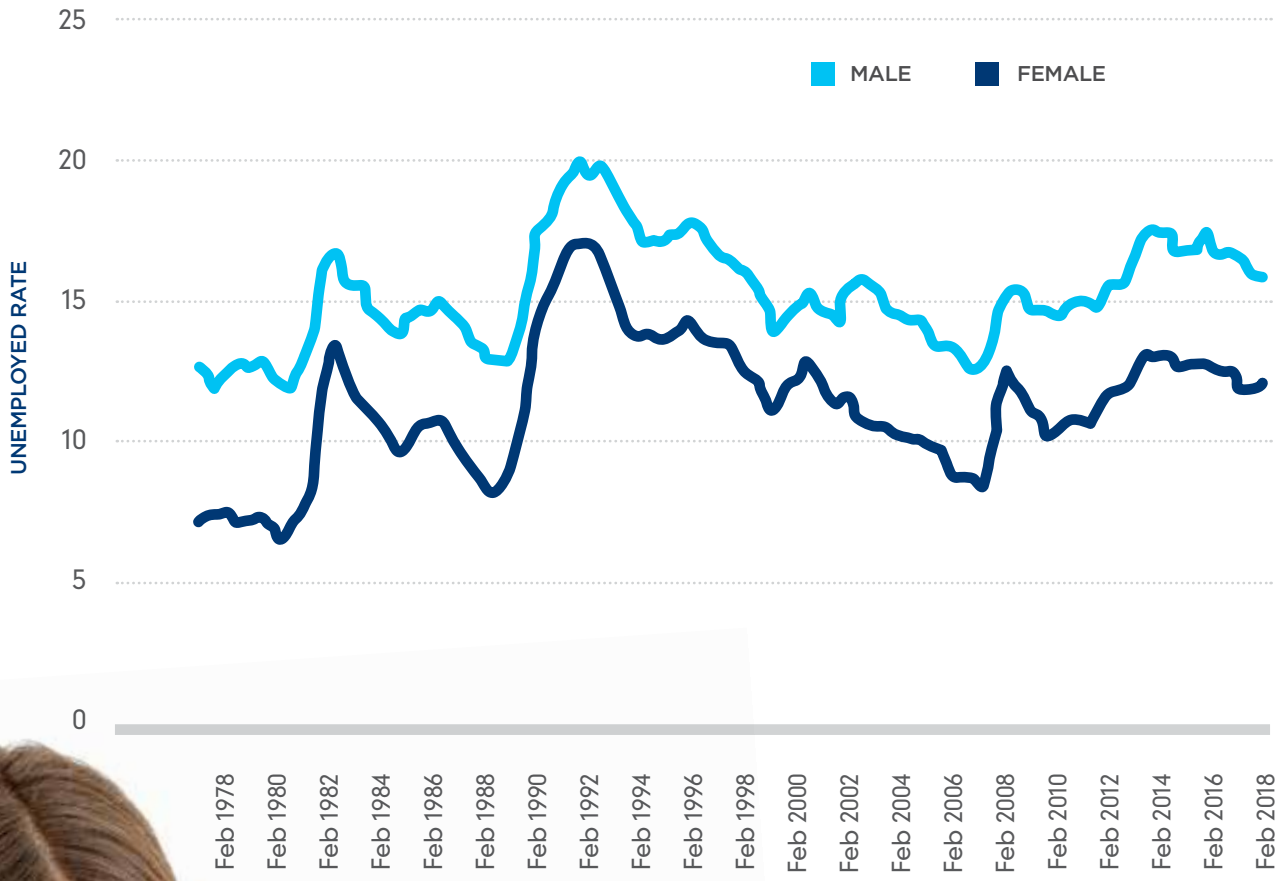
There are many underemployed people in the labour market who would like to work many more hours than they currently do. When they are added to the unemployed population and divided by the total labour force, this creates the underutilisation rate, as summarised in Figure 2.3. The underutilisation rate may be one explanation of the rise of the 'gig economy', as explored further below.

Comparing Figure 2.2 and 2.3, a number of stylised facts emerge. First, and not surprisingly, the cyclical patterns are very similar between unemployment and underutilisation. However, there are some differences that are illustrative.

A second stylised fact is that females have a higher underutilisation rate than males, especially during times of relative economic expansion. The difference between the underutilisation rate and unemployment rate has grown over the period (for both males and females).

At the start of the period, the underutilisation rate was 1.3 times the unemployment rate for males, and 1.5 times the rate for females. Most people who wanted to work more hours were working zero hours. By the end of the period, the underutilisation rate was 2.3 times the unemployment rate for males and 3.0 times for females. Most people who are underutilised now are working part-time.

FIGURE 2.3 TREND UNDERUTILISATION RATE BY SEX, 1978 TO 2019[26]



THE McKell Institute

Productivity key to better outcomes for workers

While the skill level of the Australian population has been increasing over the long term (as measured by high school completion and post-school qualifications), productivity growth has been more variable. One measure of productivity is the GDP per hours worked, shown in Figure 2.4 below (using Trend GDP). The figure shows a number of periods of relatively rapid growth, but a relatively flat line over the last three years or so.

FIGURE 2.4 TREND GDP PER HOURS WORKED INDEX, SEPTEMBER 1978 TO MARCH 2019[27] .

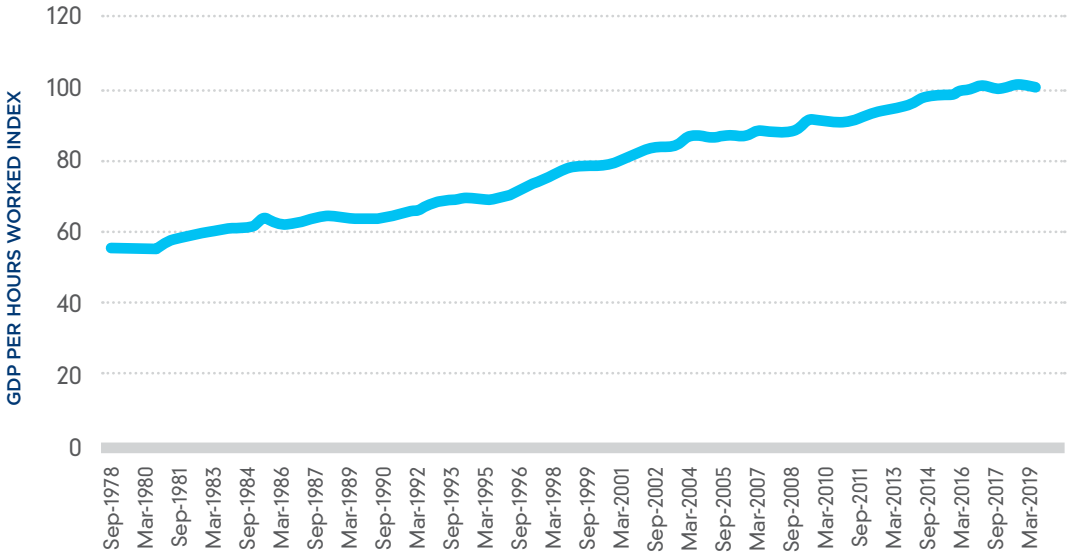
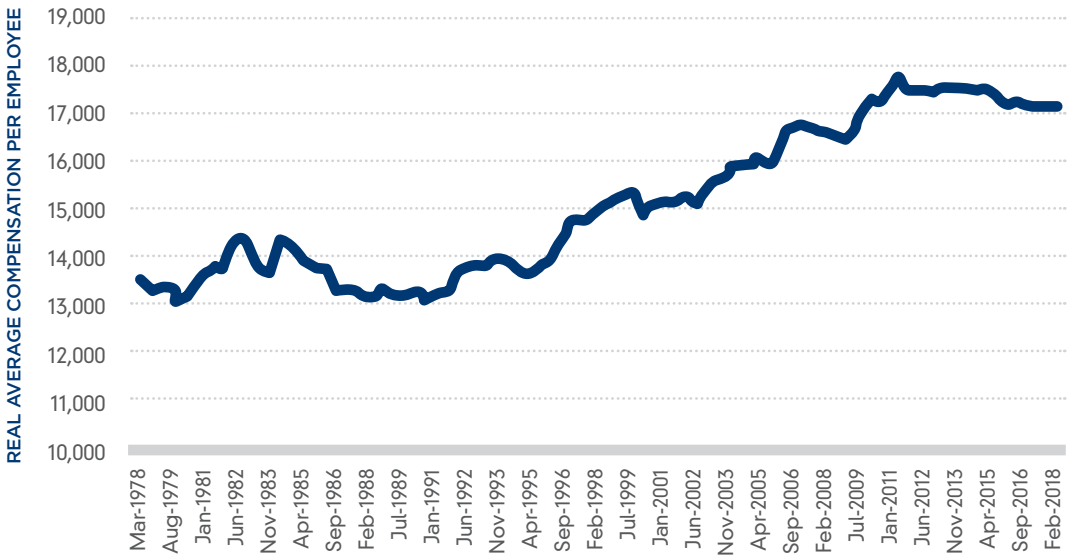


FIGURE 2.5 REAL AVERAGE COMPENSATION PER EMPLOYEE, 1978 TO 2019[28]



Many Australian workers are in industries that face job losses through automation

An individual's occupation and industry are determining factors when it comes to productivity and income. At the broadest level, shown in **Tables 2.1 and 2.2**, there are very different occupation and industry distributions for males and females. These differences aside, most Australian workers are in semi-skilled occupations – particularly Technicians and Trades Workers for males and Clerical and Administrative Workers for females.

Females in particular are likely to work in service industries less subject to automation (Education and Training; Health Care and Social Assistance), whereas a very large proportion of males (15.2 per cent) were working in construction in 2016.

FIGURE 2.6 JOBS MOST LIKELY TO BE AUTOMATED IN THE AUSTRALIAN LABOUR MARKET

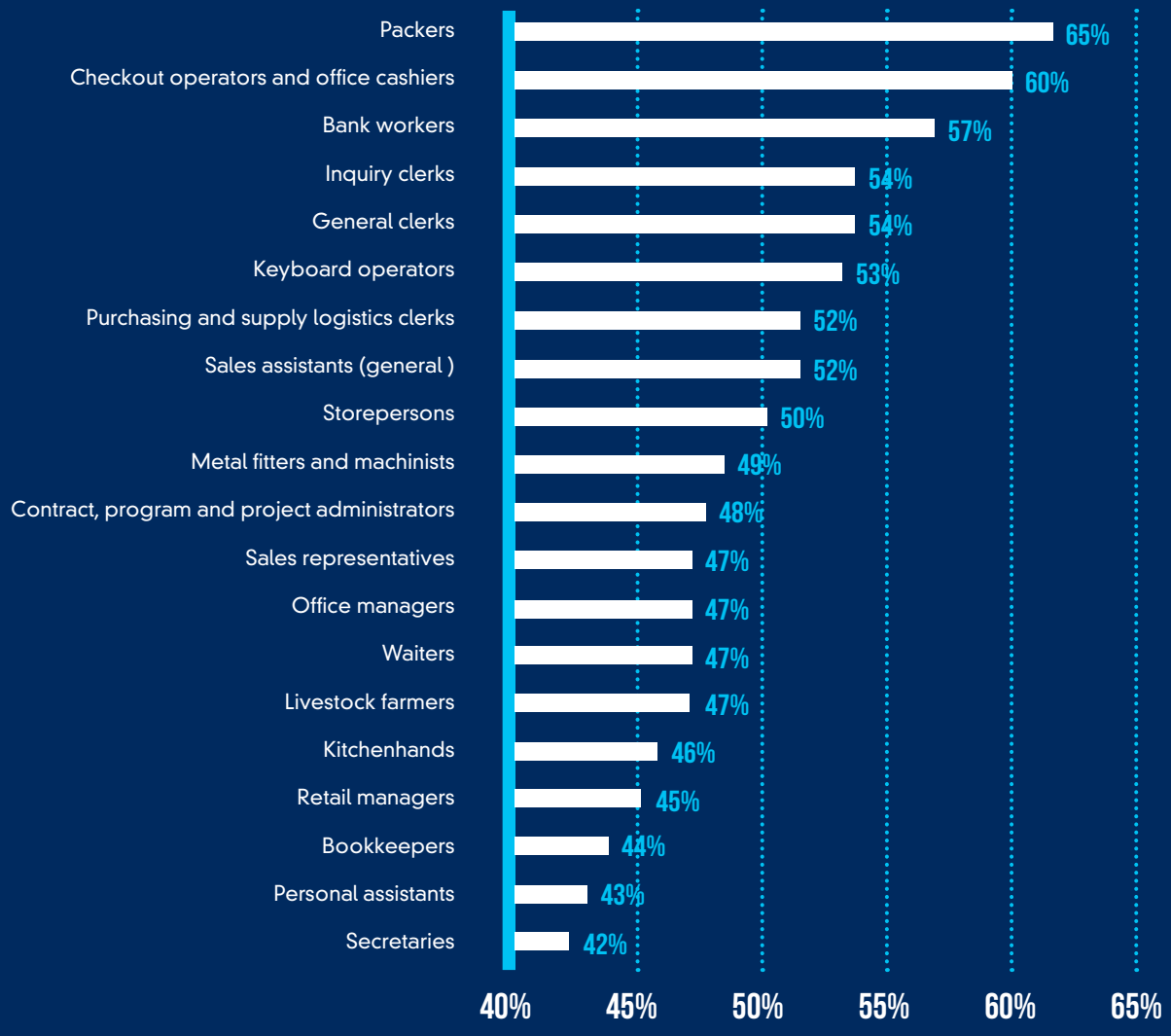


TABLE 2.1 OCCUPATION FOR THE WORKING AGE POPULATION, BY SEX, 2016

OCCUPATION	COUNT		PER CENT	
	MALE	FEMALE	MALE	FEMALE
Managers	809,496	488,529	15.5	10.1
Professionals	999,029	1,274,819	19.1	26.4
Technicians & Trades Workers	1,186,290	220,283	22.7	4.6
Community & Personal Service Workers	337,694	789,453	6.5	16.3
Clerical & Administrative Workers	332,195	1,052,689	6.3	21.8
Sales Workers	368,268	598,919	7.0	12.4
Machinery Operators & Drivers	572,506	65,284	10.9	1.4
Labourers	627,589	340,529	12.0	7.0
TOTAL	**5,233,067**	**4,830,505**	**100.0**	**100.0**

TABLE 2.2 INDUSTRY FOR THE WORKING AGE POPULATION, BY SEX, 2016

INDUSTRY	COUNT		PER CENT	
	MALE	FEMALE	MALE	FEMALE
Agriculture, Forestry & Fishing	154,609	67,911	3.1	1.4
Mining	146,266	28,222	2.9	0.6
Manufacturing	474,680	184,633	9.4	3.9
Electricity, Gas, Water & Waste Services	85,622	27,225	1.7	0.6
Construction	769,812	114,017	15.2	2.4
Wholesale Trade	193,197	102,208	3.8	2.2
Retail Trade	435,211	584,501	8.6	12.3
Accommodation & Food Services	327,239	395,341	6.5	8.4
Transport, Postal & Warehousing	359,097	112,919	7.1	2.4
Information Media & Telecommunications	105,304	69,588	2.1	1.5
Financial & Insurance Services	179,641	194,384	3.6	4.1
Rental, Hiring & Real Estate Services	80,597	88,858	1.6	1.9
Professional, Scientific & Technical Services	401,307	337,826	7.9	7.1
Administrative & Support Services	164,120	184,505	3.2	3.9
Public Administration & Safety	367,210	323,947	7.3	6.8
Education & Training	249,564	636,429	4.9	13.4
Health Care & Social Assistance	271,207	1,021,612	5.4	21.6
Arts & Recreation Services	87,989	80,930	1.7	1.7
Other Services	203,976	178,024	4.0	3.8
TOTAL	**5,056,648**	**4,733,080**	**100.0**	**100.0**

Source 2.1 & 2.2: Customised calculations, ABS Census of Population and Housing, Tablebuilder

All Australian industries likely impacted by automation to varying degrees

TABLE 2.3 VARIOUS ESTIMATES OF JOB LOSSES IN THE AUSTRALIAN LABOUR MARKET.

	TOTAL ESTIMATED JOB LOSS	TOTAL PERCENTAGE JOB LOSS	TIMEFRAME
McKinsey	3.5 - 6 million	46 per cent	2020-2030
CEDA	5 Million	40 per cent	10-15 years after 2015
Adzuna	Unspecified	~33 per cent	12 years to 2030
Finder	3.04 million	~25-30 per cent	To 2030
Borland and Coelli	Unspecified	9 per cent	2017-2030

The most comprehensive analysis of the potential effect of automation on particular occupations internationally come from a 2013 study by Carl Frey and Michael Osborne of the University of Oxford.[29] These authors surveyed the machine learning and mobile robotics literatures to determine three broad occupational tasks thought to be difficult to replace with robotics or computerisation over the next 20 years.

They then formulated an index of the extent to which the occupations in the United States Department of Labor's Standard Occupational Classification involve these tasks using the department's O*NET database, which presents detailed information on various features of 903 occupations in a standardised form. Daniel Edmonds and Timothy Bradly, of the Australian Department of Industry,[30] and Hugh Durrant-Whyte, writing in CEDA's *Australia's future workforce* report in 2015,[31] present two different methodologies for producing a concordance so that the Frey and Osborne estimates of the probability of computerisation can be applied to the occupations listed in the Australian and New Zealand Standard Classification of Occupations (ANZSCO).

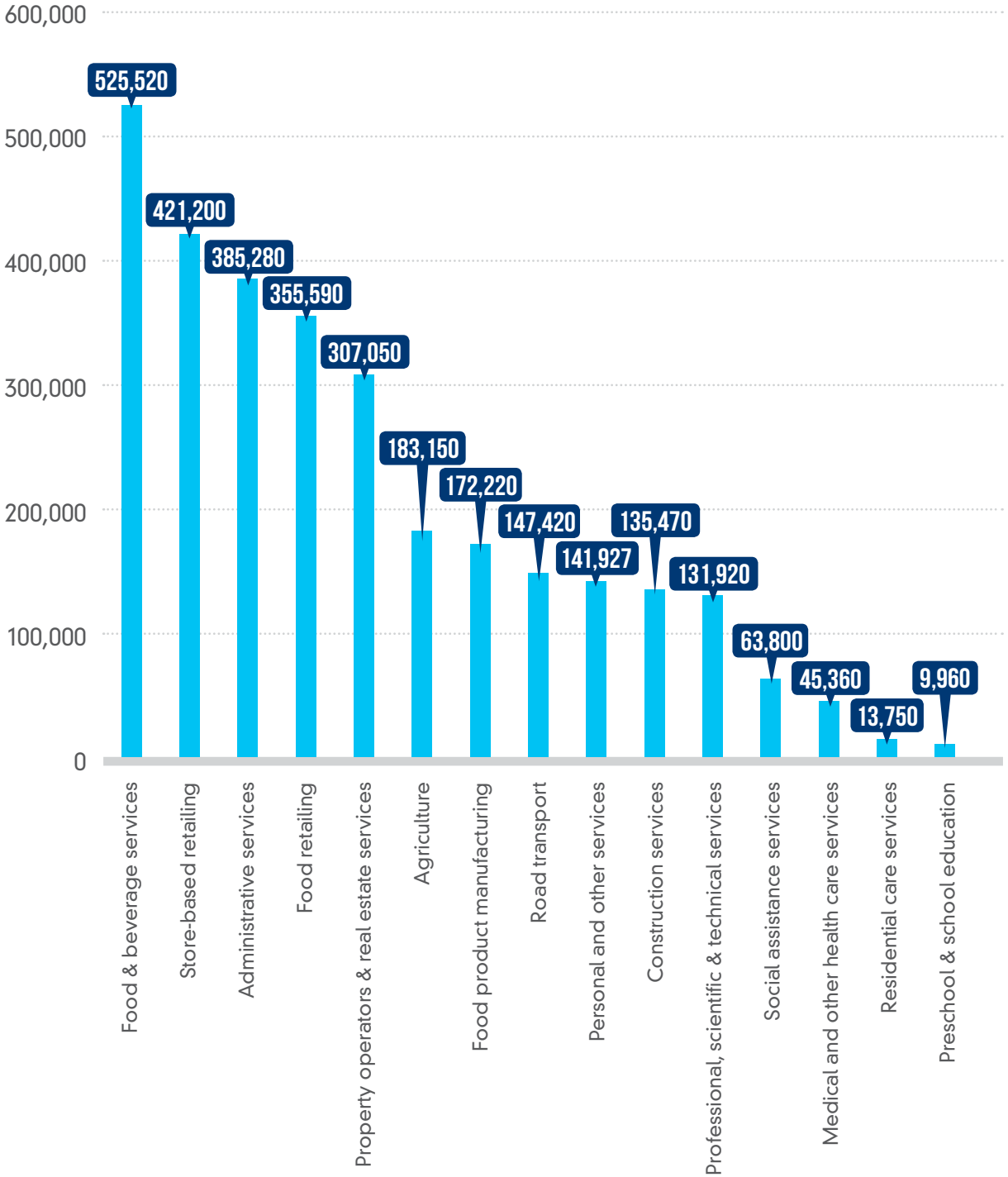
The estimates are far from universally accepted. Other researchers using a similar methodological approach, but a different set of assumptions, have come up with very different estimates of future job risk.

Jeff Borland and Michael Coelli's 2017 study, *Are Robots Taking our Jobs?*,[32] make three very important criticisms of the Frey and Osborne methodology, and estimates that have been derived from it. Specifically:

- 'A first specific criticism of Frey and Osborne's method is that everything depends on the validity of the predictions on the likelihood of future automation.
- Second, Frey and Osborne argue that an occupation being computerised or automated implies that all jobs in that occupation would be destroyed.
- Third, even for those jobs which are technically feasible to automate, it still needs to be profit-maximising for firms to substitute technology for labour.'

Based on these criticisms, the authors come up with a much lower prediction of 9 per cent of jobs being at significant risk of automation. This is, of course, still a very large number of people in the Australian labour market, and if concentrated amongst particular geographic, demographic and socioeconomic groups will cause considerable distress and anxiety.

FIGURE 2.7 AN ESTIMATE OF THE NUMBER OF JOBS AT RISK IN HIGHLY AUTOMATABLE INDUSTRIES.[33]



PART THREE: THE CHANGING NATURE OF EMPLOYMENT

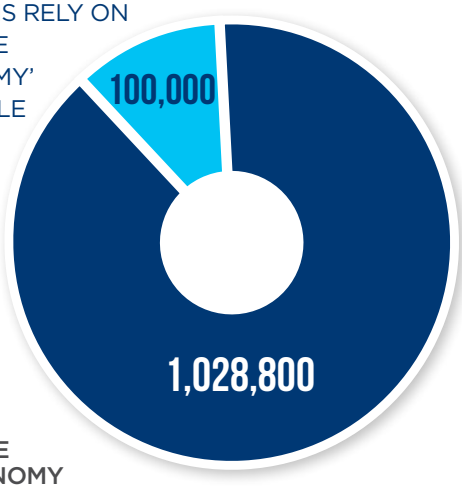
Key Points:

- Traditional employment still dominates the labour market.
- There are over 100 gig-economy platforms operating in Australia.
- Over 100,000 Australians are estimated to be working full time in gig economy jobs. Almost 2.6 million Australians, around 20.6 per cent of the workforce, are employed on a casual basis.
- Workers in non-traditional forms of employment (i.e independent contractors, gig economy workers) often miss out not only on superannuation, but workers' compensation too.
- A nationally consistent approach to workers' compensation is needed, with methods of extending workers' compensation to more contract workers also required.
- Approximately 30 per cent of Australians aged 15 and over do not hold a superannuation account. This leaves them exposed as many insurance products are offered to individuals through their superannuation funds.

The gig economy hasn't displaced traditional employment

Technological advances don't only disrupt individual industries but help to create new ones. The emergence of the 'gig economy' in Australia and around the world is one such example. The 'gig economy' refers to the various industries in which 'task-based' work has substituted more stable and secure forms of employment.

FIGURE 3.1 CONSERVATIVE ESTIMATES SUGGEST THAT AROUND 100,000 AUSTRALIANS RELY ON WORK IN THE 'GIG-ECONOMY' AS THEIR SOLE MEANS OF INCOME.



Most Australian workers continue to be employed in permanent or casual work. Increasingly, however, 'independent contractors' constitute more of the workforce. While independent contractors are found in every industry, it is the 'gig economy' jobs that best illustrate the challenges facing workers with independent contracting as their primary form of employment.

In 2009, just a single online 'gig platform' was operational in Australia. This has exploded over the decade. There now over 100 gig economy market places operating in Australia.[34]

'Gig workers' at times receive the benefit of flexibility and selective work hours – for many workers, it is this pursuit of flexible working hours or supplementary income that encourages participation in the gig economy. However, the cost of such flexibility is also tangible. Gig workers are typically employed as 'independent contractors', which means they must forgo the basic entitlements most Australian workers receive through the existing industrial relations system.[35]

While there are some workers for whom the flexible nature of gig-work is preferable, a majority of younger workers around the world prefer more stable, traditional forms of employment. In a major global survey, Allianz identified that, in most countries, more than 70 per cent of younger workers 'preferred security and stability' in the workplace over work that provides 'change and flexibility'.[36]

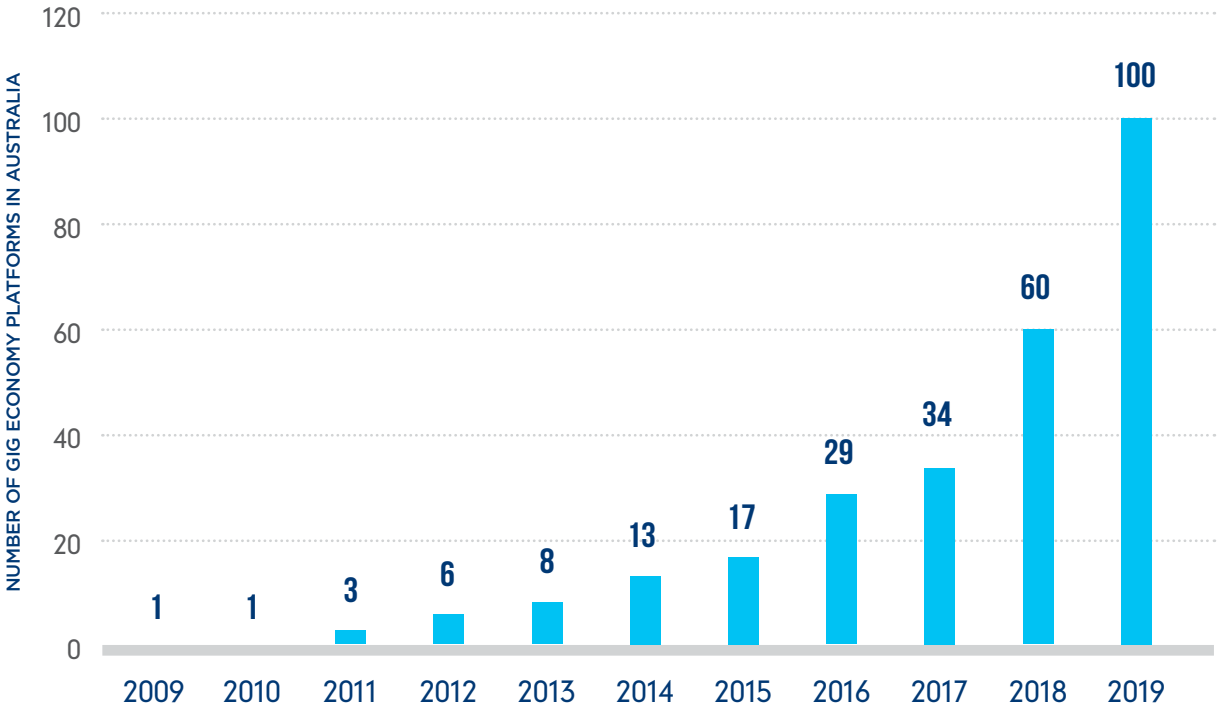
There are lots of big numbers in the discussion around the rise of the gig economy. Estimates predict, in the United States, for example, that over 40 per cent of workers will soon be freelancing to some degree – most of which will do so through gig economy platforms.[37]

The reality is, in Australia today, around 100,000 individuals work full time in the 'gig economy'. This is expected to rise with the proliferation of on-demand market places. However, while gig work has taken hold in certain sections of the economy, traditional employment models still dominate the Australian labour market.

On-demand labour will not be a solution for every industry. Industries must continue to offer stable and secure forms of employment. This will enable them to attract the right talent, and invest aggressively in their own labour-pool to ensure a pipeline of talent for their industry. Employing workers through gig-economy platforms does little by the way of investing in an industry's talent. This means over the longer term, industries overly reliant on meeting immediate demand through gig-platforms might minimise the capacity of their industry's workforce .

We need to move beyond the discussion of whether the gig economy is exclusively good or bad.[38] What we need to look towards is under what conditions can the gig economy provide the most benefits and what instruments are available to government to ensure that these benefits are realised in the most effective way. The challenge for policymakers and regulators is how to respond to the negative externalities that result from the gig economy while supporting the benefits that it presents.[39]

FIGURE 3.2
GROWTH IN 'GIG-ECONOMY' ONLINE LABOUR MARKETPLACES IN AUSTRALIA, 2009-2019.



The changing nature of employment challenges worker protections

Australian workers have typically been protected by state-based workers' compensation frameworks. However, among the many challenges imposed by the disruptive nature of contemporary employment is the complications around ensuring all workers - even if they are deemed 'independent contractors' - remain entitled to workers compensation.

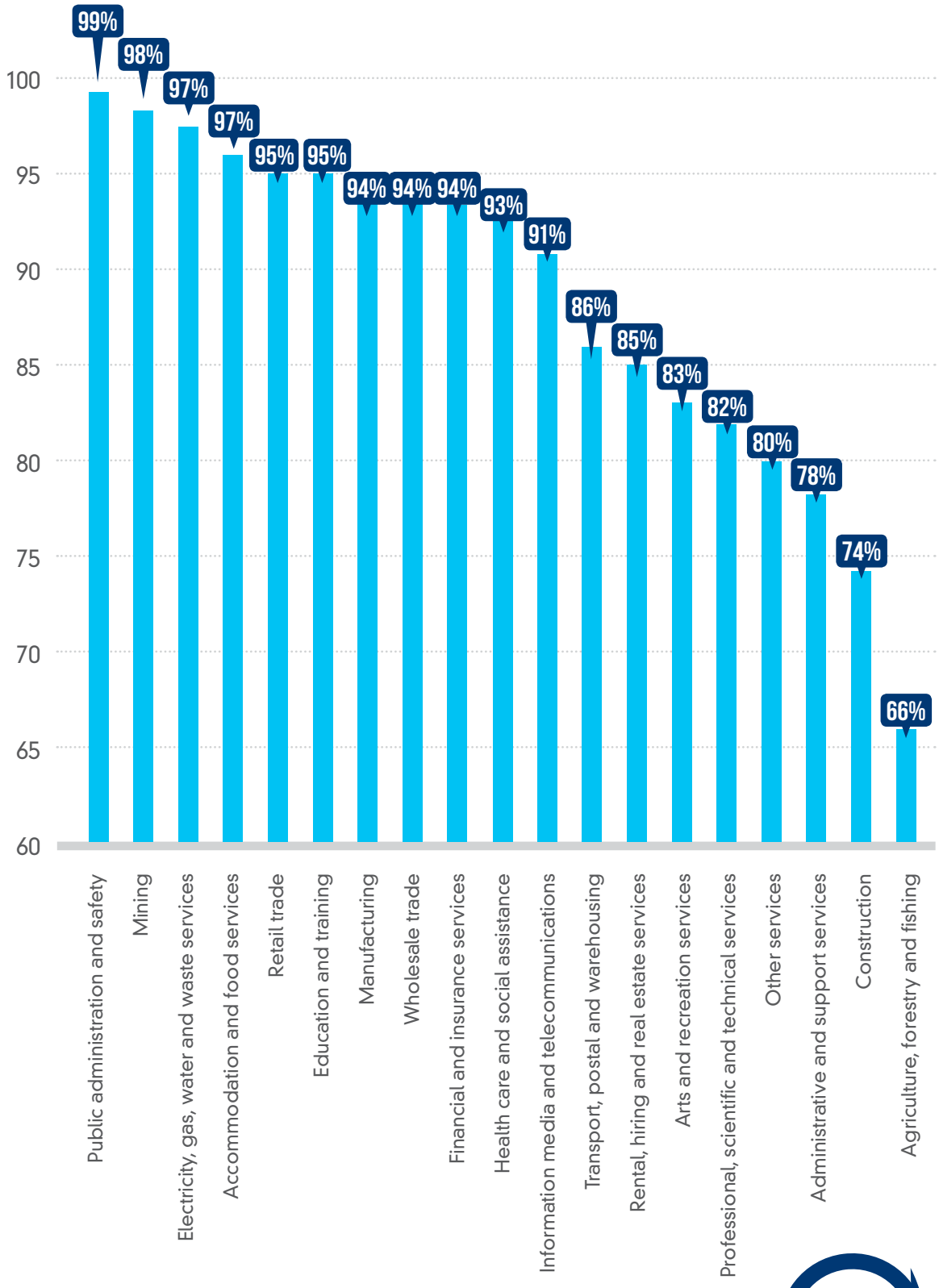
Workers compensation is designed to insure the Australian workforce (and businesses) against potentially life-altering events, like injury or illness. Traumatic events that undermine an individual's capacity to engage productively in the workforce can happen to any Australian in any industry.

Data from the 2016-17 financial year calculates that 106,260 'serious claims' for workers compensation were made, 90 per cent of which were the consequence of injury and musculoskeletal disorders, with the remainder the result of disease.[40] These incidents occurred across all industries and age groups. For these workers, and the businesses that employed them, the fact that they received adequate workers' compensation offers at least a semblance of comfort in the wake of often traumatic events.

Unfortunately, not every worker in Australia is covered by workers' compensation. As demonstrated in Figure 3.3, it's not just gig workers that aren't covered – up to 26 per cent of construction workers in Australia – a high risk industry – are not covered by workers' compensation due to the nature of their employment, according to Safe Work Australia.


TOP
EX
ocean road
chocolaterie

FIGURE 3.3
PROPORTION OF WORKERS ENTITLED TO WORKERS' COMPENSATION BY INDUSTRY[41]



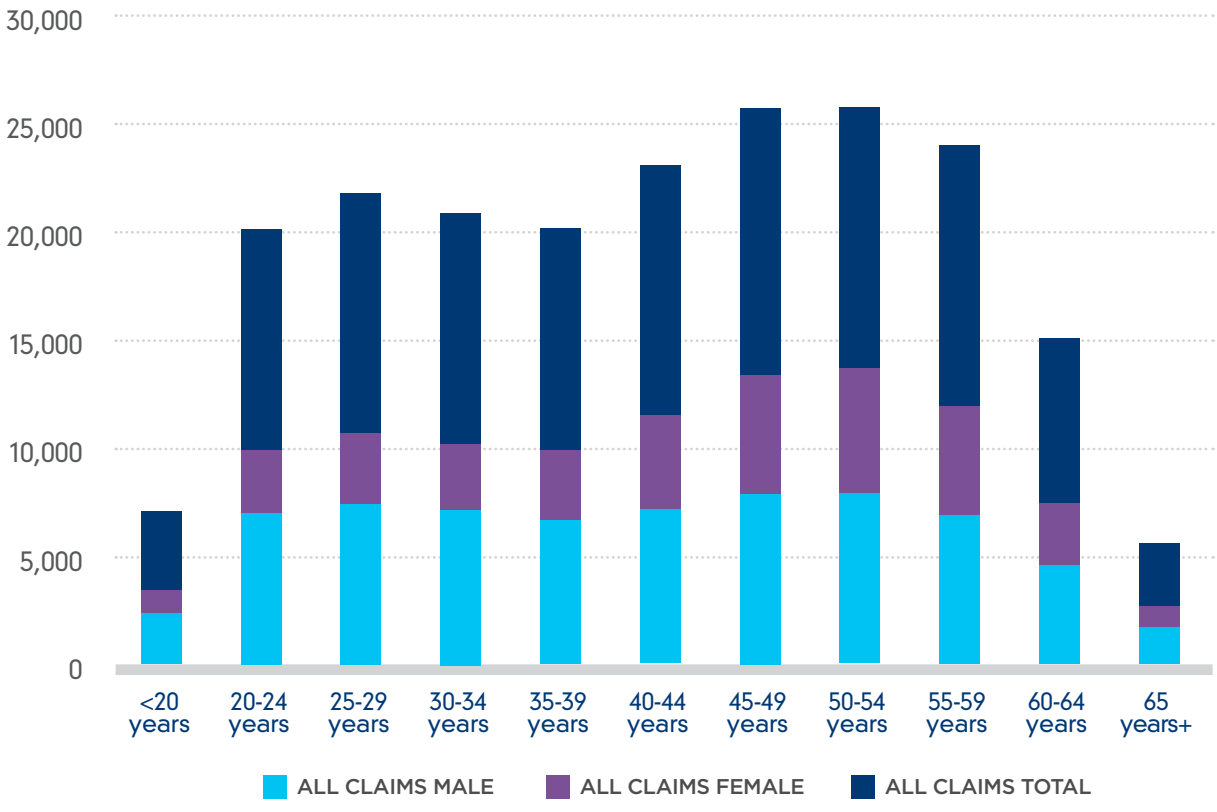
Australia's workers' compensation landscape is complex

The system of workers' compensation in Australia is complex. Rather than a consistent national framework, each state and territory has its own workers' compensation system. Like many of the established norms in Australia's industrial relations system, the workers' compensation system seen today in Australia emerged before the forces of the fourth industrial revolution were conceived, let alone realised. The system was built and structured to cater for a traditional workforce of full time and permanent employees – different to what we are experiencing today and will continue to experience into the future.

In total, there are 11 individual workers' compensation systems in operation in Australia: one in each state and territory, with the Federal Government maintaining three workers compensation systems – one for Commonwealth workers, one for seafarers, and one for veterans. Most Australian workers are covered by these schemes, but an increasing number of contract workers – particularly those in the gig economy – are at risk of falling through the cracks and being left unprotected.

Australia's workplaces are getting safer. The fact that over 100,000 workers' compensation claims are made annually, however, re-emphasises its central importance in offering a security to the workforce. But while the nature of work and employment relations are rapidly evolving, Australia's workers compensation system has been slow to evolve in such a way that workers on short-term, independent contracts, or those in the gig-economy, are often not covered by workers compensation.

FIGURE 3.4 WORKERS' COMPENSATION CLAIMS ACROSS ALL AGE GROUPS IN THE AUSTRALIAN WORKFORCE[43]



Gig workers and contractors often miss out on workers' comp

As more Australians are employed as independent contractors, fewer are covered by workers compensation. Even today, 26 per cent of workers in the construction industry - an industry which accounts for the second highest number of compensation claims in Australia – do not have access to workers' compensation.

These challenges extend to labour-hire workers. Legally, labour-hire workers are the employees of, and have workers' compensation insurance provided for them by, the labour-hire company that supplies them. There are instances of labour-hire companies relying on the insurance provided by the host employer to provide cover for any injuries sustained. However, the host employer workers' compensation does not extend to labour-hire and therefore the cost gets pushed to other insurance products, like liability. These products are not designed to cover a person in the same way that workers' compensation is. To further compound this problem, liability products are assessed under common-law and therefore the injured person is not protected in the same way and does not benefit from the statutory injuring management guidelines.

The inability for existing schemes to cover much of the short-term, independent contractor workforce has real world consequences. In a tragic incident in Sydney in 2017, a food-delivery rider deemed an 'independent contractor' was killed while performing his service. The entity through which he had received the 'gig' were ultimately not deemed liable for the fatality. Had the worker been covered in the same fashion as a permanent employee for the company through which his gig was awarded, a workers' compensation payment would likely have been delivered.

Reforming the workers compensation framework in Australia is a major policy challenge, which requires proactive political leadership. This report recommends that, through the Council of Australian Governments (COAG) process, the Federal Government explores ways to extend workers compensation to the growing pool of non-permanent workers in the gig-economy and other industries with a high ratio of contractual, short-term employer-employee relationships.

THE NEW ZEALAND 'EARNER' CATEGORISATION FOR WORKERS' COMPENSATION.

'Deemed workers' under the New Zealand scheme are far simpler to identify. In New Zealand, any 'earner' is entitled to workers compensation if injured or having taken ill during or as a result of their engagement. The New Zealand definition is simple and all encompassing:

"An earner is a natural person who engages in employment for the purposes of pecuniary gain, whether or not as an employee".

A nationally consistent approach to workers' compensation is needed

The nature of workers' compensation varies within in jurisdiction in Australia. But the overall challenge associated with evolving working arrangements will affect every Australian jurisdiction.

There have long been calls for a nationally consistent approach to workers compensation. In 2004, the Productivity Commission published its recommendations for a national approach.[44] In acknowledging the entrenched nature of the existing systems, it offered recommendations designed to deliver more consistency between systems without a complete overhaul of a framework that, despite its complexity, was delivering appropriate compensation for most Australian workers.

At the time, the Productivity Commission noted that there was "no evidence of support by the States and Territories for a single uniform national workers' compensation scheme". It did, however, identify four different proposals that had the potential to further harmonise the existing workers' compensation landscape in Australia:

PRODUCTIVITY COMMISSION RECOMMENDATIONS *on* HARMONISING WORKERS' COMPENSATION

OPTION 1: EXPAND ACCESS TO COM-CARE

Allow more Australian workers to access the Federal Government workers' compensation scheme, Com-Care.

OPTION 2: NEW COMMONWEALTH GOVERNMENT PARALLEL SCHEME

Create a new scheme which runs in parallel with existing state schemes but is open to non-Commonwealth workers.

OPTION 3: NEW COMMONWEALTH RUN 'PREMIUM PAYING' SCHEME, PRIVATELY OPERATED.

Work with the private sector to create a similar scheme to that presented in Option 2.

OPTION 4: CREATE A JOINT COMMONWEALTH-STATES BODY TO HARMONISE EXISTING SCHEMES

Instead of creating Australia's 12th workers' compensation scheme, create a Commonwealth Body with a mandate to work with each existing scheme to harmonise their elements. Contemporarily, such a process could be coordinated through the Council of Australian Governments (COAG), a forum in which the heads of Government across each jurisdiction in Australia, as well as the head of the Local Government Association, meet each quarter.

Inconsistencies between workers' compensation schemes remain

FIGURE 3.5 STATUS OF COVERAGE FOR CONTRACTORS IN AUSTRALIAN WORKERS' COMPENSATION SCHEMES, END OF 2017.

	Workers' Compensation coverage for contractors and labour hire workers[45]	
JURISDICTION	**INDIVIDUAL CONTRACTORS COVERED?**	**LABOUR HIRE WORKERS COVERED?**
NSW	Yes, conditional on 'deemed worker' language in state legislation	Yes
Victoria	Yes, conditional on 'deemed worker' language in state legislation	Yes
Queensland	No, with exemptions	Yes
Western Australia	No, 'unless employed under contract for service and remunerated in substance for personal manual labour or service'	Yes
South Australia	Yes	Yes
Tasmania	No, with exemptions	Yes
Northern Territory	No, with exemptions	Yes
ACT	No, with exemptions	Yes
C'wealth Comcare	No	Yes
C'wealth Seacare	No	Yes
C'Wealth DVA	No, with exemptions	Yes, with exemptions
New Zealand	Yes	Yes

Workers with no access to super are also missing out on insurance

Many Australian workers are covered by insurance policies attached to their superannuation fund. The most common types of insurance offered by superannuation funds tend to be those which are considerably expensive for individual consumers, and which typically have a lower uptake by individuals when not attached to superannuation funds. Superannuation funds usually offer life insurance, TPD cover (total or permanent disability cover), income protection cover, or a combination of all three.[46] By buying in bulk, superannuation funds can offer lower premiums to their members, who pay for this through their superannuation contributions. In 2016, more than 60,000 death and disability benefits were paid through superannuation.

While this system is advantageous in lowering the buy-in cost to important insurance covered for Australian workers, it also leaves individuals exposed if they experience extended periods of their career in forms of employment in which the superannuation guarantee is not applied. Currently, it is estimated that 15.6 million Australians hold a superannuation account. 73 per cent of men aged over 15 have an account, while just 67 per cent of women hold super accounts.

The approximately 30 per cent of Australians aged 15 or older without super accounts are not just exposed to retirement insecurity, but the lack of protective insurance associated with holding a superannuation account. The goal of extending superannuation to more Australians is fundamentally about extending the right to a comfortable retirement to all Australians, irrespective of their employment status. But the security offered by superannuation-based insurance products also constitutes an important workplace entitlement that all Australians, no matter how disruptive the future of work may be, should be able to access.

FIGURE 3.6 COVERAGE AND AVERAGE BALANCE OF SUPERANNUATION FOR AUSTRALIANS AGED 15 AND OVER.

Mean balance and coverage of superannuation, 2015-2016		
	AVERAGE BALANCE	**% WITH SUPER ACCOUNT**
Males 15+	$111,853	73
Females 15+	$68,499	67
Approximate number of Australians with a super account		**15.6 million**

PART FOUR: AUSTRALIAN ATTITUDES ON THE FUTURE OF WORK: ANALYSIS OF ANUPOLL SURVEY

Key Points:

- ANUPoll survey shows that at the present time, Australians don't appear overly concerned about their job security.
- If they lost their job, only 10 per cent of Australians think it would be easy to find comparable work.
- Many Australians do not think that their job is likely to disappear anytime soon, which may dissuade much of the workforce from engaging in life-long learning and upskilling.
- Government and industry both need to do more to raise awareness about labour market changes, prepare Australian workers for disrupted careers, and encourage the workforce to continue on paths of life-long learning


FRESH TO GO
Hot food to go!
Hot food to go!
Umbrellas
Favourites
Favourites
$10
$6.30
Gifts Mum will love
Gifts Mum will love
Maltesers
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In October/November 2017, the Social Research Centre, on behalf of the Australian National University asked a representative sample of Australians about their attitudes towards job security and the future of work. The ANUPoll survey results, detailed below, paint a concise picture of Australian perspectives on the labour market and their own job prospects.

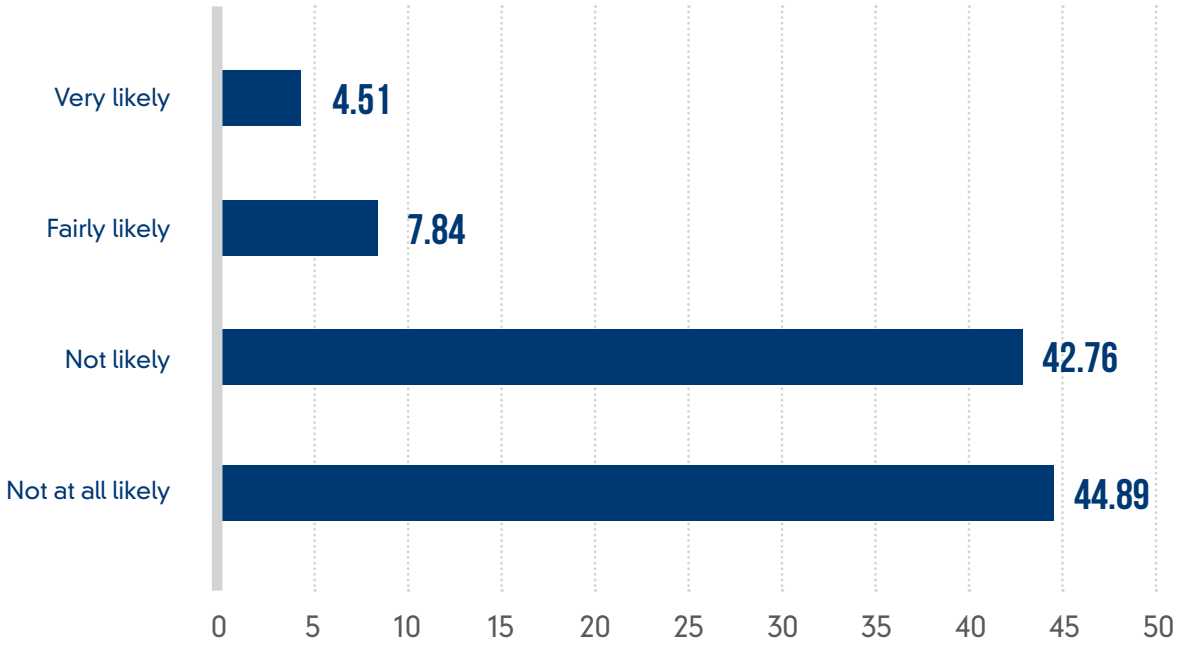
Among individuals who received the survey (i.e. members of the 'Life in Australia' panel), a completion rate of 67.7 per cent was achieved. Considering the recruitment rate to the panel, the cumulative response rate is calculated as 10.6 per cent. The survey was conducted via the Internet (76 per cent of respondents) and phone (24 per cent of respondents). The use of this mixed-mode frame is to ensure coverage of households without Internet access. The data from the survey is available through the Australian Data Archive.

Most Australians are confident they will keep their jobs

In the short term, Australians are not overly concerned about their own job security. The overwhelming majority of Australian workers surveyed believe it is 'not at all likely' (44.9 per cent) or 'not too likely' (42.8 per cent) that they will either be laid off in the next twelve months, or – in the case of business owners – that they will have to lay off employees or close their business. Given the widespread media attention regarding possible effects of job automation and economic rationalisation, this result is perhaps surprising.

There are, however, a small minority of Australians who are concerned about their own job. Almost five per cent of Australians believe it 'very likely' that they will either be laid off or will lay off employees (or close their business) in the coming year, with an additional 7.8 per cent thinking it is fairly likely.

FIGURE 4.1 THINKING ABOUT THE NEXT 12 MONTHS, HOW LIKELY DO YOU THINK IT IS THAT YOU WILL LOSE YOUR JOB OR BE LAID OFF/HAVE TO LAY OFF EMPLOYEES OR CLOSE THE BUSINESS?



When analysing factors associated with job security using, significant differences by demography and geography were observed. Females feel slightly less secure than males. Age also plays a role, with older Australians feeling less secure than younger Australians.

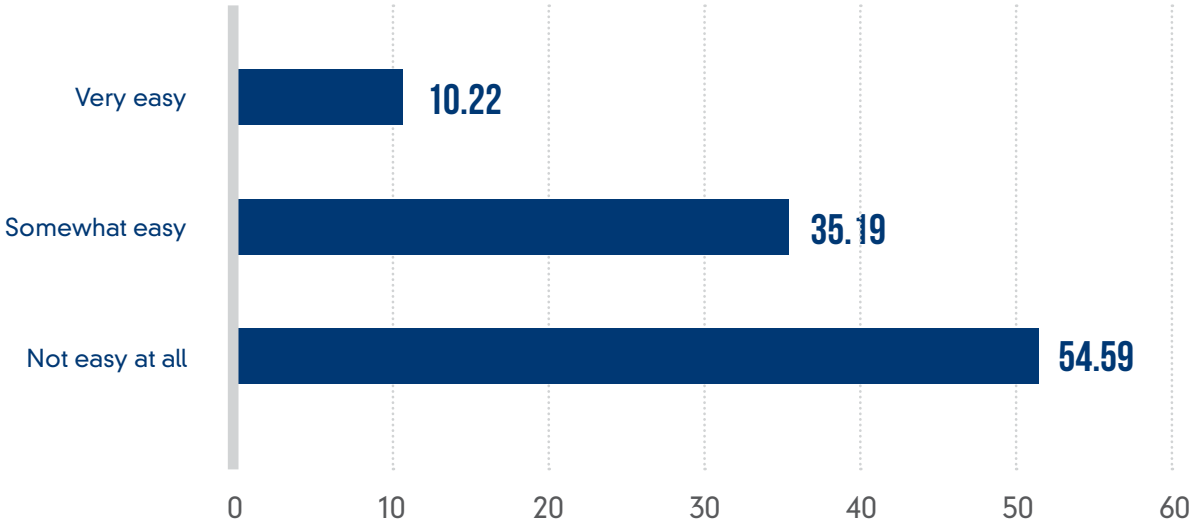
Foreign-born Australians are more concerned about their job-security

However, the most consistent difference is by country of birth. Those who were born in a predominantly non-English speaking country were much more likely to report that they were fairly likely or very likely to lose their job/lay off workers/close their business (15.8 per cent) compared to those born in Australia or in an English-speaking country.

While Australians feel reasonably secure in their current job, in the event that Australian workers are laid off, they are far less optimistic about their future employment prospects. More than half – 54.6 per cent – of workers surveyed say that finding a new job with equivalent remuneration and benefits would be 'not easy at all'.

Only 10 per cent believe that attaining a new, equivalent job would be 'very easy'. Taken together, these two results suggest that Australian workers feel largely comfortable about their current employment positions, but less optimistic about their future employment prospects in the event that they do become unemployed.

FIGURE 4.2 IF YOU WERE LAID OFF, HOW EASY WOULD IT BE FOR YOU TO FIND A JOB WITH ANOTHER EMPLOYER WITH APPROXIMATELY THE SAME INCOME AND FRINGE BENEFITS YOU NOW HAVE, WOULD YOU SAY?

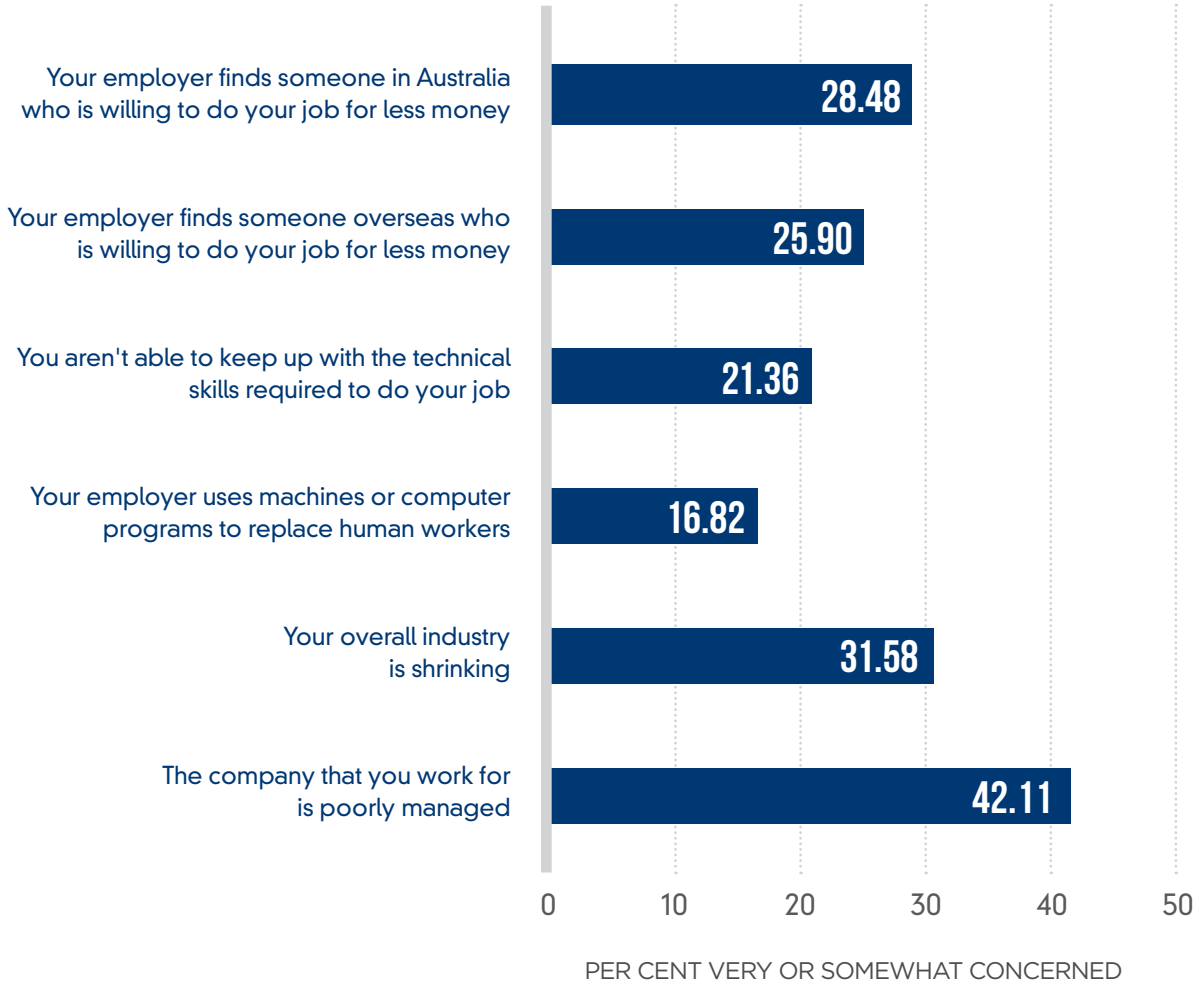


Workers may feel insecure about their current employment for any number of reasons. To further investigate the sources of feelings of job security (or insecurity), the ANUPoll survey asked Australian workers their level of concern regarding six different potential threats.

The prospect of their employer finding someone overseas who is willing to perform their job for less money presents the most acute concern among Australasian workers, with 14.8 per cent 'very concerned'. However, the prospect that poor management of the company for which they work will lead them to lose their job presents the greatest overall threat for Australian workers: 14.7 per cent are 'very concerned' by this threat, and 27.6 per cent are 'somewhat concerned'.

The least concerning threats to Australians' job security are an inability to keep up with the technical skills required to do their job (six per cent are 'very concerned' and 15.2 per cent 'somewhat concerned), and that employers may use machines or computers to replace human workers (eight per cent are 'very concerned' and 9.8 per cent 'somewhat concerned).

FIGURE 4.3
PER CENT VERY OR SOMEWHAT CONCERNED ABOUT SOURCES OF POTENTIAL JOB LOSS



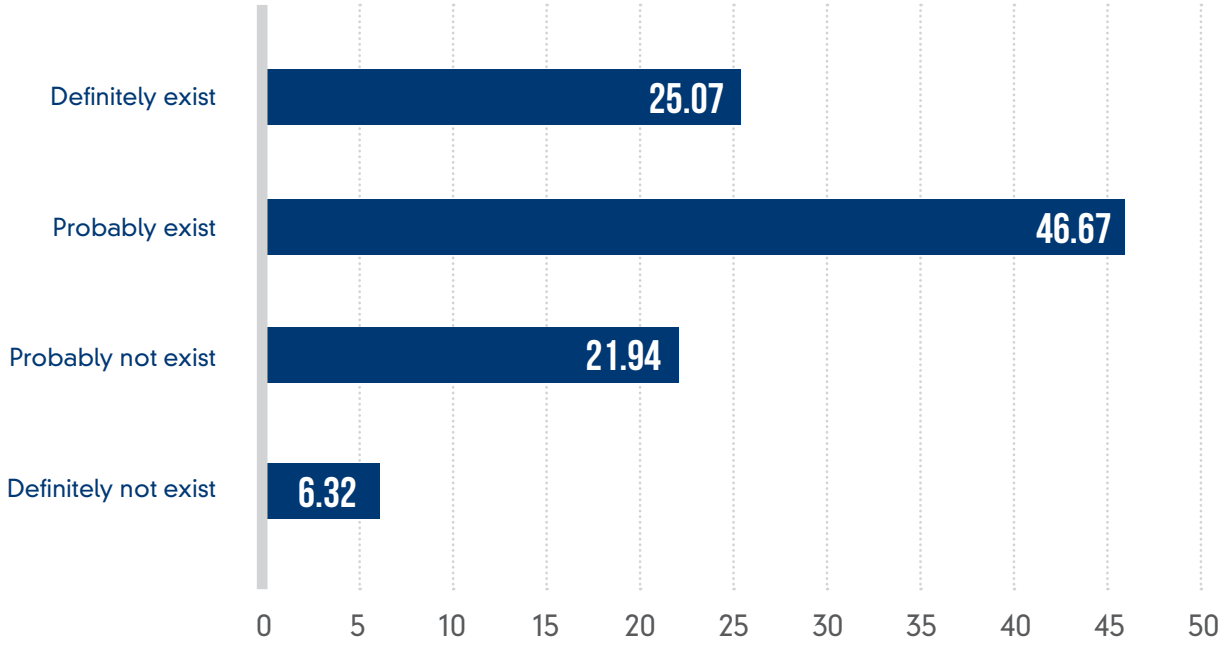
Workers' don't think their jobs are disappearing

Looking forward, Australians don't expect a lot of change in their occupation over the next 50 years.

One in four Australian workers – 25.1 per cent – believe that their current job or occupation will still exist in its current form in 50 years' time.

However, almost half of all workers – 46.7 per cent – are more circumspect, believing their current job will 'probably exist' in 2068. Only 6.3 per cent believe their job will 'definitely not exist' at that time.

FIGURE 4.4 THINKING ABOUT THE JOB OR OCCUPATION THAT YOU WORK IN NOW, HOW LIKELY DO YOU THINK IT IS THAT JOB WILL EXIST IN ITS CURRENT FORM IN 50 YEARS?



The results can be interpreted in two ways. On the one hand, it is somewhat positive that the majority of Australian workers surveyed don't think it is likely that they will lose their job over a 12 month period and think that their job will still exist in 50 years' time. There is less confidence that they will be able to find another job if they did lose the one they had.

Another interpretation is that Australians are not aware of, and not prepared for, the changes that are likely to come over the short, medium and long term in the labour market. If the population is underprepared, then they may not be investing in the skills and other development for themselves or their children that are required.

PART FIVE: INTERNATIONAL RESPONSES TO THE FUTURE OF WORK

Key Points:

- The whole world is grappling with responses to the future of work, but most arrive at similar conclusions: that people still matter, and investing in them is key.
- No country has solved every problem relating to the changing nature of work. But there are lessons for Australia in international experiences.
- Popular and simple policy schemes like basic income may not be suited to the Australian experience.
- Ultimately, Australia's unique economy, labour market and workplace entitlements framework demands a uniquely Australian approach to labour market transition.

The OECD has identified the key policy priorities for governments

The disruptive nature of modern economies demands imaginative government policy development and implementation. THE OECD[47] has highlighted the key categories of reform which it believes all countries should explore as this new industrial revolution continues. The OECD argue that there are five categories of reform which policymakers across the world should focus on when identifying responses to the changing nature of work and the global economy:

1. Prepare young people for the jobs of the future. This means ensuring they're 'equipped with the right type of skills to successfully navigate through an ever-changing...work environment', and providing upskilling opportunities throughout people's working lives.
2. Design labour market institutions that allow employers to 'seize the opportunities offered by technological change and globalisation, while making sure the risks are not borne disproportionately by workers'.
3. Re-think social security programs, ensuring people don't slip through the cracks between often antiquated government programs.
4. Identify ways to transition workers displaced by automation to new occupations.
5. And promote 'new forms of social dialogue' which allow tailored solutions to new challenges to emerge at the firm level'.

Beyond the OECD's guidelines, the changing nature of work has also inspired policy innovation around the world. Wary of the potential negative impacts of technological change, ideas such as guaranteed basic income, jobs guarantee, and tax reform which aims to mitigate the worst elements of automation have all been floated. This section explores various ideas that have been discussed or implemented throughout the world.

The World Economic Forum stress people still matter to firms

In the discussion surrounding the changing nature of work, it can be easy to caricature firms as being willing to quickly dispense with human workforces in exchange for more affordable technological solutions. However, surveys suggest that, for firms in most industries, people still matter. The WEF, in its 2018 'Future of Work' report, found that for 74 per cent of businesses surveyed, the most important factor determining their decision to start an operation in a certain location was the quality of the local labour market.[48]

The WEF found that 'a range of additional relevant factors – such as the flexibility of local labour laws, industry agglomeration effects or proximity of raw materials – were considered of lower importance relative to skilled local talent availability'. This suggests that, globally, businesses are still valuing employees, and are seeking to operate in labour markets that are rich in those uniquely human skills – adaptability, creativity, and emotional intelligence – mentioned above.

APPROACHES ACROSS THE WESTERN WORLD

Germany's collaborative approach

Understanding the breadth of impacts associated with the rise of technological disruption, automation and flexible work, the German government in 2015 commenced a two year consultation on the future of work, culminating in the 'Work 4.0' white paper. Much of the value of the development of the white paper was in the process, not just in the final product.

> THE GERMAN GOVERNMENT ENGAGED 50 MAJOR COMPANIES, MORE THAN 200 EXPERTS FROM TRADE UNIONS, ACADEMIA AND COMMUNITY GROUPS, AND PRESENTED INFORMATION TO MORE THAN 12000 GERMAN CITIZENS IN 175 INDIVIDUAL EVENTS IN 25 GERMAN TOWNS AND CITIES.[49]

The result was a White Paper that has the buy in from a wide range of participants, and outlines ideas that are generated from across the German economy. One of the key recommendations of this process was to legislate a legal right to continuing vocational education and training through one's career – an approach that was adopted in France in 2017.

New Zealand and the Future of Work Tripartite Forum

The New Zealand Government has taken a similarly collaborative approach that mirrors Germanys. Upon assuming the prime ministership in 2017, Jacinda Ardern soon implemented the 'Future of Work Tripartite Forum'. The initiative would see key stakeholders from business, labour, civil society and government convene quarterly, collaboratively navigating the rapid transformation of the New Zealand economy and workforce, and exploring potential solutions as a collective, rather than individual interest groups.[50]

The regularity of the forum permits stakeholders to deep dive into specific policy challenges at each assembly. The first meeting, for example, focused primarily on skills development, and came to a consensus on a pilot program advancing manufacturing workers' interests.[51] The subsequent meeting prioritised small-medium enterprises and the overall nature of technological disruption.

This thematic approach allows a wide range of stakeholders to continually collaborate and explore the issues facing the breadth of the New Zealand economy. While still in its infancy, the New Zealand model has an opportunity to demonstrate how ongoing collaboration

between industry, labour and government provides the greatest pathway to a collective embrace of the future of work, in a way that maintains productivity, safeguards workers' rights, and generates community buy-in to a political agenda.

France and the 'Personal Activity Account'

Responding to the need to facilitate life-long learning and limiting obstacles to mobility in the labour market, France introduced the 'Personal Activity Account' (*compte personnel d'activite*, CPA) in 2017.[52] The CPA brings together three different 'activity accounts' which are aimed to reward workers and volunteers with credits that can be exchanged for training and upskilling.

At the end of each year, each individual's CPA is accrued a certain number of credits depending on how vulnerable that individual is to disruption. For example, workers born before 1956 receive additional CPA credits to finance further training and reskilling. The CPA has, in effect, created a system where there is universal access to training for those who seek it.

UK: Safeguarding the rights of contractor workers

In 2017, the UK Parliament received the Taylor Review,[53] a commissioned work that aimed to define what 'good work' meant in the modern context. It also examined how British workers could be safeguarded while the UK government fostered a more innovative, productive and competitive economy. The Taylor Review identified that one of the key issues facing workers in this new economic environment was 'one-sided flexibility' for those engaging in gig work.

One sided flexibility, in essence, means that the employer is enjoying all the virtues of engaging flexible labour – few overheads, wide access to talent – while the workers themselves are missing out on the true benefits of flexibility.

Accordingly, the Taylor Review recommended the UK Government "rename as 'dependent contractors' the category of people who are eligible for worker rights but who are not employees."

The review called for clearer definitions, and a 'test' to determine whether a contractor was truly independent, or engaged in a dependent relationship with their employer. The Taylor Review was important in that it understood the changing nature of work was not *only* driven by technological disruption, but disruption in the nature of employment itself. Confronting this change is key to ensuring all workers are getting the best out of a more flexible labour market, and are not being exploited under the guise of one-way flexibility.

USA: Shared security system

The United States is in some ways the epicenter of today's debate over a new social and economic contract for the middle class. The 'Uberisation' of the workforce in the US has taken root particularly quickly, and a significant section of the US workforce now work as independent contractors, freelancers, and other forms of non-permanent employment. Accordingly, there is an understanding in the United States of a pressing need for new initiatives within industries, and in specific jurisdictions, for new models that provide workers challenged by the changing nature of the labour market.

One such scheme is the Shared Security System, advanced by economists Nick Hanaier and David Rolf.[54] A national plan, the Share Security System proposes to:

> 'endow every American worker with, first, a Shared Security Account, in which to accrue the basic employment benefits necessary for thriving middle class, and second, a new set of Shared Security Standards that complement and reinforce that account'.[55]

The Shared Security System is modeled on the already existent Social Security scheme in the United States, which guarantees age pension payments to all United States citizens after retirement age. The Shared Security System envisages a pro-rated payment based on hourly wages for all workers in the United States, irrespective of the category of employment. It would be funded through a direct deduction of the individual's pay roll, and provide a life-long safety net through which displaced workers could fall onto, or could be used to finance re-training.

RESPONSES ACROSS ASIA

> TECHNOLOGICAL CHANGE AND RISING INCOMES WILL LEAD TO NEW OCCUPATIONS AND INDUSTRIES, FURTHER OFFSETTING LABOUR DISPLACEMENT DUE TO AUTOMATION. NONETHELESS, NEW TECHNOLOGIES WILL ALTER THE COMPOSITION OF SKILLS NEEDED BY THE WORKFORCE.

ASIAN DEVELOPMENT BANK, 2018[56]

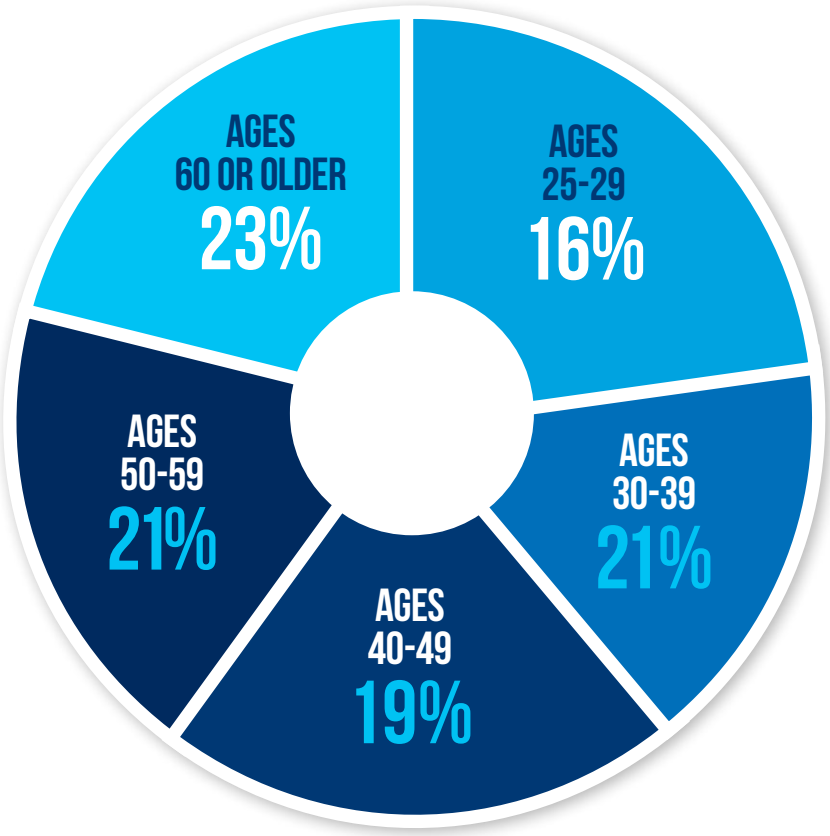
Singapore: SkillsFuture and accommodating an ageing workforce

"In Singapore, 44 per cent of [those who utilised the Skills Credit] were aged 50 and over...23 per cent were aged 60 or over" – ILO, 2018[57]

In the context of South East Asia, Singapore's is a unique state and economy. Its population is modest, with its economy already largely driven by the knowledge and service industries, as well as advanced manufacturing but almost no agricultural sector. It's largest resource, therefore, is its human capital. Singapore's unique circumstances, however, have not stopped it from emerging as one of the most successful economies in the region and the world. Despite its virtues, Singapore faces considerable challenges – particularly as its working age population ages at a rate much faster than its regional neighbours.

Singapore has taken a future-facing posture on the changing nature of work and the economy, placing a considerable focus on providing training and upskilling pathways for all its citizens. The SkillsFuture program, which was unveiled in 2016, was created to ensure every Singaporean has the access to training that they need. Almost $SGD 500 million ($US 370 million) has been invested in providing income tax credits for certain vocational training programs, as well as a direct 'SkillsFuture Credit'. For every Singaporean over the age of 25, a SkillsFuture Credit of SGD$500 is granted, with a plan to, periodically, 'top-up' the credit for every recipient. The idea is to ensure that every worker in Singapore has the access to necessary training, irrespective of their age, occupation or financial situation.[58]

FIGURE 5.1 SINGAPORE'S SKILLSFUTURE CREDIT UTILISATION, BY AGE GROUP.



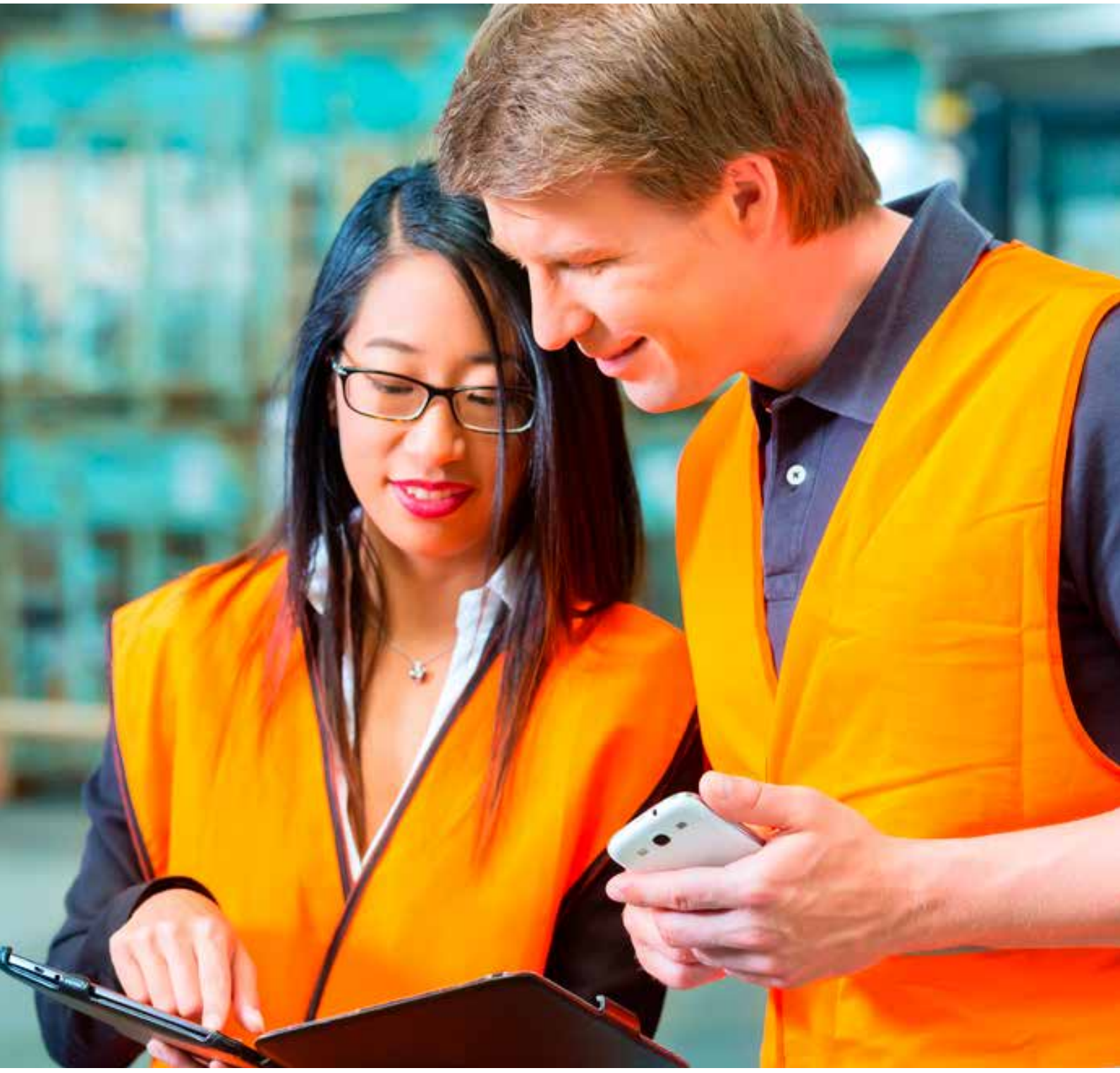
Thailand: Towards 'Worker 4.0'.

Thailand offers one example of a collective government exploration of responses to disruption. In 2017, the Thai Government released the 'Thailand 4.0' strategy. It plotted a pathway towards achieving not just an economy that embraced technological disruption, but building a workforce equipped to handle it. The Thai Government view this transformation as a logical next step on its road to economic development.

Past economic development models, it argues, placed 'and emphasis on agriculture (Thailand 1.0), light industry (Thailand 2.0) and advanced industry (Thailand 3.0)'.[59] While focusing on these economic levers helped Thailand build a more advanced economy, it also failed to fundamentally invest in Thailand's human capital. The Thailand 4.0 strategy aims to reverse that by envisioning 'Worker 4.0' – an aspiration that would see every Thai worker equipped with the human skills that would allow them to succeed in 'an economic model based on creativity, innovation, new technology and high quality services'.[60]

Basic income schemes

There are several basic income models which are floated as safety nets in response to economic disruption. Two of the more well-known basic income models are the universal basic income and negative income tax guaranteed income. A universal basic income model would provide all citizens (of a determined minimum age) with a sum of money every month which would sustain them to live above the poverty line. This sum of money would go to all citizens, whether they worked or not.



Originally proposed by the American economist, Milton Freidman, a negative income tax model would be similar in nature, however citizens who made over a certain threshold of income would have their sum of money taxed back to the government every year.

While various basic income models have been piloted in low- and middle-income countries, such as Namibia , Brazil , and India , it is a newer concept for many high-income countries who have begun to research different models of basic income. The most recent example was in Canada, where the Government of Ontario launched, in 2017, a basic income pilot in three regions of the province to measure the effects of the model and how it would help alleviate poverty and to mitigate the impact in the rise of precarious work. However, the pilot was cancelled on 31 July 2018.

Australians support basic income, but its affordability is questionable

Australians have articulated their general favourability to a UBI, with support for a scheme registering over 50 per cent (based on a representative survey on the Life in Australia panel). The two characteristics that were most strongly associated with support for a UBI (age and education) suggest that support may grow into the future. 79 per cent of those aged 18 to 24 were supportive, whereas only 45 per cent of those aged 55 years and over were supportive.

While there is considerable support for aspects of a UBI in the literature, there are two main issues.

1. The prohibitive cost. The most detailed most detailed modelling to date of a UBI found one version of it to be very expensive, with a yearly cost of $256bn for every adult to receive the equivalent of the Age pension ($23,000) and every child $5,500. This represents around 60 per cent of the overall Commonwealth Budget.
2. Countries where debate around UBI has been fervent often don't enjoy the degree of social security that exists in Australia already. While there are real opportunities to improve and harmonise Australia's existing social safety net, by global standards, the existing system dilutes the necessity to shift to a blunt policy response, like UBI.

Australian challenges require Australian solutions

There lessons to be learned from exploring global responses and international policy debates surrounding the future of work. Ultimately, however, Australia will need a uniquely Australian response to automation and technological disruption in the workplace and economy.

Rather than replacing Australia's work leading workplace entitlements – policies like superannuation, paid-parental leave, and a strong and progressive social safety net – policymakers should instead prioritise adapting these institutions to a modern context, ensuring the Australian workforce is equipped for a more disruptive economy, and develop a more collaborative partnership with both industry and labour leaders.

PART SIX:
RECOMMENDATIONS

RECOMMENDATION 1:
Commission a 'Future of Work White Paper', which solicits input from a wide range participants from labour, industry, academia, and the public.

Modelled on the development of Germany's 'Work 4.0' white paper process and the New Zealand Future of Work Tripartite Forum, a White Paper would enable the Australian Government to formulate a cohesive, long-term strategy with buy-in from all stakeholders, while raising awareness about the need for the Australian workforce to prepare for ongoing change and challenges.

In order to embrace the future of work , the Government needs demonstrate that it is cognisant of the challenges ahead, and has a road-map for progress that has been co-designed with industry, labour, and the community at large. Part of the long term strategy developed through the white paper should also be around the skills combinations that will be required into the future – requiring meaningful collaboration and discussions between industry and government (this is further outlined in recommendation 8). While the Department of Industry has produced several reports on the changing nature of work, Australia has no cohesive strategy, unlike comparable countries of New Zealand, the UK, and even Thailand.

RECOMMENDATION 2:
Develop a national life-long learning strategy.

DEVELOPMENT OF A LIFE-LONG LEARNING STRATEGY WOULD HELP RAISE AWARENESS ABOUT ITS IMPORTANCE

Through an analysis of extensive survey data produced by the ANUPoll survey, we can see that the least concerning threats to Australian's job security are an inability to keep up with the technical skills required to do their job. Hence, not all of those in the workforce whose job is perceived by the academic literature to be at risk see automation or labour market change as a likely outcome. This is in some ways a good thing, as the data also shows that perceived job insecurity is predictive of a number of other negative attitudes.

However, this does imply a certain level of complacency if it means that workers are not undertaking appropriate training or skills development. Further, they may not be prepared to take up new opportunities as they present in the future. Government and Industry have the opportunity to collaborate on this issue to ensure that we are effectively looking at the skill combinations that will be required into the future. It is critical that we invest in targeted programs that improve the readiness of Australian workers without increasing anxiety.

A FOCUS ON NON-COGNITIVE ABILITY THROUGHOUT THE SCHOOL SYSTEM AND BEYOND IS KEY

The Strategy should have, at its core, a focus on non-cognitive abilities and ensuring the adaptability of the individual. While it is difficult to offer exact predictions for the future of work, we know that the jobs of the future will require a different set of skills to the jobs of the past. In particular, there are likely to be larger relative returns to non-cognitive ability (a range of abilities such as conscientiousness, perseverance, and teamwork)[61] compared to specific fixed skills.

These non-cognitive skills have been shown to be as transmissible as cognitive skills[62] which highlights the need for government to even out the distribution, in order to reduce the concentration of the negative effects of automation on particular groups in the population.

A LIFE-LONG LEARNING PLAN SHOULD START WITH HIGH QUALITY EARLY CHILDHOOD EDUCATION

There is very strong evidence that high quality early childhood education can have significant benefits for individuals across the life course

in terms of skills development, particularly for children from relatively disadvantaged backgrounds.[63] Skills beget skills. At the moment, all four-year-old children in Australia (in theory) have access to a preschool either in a stand-alone centre or as part of registered child care.

However, in practice access and usage varies by geography and socioeconomic status, and unlike many other countries there is no universal access to preschool for three-year-old children. Furthermore, despite the introduction of the National Quality Framework for Early Childhood Education and Care, the quality of the service received also varies quite substantially.

In order to prepare the next generation of Australians for the future of work, we would recommend a significant investment in early childhood education, at least large enough to bring Australia in line with the leading OECD countries.

But while a focus on early learning is essential, so too is a focus on life-long learning. An individual's education should have a firm start date of aged 3 – but no end date.

RECOMMENDATION 3:

Ensure existing forms of employment categorisation are fit for a modern labour market.

The Australian Government should explore a reclassification of different ways in which workers can be employed in Australia. This is to cater for the changing nature of work that we are experiencing. The traditional "employee or contractor" divide does not seem to adequately cater for the changes to the workforce and increased complexity in employment arrangements that we are currently experiencing and will continue to experience into the future. Clarity in this space will benefit employers and employees going forward.

While many Australians choose flexibility and embrace working as an independent contractor, others are not given that choice. In many industries – cleaning, catering and food preparation, transport, and more – workers are at times forced into independent contractor status despite engaging in employment relationships that are identical to that of a full time employee. One possible solution to explore is the creation of a new type of "dependent contractor", which is tailored specifically for the Australian context and seeks to help navigate through some of the grey that currently exists. Similar initiatives already exist in other jurisdictions, including Canada, Italy and Spain[64] and is something that might be considered for the Australian context.

There will always be a place for contractor work. We need to ensure that we adapt and change the way we categorise Australian workers to ensure we are ready, and adequately prepared, for a modern labour market.

RECOMMENDATION 4:

Work towards expanding access to workers' compensation, and harmonising workers' compensation systems nationally.

While there has long been interest in harmonising Australia's existing workers' compensation framework, the 11 existing systems across Australia continue to differ in the nature of their coverage. This is largely due to the different legislative paradigms within each jurisdiction that they operate.

Give the unprecedented scale of disruption in the workplace, there is a need for Australian Governments to pursue a national workers' compensation scheme that not only harmonises existing schemes, but also works towards covering more Australian workers. Australian workers in the gig economy, in particular, are subject to fewer workplace rights than those in casual or permanent employment, or even than those who are independent contractors, but are hired through a labour-hire firm.

Given the increasingly disruptive nature of employment and work, governments need to explore ways to cover the rising number of independent contractors and freelancers in Australia who work in a way that was unimaginable at the time where the framework for Australia's existing workers' compensation scheme was put in place.

How industry and government can work together

RECOMMENDATION 5:

Industry and Government should collaborate to explore pathways to the increased portability of existing entitlements.

The Australian Government should explore the creation of *Portable Entitlements Funds*, which allow employees to accrue important workplace entitlements irrespective of how regularly they change occupations. Similar to how superannuation funds are pegged to workers, not jobs, so too could a system of portable workplace entitlements emerge that allows a more flexible workforce access to entitlements such as long service leave.

By better affixing entitlements to workers rather than jobs, current living standards may be safeguarded without stifling innovation and economic opportunity. We risk the creation of a 'two-tiered' labour market, where those in stable industries less subject to disruption and automation have easier access to basic workplace entitlements than those in industries that emerge and decline with more frequency as a response to technological change and evolving consumer habits.

COLLABORATIVE, INDUSTRY-WIDE APPROACHES TO PORTABLE ENTITLEMENTS

Ultimately, the portability of entitlements would require leadership from industry, not just government. Industry leaders can lead the push to develop portable entitlements schemes for workers within their own industry. This has been seen in various states in Australian in industries with a high rate of workplace turnover and contract labour – in particular, in the construction industry.

RECOMMENDATION 6:

Industry and Government should collaborate to ensure that workers have adequate access to life-long learning and enhanced opportunities for upskilling and training.

This report has emphasised the need for a better system of life-long education for Australia's workforce. Achieving this ambition does require the leadership of governments across Australia. But industry leaders can also help develop models that look after the interests of both their employees and their industry's overall labour market. Enhanced collaboration from industry and government in this area must be examined.

It would be highly beneficial for governments to collaborate with industry around broad labour markets trends. This involves ongoing and meaningful discussion around what areas of the Australian economy are experiencing significant growth and investment. Arguably this information would enable industry to be more strategic and effective in their skills and training practices.

It would also allow for more sophisticated predictions about the skill combinations and training the 'jobs of the future' will require - representing, a more proactive approach to training, education and upskilling (which is ultimately in the interest of employees, industry and government). Discussions around how this collaboration could work in practice could be incorporated into the White Paper process, recommended above.

INDUSTRY COLLABORATING WITH VALUABLE PARTNERS TO FOSTER SKILLS FOR THE FUTURE

Enhanced and meaningful collaboration around skills and training is critical to enable workers to access lifelong learning and training opportunities. This will ensure that we foster critical skills for the future workforce.

Employers will play a key role in facilitating ongoing development and training of the Australian workforce. The Commonwealth Government should work closely with state governments to explore how firms can be incentivised to invest more in the ongoing training of their staff. Similarly, there is a role for government to examine ways that industry might be able to partner with valuable and reputable organisations to assist with the ongoing training of their staff

There are examples where within certain industries, collaborative training funds have been created to enable workers access to career-long training opportunities irrespective of their employer of the day. This might be an initiative that is considered more broadly. The ACT Building and Construction Industry Training Fund Authority is one such example.[65]

The Authority is funded primarily by industry, is led by individuals representing both employers and employees, and collaborates with Government to offer accredited early, mid, and late-career training opportunities for workers in the construction industry.

Research needs and opportunities

RECOMMENDATION 7:

Attitudes towards the future of work, and how these relate to other policy issues need to be monitored.

The results presented in this report highlight a diversity in Australian attitudes towards automation and the future of work. Some respondents are not overly concerned, despite the very real risk, whereas others are quite concerned and likely to respond to other policy issues based on this concern, We would recommend that, as the effects of automation become more apparent and understood, these attitudes continue to be monitored and factored into policy deliberation.

RECOMMENDATION 8:

Cost-benefit analyses should be considered on new policy interventions geared toward improving employment outcomes, or mitigating the effects of automation.

Commonwealth and State/Territory governments have already begun to respond to the challenges of automation and the future of work. In this paper, we have made a number of additional recommendations, some of which build on interventions already implemented in other jurisdictions. Given the considerable uncertainty around labour market change, and the mixed evidence on the effectiveness of Active Labour Market Programs (ALMPs) and education interventions, we recommend that all policies related to automation be rigorously evaluated, ideally using careful random assignment. Furthermore, we recommend that any benefits identified from these evaluations be compared alongside the costs, and the most cost effective interventions be promoted and pursued. This will require open collaboration between the research, government and commercial sectors.

CONCLUSION

The nature of work and employment in Australia is changing. For many, the pace of change is disconcerting. For others, it represents opportunity.

For policymakers, equipping Australia for an unpredictable future presents a challenge. While we know the future will be different and will be disruptive, we can't exactly predict what the economy will look like in decades to come.

But this lack of certainty doesn't mean policymakers, industry and employees can't adequately prepare. The changing nature of work demands collaboration and innovation that will forge a more capable, secure and resilient Australian workforce. It demands investing in Australia's human capital so that our people can thrive no matter what change looks like.

This report has outlined the nature of disruption, how Australians feel about the prospects of change, and what government and industry can do in the coming years to lay the groundwork for the coming decades.

A focus on people, as well as jobs is key. Australian governments must aspire to entrench a culture of life-long learning in Australia, beginning with a robust early-childhood education system. But while we place a start date on our education, learning can't have an end date. Individuals must play their role in seizing educational opportunities – but government and industry must also find the right policy settings and programs to encourage Australians down this path.

Governments should also re-assess existing institutions and policy settings to ensure that industry and workers are well equipped for the future. Governments and industry, labour and communities, through meaningful collaboration, can explore ways to increase the portability of existing entitlements to ensure that the Australian workforce can embrace the increasingly disruptive and evolving nature of modern work without losing the basic entitlements that today's permanent workforce receive.

Australia has a bright future if the opportunities in change are paired with future-facing reforms. But our collective responses to change must be carefully manufactured, driven by innovation and made successful through collaboration. This report has offered ideas geared towards achieving this aim.

FOOTNOTES

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